PART THREE

Answers to End-of-Chapter Questions and Problems

Chapter 1

ANSWERS TO QUESTIONS

1. *What is the typical relationship among interest rates on three-month Treasury bills, long-term Canada bonds, and BBB corporate bonds?*

   The interest rate on three-month Treasury bills fluctuates more than the other interest rates and is lower on average. The interest rate on BBB corporate bonds is higher on average than the other interest rates.

2. *What effect might a fall in stock prices have on business investment?*

   The lower price for a firm's shares means that it can raise a smaller amount of funds, so investment in facilities and equipment will fall.

3. *What effect might a rise in stock prices have on consumers' decisions to spend?*

   Higher stock prices mean that consumers' wealth is higher, and they will be more likely to increase their spending.

4. *Why are financial markets important to the health of the economy?*

   They channel funds from people who do not have a productive use for them to people who do, thereby resulting in higher economic efficiency.

5. *What was the main cause of the global financial crisis that began in 2007?*

   The United States economy was hit by the worst financial crisis since the Great Depression. Defaults in subprime residential mortgages led to major losses in financial institutions, producing not only numerous bank failures, but also the demise of two of the largest investment banks in the United States. These factors led to the global financial crisis and the "Great Recession" which began late in 2007.

6. *What is the basic activity of banks?*

   The basic activity of banks is to accept deposits and make loans.

7. *What are the other important financial intermediaries in the economy, besides banks?*

   Trust and loan companies, credit unions, insurance companies, mutual funds, pension funds, and finance companies.

8. *Can you think of any financial innovation in the past ten years that has affected you personally? Has it made you better off or worse off? Why?*

   Answers will vary. These could include 'credit card tap,' 'online banking,' 'debit card purchases,' 'mobile cheque deposits,' etc.

9. *Has the inflation rate in Canada increased or decreased in the past few years? What about interest rates?*

   In the period from 2007 to 2015, both inflation and interest rates have generally trended downward compared to before that period.

10. *If history repeats itself and we see a decline in the rate of money growth, what might you expect to happen to*

    a. *real output?*

    b. *the inflation rate?*

    c. *interest rates?*

    The data in Figures 1-3, 1-5, and 1-6 suggest that real output, the inflation rate, and interest rates would all fall.

11. *When interest rates decrease, how might businesses and consumers change their economic behaviour?*

    Businesses would increase investment spending because the cost of financing this spending is now lower, and consumers would be more likely to purchase a house or a car because the cost of financing their purchase is lower.

12. *Is everybody worse off when interest rates rise?*

    No. It is true that people who borrow to purchase a house or a car are worse off because it costs them more to finance their purchase; however, savers benefit because they can earn higher interest rates on their savings.

13. *Why do managers of financial institutions care so much about the activities of the Bank of Canada?*

    Because the Bank of Canada affects interest rates, inflation, and business cycles, all of which have an important impact on the profitability of financial institutions.

14. *How does the current size of the Canadian budget deficit compare to the historical budget deficit or surplus for the time period since 1960?*

    The deficit as a percentage of GDP has expanded dramatically since 2007; in 2010 the deficit to GDP ratio was over 4%, well above the historical average of around 1.3% since 1960. In the most recent year, 2015 the deficit is projected to fall to close to zero, or perhaps a small surplus.

15. *How would a fall in the value of the pound sterling affect British consumers?*

    It makes foreign goods more expensive, so British consumers will buy fewer foreign goods and more domestic goods.

16. *How would an increase in the value of the pound sterling affect Canadian businesses?*

    It makes British goods more expensive relative to Canadian goods. Thus Canadian businesses will find it easier to sell their goods in Canada and in the U.K. and the demand for their products will rise. Canadian consumers will pay more for typical British products.

17. *How can changes in foreign exchange rates affect the profitability of financial institutions?*

    Changes in foreign exchange rates change the value of assets held by financial institutions and thus lead to gains and losses on these assets. Also changes in foreign exchange rates affect the profits made by traders in foreign exchange who work for financial institutions.

18. *According to Figure 1-8, in which years would you have chosen to visit the Canadian Rockies rather than the Grand Canyon in Arizona?*

    In the mid-1980s and in the late 1990s, the value of the dollar was low, making travel abroad relatively more expensive; thus it was a good time to vacation in Canada and see the Canadian Rockies. With the rise in the dollar's value in the 2000s, travel abroad became relatively cheaper, making it a good time to visit the Grand Canyon. This was also true, to a lesser extent, in the early 2010s.

19. *When the dollar is worth more in relation to currencies of other countries, are you more likely to buy Canadian-made or foreign-made jeans? Are Canadian companies that manufacture jeans happier when the dollar is strong or when it is weak? What about a Canadian company that is in the business of importing jeans into the Canada?*

    When the dollar increases in value, foreign goods become less expensive relative to Canadian goods; thus you are more likely to buy American-made jeans than Canadian-made jeans. The resulting drop in demand for Canadian-made jeans because of the strong dollar hurts Canadian jeans manufacturers. On the other hand, the Canadian company that imports jeans into Canada now finds that the demand for its product has risen, so it is better off when the dollar is strong.

20. *Much of the Canadian government debt is held by foreign investors as Canada bonds and bills. How do fluctuations in the dollar exchange rate affect the value of that debt held by foreigners?*

    As the dollar becomes stronger (worth more) relative to a foreign currency, one dollar is equivalent to (can be exchanged for) more foreign currency. Thus, for a given face value of bond holdings, a stronger dollar will yield more home currency to foreigners, so the asset will be worth more to foreign investors. Likewise, a weak dollar will lead to foreign bond holdings worth less to foreigners.

ANSWERS TO APPLIED PROBLEMS

21. The following table lists foreign exchange rates between the U.S. dollar and the Canadian dollar (in $/US$) for 2013 (this is CANSIM series V37426).

Date	**$/US$**
January	0.99213
February	1.00984
March	1.02473
April	1.01869
May	1.01985
June	1.03146
July	1.04032
August	1.04086
September	1.03424
October	1.00363
November	1.04923
December	1.06391

a. The best month is January and the worst is December.

b. The Canadian dollar depreciated.

c. The Canadian dollar depreciated by 6.75%.

d. The annual observation of the exchange rate for 2013 is 1.02740, which is very representative of the monthly observations.

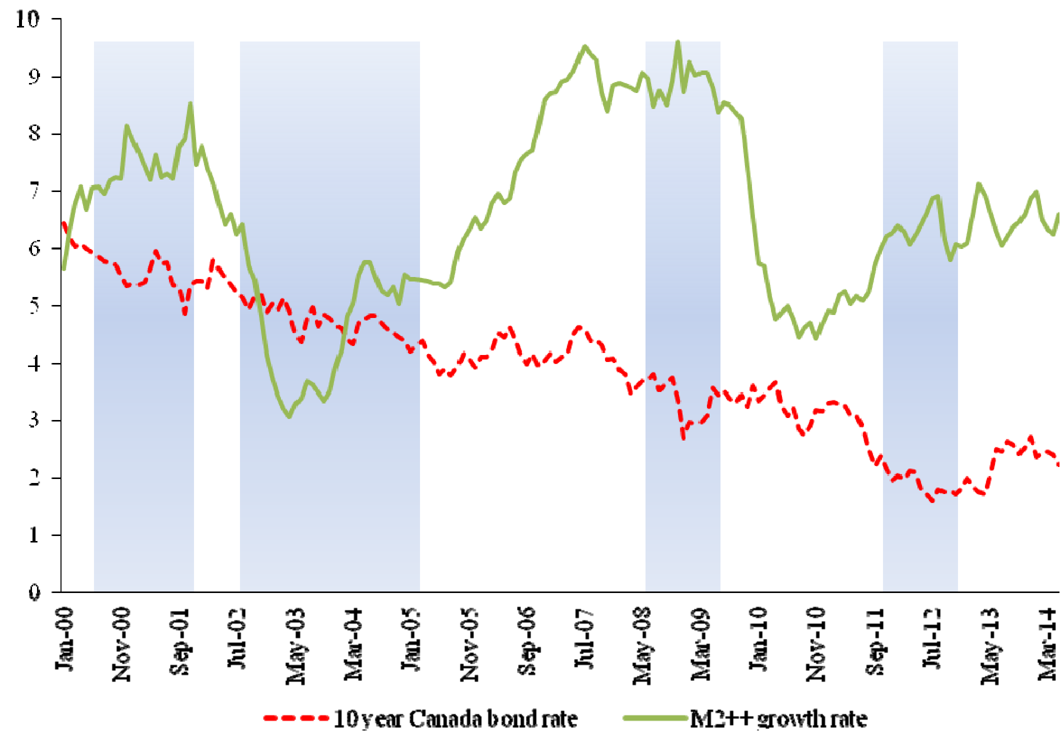
ANSWERS TO DATA ANALYSIS PROBLEMS

1. Go to the Statistics Canada CANSIM database and find data on the M2++ (gross) money supply and the 10-year Canada bond rate from June 1982 to November 2014. Add the two series into a single graph. Transform the M2++ money supply variable into the M2++ growth rate by adjusting the units for the M2++ money supply to "Percent Change from Year Ago."

a. In general, how have the growth rate of the M2++ money supply and the 10-year Canada bond rate behaved during recessions and during expansionary periods since the year 2000?

Since the year 2000, during both recessions and expansions, the 10-year Canada bond rate shows an overall declining trend. The M2++ money supply growth rate, on the other hand, shows a cyclical pattern. The growth rate of M2++ is positive throughout the years, but it does not show any consistent pattern in recessions and expansions, as can be seen in the following figure (in which shaded areas represent recessions).

Figure. 10-year Canada bond rate and the M2++ growth rate



b. *In general, is there an obvious, stable relationship between money growth and the 10-year interest rate since the year 2000?*

No. The 10-year Canada bond rate shows an overall declining trend irrespective of the growth rate of M2++.

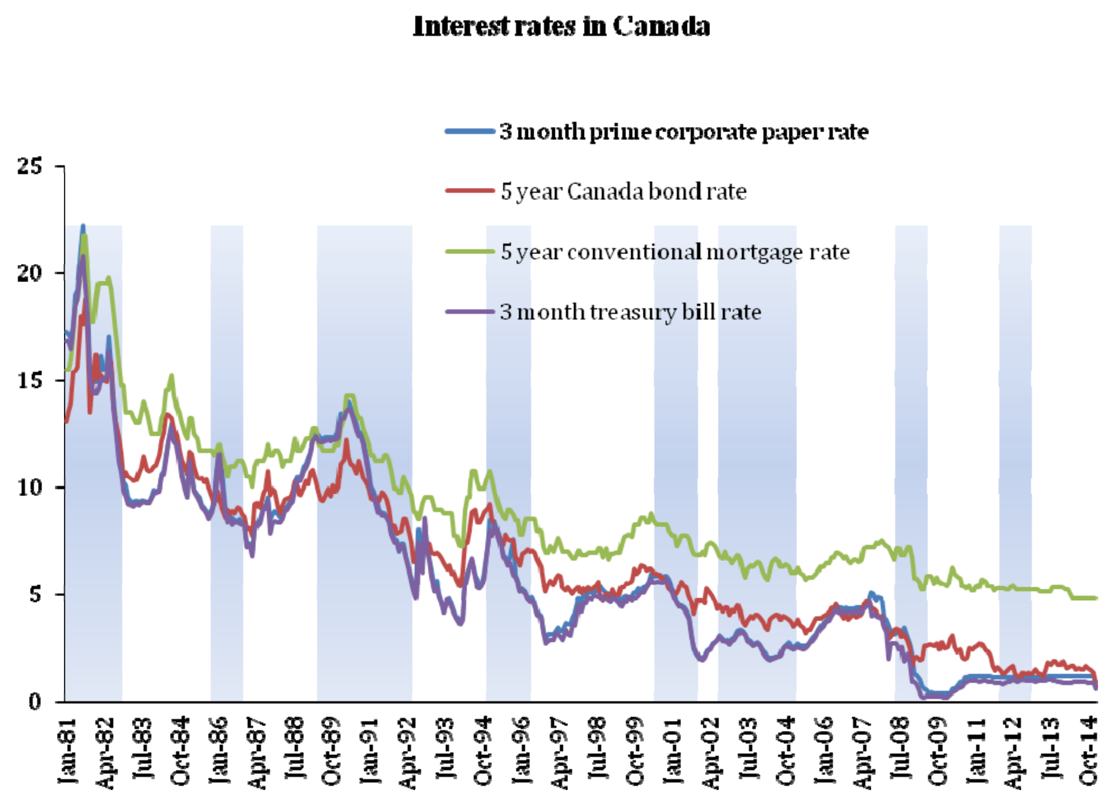
c. *Compare the money growth rate and the 10-year interest rate for the most recent month available to the rates for January 2000. How do the rates compare?*

The money growth rate and the 10-year interest rate for the most recent month (November, 2014) is 6.96 and 1.93 percent, respectively. The values of these variables were 5.65 and 6.44 percent, respectively, in January, 2000. So, the money growth rate increased by only 1.31 percentage points, but the 10-year interest rate declined by 4.51 percentage points.

2. *Go to the Bank of Canada web site and find monthly data (from January 1981 to January 2015) data on the three-month treasury bill rate (CANSIM series V122541), the three-month prime corporate paper rate (CANSIM series V122491), the five-year Canada bond rate (CANSIM series V122540), and the five-year conventional mortgage rate (CANSIM series V122521).*

a. *In general, how do these interest rates behave during recessions and during expansionary periods?*

In general, these interest rates move together. They decline during recesions and increase during expansions, as can be seen in the following figure (in which shaded areas represent recessions).



b. *In general, how do the three-month rates compare to the 5-year rates? How do the treasury rates compare to the respective commercial paper and mortgage rates?*

The three-month rate is lower than the 5-year Canada bond rate. The Treasury bill rate is lower than the commercial paper and mortgage rates.

c. *For the most recent available month of data, take the average of the three-month rates and compare it to the average of the three-month rates from January 2000. How do the averages compare?*

The average of the three-month rates in the most recent available month (January 2015) is 0.76. The average was 7.00 in January 2000.

d. *For the most recent available month of data, take the average of the 5-year rates and compare it to the average of the 5-year rates from January 2000. How do the averages compare?*

The average of the 5-year rates in the most recent available month (January 2015) is 2.74. The average was 7.5 in January 2000.