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

Executive Summary

Research report 2003-5

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SARS: The Potential Impact On The Domestic And Selected International Travel Markets To Canada Executive Summary

A Report Prepared by

The Canadian Tourism Research Institute

The Conference Board of Canada

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Executive Summary

SARS or the Severe Acute Respiratory Syndrome has already demonstrated a significant impact on Canada's tourism industry. The challenge of this study is to quantify not only the current impact but to also estimate any further possible losses to the industry purely as a result of SARS. In order to get a grasp of the magnitude and duration of the impact of SARS, three simulations were run using the CTC travel forecast model developed by the Canadian Travel Research Institute.

The three SARS scenarios vary in duration and geographic location. The central assumption influencing the outcome is how quickly SARS is contained. **Scenario 1** –the **benign scenario–** assumes that SARS is contained by the end of the second quarter (2003) in Canada and that no new cases are reported elsewhere in the world. **Scenario 2** –the **extended scenario–** suggests that SARS is contained globally by the end of the third quarter. Meanwhile, **Scenario 3 –the expanded scenario–** assumes that SARS is not contained and continues to fuel travel anxieties into the future. The re-emergence of SARS occurs not only in Toronto but also in key metropolitan areas in Canada (i.e. Montreal and Vancouver). The rest of the world also sees the presence of a significant number of SARS cases. Meanwhile, the number of new SARS cases in the Asian hot-spot region continues to increase.

Table A presents a summary of these SARS scenarios. Asian countries that have suffered deaths as a result of the disease are defined as Asian SARS hot-spots. These countries include: China, Hong Kong, Singapore, Malaysia, Vietnam, Thailand and the Philippines.

TABLE A: Summary of the SARS Scenarios Assumptions

SARS AREA OF IMPACTS	SARS CONTAINED IN THE SECOND QUARTER "BENIGN" (1)	SARS CONTAINED IN THE THIRD QUARTER "EXTENDED" (2)	SARS NOT CONTAINED BY THE END OF THE YEAR "EXPANDED" (3)
Canada (Toronto)	No new outbreaks of SARS by the end of June.	No new outbreaks of SARS by the end of September.	SARS re-emerges.
Other Major Canadian Metropolitan Areas	Does not spread to other major cities (beyond the current distribution).	Does not spread to other major cities (beyond the current distribution).	SARS emerges in other major cities, and is not contained by the end of the year.
Asian Hot-Spots China, HK, Singapore, Malaysia, Vietnam, Thailand, Philippines	No new outbreaks of SARS by the end of June.	No new outbreaks of SARS by the end of September.	The number of new cases of SARS continues.
Rest of the World	No new outbreaks of SARS.	No new outbreaks of SARS.	SARS emerges in other major countries, and is not contained by the end of the year.

The following table summarizes the affect of SARS on international travel to Canada for select markets. The implications for **benign, extended and expanded** scenarios are shown. The implications for these scenarios are shown relative to a base-case analysis that assumes there was no outbreak of SARS.

TABLE B: Benign, Extended and Expanded SARS Scenarios – Overnight Travel to Canada
(change in overnight visitor volumes compared with base-forecast - 000's)

	2003	2004	2005	2006	CUMULATIVE CHANGE 2003-2006 (000's)
NORTH AMERICA					
US (overall) benign	-315	-84	-56	-26	-481
US (overall) extended	-726	-232	-140	-80	-1,178
US (overall) expanded	-1,453	-1,831	-1,500	-1,155	-5,939
US – Air benign	-117	-53	-37	-19	-226
US – Air extended	-257	-136	-68	-32	-493
US – Air expanded	-528	-669	-574	-499	-2,270
US – Other benign	-198	-31	-19	-7	-255
US – Other extended	-469	-96	-72	-48	-685
US – Other expanded	-925	-1,162	-926	-656	-3,669
Mexico benign	-9	-2	-1	-1	-13
Mexico extended	-22	-8	-6	-5	-41
Mexico expanded	-46	-58	-52	-44	-200
EUROPE					
UK benign	-18	-2	-1	-1	-22
UK extended	-39	-6	-5	-5	-55
UK expanded	-82	-106	-97	-85	-370
France benign	-10	-1	-1	-1	-13
France extended	-23	-8	-7	-5	-43
France expanded	-51	-64	-62	-60	-237
Germany benign	-11	-2	-2	-1	-16
Germany extended	-27	-6	-5	-5	-43
Germany expanded	-54	-64	-62	-56	-236
ASIA/PACIFIC					
Japan benign	-24	-4	-2	-1	-31
Japan extended	-52	-24	-22	-20	-118
Japan expanded	-114	-137	-124	-109	-484
South Korea benign	-9	-1	-1	-1	-12
South Korea extended	-20	-9	-8	-5	-42
South Korea expanded	-41	-54	-51	-45	-191
Taiwan benign	-7	-1	-1	-1	-10
Taiwan extended	-14	-5	-6	-6	-31
Taiwan expanded	-28	-39	-40	-41	-148
Hong Kong benign	-10	-6	-5	-1	-26
Hong Kong extended	-22	-15	-13	-12	-62
Hong Kong expanded	-49	-68	-67	-60	-244
China benign	-8	-4	-3	-2	-17
China extended	-18	-9	-7	-5	-39
China expanded	-41	-53	-51	-45	-190
S.E. Asia benign	-8	-1	-1	0	-10
S.E. Asia extended	-17	-5	-4	-2	-28
S.E. Asia expanded	-30	-37	-33	-27	-127
Australia benign	-6	-1	-1	-1	-9
Australia extended	-13	-2	-2	-2	-19
Australia expanded	-26	-35	-33	-31	-125

Not surprisingly, the implications associated with each SARS scenario are negative (i.e. are associated with negative differences compared with the base, or no-SARS, scenario). The magnitude of the influence of SARS 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, it will be most affected in terms of lost overnight trips.

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 SARS relative to the baseline.

TABLE C: SARS "Benign" and "Extended" Scenarios - Overnight Travel to Canada
(cumulative change in overnight visitor volumes compared with base-forecast)

	CUMULATIVE BASE-CASE VISITOR PROJECTION 2003-2006 (000'S)	CUMULATIVE CHANGE 2003-2006 BENIGN SCENARIO (000'S)	CUMULATIVE CHANGE 2003-2006 EXTENDED SCENARIO (000'S)	CUMULATIVE CHANGE 2003-2006 BENIGN SCENARIO (%)	CUMULATIVE CHANGE 2003-2006 EXTENDED SCENARIO (%)
NORTH AMERICA					
US	65,715	-481	-1,178	-0.7%	-1.8%
US - Air	15,873	-226	-493	-1.4%	-3.1%
US - Other	49,842	-255	-685	-0.5%	-1.4%
Mexico	682	-13	-41	-1.9%	-6.0%
EUROPE					
UK	3,139	-22	-55	-0.7%	-1.8%
France	1,334	-13	-43	-1.0%	-3.2%
Germany	1,218	-16	-43	-1.3%	-3.5%
ASIA/PACIFIC					
Japan	1,735	-31	-118	-1.8%	-6.8%
South Korea	701	-12	-42	-1.7%	-6.0%
Taiwan	478	-10	-31	-2.1%	-6.5%
Hong Kong	529	-26	-62	-4.9%	-11.7%
China	451	-17	-39	-3.8%	-8.6%
S.E. Asia	382	-10	-28	-2.6%	-7.3%
Australia	678	-9	-19	-1.3%	-2.8%

The preceding table illustrates that, even though a **benign** SARS scenario 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 to the U.S. market—among the markets probed. At the other extreme, overnight travel from Asian SARS hot-spots such as Hong Kong and China are expected to be hit hard.

The extended scenario extends through not only the peak tourism season but the impact is also more severe. Nevertheless, because the disease is contained, the extended scenario recovery is also relatively quick but the overall impact on an annual basis is sharper. In both of these two scenarios, the outlook for growth in 2004 is stronger than in the base case. In the expanded scenario, the recovery takes much longer.

The expanded scenario is similar to the proceeding scenarios in that, even though a SARS scenario 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 to the U.S. market—among the markets probed. At the other extreme, overnight travel from Asia will be hit hard under this expanded scenario. Trip volumes from Asia may drop from close to 30 per cent to up to 50 per cent through 2006.

TABLE D: SARS Expanded Scenario- Overnight Travel to Canada
(cumulative change in overnight visitor volumes compared with base-forecast)

	CUMULATIVE BASE-CASE VISITOR PROJECTION 2003-2006 (000's)	CUMULATIVE CHANGE 2003-2006 EXPANDED SCENARIO (000's)	CUMULATIVE CHANGE 2003-2006 EXPANDED SCENARIO (%)
NORTH AMERICA			
US	65,715	-5,939	-9.0%
US - Air	15,873	-2,270	-14.3%
US - Other	49,842	3,669	-7.4%
Mexico	682	-200	-29.3%
EUROPE			
UK	3,139	-370	-11.8%
France	1,334	-237	-17.8%
Germany	1,218	-236	-19.4%
ASIA/PACIFIC			
Japan	1,735	-484	-27.9%
South Korea	701	-191	-27.2%
Taiwan	478	-148	-31.0%
Hong Kong	529	-244	-46.1%
China	451	-190	-42.1%
S.E. Asia	382	-127	-33.2%
Australia	678	-125	-18.4%

SARS is not the war in Iraq. If there was an upside to the war in Iraq, it is that Canada was seen as a safe destination in terms of possible retaliatory reprisals. SARS is different. The existence of an active infectious disease in Canada severely limits the potential for tourism. The key to the mitigation of negative influences of the disease is a quick containment. Of course, the lifting of the World Health Organizations ban on travel to Toronto is the first step in easing damage to the Canadian tourism industry.

Under the benign scenario—with the disease contained by the end of June—the damage is limited and the recovery begins relatively quickly.

The impact of the benign SARS scenario on the twelve international markets probed in this study adds up to $343 million in 2003. While these markets typically represent over 85 per cent of international travel receipts, there are still other international travel markets that could be negatively impacted by SARS. By assuming those other international travel markets will behave similarly to markets from the same region that were probed in this study, we estimate an additional $58 million in international travel expenditures could be lost as a result of SARS (benign scenario) in 2003.

Combined, our analysis suggests that under the benign SARS scenario, a shortfall of $402 million in international travel receipts is possible in 2003 alone. Under the benign SARS scenario, we estimate that lower U.S. travel receipts will comprise 42 per cent of the total international shortfall with Europe and Asia representing 21 and 30 per cent respectively. In addition, a loss of 8 per cent is expected in travel receipts from Latin America. While traditionally, larger travel volumes are generated from Europe, the greater loss expected for Asia is a result of the disproportionate impact that SARS has on international travel to/from that continent.

Domestic Travel

The relative impact that SARS will have on Canadian domestic travel depends on the degree of the SARS non-economic influences. Travel patterns may vary depending on if Canadians were planning to travel domestically or internationally. The following table highlights the cumulative change in domestic travel expenditures between 2003 and 2006 that can be expected as a result of SARS (under the benign, extended and expanded scenarios) relative to the baseline, or no SARS projection.

TABLE E: Benign Extended and Expanded Scenarios –Domestic Demand
(change in expenditures compared with base-forecast - millions of dollars)

	2003	2004	2005	2006	Cumulative change 2003-2006 ($millions)
Domestic Scenario					
Domestic benign	-118	0	0	0	-118
Domestic extended	-255	0	0	0	-255
Domestic expanded	-415	-646	-678	-712	-2,449

In the benign and extended SARS scenarios, the cumulative impact on Canadian domestic travel is expected to be relatively limited, resulting in losses of $118 million and $255 million respectively, over the next four years. Meanwhile, an expanded scenario could cost the Canadian domestic travel industry nearly $2.5 billion over the same time period.

Total impact on Domestic and International Travel Expenditures

The combined international and domestic impact under the benign SARS scenario is estimated to yield a revenue shortfall of $519 million in 2003 alone and $722 million between 2003 and 2006 (compared with the baseline projection of no SARS). Under the extended scenario and expanded SARS scenario the cumulative impact between 2003 and 2006 is expected to be $1.9 billion and $10.8 billion, respectively. The following table highlights the composition of the cumulative impact for each SARS scenario presented in this report by visitor origin.

TABLE F: SARS Benign, Extended and Expanded Scenarios – Travel Expenditures
(cumulative change in visitor expenditures compared with base-forecast)

	Cumulative base-case spending projection 2003-2006 ($millions)	Cumulative change 2003-2006 benign scenario ($millions)	Cumulative change 2003-2006 extended scenario ($millions)	Cumulative change 2003-2006 expanded scenario ($millions)
Visitor Origin				
Domestic	$148,219	-$118	-$255	-$2,449
U.S.	$36,043	-$258	-$655	-$3,250
Other international	$23,123	-$346	-$1,039	-$5,130
Total	$207,385	-$722	-$1,949	-$10,829

The reductions in spending can be translated into reductions in tourism GDP, tourism employment and government revenues (all levels) using multipliers from Statistics Canada's Tourism Economic Impact Model. All economic impact estimates correspond to the direct

Economic Impact of SARS using Tourism Multipliers – All visitor origins
(change in select economic indicators compared with base - millions of dollars, employment in 000's)

TOTAL	2003	2004	2005	2006	2003-2006
BENIGN SCENARIO					
Tourism GDP	-$198	-$34	-$26	-$16	-$275
Tourism Employment	-5,283	-916	-692	-438	-7,350
Government Revenues (all levels)	-$161	-$28	-$21	-$13	-$224
Federal Revenues	-$88	-$15	-$12	-$7	-$123
EXTENDED SCENARIO					
Tourism GDP	-$438	-$124	-$95	-$75	-$732
Tourism Employment	-11,697	-3,309	-2,545	-1,995	-19,546
Government Revenues (all levels)	-$356	-$101	-$78	-$61	-$595
Federal Revenues	-$195	-$55	-$43	-$33	-$326
EXPANDED SCENARIO					
Tourism GDP	-$880	-$1,170	-$1,091	-$988	-$4,129
Tourism Employment	-23,495	-31,253	-29,135	-26,387	-110,270
Government Revenues (all levels)	-$715	-$952	-$887	-$804	-$3,358
Federal Revenues	-$392	-$522	-$487	-$441	-$1,841

The preceding table indicates that the combined international and domestic economic impact of the benign SARS scenario is estimated to reduce tourism GDP by $198 million in 2003 alone and $275 million between 2003 and 2006 (compared with the baseline projection of no SARS). In terms of jobs, the benign SARS scenario is estimated to reduce tourism employment by nearly 5,300 in 2003 alone and 7,350 between 2003 and 2006. The impact on tourism related taxes attributed to the benign scenario is estimated to deduct $161 million from government revenues in 2003 and a total of $224 million from 2003 to 2006. For the federal government alone the corresponding shortfall for 2003 and cumulative 2003 to 2006 impact is estimated to be $88 million and $123 million, respectively.

The corresponding economic impacts under the extended and expanded SARS scenarios are significantly larger than those estimated under the benign scenario.

This report does not pretend to remove uncertainties surrounding the implications of SARS as it relates to international travel to Canada. Ultimately, there are unlimited permutations of the spread of an infectious disease such as SARS and its ramifications on international travel to Canada.