

# WHAT IF THERE IS A WAR IN IRAQ?

**The Potential Impact On Domestic and  
Selected International Travel  
Markets To Canada**

**Research  
report  
2003-2**

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# **What If There Is A War In Iraq: The Potential Impact On Domestic and Select International Travel Markets To Canada**

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prepared by:

The Canadian Tourism Research Institute



The Conference Board of Canada

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## Executive Summary

What if there is a war in Iraq? How would it impact international travel to Canada or even domestic travel within Canada? The answer, quite simply, might be that the added uncertainty and economic hardships associated with a war in Iraq would further delay the recovery for Canada's long haul travel markets. However, in order to get a grasp of the magnitude and duration of the impact that a war in Iraq may have, simulations were run using the CTC travel forecast model developed by the Canadian Tourism Research Institute.

Obviously, the real challenge is to accurately depict the extent of the impacts based on certain assumptions. There will be a fair degree of uncertainty surrounding how travellers perceive the risk of travel during or even after a war. It is also difficult to predict how the war itself will unfold and conclude. For this reason, we used two war in Iraq scenarios.

The **contained** war scenario relates to military efforts that the U.S. and allied forces would view as successful and be achieved without significant complications. Meanwhile, a **disruptive** war scenario assumes a similar U.S. led military victory, however it is achieved with a number of complications. Ultimately, these complications prolong the level of uncertainty in the region.

In order to clarify the differences between the war scenarios used in this report, two sets of exogenous shocks relating to the **contained** and **disruptive** war are presented in the following table. This table should be used as a quick reference to identify the broader parameters used in each of the two war scenarios.

**TABLE 1: Summary of the Exogenous Impacts of the War Scenarios**

SHOCK	CONTAINED WAR	DISRUPTIVE WAR
DURATION OF WAR	HOSTILITIES LAST 3-MONTHS.	HOSTILITIES LAST 3-MONTHS.
Military Spending	U.S. is expected to spend an additional \$143 billion. Extra UK defense expenditures total £2.5 to £3 billion in 2003.	U.S. is expected to spend an additional \$143 billion. Extra UK defense expenditures total £2.5 to £3 billion in 2003.
Terrorist Reprisals	No war related reprisals that would upset international travel.	No war related reprisals that would upset international travel.
Oil Prices	\$45/barrel during 3-month war. Falls back to pre-war levels following the war.	\$45/barrel over entire forecast period.
Confidence	Both business and consumer confidence fall during the 3-month period during the war, particularly in the combatant countries (U.S. and the U.K.).	Business and consumer confidence fall more sharply everywhere during the war and remain particularly weak in the US and the UK, until 2005.
Equity Markets	Equity prices fall by 5% relative to the base during the war and are not expected to recover until 3 months after the war.	Equity prices fall by over 20% relative to base during the war in the US and the UK and by 10% to 15% elsewhere. US and UK recovery back to base by 2005.

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While terrorist reprisals stemming from a U.S. led war in Iraq are a distinct possibility, they are not considered in our analysis. However, travel fears stemming from the possibility of such reprisals are considered and, in fact, are critical in determining the short to medium term recovery process.

The four exogenous shocks related to the war in Iraq: the rising price of oil, weak equity markets, military spending and slipping confidences, have varying degrees of economic implications for domestic and international travel markets. Also impacting the magnitude of the economic shock, is the condition of the economy and whether it is expanding or contracting.

While the economic implications associated with a war in Iraq are important, a more representative analysis of the implications on travel should incorporate non-economic factors, including psychological and air travel supply implications. As illustrated by the impacts of the 1990/91 Gulf War and recently by September 11<sup>th</sup>, the differences between pure economic and non-economic influences on domestic or international travel can vary greatly.

While difficult to measure exactly, our assumptions regarding the likely psychological impacts of a war in Iraq draw from observing the impact during the 1990-91 Gulf War and the terrorist attacks of September 11<sup>th</sup>. In general, we assume that a **contained** war would have a limited impact on the non-economic influences of domestic and international travel to Canada. Nevertheless, it will still be briefly unsettling.

However, the **disruptive** war scenario could result in a larger difference with respect to the psychological affects on domestic and international travellers. Without terrorist reprisals, we still do not anticipate the fear of travel to approach the levels witnessed after the September 11<sup>th</sup> terrorist attacks. But, we do expect the recovery process to be affected (likely hampered) by the resulting financial condition of the airline industry.

Air capacity for many airlines has only recently started to return to pre-September 11<sup>th</sup>, 2001 levels. With war, airlines are once again expected to be hit from both sides as demand slows and their costs of operation—mainly fuel costs—increase. In fact, during the 1990/91 Gulf War, international air travel dropped significantly while jet fuel price increases added nearly \$3 billion to annual operating expenditures of U.S. airlines. It has been argued that the Gulf War was one of the key factors that forced Continental, Pan Am, Midway, and America West to all file for Chapter-11 bankruptcy protection.

A war in Iraq will once again force the airlines into a double-edged sword recovery strategy: lower prices to entice travellers and increased fuel costs. We expect that the added hardships associated with the war in Iraq will force airlines, during the recovery process, to remain cautious in adding to capacity. Airlines will most likely want to see sustained strong load factors before increasing capacity.

The pure economic implications of a war in Iraq suggest that travellers would, for the most part, still have the financial means to be able to travel to or within Canada over the short to medium term. But, travel to or within Canada could suffer if travellers are either fearful or not able to obtain reasonable transportation.

The following table highlights some key quantitative findings pertaining to the combined economic and non-economic affect of a war in Iraq on domestic and international travel to Canada for select markets. The implications for both a **contained** and **disruptive** war are shown relative to a base-case analysis that assumes there will not be a war in Iraq. It should be noted that these implications are related to overnight visitor volumes for Canada's international travel markets, while the domestic implications are related to expenditures, specifically Statistics Canada's, National Tourism Indicators definition of Tourism Domestic Demand.

**TABLE 2: Contained and Disruptive War - Overnight Travel to/within Canada  
(change in overnight visitor volumes compared with base-forecast - 000's)**

	2003	2004	2005	2006	CUMULATIVE CHANGE 2003-2006 (000's)
<b>NORTH AMERICA</b>					
Domestic contained <sup>1</sup>	-604	-261	-312	-172	-1,349
Domestic disruptive <sup>1</sup>	-1,319	-1,081	-1,003	-1,058	-4,461
US (overall) contained	-165	-171	-161	-155	-652
US (overall) disruptive	-693	-569	-513	-419	-2,194
US – Air contained	-235	-146	-146	-145	-672
US – Air disruptive	-441	-369	-373	-319	-1,502
US – Other contained	+70	-25	-15	-10	+20
US – Other disruptive	-252	-200	-140	-100	-692
Mexico contained	-10	0	+1	-0	-9
Mexico disruptive	-11	0	+1	+1	-9
<b>EUROPE</b>					
UK contained	-50	-32	-19	-16	-117
UK disruptive	-84	-62	-40	-29	-215
France contained	-17	-9	-9	-9	-44
France disruptive	-27	-22	-20	-20	-89
Germany contained	-18	-10	-6	-4	-38
Germany disruptive	-32	-26	-25	-17	-100
<b>ASIA/PACIFIC</b>					
Japan contained	-47	-34	-34	-27	-142
Japan disruptive	-72	-68	-64	-45	-249
South Korea contained	-14	-10	-8	-7	-39
South Korea disruptive	-22	-21	-18	-16	-77
Taiwan contained	-14	-9	-7	-5	-35
Taiwan disruptive	-22	-19	-15	-12	-68
Hong Kong contained	-5	-2	-2	-1	-10
Hong Kong disruptive	-7	-7	-6	-5	-25
China contained	-5	-3	-2	-2	-12
China disruptive	-8	-5	-4	-4	-21
S.E. Asia contained	-6	-5	-4	-3	-18
S.E. Asia disruptive	-12	-11	-9	-6	-38
Australia contained	-7	-3	-1	-0	-11
Australia disruptive	-11	-9	-7	-5	-32

<sup>1</sup>Domestic change is measured in millions of dollars compared with base-forecast.



Not surprisingly, the implications associated with either war scenarios tend to be negative (i.e. are associated with negative differences compared with the base, or no-war, scenario). In some respect, the magnitude of the war effect is related to the absolute volume generated by particular markets. Since the U.S. is, far and away, Canada's most important international travel market (in terms of visitor volumes), it might not be that surprising to observe that, should a war with Iraq occur, it will be most affected in terms of lost overnight trips.

While overnight air travel from the U.S. is impacted significantly under both war scenarios, it is interesting to note the very modest impact associated with overnight travel from the U.S. by other modes under the contained war scenario. Even though the driving economic forces are weaker, it appears that redistributed travel from the U.S. is expected to more than offset weaker economic factors during 2003.

Meanwhile, the relative impact that a war in Iraq will have on Canada's domestic and other international markets, vary significantly. The following table highlights the magnitude of the cumulative change in visitor volumes (and expenditures in the case of domestic travel) between 2003 and 2006 that can be expected as a result of a war (under either of the two scenarios) relative to the baseline, or no war in Iraq, projection.

**TABLE 3: War in Iraq - Overnight Travel to/within Canada**  
(cumulative change in overnight visitor volumes compared with base-forecast)

	CUMULATIVE BASE-CASE VISITOR PROJECTION 2003-2006 (000's)	CUMULATIVE CHANGE 2003-2006 CONTAINED WAR (000's)	CUMULATIVE CHANGE 2003-2006 DISRUPTIVE WAR (000's)	CUMULATIVE CHANGE 2003-2006 CONTAINED WAR (%)	CUMULATIVE CHANGE 2003-2006 DISRUPTIVE WAR (%)
<b>NORTH AMERICA</b>					
Canada <sup>1</sup>	150,894	-1,349	-4,461	-0.9%	-3.0%
US	67,944	-652	-2,194	-1.0%	-3.2%
US - Air	17,126	-672	-1,502	-3.9%	-8.8%
US - Other	50,818	+20	-692	0.0%	-1.4%
Mexico	698	-9	-9	-1.3%	-1.3%
<b>EUROPE</b>					
UK	3,277	-117	-215	-3.6%	-6.6%
France	1,407	-44	-89	-3.1%	-6.3%
Germany	1,305	-38	-100	-2.9%	-7.7%
<b>ASIA/PACIFIC</b>					
Japan	1,731	-142	-249	-8.2%	-14.4%
South Korea	727	-39	-77	-5.4%	-10.6%
Taiwan	489	-35	-68	-7.2%	-13.9%
Hong Kong	567	-10	-25	-1.8%	-4.4%
China	469	-12	-21	-2.6%	-4.5%
S.E. Asia	411	-18	-38	-4.4%	-9.2%
Australia	676	-11	-32	-1.6%	-4.7%

<sup>1</sup> Domestic change is measured in millions of dollars compared with base-forecast.

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The preceding table illustrates that, even though a **contained** war is expected to have the biggest impact in terms of absolute visitor losses for the U.S. market, it proportionally will have the least impact on the U.S. market—among the international markets probed. With the exception of Mexico, the same holds for the disruptive war scenario. It appears the economic stimulus of a war in Iraq on Mexico's economy will nearly offset the negative non-economic implications associated with travel fears or airline industry limitations.

At the other extreme, overnight travel from Japan is expected to be significantly impacted by a war, regardless if the war is either a **contained** or **disruptive** war. While the impact of a war on the Japanese economy may be significant, it will likely be the non-economic factors that are more influential in determining the impact on international travel.

Meanwhile, the impact of a contained war is estimated to reduce domestic demand by a cumulative \$1.3 billion over the next four years. The loss attributed to a disruptive war is estimated to be nearly \$4.5 billion over the same time period. Our analysis suggests that the negative implications associated with weaker economic conditions, including lower consumer and business confidence under both war scenarios, outweigh the potential positive impact stemming from Canadians heightened desire to vacation within Canada for safety or economic reasons.

This report does not pretend to eliminate uncertainties surrounding the implications of a war in Iraq and its impact on domestic and international travel to Canada. Ultimately there are unlimited permutations of a war in Iraq and its ramifications on Canada's tourism industry. While we hope to have presented the "likely" implications with respect to the two war scenarios, undoubtedly there are many extremes on either side of the good and bad spectrum.



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## Introduction

It is not surprising to assume that a war in Iraq will hurt travel to and within Canada. The real challenge is to accurately depict the magnitude of the impact based on certain assumptions. While there will be a fair degree of uncertainty surrounding how travellers perceive the risk of travel during or even after a war, it is difficult to predict how the war itself will unfold and conclude. For this reason, we have included two war scenarios.

The **contained** war scenario relates to military efforts that the U.S. and allied forces would view as successful and without significant complications. While a **disruptive** war scenario assumes a similar U.S. led military victory, it is achieved with a number of complications. Ultimately, these complications prolong the level of uncertainty in the region. While terrorist reprisals stemming from a U.S. led war in Iraq are a distinct possibility, they are not considered in our analysis. However, travel fears stemming from the possibility of such reprisals are considered.

### Organization of the study

The study is divided into two parts. The first part addresses the pure economic implications of a war in Iraq on travel to and within Canada. The second part of the study combines the economic implications of a war in Iraq with non-economic assumptions, including psychological as well as air industry related shocks. The results of the combined economic and non-economic simulations on international travel can be found in Appendix II: Model Simulations.

### Economic Scenario Assumptions

There are a variety of costs as a result of war. They range from financing invasion armies to paying for reparations. The first half of this study analyzes the economic impacts that a war in Iraq would have on the Canadian economy, as well as the economies of many of Canada's key travel markets. As previously indicated, two possible war scenarios are presented: a **contained** war scenario and a **disruptive** war scenario. The economic analysis is meant to address the question "how will a war in Iraq affect traveller's financial ability to come to, or travel within, Canada?" Not surprisingly, the answer to this question varies between countries and regions.

The economic consequences for both war scenarios have been simulated by Oxford Economic Forecasting (OEF)—the same organization that currently provides the international economic forecasts used in the generation of the CTC quarterly international travel forecasts. In both war scenarios there are four exogenous shocks that affect global macro-economics: an increase in military spending, a loss in confidence, floundering equity markets and an increase in the price of oil. In general, war creates uncertainty. This uncertainty affects business and consumer confidence as well as equity markets and was the outcome in the last Gulf War. But, by far, the most significant shock as a result of a war in the oil rich Persian Gulf, is the price of oil. Until a positive outcome to the conflict is clear, the instability in the region—which increases the uncertainty of production—will raise the price of oil. The uncertainty surrounding the amount of oil being produced (supplied to world markets) is the chief difference between these two economic scenarios.

In the **contained** war scenario, the price of oil is expected to rise to \$45 per barrel (West Texas Intermediate priced in U.S. dollars) during the 3 month period of the war. We expect the price of oil to quickly drop back to pre-war levels in the quarter following the end of the war and that global oil production returns to status quo.

The **disruptive war** scenario includes more profound residual effects of the U.S. led forces victory. The victory is nevertheless achieved in the same time (3 months), but in the process a number of complications prolong the regional uncertainty. The key longer-term risk to the global economy is that of a sustained disruption to oil supplies. There are several ways in which such a risk could materialize, but the decisive factor in all of them is Saudi Arabia. Saudi Arabia has the largest reserves of petroleum in the world (26% of the proved reserves), ranks as the largest exporter of petroleum, and plays a leading role in OPEC. Even if Iraq managed to damage or destroy a large portion of its own neighbours' oil capacity, Saudi Arabia would in most cases be able to replace that lost supply and stabilise the price of oil, provided the political will to do so existed. The uncertainty of Saudi co-operation, and thus oil supplies, raises the price of oil to \$45 over the entire forecast horizon (between 2003 and 2006). Some of the assumptions leading to Saudi Arabia cutting the supply of oil include but are not exclusive to: Israel being involved in the conflict, significant civilian casualties, as well as the limited destruction of regional oil fields.

### Charting the Exogenous Shocks in the War Scenarios

In order to clarify the differences between the war scenarios used in this report, two set of exogenous shocks relating to the **contained** and **disruptive** war are presented in the following table. This table should be used as a quick reference to identify the broader parameters used in each of the two war scenarios.

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Duration of War	Hostilities last 3-months.	Hostilities last 3-months.
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Terrorist Reprisals	No war related reprisals that would upset international travel.	No war related reprisals that would upset international travel.
Oil Prices	\$45/barrel during 3-month war. Falls back to pre-war levels following the war.	\$45/barrel over entire forecast period.
Confidence	Both business and consumer confidence fall during the 3-month period during the war, particularly in the combatant countries (U.S. and the U.K.).	Business and consumer confidence fall more sharply everywhere during the war and remain particularly weak in the US and the UK, until 2005.
Equity Markets	Equity prices fall by 5% relative to the base during the war and are not expected to recover until 3 months after the war.	Equity prices fall by over 20% relative to base during the war in the US and the UK and by 10% to 15% elsewhere. US and UK recovery back to base by 2005.

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## Economic Implications

We have grouped together three main regions which correspond to some of Canada's major tourism markets including: North America, Europe, and Asia-Pacific. North America includes Canada, the United States and Mexico. Europe consists of the U.K., France, Germany as well as the Eurozone composite. The Asia-Pacific region is made up of: Japan, Australia, Hong Kong, Taiwan, China, South Korea as well as a South Asia composite. We will discuss the U.S. and Mexico separately because of the U.S.'s large size and also because oil-rich Mexico actually outperforms its base case forecast in these two scenarios. Each of these regions can expect an economic shock as a result of a war in Iraq. The impacts on Canada are referred to briefly, due to the similarities in the way the war affects both the U.S. and Canadian economies.

### Base Case Economic Scenario

The four exogenous shocks related to the war in Iraq: the rising price of oil, weak equity markets, military spending and slipping confidences, have varying degrees of implications for these regions. Also impacting the magnitude of the shock, is the recent condition of the economy—where they are in their economic cycle—whether coming out of a recession, or having just finished a record run of expansion. This can be seen in the following forecast tables.

### Contained War Economic Scenario

#### North America/United States

In the contained war scenario higher U.S. government spending will have a positive impact on U.S. growth. The increase in military spending adds an additional \$143 billion dollars into the economy over the next five years. A successful war would also remove an important source of global uncertainty and insecurity. Offsetting the positive impact on growth in the U.S. from higher government spending, there is likely to be at least some negative impact coming from higher oil prices, even if it is small. The war should stall consumption as well as business investment. Consumers and business will take a “wait-and-see” approach to expenditures. Luckily, in the contained war, this pause in spending is brief. In 2003, U.S. growth is expected to come in 0.6 percentage points lower than the base case forecast. While this may seem substantial, the contained war impact represents less than a one-third loss in growth compared to a nearly two-thirds loss of steam in the Eurozone over the same period. Moreover, at 2.4 per cent in 2002, the U.S. economy grew over three times faster than the Eurozone did in 2002.

The Canadian economy reacts similarly to the U.S. economy. However, in the short-run, the Canadian economy does not benefit from the stimulus of additional military spending.

In the base case scenario, the Mexican economy is coming out of recession this year and was beginning to build steam over the forecast horizon. The occurrence of a war in Iraq adds to this growth. Mexico is a net exporter of oil. The increase in the price of oil in the contained war scenario boosts its GDP by 0.2 per cent above the base-case forecast of 3.3 per cent. The boost from the price of oil is short lived and in 2004, the lagged affects of a less robust U.S. economy result in overall Mexican output that is 0.6 points lower than the base case. Nevertheless, over the remainder of the forecast Mexico continues to soar, with GDP growing at an average of 5.0 per cent.

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## **Europe**

In the base case forecast, the economic recovery in Europe is expected to accelerate in 2003. The Eurozone economic growth rate is expected to double—from 0.7 per cent in 2002 to 1.4 per cent—in 2003. The contained war takes the steam out of this recovery. In 2003, Europe loses nearly 1 percentage point of growth as a result of the contained war. Despite the short-term spike in oil prices, the anaemic condition of the pre-war recovery in Germany leads to a recession in 2003. As the impacts of the war play themselves out, France and Germany bounce-back in 2004, growing 3.0 and 1.8 per cent, respectively. The U.K., which has greater ties to the U.S. economy, grows by a relatively strong 1.9 per cent in 2003, and improves, though at a relatively less brisk pace, with the Eurozone in 2004.

## **Asia Pacific**

While Europe has the North Sea and North America has sizeable reserves of its own as well as nearby Venezuela, the Northwest Pacific region is comparatively dry of oil. In general, the more insecure a region is for energy supplies the more vulnerable it is to a war in Iraq. Thus, Japan, Korea and Taiwan are particularly exposed to oil fluctuations in the Persian Gulf. Not surprisingly, economic growth in these countries will be curtailed with higher oil prices.

## **Disruptive War Economic Scenario**

### **North America/United States**

Perhaps one of the most important differences in the disruptive war scenario (compared to the contained-war scenario) aside from the long lasting \$45 price of oil, is a prolonged stall in consumption and business investment. Consumers and business are expected to take much more of a “wait-and-see” approach to spending. In the contained war scenario, this pause in spending is expected to be brief. The end result in U.S. economic growth during 2003 suggests a 1.7 point “hit” as a result of a disruptive-war. Once again, this is off the modest 2.1 per cent growth expected in the base case scenario for 2003. While the impact of a disruptive war is significant (-1.7 and -1.1 percentage points off of growth in 2003 and 2004) the U.S. economy is able to stave-off a recession, unlike Germany, France and Japan. Not only is the U.S. more insulated from Persian Gulf Oil supplies, but, it can be argued that, the U.S. (a less regulated more free-market economy than Europe) was already undergoing restructuring brought about the recent slide in its stock markets.

The Canadian economy reacts similarly to the U.S. economy. However it does not undergo the latent hindrance of additional military spending.

Oil-rich Mexico would fare well as a result of a disruptive war in Iraq. In 2003, Mexican GDP would come in 0.3 points higher than in the base-case scenario. Moreover, the sustained boost from the price of oil should result in average Mexican GDP growth of 4.9 per cent in 2004 and 2005, outperforming the U.S.

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## **Europe**

The disruptive war scenario would knock the Eurozone into a recession. European economies are relatively more vulnerable to a sustained oil price shock. While the negative impacts in Europe are severe in 2003, the bounce-back in 2004 is as dramatic. French and German GDP growth recover from falling by 0.4 and 1.1 per cent in 2003, to increasing by 2.6 and 1.1 per cent in 2004, respectively.

## **Asia Pacific**

Oil dependent Northwest Asia, particularly Japan, is hit harder in the disruptive war scenario. Japan would not see growth climb above 1 per cent before 2005. While the disruptive war would probably take an average of 1 per cent out of the Korean, Taiwanese, and Hong Kong economies. It is important to note that, due to the strength of the current recoveries in these countries – which is much stronger than in Japan – they are not in any risk of sliding into recession as a result of the impacts related to this war scenario. Rounding out the rest of Asia, with western oil links to the former central Soviet republics, China is insulated against Persian Gulf oil supply constraints. And with Chinese GDP growing at over 6 per cent, the impact seems minor. The strong Australian economy is also better able to fight off disruptive war impacts. While the scenario does temporarily weigh on growth – driving it down to 2.1 per cent in 2003 – Australia returns to above average growth rates in the outer years of the forecast.



**TABLE 2: Real GDP Growth Rate: Base-Case, Contained, and Disruptive  
(% increase compared with previous year)**

	2002	2003	2004	2005	2006
<b>NORTH AMERICA (SCENARIO)</b>					
Canada	3.5%	3.4%	3.6%	2.5%	2.5%
Canada contained	"	2.9%	4.0%	2.6%	2.7%
Canada disruptive	"	1.7%	3.3%	3.7%	2.2%
US	2.4%	2.1%	3.1%	3.0%	3.4%
US contained	"	1.5%	3.6%	3.2%	3.7%
US disruptive	"	0.4%	2.0%	4.5%	4.2%
Mexico	1.0%	3.3%	5.5%	5.1%	4.4%
Mexico contained	"	3.5%	4.9%	5.3%	4.6%
Mexico disruptive	"	3.6%	5.2%	5.6%	4.2%
<b>EUROPE</b>					
Eurozone	0.7%	1.4%	2.5%	2.6%	2.5%
Eurozone contained	"	0.5%	2.7%	3.0%	2.6%
Eurozone disruptive	"	-0.4%	2.3%	4.0%	2.2%
UK	1.6%	2.6%	2.9%	2.5%	2.7%
UK contained	"	1.9%	3.3%	3.0%	2.6%
UK disruptive	"	0.9%	2.8%	4.6%	2.3%
France	0.9%	1.4%	2.9%	2.8%	2.7%
France contained	"	0.5%	3.0%	3.2%	2.9%
France disruptive	"	-0.4%	2.6%	4.3%	2.5%
Germany	0.3%	0.8%	1.7%	2.0%	1.6%
Germany contained	"	-0.1%	1.8%	2.5%	1.9%
Germany disruptive	"	-1.1%	1.1%	3.4%	1.6%
<b>ASIA/PACIFIC</b>					
Japan	-0.2%	0.7%	1.5%	1.3%	1.2%
Japan contained	"	-0.3%	1.4%	1.5%	1.7%
Japan disruptive	"	-1.1%	0.7%	2.6%	2.3%
South Korea	5.8%	5.0%	5.3%	5.3%	5.0%
South Korea contained	"	4.4%	5.6%	5.7%	5.6%
South Korea disruptive	"	3.3%	4.3%	6.2%	5.2%
Taiwan	3.3%	3.4%	5.3%	4.8%	4.5%
Taiwan contained	"	2.9%	5.6%	5.1%	4.9%
Taiwan disruptive	"	2.1%	5.0%	5.6%	4.7%
Hong Kong	2.0%	3.9%	4.1%	4.5%	4.7%
Hong Kong contained	"	3.5%	4.2%	4.2%	5.4%
Hong Kong disruptive	"	2.6%	2.6%	5.6%	5.1%
China	7.9%	7.2%	7.5%	7.0%	7.2%
China contained	"	7.1%	7.2%	6.8%	7.7%
China disruptive	"	5.9%	6.9%	7.9%	7.4%
S.E. Asia	4.3%	4.5%	6.0%	5.8%	5.9%
S.E. Asia contained	"	3.7%	6.4%	6.4%	6.1%
S.E. Asia disruptive	"	2.6%	4.6%	8.3%	5.8%
Australia	3.9%	3.5%	3.8%	3.5%	3.4%
Australia contained	"	3.1%	4.0%	3.6%	3.4%
Australia disruptive	"	2.1%	3.2%	4.9%	3.6%
<b>WORLD – OVERALL</b>	<b>1.7%</b>	<b>2.3%</b>	<b>3.2%</b>	<b>3.2%</b>	<b>3.2%</b>
<b>WORLD CONTAINED</b>	<b>"</b>	<b>1.6%</b>	<b>3.5%</b>	<b>3.5%</b>	<b>3.3%</b>
<b>WORLD DISRUPTIVE</b>	<b>"</b>	<b>0.6%</b>	<b>2.5%</b>	<b>4.6%</b>	<b>3.6%</b>

Source: Oxford Economic Forecasting Ltd. - December 2002 Forecast.

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# Travel Implications - Key Considerations

## Accounting for the Non-Economic implications of a war in Iraq

We feel the most representative analysis of the implications of a war in Iraq on travel to and within **Canada needs** to incorporate non-economic factors, including psychological and air travel supply implications in addition to the economic implications. As illustrated by the 1990/91 Gulf War and recently by September 11<sup>th</sup>, these differences can vary greatly. In this section of the report, we build upon the economic implications previously discussed to include the likely limitations imposed by psychological shocks as well as those expected for air travel suppliers.

## Psychological Impacts of a War in Iraq

While difficult to measure exactly, our assumptions regarding the likely psychological impacts of a war in Iraq draw from observing the impact during the 1990-91 Gulf War<sup>1</sup>, and the terrorist attacks of September 11<sup>th</sup>. Like the economic impact scenarios, we consider the combined economic/non-economic impacts under both the contained and disruptive war scenarios.

### Contained War Psychological Assumptions

We assume that a contained war would generally have limited non-economic influences on international travel to, and domestic travel within, Canada. Nevertheless, it will still be briefly unsettling.

### Disruptive War Psychological Assumptions

The disruptive war scenario could result in a marked difference with respect to the psychological affects on travellers. Without terrorist reprisals (which are not included in either of the two war scenarios) we do not anticipate the fear of travel to approach the levels witnessed after the September 11<sup>th</sup> terrorist attacks. However, we do expect the impact on travel will significantly exceed the economic implications alone for some time. Meanwhile, we also expect the recovery process to be affected (likely hampered) by the resulting financial situation of the airlines currently servicing key international and domestic markets.

In addition, the disruptive war scenario is likely to exasperate the burden that security measures are currently having on the air travel industry. We anticipate that both travel time and travel costs associated with security will likely increase before getting better.

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<sup>1</sup> University of Hawaii economics professor James Mak says the Gulf War comparison should not be completely discounted, as factors that affected tourism in 1991 are issues the visitor industry faces now: lack of consumer confidence in airline safety, the near-term economic prospects and a weak global economy. WTO, UK Tourism crisis in spotlight.

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## **Air Capacity Assumptions**

As previously mentioned, we expect another adverse affect of war would be on air capacity. Air capacity for many airlines has only recently started to return to pre-September 11<sup>th</sup>, 2001 levels. With war, airlines are once again expected to be hit from both sides as demand slows and their costs of operation—mainly fuel costs—increase. In fact, during the 1990/91 Gulf War air travel dropped significantly while jet fuel price increases added nearly \$3 billion to annual operating expenditures of U.S. airlines. It has been argued that the Gulf War was one of the key factors that forced Continental, Pan Am, Midway, and America West to all file for Chapter-11 bankruptcy protection.

The loss in air capacity will be born out by the airlines double-edged sword recovery strategy: lower prices to entice travellers and increased fuel costs. During the recovery process, the added hardships associated with the war in Iraq will mean that airlines will be cautious in adding capacity. Following the end of the war, we expect (at best) a conservative increase in capacity. Airlines will most likely want to see sustained load factor gains before raising capacity.

### **Contained War Air Capacity Assumptions**

In the contained war scenario, we assume that air capacity will fall during the three-month period of the war itself. However, we expect that demand for air travel during the three-month war period will exceed the drop in capacity. In this case, we do not expect capacity changes during the war-period itself to factor into our non-economic analysis. But, as the positive outcome of the war becomes apparent and the demand for air travel improves, we might find that air capacity cuts (or very conservative capacity growth) may represent a constraint on growth after the war. In this respect, our assumption for capacity following a contained war is that capacity increases will remain flat (on a seasonal perspective) in the quarter following the war and then return to pre-war growth rates by the quarter thereafter. If a U.S. based airline goes bankrupt during this phase, the war in Iraq will only have served to speed-up the process.

### **Disruptive War Air Capacity Assumptions**

In the disruptive war scenario we assume that air capacity will also fall – by further than in the contained war scenario – through the three-month period of the war itself. As in the contained war scenario, we still expect that demand for air travel during the three-month war period will exceed the drop in capacity. As the positive outcome of the disruptive war becomes apparent (similar to the contained war) we believe that capacity increases will remain flat (on a seasonal perspective) in the quarter following the war and then return to pre-war growth rates by the following quarter. Because air capacity falls by more than the contained war scenario, it will take longer for it to return to base case levels. It can also be expected that a disruptive war will increase financial pressures on the airline industry—more so than in the contained war scenario. While we have not factored in further upheaval in the airline industry (in the form of bankruptcy or consolidations) into the analysis, we feel it is important for the reader to judge for themselves the likelihood of achieving some of the more aggressive visitor volume bounce-backs that the model simulations might imply, particularly under the disruptive war scenarios.

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## Travel Implications - Model Simulations

### Combined Economic/Non-Economic Simulations

An economics only analysis would suggest that a war in Iraq would, by and large, have a negative impact on international travel to, and travel within, Canada. However, under both the **contained** or **disruptive** war scenarios, our analysis generally suggests travellers will still have the financial means to increase travel to, or within, Canada over the medium to long term.

But, if travellers are fearful of air travel, or if they are not able to secure transportation to, or within Canada that is considered both financially or logistically reasonable, then it may not matter if they have the income to come to Canada. These factors are considered (along with the economic limitations) in the combined economic/non-economic simulations.

The tables presented in Appendix II: Model Simulations illustrate the tangible magnitudes that both a **contained** and **disruptive** war in Iraq would have on international travel to Canada, using the definitions and assumptions described earlier. In these tables, the impacts of purely economic factors are combined with non-economic factors.

It should be noted that the forecasts presented for the two war scenarios are compared relative to a baseline December international travel forecast. While the baseline forecasts presented are still preliminary (meaning they have yet to be finalized) they represent a good point of comparison.



## International Travel Implications - Summary of Findings

The following table highlights some key quantitative findings relating to the combination of economic and non-economic factors associated with a war in Iraq for international travel to Canada for select markets. The implications of a war in Iraq for each international travel market under both the **contained** and **disruptive** war scenarios, as previously defined.

For those readers interested in the more detailed results, please refer to Appendix II: Model Simulations.

**TABLE 3: Contained and Disruptive War - Overnight Travel to Canada**  
(change in visitor volumes compared with base-forecast - 000's)

	2003	2004	2005	2006	CUMULATIVE CHANGE 2003-2006 (000's)
<b>NORTH AMERICA</b>					
US (overall) contained	-165	-171	-161	-155	-652
US (overall) disruptive	-693	-569	-513	-419	-2,194
US – Air contained	-235	-146	-146	-145	-672
US – Air disruptive	-441	-369	-373	-319	-1,502
US – Other contained	+70	-25	-15	-10	+20
US – Other disruptive	-252	-200	-140	-100	-692
Mexico contained	-10	0	+1	-0	-9
Mexico disruptive	-11	0	+1	+1	-9
<b>EUROPE</b>					
UK contained	-50	-32	-19	-16	-117
UK disruptive	-84	-62	-40	-29	-215
France contained	-17	-9	-9	-9	-44
France disruptive	-27	-22	-20	-20	-89
Germany contained	-18	-10	-6	-4	-38
Germany disruptive	-32	-26	-25	-17	-100
<b>ASIA/PACIFIC</b>					
Japan contained	-47	-34	-34	-27	-142
Japan disruptive	-72	-68	-64	-45	-249
South Korea contained	-14	-10	-8	-7	-39
South Korea disruptive	-22	-21	-18	-16	-77
Taiwan contained	-14	-9	-7	-5	-35
Taiwan disruptive	-22	-19	-15	-12	-68
Hong Kong contained	-5	-2	-2	-1	-10
Hong Kong disruptive	-7	-7	-6	-5	-25
China contained	-5	-3	-2	-2	-12
China disruptive	-8	-5	-4	-4	-21
S.E. Asia contained	-6	-5	-4	-3	-18
S.E. Asia disruptive	-12	-11	-9	-6	-38
Australia contained	-7	-3	-1	-0	-11
Australia disruptive	-11	-9	-7	-5	-32

The following table highlights the magnitude of the cumulative change in visitor volumes associated with both war in Iraq scenarios relative to the baseline (i.e. no war in Iraq) projection.

**TABLE 4: War in Iraq - Overnight Travel to Canada**  
(cumulative change in visitor volumes compared with base-forecast)

	CUMULATIVE BASE-CASE VISITOR PROJECTION 2003-2006 (000's)	CUMULATIVE CHANGE 2003-2006 CONTAINED WAR (000's)	CUMULATIVE CHANGE 2003-2006 DISRUPTIVE WAR (000's)	CUMULATIVE CHANGE 2003-2006 CONTAINED WAR (%)	CUMULATIVE CHANGE 2003-2006 DISRUPTIVE WAR (%)
<b>NORTH AMERICA</b>					
US	67,944	-652	-2,194	-1.0%	-3.2%
<i>US - Air</i>	17,126	-672	-1,502	-3.9%	-8.8%
<i>US - Other</i>	50,818	+20	-692	0.0%	-1.4%
<i>Mexico</i>	698	-9	-9	-1.3%	-1.3%
<b>EUROPE</b>					
<i>UK</i>	3,277	-117	-215	-3.6%	-6.6%
<i>France</i>	1,407	-44	-89	-3.1%	-6.3%
<i>Germany</i>	1,305	-38	-100	-2.9%	-7.7%
<b>ASIA/PACIFIC</b>					
<i>Japan</i>	1,731	-142	-249	-8.2%	-14.4%
<i>South Korea</i>	727	-39	-77	-5.4%	-10.6%
<i>Taiwan</i>	489	-35	-68	-7.2%	-13.9%
<i>Hong Kong</i>	567	-10	-25	-1.8%	-4.4%
<i>China</i>	469	-12	-21	-2.6%	-4.5%
<i>S.E. Asia</i>	411	-18	-38	-4.4%	-9.2%
<i>Australia</i>	676	-11	-32	-1.6%	-4.7%

### US - Overall

Economic and non-economic factors associated with a contained war are expected to reduce overnight U.S. travel by 165,000 in 2003. By 2004, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from the U.S. to be 652,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight U.S. travel by 693,000 in 2003, which is 4.3 percentage points lower than the base-case. By 2006, we expect a cumulative loss of overnight travel from the U.S. to be nearly 2.2 million visitors.

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## **US - Air**

Economic and non-economic factors associated with a contained war are expected to reduce overnight U.S. air travel by 235,000 in 2003. By 2004, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from the U.S. to be 672,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight U.S. air travel by 441,000 in 2003. By 2006, we expect a cumulative loss of overnight air travel from the U.S. to be 1.5 million, which is 8.8 per cent lower than the base case.

## **US - Other**

Economic and non-economic factors associated with a contained war are expected to increase overnight U.S. travel by other modes by 70,000 in 2003. The increase is due to the substitution away from air to auto, as well as the U.S. perception that Canada is a safe place to travel to. This type of substitution was seen following the September 11<sup>th</sup> terrorist attacks. Nevertheless, from 2004 through to 2006 there are some minimal losses in visitor volumes due to a slight appreciation of the Canadian dollar. By 2006 the net loss on a percentage basis is zero.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight U.S. travel by other modes by 252,000 in 2003. The higher cost of gasoline throughout this forecast scenario does weigh on the amount of driving. By 2006, we expect a cumulative loss of overnight travel from the U.S. by other modes to be 692,000, which is just 1.4 per cent lower than the base case.

## **UK**

Economic and non-economic factors associated with a contained war are expected to reduce overnight U.K. travel by 50,000 in 2003. By 2005, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from the U.K. to be 117,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight U.K. travel by 84,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from the U.K. to be 215,000, which is a 6.6 percent lower than the base case scenario.

## **Germany**

Economic and non-economic factors associated with a contained war are expected to reduce overnight travel from Germany by 18,000 in 2003. By 2005, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from Germany to be 38,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight German travel by 32,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from Germany to be 100,000.



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## **France**

Economic and non-economic factors associated with a contained war are expected to reduce overnight travel from France by 17,000 in 2003. By 2004, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from France to be 44,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight French travel by 27,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from France to be 89,000.

## **Japan**

Economic and non-economic factors associated with a contained war are expected to reduce overnight travel from Japan by 47,000 in 2003. By 2004, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from Japan to be 142,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight Japanese travel by 72,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from Japan to be 249,000, which is 14.4 per cent lower than the base case scenario. Japan's weak economy (recession), depreciating exchange rate, as well as relatively large psychological impacts, contributes to it to being affected the most by this scenario compared to the other countries.

## **Mexico**

Economic and non-economic factors associated with a contained war are expected to reduce overnight travel from Mexico by 10,000 in 2003. By 2004, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from Mexico to be 9,000.

In the disruptive war scenario, there is expected to a combined impact of 11,000 fewer overnight visitors in 2003. By 2006, we expect a cumulative loss of overnight travel from Mexico to be 9,000. Due to the positive contribution of higher oil prices in Mexico, there are expected to be some small increases of visitors from Mexico to Canada in the outer years of the forecast.

## **Australia**

Economic and non-economic factors associated with a contained war are expected to reduce overnight travel from Australia by 7,000 in 2003. By 2004, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from Australia to be 11,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight Australian travel by 11,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from Australia to be 32,000, which is a 4.7 per cent lower than the base case.

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## **Taiwan**

Economic and non-economic factors associated with a contained war are expected to reduce overnight travel from Taiwan by 14,000 in 2003. By 2004, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from the Taiwan to be 35,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight Taiwanese travel by 22,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from the Taiwan to be 68,000.

## **Hong Kong**

Economic and non-economic factors associated with a contained war are expected to reduce overnight travel from Hong Kong by 5,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from Hong Kong to be 10,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight Hong Kong travel by 7,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from Hong Kong to be 25,000, which is just 4.4 per cent lower than the base case.

## **China**

Economic and non-economic factors associated with a contained war are expected to reduce overnight travel from China by 5,000 in 2003. By 2004, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from China to be 12,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight Chinese travel by 8,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from China to be 21,000.

## **South Korea**

Economic and non-economic factors associated with a contained war are expected to reduce overnight travel from South Korea by 14,000 in 2003. By 2005, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from South Korea to be 39,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight South Korean travel by 22,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from South Korea to be 77,000, which is 10.6 per cent lower than the base case.

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## **South East Asia**

Economic and non-economic factors associated with a contained war are expected to reduce overnight travel from South East Asia by 6,000 in 2003. By 2004, the gap between the contained war and the base-case scenario begins to close. By 2006, we expect a cumulative loss of overnight travel from South East Asia to be 18,000.

In the disruptive war scenario, the combined impact of economic and non-economic factors is expected to reduce overnight travel from South East Asia by 12,000 in 2003. By 2006, we expect a cumulative loss of overnight travel from South East Asia to be 38,000.

## Domestic Travel Implications - Summary of Findings

The following table highlights key quantitative findings pertaining to the combined economic and non-economic affects that a war in Iraq would have on Canadian domestic travel expenditures. The implications of both a **contained** and **disruptive** war are shown relative to a base-case analysis that assumes there will not be a war in Iraq.

**TABLE 5: Contained and Disruptive War - Tourism Domestic Demand**  
(change in expenditures compared with base-forecast - millions of dollars)

	2003 (\$MILLIONS)	2004 (\$MILLIONS)	2005 (\$MILLIONS)	2006 (\$MILLIONS)	CUMULATIVE CHANGE 2003-2006 (\$MILLIONS)
<b>TOURISM DOMESTIC DEMAND</b>					
Contained War	-604	-261	-312	-172	-1,349
Disruptive War	-1,319	-1,081	-1,003	-1,058	-4,461

Not surprisingly, the implications associated with either war scenario tend to be negative (i.e. are associated with negative differences compared with the base, or no-war, scenario). Meanwhile, the relative impact that a war in Iraq will have on Canadian domestic travel expenditures depends on the degree that a war affects economic and non-economic influences.

The following table highlights the magnitude of the cumulative change in visitor volumes between 2003 and 2006 that can be expected as a result of a war (under either of the two scenarios) relative to the baseline, or no war in Iraq, projection. In a contained war, the cumulative impact could result in a loss of \$1.3 billion over the next four years. Meanwhile, a disruptive war could cost the Canadian domestic travel industry nearly \$4.5 billion over the same time period.

**TABLE 6: War in Iraq - Canadian Domestic Travel**  
(cumulative change in visitor expenditures compared with base-forecast)

	CUMULATIVE BASE-CASE SPENDING PROJECTION 2003-2006 (\$MILLIONS)	CUMULATIVE CHANGE 2003- 2006 CONTAINED WAR (\$MILLIONS)	CUMULATIVE CHANGE 2003- 2006 DISRUPTIVE WAR (\$MILLIONS)	CUMULATIVE CHANGE 2003- 2006 CONTAINED WAR (%)	CUMULATIVE CHANGE 2003- 2006 DISRUPTIVE WAR (%)
<b>TOURISM DEMAND</b>					
Domestic	150,894	-1,349	-4,461	-0.9%	-3.0%



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## Summary

If a war in Iraq follows either of the two scenarios discussed in this report, our economic analysis suggests that travellers will generally still have the financial means over the medium to long term to travel to and within Canada.

However, as September 11<sup>th</sup> clearly illustrated, it is the non-economic factors, such as psychological impacts and air capacity constraints, that provided more insights than simple economics regarding the impacts on travel. In today's environment, the risk is that any sort of political aggression has the potential to re-ignite the psychological scars left on travellers as a result of the September 11<sup>th</sup> attacks. If this happens, the recovery for travel markets may be further challenged by a worldwide and domestic airline industry that is crippled. Thus, the combined impacts of economic and non-economic pressures of a war in Iraq on international travel to and domestic travel within Canada are stronger than economic pressures alone.

This report does not pretend to eliminate uncertainties surrounding the implications of a war in Iraq concerning travel to, and within, Canada. However, we believe that we have reduced the uncertainty to measured risks. The risks to the Canadian international and domestic travel and tourism market are outlined in our **contained** and **disruptive** war scenario results.

Ultimately there are unlimited permutations of a war in Iraq and its ramifications on travel to and within Canada. While we hope to have presented the "likely" implications with respect to the two war scenarios, undoubtedly there are many extremes on either side of the good and bad spectrum. One of the most widely discussed (feared) implications is that, a war in Iraq may also encourage the outbreak of further terrorist attacks. While our disruptive-war scenario does consider some complications associated with the allied forces war effort, it does not consider the implications associated with significant retaliatory military force, including terrorist reprisals.



## Appendix I-Quantifying Psychological Impacts of War

Measuring the psychological impacts that a war in Iraq may have on international travel decisions is not an easy task. That is why it is instructive to look to the past in order to understand what may happen in the future. Because overnight visitor volumes dropped by more than what pure economics would suggest in both the Gulf War and September 11<sup>th</sup>, we used these two extraordinary events as historical points of reference.

Using monthly international overnight visitor volume data from Statistics Canada’s International Travel Survey, we tried to isolate the impact that the 1990-91 Gulf War and September 11<sup>th</sup> terrorist attacks had on travel to Canada. In measuring these impacts, we looked at the per cent changes in monthly visitor volumes compared to the year before. Dramatic changes in these year-over-year percentages theoretically would reflect international travellers’ adjustments to extraordinary events such as the Gulf War or the terrorist attacks of September 11<sup>th</sup>.

We have calculated the average change in the period prior to, during, and immediately following both the Gulf War and the September 11<sup>th</sup> terrorist attacks. This establishes what the trend was going into both events, the impact, as well as when the path of the post recovery began. These psychological impact assumptions for our two war scenarios follow similar initial shocks and post conflict recovery paths as previous examples, except that their magnitudes differ.

The magnitude determines how strong the reaction by the traveller, as well as how long a recovery may be following the event. As we consider two war in Iraq scenarios, we have assigned weights to the magnitudes of the contained war and disruptive war scenarios based on the relative impact of the 1990/91 Gulf War versus September 11<sup>th</sup> for various travel markets. For many regions, this would suggest the non-economic factors might represent 25 to 30 per cent of the magnitude associated with the September 11<sup>th</sup> terrorist attacks. To assess the more severe and lasting affects of a disruptive war scenario, we have assigned an across-the-board estimate of 50 per cent, relative to the impact from the September 11<sup>th</sup> terrorist attacks. These psychological assumptions are incorporated into our model in addition to the economic implications associated with the two war scenarios, to produce our combined forecast results.

**Table A-1 - Impacts of the 1990/91 Gulf War and September 11<sup>th</sup> on International Travel to Canada (for the period during the Gulf War conflict or a 6 month period following 9/11)**

	U.S. BY AIR	U.S. OTHER	EUROPE	UK	ASIA	MEXICO	AUSTRALIA
GW est.	2.7%	-0.9%	3.0%	3.6%	7.1%	8.4%	5.5%
9/11 est.	17.8%	6.5%	11.7%	13.7%	23.9%	19.7%	21.8%
Contained War Ratio	15.1%	0%*	25.9%	26.6%	29.6%	42.7%	25.3%
Disruptive War Ratio	50%	0%*	50%	50%	50%	50%	50%

*Notes:*

*GW refers to the isolated “hit” to visitor volumes as a result of the 90/91 Gulf War while 9/11 is the isolated “hit” to visitor volumes as a result of the September 11<sup>th</sup> terrorist attacks. The Contained War Ratio is calculated to be the ratio of the Gulf War impact versus the September 11<sup>th</sup> impact. The Disruptive War Ratio is calculated to be 50 per cent of the September 11<sup>th</sup> impact.*

*\* While the calculated percentage for the SW ratio of Other travel from the U.S. would be negative, we conservatively used 0—balancing off the potential increased benefits of a war in Iraq against the possibility of further heightened security measures.*





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## Appendix II-Model Simulations

### **Combined Economic/Non-economic Model Simulations**

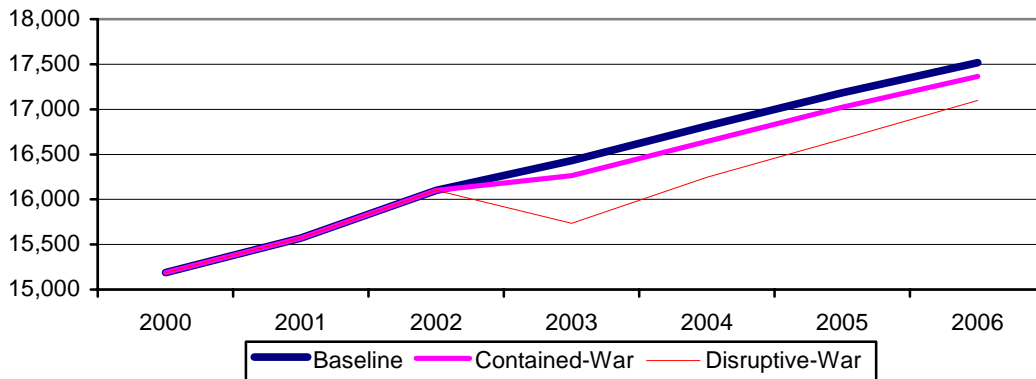
The following tables represent the model simulations relating to the combined economic/non-economic implications associated with a contained and disruptive war in Iraq.

Once again, it should be noted that the forecasts presented for the two war scenarios are presented relative to a baseline December international travel forecast. While the baseline forecasts are still preliminary (and have yet to be finalized) they represent a good point of comparison.

## United States

Baseline Medium Term Forecast Overnight Person-Trips from the U.S. to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
15,188	15,570	16,100	16,429	16,814	17,183	17,518
N/A	2.5	3.4	2.0	2.3	2.2	1.9
Contained-War Medium Term Forecast Overnight Person-Trips from the U.S. to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
15,188	15,570	16,100	16,264	16,643	17,022	17,363
N/A	2.5	3.4	1	2.3	2.3	2
Disruptive-War Medium Term Forecast Overnight Person-Trips from the U.S. to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
15,188	15,570	16,100	15,736	16,245	16,670	17,099
N/A	2.5	3.4	-2.3	3.2	2.6	2.6

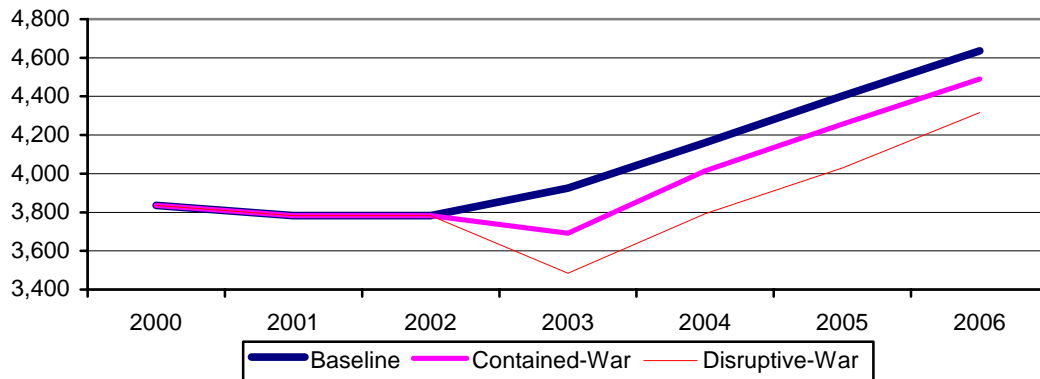
**Medium Term Forecast  
Overnight Person-Trips from the U.S. to Canada**  
(volume in 000s)



## United States (Air)

Baseline Medium Term Forecast Overnight Person-Trips from the U.S. to Canada (Air) (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
3,835	3,782	3,782	3,926	4,161	4,403	4,636
N/A	-1.4	0	3.8	6.0	5.8	5.3
Contained-War Medium Term Forecast Overnight Person-Trips from the U.S. to Canada (Air) (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
3,835	3,782	3,782	3,691	4,015	4,257	4,491
N/A	-1.4	0	-2.4	8.8	6.0	5.5
Disruptive-War Medium Term Forecast Overnight Person-Trips from the U.S. to Canada (Air) (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
3,835	3,782	3,782	3,485	3,792	4,030	4,317
N/A	-1.4	0	-7.9	8.8	6.3	7.1

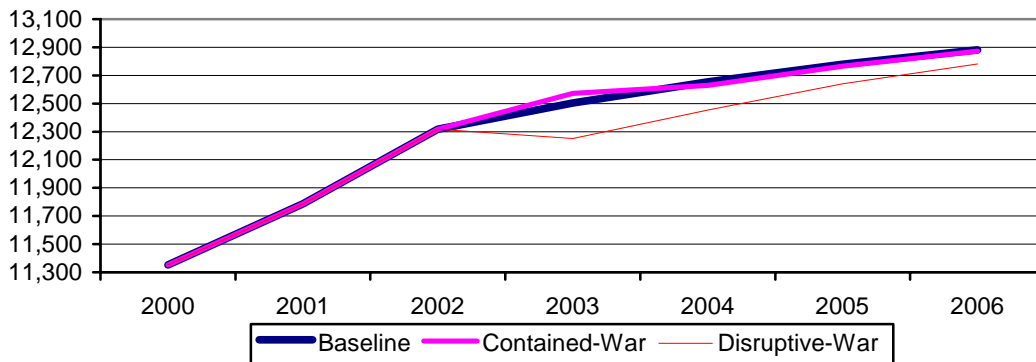
**Medium Term Forecast  
Overnight Person-Trips from the U.S. to Canada (Air)**  
(volume in 000s)



## United States (Other)

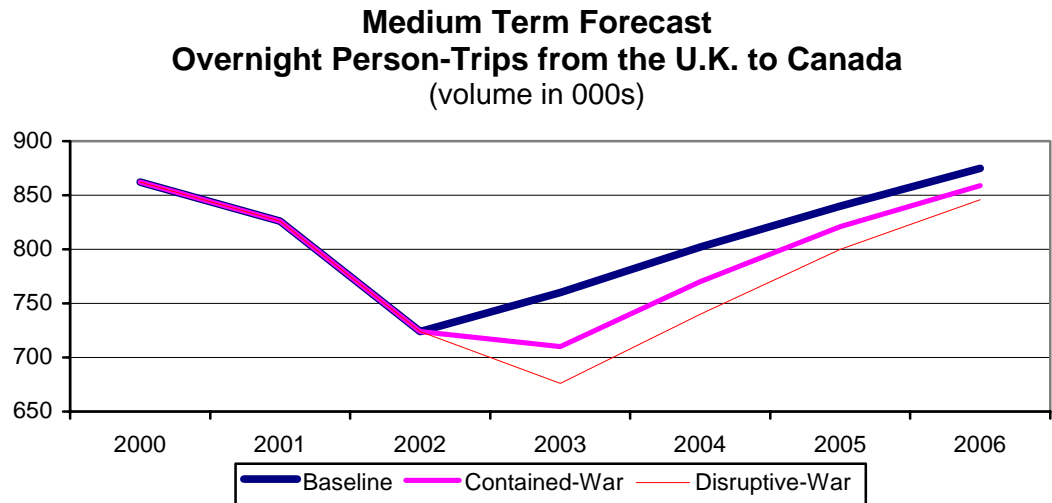
<b>Baseline Medium Term Forecast</b>						
<b>Overnight Person-Trips from the U.S. to Canada (Other)</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
11,353	11,788	12,318	12,503	12,653	12,780	12,882
N/A	3.8	4.5	1.5	1.2	1	0.8
<b>Contained-War Medium Term Forecast</b>						
<b>Overnight Person-Trips from the U.S. to Canada (Other)</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
11,353	11,788	12,318	12,573	12,628	12,765	12,872
N/A	3.8	4.5	2.1	0.4	1.1	0.8
<b>Disruptive-War Medium Term Forecast</b>						
<b>Overnight Person-Trips from the U.S. to Canada (Other)</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
11,353	11,788	12,318	12,251	12,453	12,640	12,782
N/A	3.8	4.5	-0.5	1.6	1.5	1.1

**Medium Term Forecast**  
**Overnight Person-Trips from the U.S. to Canada - Other**  
(volume in 000s)



## UK

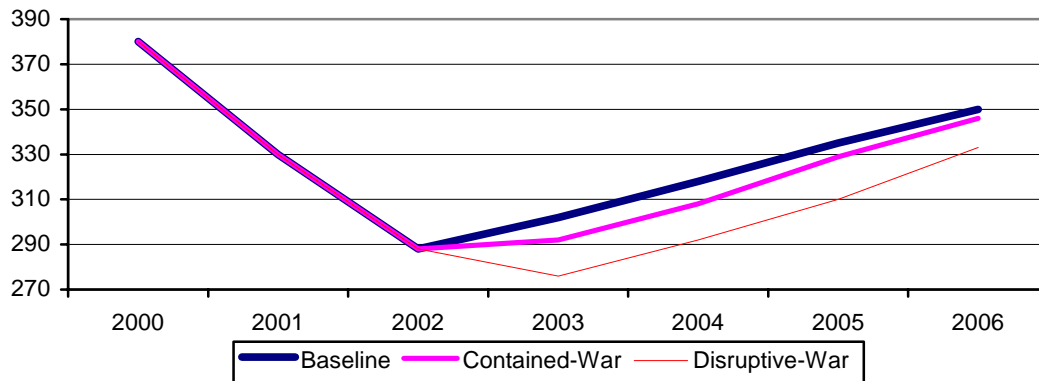
Baseline Medium Term Forecast Overnight Person-Trips from the U.K. to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
862	826	724	760	802	840	875
N/A	-4.2	-12.3	4.9	5.5	4.8	4.2
Contained-War Medium Term Forecast Overnight Person-Trips from the U.K. to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
862	826	724	710	770	821	859
N/A	-4.2	-12.3	-1.9	8.5	6.6	4.6
Disruptive-War Medium Term Forecast Overnight Person-Trips from the U.K. to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
862	826	724	676	740	800	846
N/A	-4.2	-12.3	-6.6	9.5	8.1	5.8



## Germany

<b>Baseline Medium Term Forecast</b>						
<b>Overnight Person-Trips from Germany to Canada</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
380	330	288	302	318	335	350
N/A	-13.1	-12.8	4.7	5.2	5.5	4.5
<b>Contained-War Medium Term Forecast</b>						
<b>Overnight Person-Trips from Germany to Canada</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
380	330	288	284	308	329	346
N/A	-13.1	-12.8	-1.4	8.5	6.8	5.2
<b>Disruptive-War Medium Term Forecast</b>						
<b>Overnight Person-Trips from Germany to Canada</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
380	330	288	270	292	310	333
N/A	-13.1	-12.8	-6.3	8.1	6.2	7.4

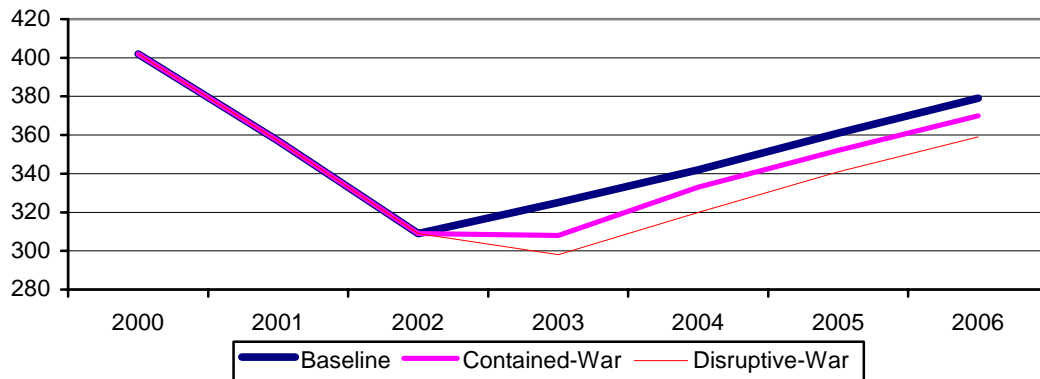
**Medium Term Forecast**  
**Overnight Person-Trips from Germany to Canada**  
(volume in 000s)



## France

Baseline Medium Term Forecast Overnight Person-Trips from France to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
402	357	309	325	342	361	379
N/A	-11.2	-13.4	5	5.5	5.5	5
Contained-War Medium Term Forecast Overnight Person-Trips from France to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
402	357	309	308	333	352	370
N/A	-11.2	-13.4	-0.4	8.1	5.7	5.1
Disruptive-War Medium Term Forecast Overnight Person-Trips from France to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
402	357	309	298	320	341	359
N/A	-11.2	-13.4	-3.6	7.4	6.6	5.3

**Medium Term Forecast  
Overnight Person-Trips from France to Canada**  
(volume in 000s)

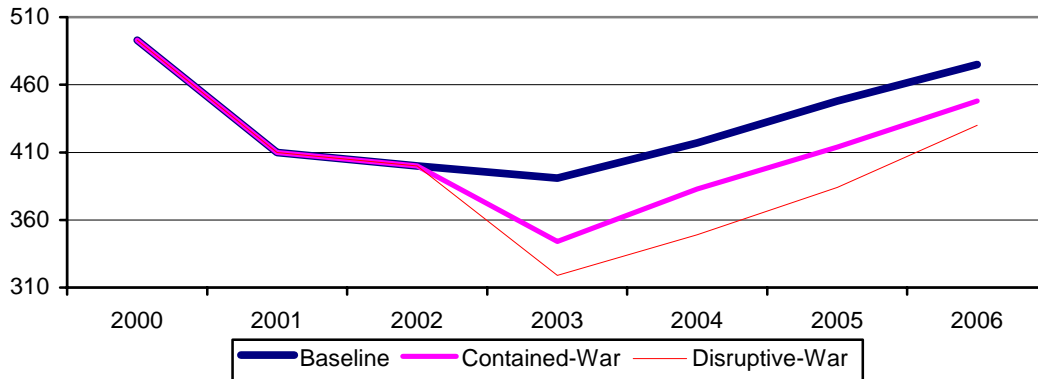




## Japan

<b>Baseline Medium Term Forecast Overnight Person-Trips from Japan to Canada</b> (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
493	410	400	391	417	448	475
N/A	-16.9	-2.5	-2.2	6.5	7.5	6
<b>Contained-War Medium Term Forecast Overnight Person-Trips from Japan to Canada</b> (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
493	410	400	344	383	414	448
N/A	-16.9	-2.5	-14	11.3	8.1	8.2
<b>Disruptive-War Medium Term Forecast Overnight Person-Trips from Japan to Canada</b> (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
493	410	400	319	349	384	430
N/A	-16.9	-2.5	-20.3	9.4	10	12

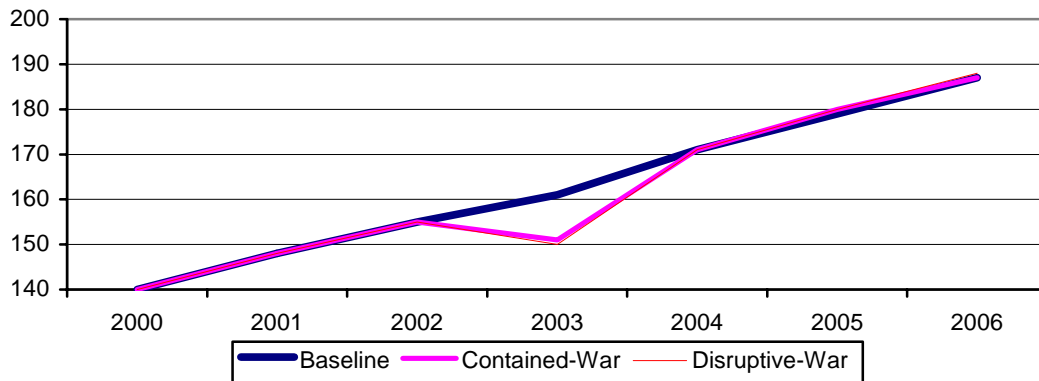
**Medium Term Forecast  
Overnight Person-Trips from Japan to Canada**  
(volume in 000s)



## Mexico

Baseline Medium Term Forecast Overnight Person-Trips from Mexico to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
140	148	155	161	171	179	187
N/A	5.8	4.7	4	6	5	4
Contained-War Medium Term Forecast Overnight Person-Trips from Mexico to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
140	148	155	151	171	180	187
N/A	5.8	4.7	-2.6	13.2	5	4
Disruptive-War Medium Term Forecast Overnight Person-Trips from Mexico to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
140	148	155	150	171	180	188
N/A	5.8	4.7	-3.2	14	5.3	4.4

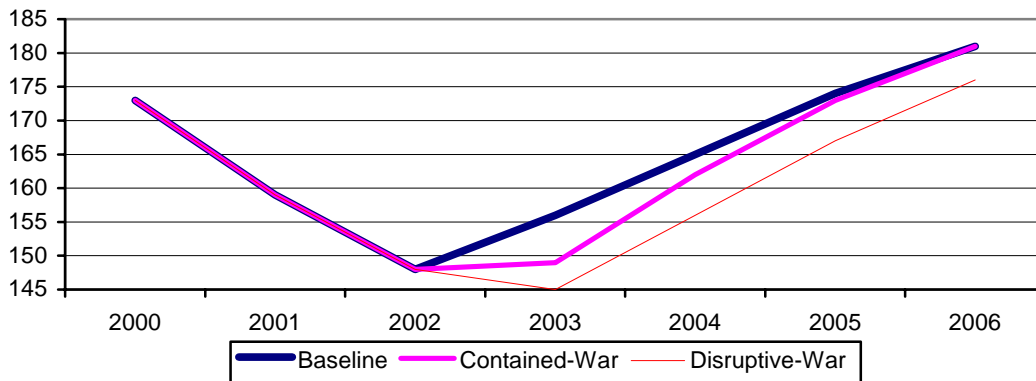
**Medium Term Forecast  
Overnight Person-Trips from Mexico to Canada**  
(volume in 000s)



## Australia

<b>Baseline Medium Term Forecast</b>						
<b>Overnight Person-Trips from Australia to Canada</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
173	159	148	156	165	174	181
N/A	-8.3	-7.2	6	5.5	5.2	4.5
<b>Contained-War Medium Term Forecast</b>						
<b>Overnight Person-Trips from Australia to Canada</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
173	159	148	149	162	173	181
N/A	-8.3	-7.2	0.7	8.7	6.8	4.6
<b>Disruptive-War Medium Term Forecast</b>						
<b>Overnight Person-Trips from Australia to Canada</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
173	159	148	145	156	167	176
N/A	-8.3	-7.2	-2	7.6	7.1	5.5

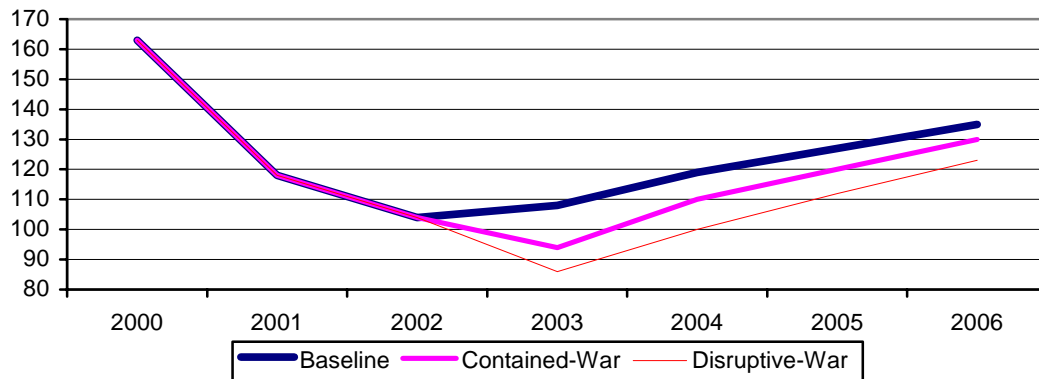
**Medium Term Forecast**  
**Overnight Person-Trips from Australia to Canada**  
(volume in 000s)



## Taiwan

Baseline Medium Term Forecast Overnight Person-Trips from Taiwan to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
163	118	104	108	119	127	135
N/A	-27.5	-11.5	3.5	10	7	6
Contained-War Medium Term Forecast Overnight Person-Trips from Taiwan to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
163	118	104	94	110	120	130
N/A	-27.5	-11.5	-9.6	11.7	9.1	8.3
Disruptive-War Medium Term Forecast Overnight Person-Trips from Taiwan to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
163	118	104	86	100	112	123
N/A	-27.5	-11.5	-17.3	16.3	12	9.8

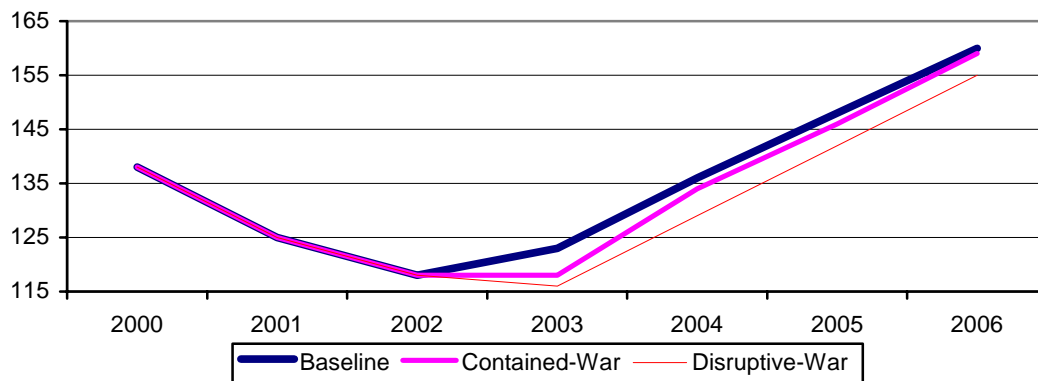
**Medium Term Forecast  
Overnight Person-Trips from Taiwan to Canada**  
(volume in 000s)



## Hong Kong

Baseline Medium Term Forecast Overnight Person-Trips from Hong Kong to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
138	125	118	123	136	148	160
N/A	-8.9	-5.5	4.5	10	9	8
Contained-War Medium Term Forecast Overnight Person-Trips from Hong Kong to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
138	125	118	118	134	146	159
N/A	-8.9	-5.5	0	13.6	9	8.5
Disruptive-War Medium Term Forecast Overnight Person-Trips from Hong Kong to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
138	125	118	116	129	142	155
N/A	-8.9	-5.5	-1.7	11.2	10.1	9.2

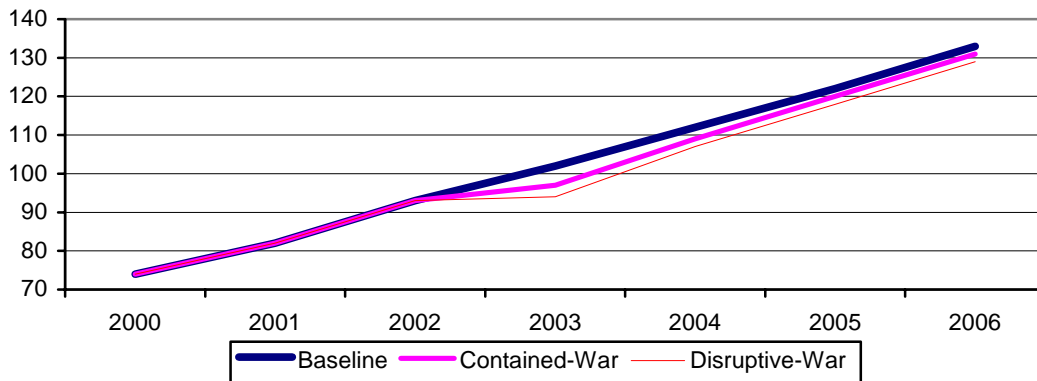
**Medium Term Forecast  
Overnight Person-Trips from Hong Kong to Canada**  
(volume in 000s)



## China

<b>Baseline Medium Term Forecast</b>						
<b>Overnight Person-Trips from China to Canada</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
74	82	93	102	112	122	133
N/A	10.7	14	9	10	9	8.5
<b>Contained-War Medium Term Forecast</b>						
<b>Overnight Person-Trips from China to Canada</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
74	82	93	97	109	120	131
N/A	10.7	14	4.3	12.4	10.1	9
<b>Disruptive-War Medium Term Forecast</b>						
<b>Overnight Person-Trips from China to Canada</b>						
(volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
74	82	93	94	107	118	129
N/A	10.7	14	1.1	13.8	10.3	9.3

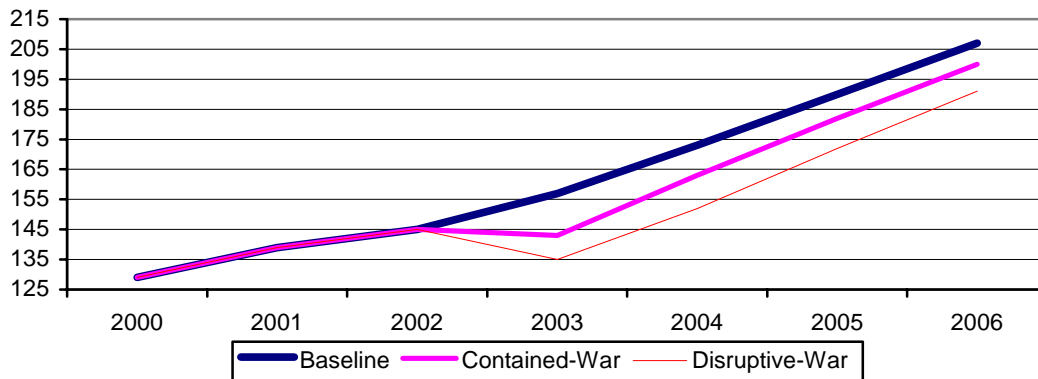
**Medium Term Forecast**  
**Overnight Person-Trips from China to Canada**  
 (volume in 000s)



## South Korea

Baseline Medium Term Forecast Overnight Person-Trips from South Korea to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
129	139	145	157	173	190	207
N/A	7.7	4	8.5	10	10	9
Contained-War Medium Term Forecast Overnight Person-Trips from South Korea to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
129	139	145	143	163	182	200
N/A	7.7	4	-1.4	14	11.7	9.9
Disruptive-War Medium Term Forecast Overnight Person-Trips from South Korea to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
129	139	145	135	152	172	191
N/A	7.7	4	-6.9	12.6	13.2	11

**Medium Term Forecast  
Overnight Person-Trips from South Korea to Canada**  
(volume in 000s)



## South East Asia

Baseline Medium Term Forecast Overnight Person-Trips from South East Asia to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
85	87	87	91	99	107	114
N/A	2.5	0	5	8.5	8	7
Contained-War Medium Term Forecast Overnight Person-Trips from South East Asia to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
85	87	87	85	94	103	111
N/A	2.5	0	-2.3	10.6	9.6	7.8
Disruptive-War Medium Term Forecast Overnight Person-Trips from South East Asia to Canada (volume in 000s; % change from previous year)						
2000	2001	2002	2003	2004	2005	2006
85	87	87	79	88	98	108
N/A	2.5	0	-9.2	11.4	11.4	10.2

**Medium Term Forecast  
Overnight Person-Trips from South East Asia to Canada**  
(volume in 000s)

