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# FRBSF WEEKLY LETTER

December 7, 1984

## Canadian Public and Private Saving

In a recent edition of this *Weekly Letter*, the inter-relationship between large U.S. federal budget deficits and foreign trade deficits was explored. One cause of the deterioration of the foreign trade position of the U.S. was argued to be the joint occurrence of the relatively stable gross private saving rate, that is, the ratio of the sum of personal and business saving to GNP, and a federal budget deficit that continues to average a high 4-5 percent of GNP two years into an economic recovery. The stability of the gross private saving rate, sometimes referred to as "Denison's Law," has meant that the federal government has had to borrow increasingly from abroad, as it has gone deeper into debt. Long thought of as an exporter of financial capital, the U.S. in the last few years has developed a large dependency on foreign saving to help finance its healthy recovery in private investment and a federal budget deficit that shows little sign of declining significantly.

The economic links between federal budget deficits and foreign trade deficits in a world of floating exchange rates was an idea that gained prominence during the 1960s. Professor Robert Mundell argued that in the case of a "small, open economy" in a world where financial capital was freely mobile, a fiscal expansion (such as a federal tax cut) would likely lead to a rise in real interest rates, a currency appreciation, and a foreign trade deficit. Indeed, it was thought that the deterioration of the foreign trade position of a country might *completely* offset the stimulative impact on the domestic economy of the fiscal expansion.

What is interesting in the events of the last few years is that the country Mundell probably had in mind, his native Canada, has not had the experience predicted by his theoretical conjecture. Canada provides some interesting contrasts to the U.S. in its experience with growing federal budget deficits. First, we find that Denison's Law does not hold in Canada and, secondly, that Canada recently has experienced both a large federal budget deficit and a (foreign) current account surplus. The Canadian experience since the mid-1970s disproves the adage that the grass is always greener in your neighbor's yard.

### Canadian private saving incentives

For the period from the mid-1950s to the early 1970s, the U.S. personal saving rate, that is, the rate of saving out of personal disposable income, was higher than the personal saving rate in Canada. Beginning in the mid-1970s, however, the two personal saving rates departed dramatically. The personal saving rate in Canada more than doubled between 1970 and 1983, rising from less than 6 percent of personal disposable income to about 15 percent (Chart 1). During the same period, the U.S. personal saving rate displayed a less dramatic but equally significant change, falling from 8 percent to around 5 percent.

Saving concepts and the measurement of savings are hotly disputed by academic economists, but the energy expended has not generated much light. There is little agreement, for example, on the reasons for the decline in the U.S. personal saving rate since the late 1960s. However, the rise in the personal saving rate in Canada is often argued to have resulted from a series of major changes in that country's personal income tax laws in the mid-1970s. In particular, two major changes in the Canadian personal tax treatment of investment income are claimed to be the most important.

In 1975, the Canadian government permitted taxpayers to exclude from taxable income up to \$1,000 in investment income, that is, interest, dividends, and capital gains earned from Canadian investments. In 1974, there was also a change in the Canadian Registered Retirement Saving Plans (RRSPs). Originating back in the 1960s, RRSPs permit individuals to establish retirement plans with a financial institution in which the funds are invested in Canadian assets. Subject to an annual limit, contributions and earnings on RRSPs are tax deductible. The 1974 change in RRSPs saw the maximum contribution raised to \$5,500 for taxpayers without employer retirement plans and \$3,500 for taxpayers with such plans.

### Absence of a Canadian Denison's Law

One of the interesting aspects of U.S. private saving behavior since the mid-1970s has been the relative stability of the gross private saving rate, defined as the sum of personal and business saving

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as a percent of GNP. Edward F. Denison noted three decades ago that the stability of the gross private saving rate implied that its two components, business and personal saving, behaved in an offsetting manner. That is, greater corporate saving was observed to rise when personal saving fell as a percent of GNP. "Denison's Law" appears to continue to hold in the United States even in the face of the enormous change in the financial status of the U.S. federal government. Some explain this "Law" by arguing that the personal sector recognizes its ownership of the corporate sector, and therefore essentially internalizes corporate saving (composed of undistributed corporate profits and depreciation) when making its own saving decisions.

Canadian private saving behavior since the late 1960s does not conform to Denison's Law. Chart 2 shows that the gross private saving rate in Canada has risen almost steadily from 1970 to 1983. The rise in the gross private saving rate is largely due to the rise in personal saving. For the period 1970 to 1980, the business saving rate (as a percent of GNP) has been quite stable, averaging around 15 percent, while the personal saving rate rose almost continuously. We do observe some offsetting business-personal saving behavior, in accordance with Denison's U.S. observation after 1980, but this behavior appears to be largely cyclical in nature. The almost steady rise in the gross private saving rate in Canada from 1970 to 1983, from 18.6 percent to 24.9 percent, is a stark contrast to U.S. saving behavior, in which the gross private saving rate averaged 16.0 percent and 17.3 percent for the same two periods.

## With an eye to the government

In recent years, academic economists have revived arguments that relate private to public saving behavior. Part of the reason for the revival of these arguments in the United States lies in our recent experience with large federal budget deficits *independent* of the state of the business cycle—so-called *structural* budget deficits. The U.S. federal budget deficits are often associated with the 1981-1983 series of personal income tax cuts and improved investment tax incentives for business. But economists' interest in the relationship between public and private saving behavior goes back at least to the 19th century and stems from their interest in *rational* economic behavior, specifically in this case, the degree to which the private sector incorporates the financial status of the

government in its own economic decisionmaking. Canada provides an interesting application of the argument that the private sector interprets future principal and interest costs of current government deficits as future taxes, and, in response, increases its saving rate in anticipation of having to pay for the expenses related to government debt.

In the late 1960s and early 1970s, the Canadian government's budget was in surplus, averaging about 3 percent of GNP (Chart 3). After 1974, however, the government budget in Canada swung from a comfortable surplus to a substantial deficit, equalling 5 percent of GNP in 1983 and 4.9 percent in mid-1984. During the period in which the government was going into deficit, the private sector was increasing its gross private saving rate. As a percent of GNP, between 1974 and 1983, the gross private saving rate in Canada increased by 4.4 percentage points while the government saving rate declined by 9.3 percentage points. The cost of the growth in federal debt in Canada is readily apparent. Interest paid on federal debt as a percent of federal expenditures rose from around 12 percent in 1970 to 19 percent in 1982; it fell back slightly in 1983.

## No dependence on foreign capital

Another major difference between the U.S. and Canadian experiences with large federal deficits lies in their dependence on foreign capital and their business investment experiences. The relative stability of the gross private saving rate in the United States at the same time that the federal government budget moved heavily into deficit *and* the business sector experienced a major capital investment revival has obliged the United States to borrow heavily from abroad. The (foreign) current account deficit in the United States, expected to run at around \$100 billion in 1984, can be viewed as a direct measure of the saving gap in the United States—the difference between total saving, private and government, and total investment.

The Canadian experience reveals that there is no necessary link between federal budget deficits and current account deficits. Chart 4 shows that in the last several years, as the Canadian federal budget deficit grew substantially larger, the current account actually improved. That is, as a nation, Canada has not greatly increased its indebtedness abroad as has the United States. What caused the budget deficit to be accommodated without a de-

terioration of the foreign trade account was a decline in private investment. Real growth in business capital investment averaged about 5 percent per year during the 1970s. However, real business capital investment declined by 8.7 percent in 1982 and by 11.9 percent in 1983.

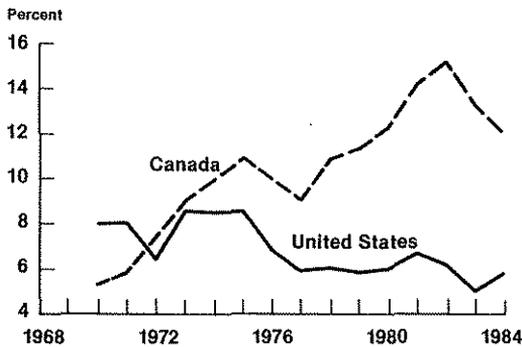
The reason Canada has not displayed the expected deficit in its federal budget and its current account may be related to another factor—U.S. budget deficits. Given Canada's close financial ties to the U.S., the weakening of the Canadian dollar and the weak Canadian investment performance suggest that financial capital flowed

abroad to the U.S. in search of the highest available return. What might appear to be an anomaly in Canada—federal budget deficits and current account surpluses, in fact, simply reveals the closeness of the two countries' financial interdependence.

Like its neighbor to the south, Canada shares the problem with large government deficits. But its experience with private saving and the importation of foreign capital have been considerably different.

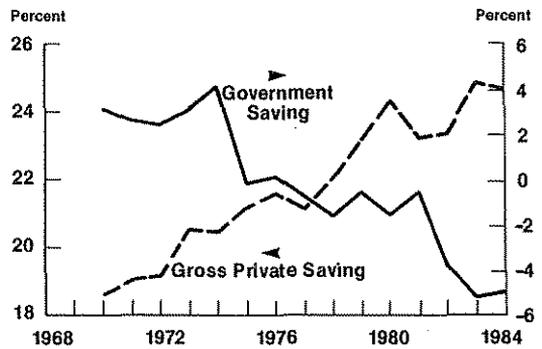
Joseph Bisignano and Sharon Tamor

**Chart 1**  
**PERSONAL SAVING**  
**CANADA vs. UNITED STATES\***  
(as percent of disposable income)

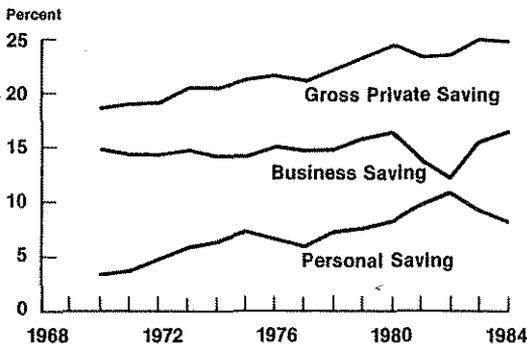


\* On all charts data for 1984 refers to first half only.

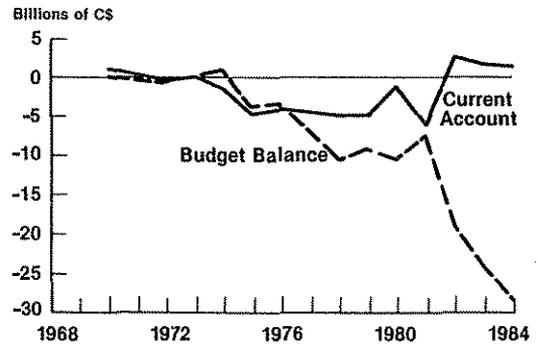
**Chart 3**  
**CANADA:**  
**GROSS PRIVATE SAVING vs.**  
**GOVERNMENT SAVING\***  
(as percent of GNP)



**Chart 2**  
**CANADIAN SAVING RATES\***  
(as percent of GNP)



**Chart 4**  
**CANADIAN CURRENT ACCOUNT**  
**AND FEDERAL BUDGET BALANCE\***



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**BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT**

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding	Change from	Change from 12/28/83	
	11/21/84	11/14/84	Dollar	Percent <sup>7</sup>
Loans, Leases and Investments <sup>1 2</sup>	187,151	129	11,126	6.9
Loans and Leases <sup>1 6</sup>	168,358	4	13,003	9.2
Commercial and Industrial	51,666	208	5,703	13.7
Real estate	61,303	74	2,404	4.5
Loans to Individuals	30,852	76	4,201	17.4
Leases	5,074	19	11	0.2
U.S. Treasury and Agency Securities <sup>2</sup>	11,689	132	818	7.2
Other Securities <sup>2</sup>	7,105	2	1,058	14.3
Total Deposits	191,184	1,004	187	0.1
Demand Deposits	44,660	1,015	4,577	10.2
Demand Deposits Adjusted <sup>3</sup>	28,691	1,342	2,640	9.3
Other Transaction Balances <sup>4</sup>	12,398	63	377	3.2
Total Non-Transaction Balances <sup>6</sup>	134,127	75	5,142	4.4
Money Market Deposit Accounts—Total	39,663	353	66	0.1
Time Deposits in Amounts of \$100,000 or more	40,688	196	2,523	7.3
Other Liabilities for Borrowed Money <sup>5</sup>	24,192	1,344	1,185	5.6
<b>Two Week Averages of Daily Figures</b>	Period ended 11/19/84	Period ended 11/05/84		
<b>Reserve Position, All Reporting Banks</b>				
Excess Reserves (+)/Deficiency (-)	18	55		
Borrowings	21	133		
Net free reserves (+)/Net borrowed(-)	2	78		

<sup>1</sup> Includes loss reserves, unearned income, excludes interbank loans

<sup>2</sup> Excludes trading account securities

<sup>3</sup> Excludes U.S. government and depository institution deposits and cash items

<sup>4</sup> ATS, NOW, Super NOW and savings accounts with telephone transfers

<sup>5</sup> Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

<sup>6</sup> Includes items not shown separately

<sup>7</sup> Annualized percent change