

Canadian Views

This file consists of a variety of data and pictures portraying Canadian values of macroeconomic variables of interest. Some simply provide Canadian numbers corresponding to U.S. numbers found in the textbook, and others provide information not found in the textbook, but related to the textbook material. This information is not examinable, but it is easy to read and should provide perspective facilitating absorption of the course content.

Measuring GDP

Tables 2.1.1 and 2.1.2 display for 2004 the ingredients for measuring GDP using the adding up expenditures method and for using the adding up incomes method, taken from Statistics Canada's website www.statcan.ca. (Go to "Canadian Statistics," then "Economic conditions," then "National accounts.") These numbers are the initial figures released by Statistics Canada early in 2005; they are typically revised several times during subsequent months. (GNP is typically less than GDP because so many of our businesses are foreign-owned.)

Table 2.1.1 GDP by adding up expenditures, 2004

Category	Billions of dollars	Percent of GDP
Consumption	722.6	56%
Government	282.5	22%
Investment	231.6	18%
Exports	494.5	38%
Less: Imports	437.4	34%
Statistical Discrepancy	-0.5	
Total	1293.3	

Table 2.1.2 GDP by adding up incomes, 2003

Category	Billions of dollars	Percent of GDP
Wages and salaries	638.9	49%
Interest and other investment income	56.8	5%
Profits (including net income of farmers)	272.0	21%
Depreciation	174.2	13%
Indirect taxes less subsidies	150.9	12%
Statistical discrepancy	0.5	
Total	1293.3	

Measuring Inflation

The Canadian weights for calculating the CPI are as follows:

Food 18%

Shelter 27%

Household operations and furnishings 11%

Clothing and footwear 6%

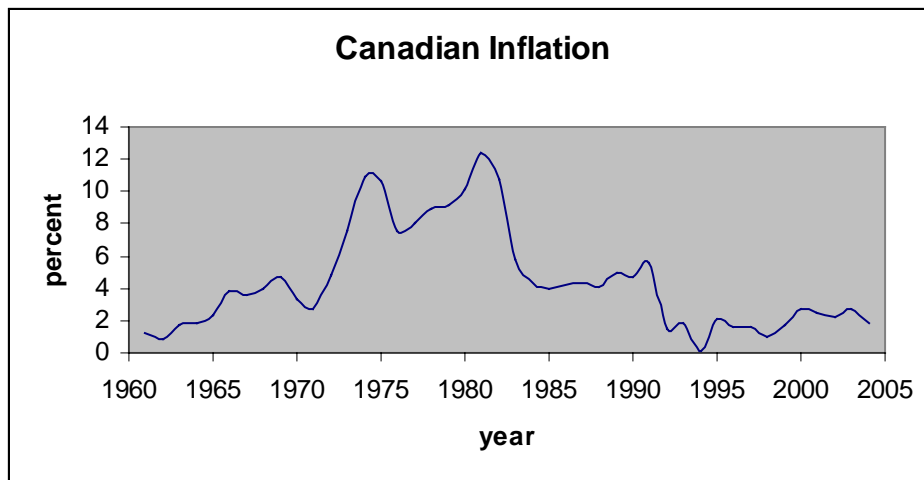
Transportation 19%

Health and personal care 5%

Recreation, education, and reading 11%

Alcoholic beverages and tobacco products 3%

Here is a graph of Canadian inflation since 1960. Notice that the Canadian economy experienced a decade of high inflation from the early 1970s to the early 1980s.



Measuring Unemployment

Recent (2005) Canadian numbers corresponding to textbook Figure 3.1, as found at www.statcan.ca are as follows:

Total population about 32 million

Population age 15 and above about 25.5 million

Labour force about 17.2 million

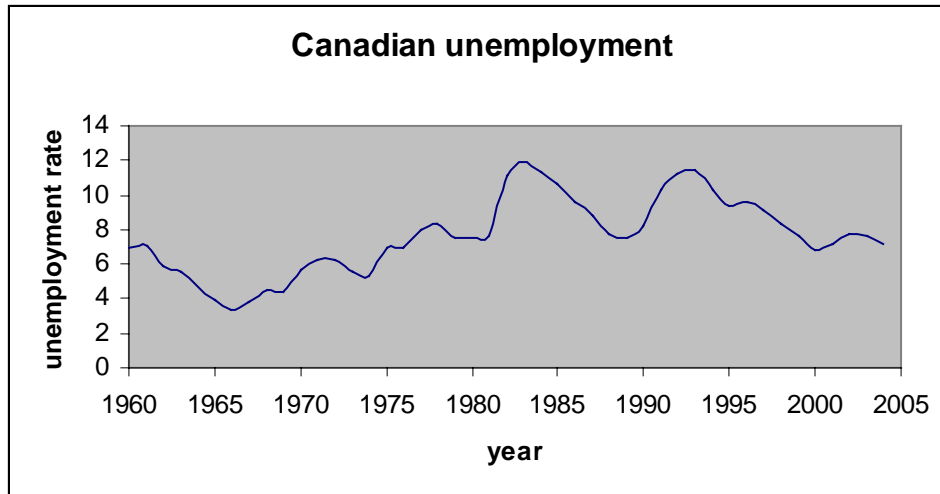
Employed about 16 million

Unemployed about 1.2 million

Participation rate about 67% (male rate about 73%, female rate about 62%)

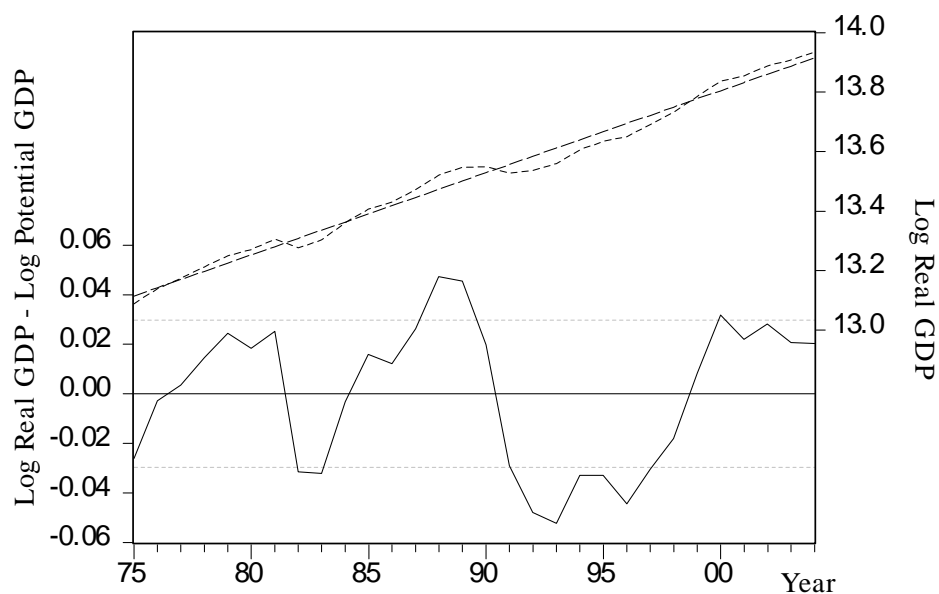
Unemployment rate about 7% (male rate about 7.3%, female rate about 6.6%)

Here is a graph of Canadian unemployment since 1960.



Real Canadian GDP and the Output Gap

On the right-hand vertical axis in the diagram below is measured the logarithm of Canadian real GDP measured in 1997 dollars. (Logarithms are used so that changes over time represent percentage growth, a more meaningful measure in this context.) The wiggly upper line is the log of real GDP; the smooth line is a trend fitted through the 1975-2004 data, representing potential GDP, GDP when at the NRU. On the left-hand vertical axis is measured the difference between log real GDP and potential GDP, as shown in the solid line on the graph measuring the output gap. A value of $-.02$ means that during that year the economy was in a recession, operating two percent below its potential, “full-employment” output level. The pattern of this line reflects the business-cycle phenomenon. Long-run analysis examines the slope of the trend line; short-run analysis, the primary focus of this course, examines the business-cycle phenomenon.



The Money Supply

As of January 2005 the Canadian money supply figures were approximately as follows.

Currency 43 billion

Plus Demand deposits 129 billion

Equals M1 172 billion

Plus savings accounts and term deposits 467 billion

Equals M2 639 billion

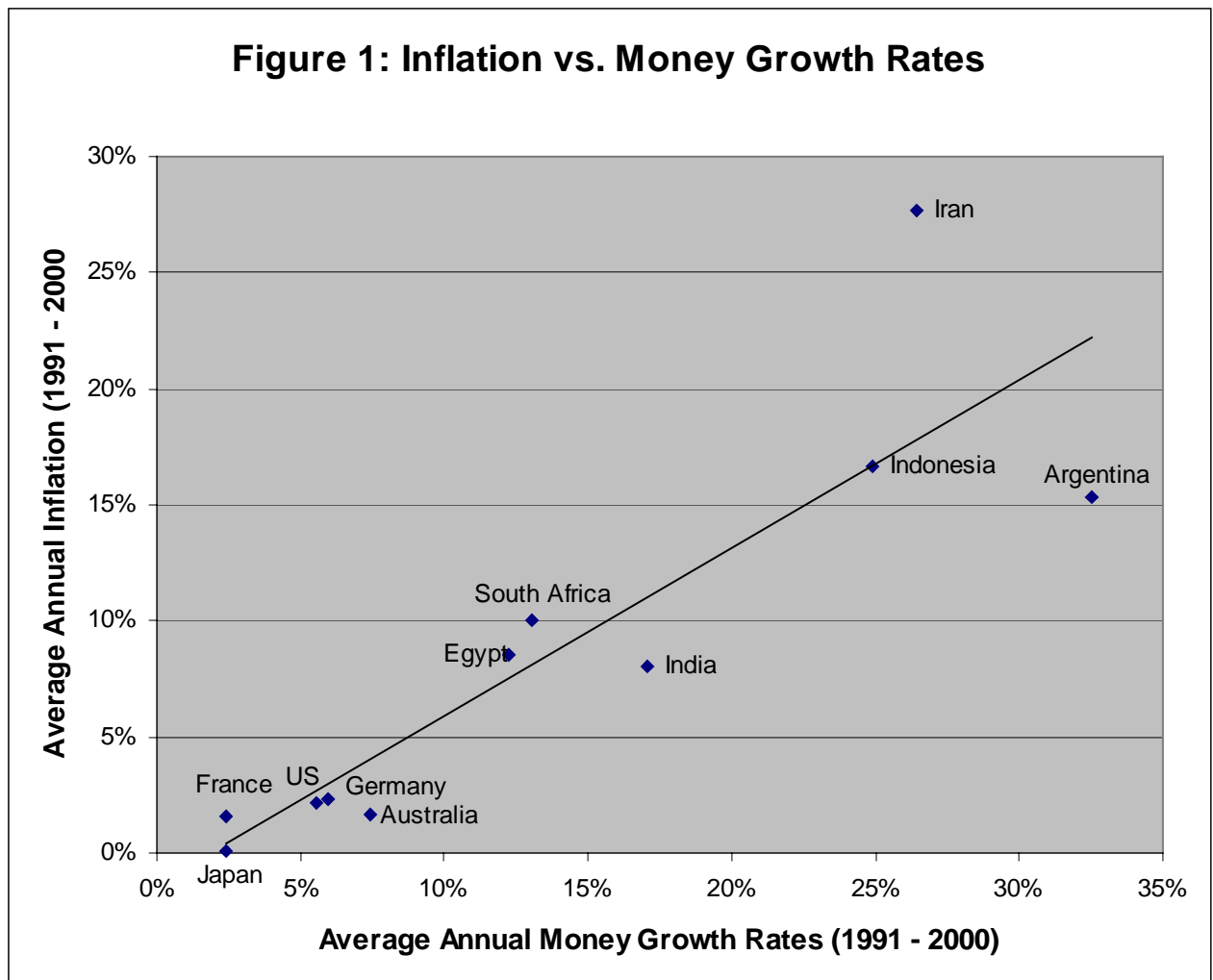
These figures, found at the Bank of Canada web site, are difficult to understand. For example, the M1 figure only counts deposits in chartered banks. If we add in deposits in other financial institutions such as trust companies, credit unions, caisses populaires, and mortgage loan companies we get M1++, 302 billion, and M2++, 892 billion, quite different measures of the narrow and broad monetary aggregates. This serves to underline the problem of determining what is the most appropriate definition of money.

The Bank of Canada website, www.bankofcanada.ca, has all sorts of information about Canadian monetary policy, in addition to basic data.

The Money Supply and Inflation

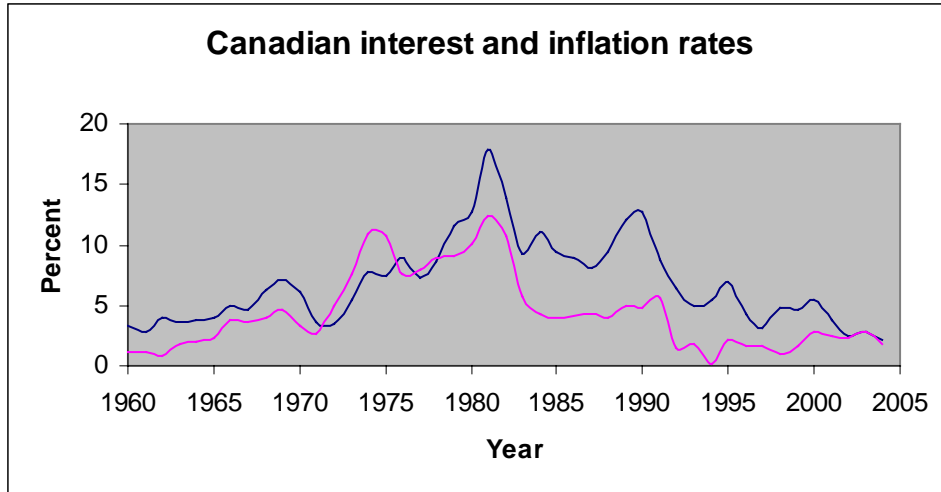
The diagram below illustrates the result that the rate of growth of the money supply is the prime determinant of a country's inflation.

Figure 1: Inflation vs. Money Growth Rates



The Interest Rate

The graph below shows the nominal Canadian interest rate (91-day T bill rate) and the rate of inflation. Can you tell which is which? The interest rate should include a premium for expected inflation, so we would expect the interest rate to be higher than inflation. Notice, though, that during the period from about 1972 to about 1976 inflation is higher than the interest rate, so that the ex post real interest rate is negative. This happened because an unexpected acceleration of inflation during this period caused actual inflation to exceed expected inflation.



The National Debt

The graph below reports the ratio of Canada's federal debt to nominal GDP. We need to worry if this measure is increasing. Notice that it was increasing markedly until the late 1990s when this undesirable trend was reversed.



In mid 2003 the net federal debt was about \$511 billion, about \$16,000 per person. Interest payments on the debt were about \$23 billion, about 12 percent of the total budget. This servicing cost is more than all of the federal government spending on health, education, transportation and communication, the environment, research establishments, housing, labour, employment and immigration, and regional planning and development combined. Eliminating this debt would allow a 25 percent reduction in the personal income tax, or a reduction from 7 percent to 1 percent in the GST. Note that this debt servicing figure is measured at a time of historically low interest rates.

The Balance of Payments

Table 15.1: Canadian Balance of Payments, 2004 (billions of dollars)			
	Demand for Canadian \$	Supply of Canadian \$	Balance
CURRENT ACCOUNT			
Trade Account			
Merchandise exports	430		
Merchandise imports		363	
Merchandise trade balance			67
Service exports	62		
Service imports		73	
Services trade balance			-11
Balance of Trade			56
Capital Service Account			
Investment income receipts	39		
Investment income payments		61	
Net transfer payments		0	
Current Account Balance			34
CAPITAL ACCOUNT			
Capital transfers	4		
Net change in Canadian investments abroad (capital outflow)		85	
Net change in foreign investments in Canada (capital inflow)	53		
Capital account balance			-28
OFFICIAL FINANCING ACCOUNT			
Statistical discrepancy		9	
Official settlements (negative of the balance of payments)	3		

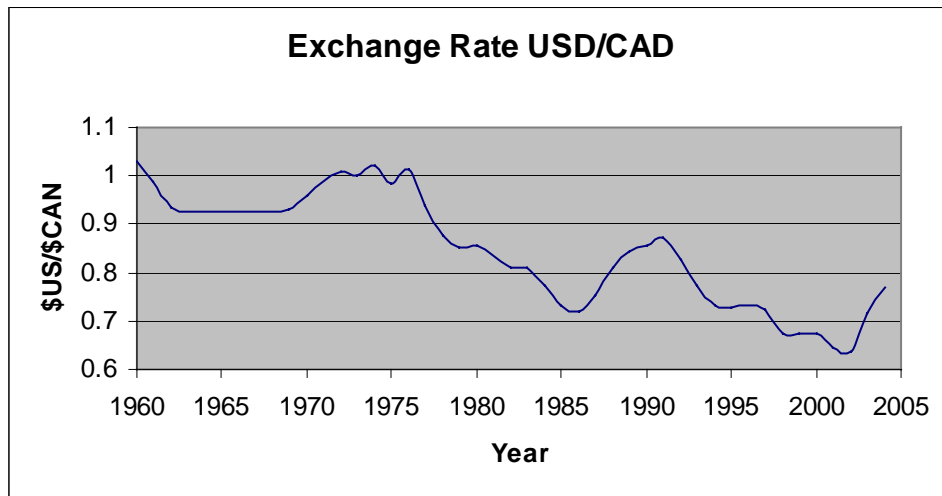
The official settlements figure in the official financing account measures what we refer to as the balance of payments in this course – demand minus supply of Canadian dollars on the foreign exchange market not counting government activity. The official settlements entry simply causes the balance of payments to balance as an identity (so that, technically, the balance of payments is always zero).

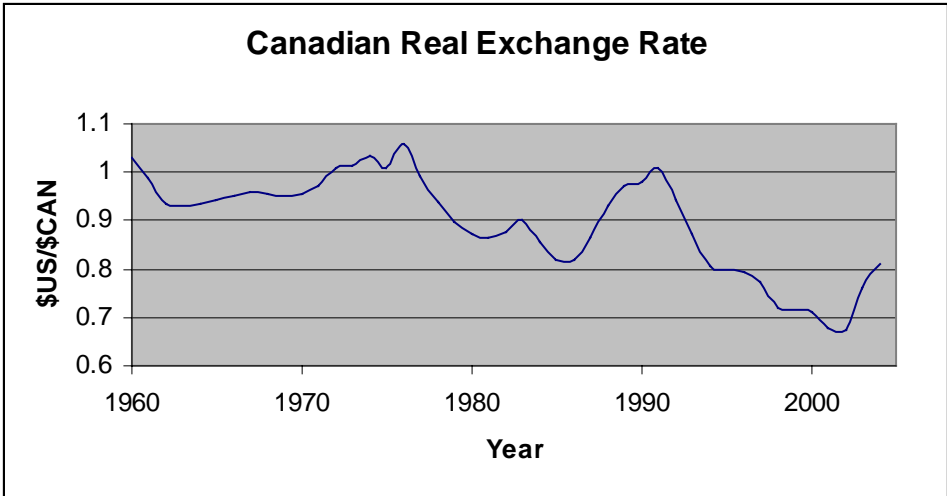
These numbers can be found in the Bank of Canada’s quarterly publication “Banking and Financial Statistics.” This publication is not available on the web. For web information try www.statcan.ca, click on Canadian statistics, then subject, then national accounts, then balance of payments. This will get you current account data. The capital account data is very difficult to find on the web, especially the official settlements information and the statistical discrepancy.

Traditionally Canada has had a merchandise trade surplus (because we export so much of commodities like wheat, lumber, and nickel), a current account deficit (because we send so many interest and dividend payments abroad), and a capital account surplus (to balance the current account deficit – foreigners investing in our bonds and businesses). Thanks to the recent boom in commodity prices created by strong foreign demand for natural resources, recently we have been experiencing a current account surplus.

The Exchange Rate

The following two diagrams show the Canada/U.S. exchange rate over time, plotted as annual averages (the exchange rate can vary a lot within a single year – for example, at the end of 2004 the exchange rate was actually about 82 U.S. cents per Canadian dollar.) The first diagram shows the nominal exchange rate (notice the period in the mid 1960s when the exchange rate was fixed), while the second diagram shows the real exchange rate, normalized to have equal values in 1960. As is evident from these diagrams, the real exchange rate has varied quite dramatically. The most recent rise in the value of the Canadian dollar was due to a rise in commodity prices. The fact that the real and nominal exchange rates move so closely together suggests that Canadian and U.S. inflation rates do not differ by much, so that most movements in the Canadian exchange rate are real movements.





Despite this apparent violation of PPP by the U.S./Canada example, the following diagram illustrates that in general, for high disparities between inflation rates, the PPP theorem does reflect exchange rate behaviour.

