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The impact of free trade with the United States on the pattern of Canadian consumer spending and savings

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Abstract

This paper examines the effects of the formation of the free trade agreement (FTA) between Canada and the United States has had on the pattern of Canadian consumption and savings. The analysis employs a version of the almost ideal demand system (AIDS) which allows individual demands to be conditional on shift parameters introduced to test for changes since the formation of the FTA. The empirical results strongly indicate significant changes in the relationships since that time. The formation of the FTA appears to have reduced the Canadian savings rate and increased the shares for the consumption of all categories of goods, while leaving the share of services largely unchanged.

JEL classification: E21; F15

Keywords: Canada; Saving; FTA

1. Introduction

The past decade has seen significant movement towards continental integration in both Europe and North America. In Europe the development of the European Union and considerations for possible expansion into Eastern Europe have raised numerous policy questions. The formation of the Canada–US free trade agreement (FTA) and its subsequent expansion to include Mexico under the North American free trade agreement (NAFTA) have also raised a number of issues concerning the impact of the continental integration on the operation of the national economy.

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As well, it has been postulated that continental integration may accentuate regional tensions within nations, with pressures for decentralization and even secession (Paelinck & Polese, 1999). In the context of Canada under NAFTA, some have argued that the impact has been zero (Britton, 1998; Wall, 1999), but others have suggested that NAFTA has weakened the east–west linkages in Canada in exchange for international regional linkages (Brox, 2001; Richardson, 1998; Scott, 1999).

While a number of studies have now been undertaken regarding changes in employment patterns (Arndt, 1997; Smith, 2001), production processes (Diewert & Woodland, 2001; Gereffi, 2000; Sawyer, 2001) and in the direction of trade flows (Brox, 2001; Helliwell, Lee, & Messinger, 1999; McCallum, 1995), little attention has been paid to possible changes in the patterns of consumer spending and savings that may result from changes in trading relationships and related pressures for continental integration. In order to undertake the empirical analysis of this question, a version of the almost ideal demand system (AIDS) is developed below to allow individual demands to be conditional on changes in structure, such as the formation of the North American Free Trade Area. Papers by Selvanathan (1991), Kirk (1991), and Carruth, Gibson, and Tsakalotos (1999) have extensively examined regional differences in consumption patterns using similar modeling techniques.

The rest of the paper is organized as follows. In Section 2, some recent developments in the Canadian economy which motivate this study are analyzed. In Section 3, we outline the functional form of the conditional AIDS model. The data sources and methods of estimation are discussed in Section 4. Section 5 contains the empirical estimates and interpretations of the results. Finally, Section 6 concludes with a summary and some suggestions for further research.

2. Recent developments in the Canadian economy

Why would one believe that the formation of the Canada–US FTA and its subsequent expansion to NAFTA might have changed the structure of Canadian consumption patterns? Canada has always been a relatively open economy, with significant export and import shares. Exports, for example, accounted for 26.9% of Canadian GDP in 1981. However, as Fig. 1 shows, an acceleration of the rate of growth of both exports and imports beginning in the early 90s, coincides with the implementation of the trade pacts.

For most of the period under consideration, Canada had a surplus in its total balance of trade. The exception was the period from 1988 to 1992. In 1990, 69.2% of Canadian merchandise imports came from the United States. By 1999 that percentage had risen to 76.3%. The situation is even more dramatic on the export side where 85.9% of Canadian merchandise exports in 1999 went to the United States.

How has the Canadian consumer fared during this period of trade expansion? As shown in Fig. 2, the 90s were not particularly good for Canadian consumers. Real per capita personal disposable income peaked in 1990, declined with the recession thereafter, and did not return to the 1990 peak level until 2000. Per capita consumer spending followed a similar pattern, but with a slightly stronger growth rate. As a result, per capita savings, shown as the distance between the disposable income and consumption lines in Fig. 2, declined throughout the decade. Per capita public services expenditures peaked in 1992 and have gradually declined since.