determinants identified by the theoretical model. The empirical model is given by 12

$$\log\left(\frac{s}{p}\right) = \beta_0 + \beta_1 \log(p) + \beta_2 \log(E[p^*]) + \beta_3 \log(e) + \beta_4 \log\left(\frac{y}{p}\right) + \beta_5 \gamma^2 + \beta_6 \alpha^2 + \beta_7 FTA + \varepsilon$$
 (7)

where s is spending by Canadians in the United States and s is a disturbance term. All data is sampled annually over the period 1980-1994 time period. 13

The variable *FTA* is a dummy variable which captures the influence of the Canada-U.S Free Trade Agreement. The variable assumes a value of one for the period 1987-1994, and a value of zero otherwise. The Canada-U.S. Free Trade Agreement was signed in mid-1987 and was the focal point of much debate in Canada, leading to a Canadian federal election in 1988. The Free Trade Agreement did not have an immediate effect on retail prices and did not apply to important consumer goods such as gasoline, tobacco, and dairy products. Nonetheless, the Agreement may have caused greater awareness of cross-border travel expenditure opportunities, particularly in communities close to the border.

Three features of the empirical model warrant discussion. First, Proposition 1 maintains that $\beta_1>0$, $\beta_2<0$, and $\beta_3<0$. In other words, higher domestic prices support increased travel spending. Higher expected prices in the United States, in contrast, depress travel spending, as

¹² The model is estimated in (log) level form. Deyak, Sawyer, and Sprinkle (1993) use a similar model for Canadian import demand and find that the appropriate specification includes data expressed in levels based on unit root and cointegration tests.

¹³ We also attempted to include a dummy variable corresponding to the introduction of the goods and services tax (GST) in 1991. This variable was not statistically significant at conventional levels.

¹⁴ Furthermore, restrictions on the quantity of goods that could be brought back by travelers remained unchanged under the Free Trade Agreement.

¹⁵ Engel and Rogers (1996) find little empirical evidence that the Free Trade Agreement influenced the effects of the Canadian-U.S. border on commodity prices.