

**Rotman School of Management
University of Toronto**



**RSM 230 – Mid Term Exam
June 2, 2009**

INSTRUCTIONS:

You have 120 minutes for this exam.

**Complete your Scantron and use it to answer Part A of the exam.
Answer Part B of the exam on this paper in the space provided.
All cell phones and portable electronic devices must be turned off.**

**This is a closed book exam. An 8.5"x11" one-sided crib sheet is allowed.
Non-programmable calculators are permitted.**

Please remain in your seats during the last 15 minutes of the exam period so you do not disturb others.

PLEASE SUPPLY THE FOLLOWING INFORMATION :

Student # _____ Student Name _____

This exam paper has 10 pages including the cover page.

PART A – Multiple choice questions. (75% of total grade)

Please answer in pencil on the Scantron provided. All questions have equal weight.

1. An open market operation occurs when:
 - a. the Bank of Canada buys stocks to support the market
 - b. the Monetary Conditions Index gets too high
 - c. the Bank of Canada buys government bonds from the public
 - d. the Bank of Canada sells government bonds to the public
 - e. **both c and d**

2. The Bank of Canada increases the money supply by:
 - a. selling government bonds to the public
 - b. conducting fewer Purchase and Re-sale Agreements
 - c. reducing the required reserve ratio for chartered banks
 - d. **shifting Government of Canada deposits from its accounts into the banking system**
 - e. all of the above

3. Barter economies require:
 - a. the use of fiat money
 - b. interest-free loans
 - c. **a double coincidence of wants**
 - d. the use of commodity money
 - e. money to serve as a store of value but not as a medium of exchange

4. The following bond features all serve to reduce the required yield **except**:
 - a. **call feature**
 - b. positive covenants
 - c. sinking fund provision
 - d. extendible provision
 - e. convertibility into common stock

5. Which of the following correctly ranks the rates paid on money market securities:
 - a. Treasury bills < R2High BA < R1High CP < Asset-Backed CP
 - b. **Treasury bills < R1High CPs < R1Low BA < R2High securitizations**
 - c. Treasury bills > R1High BA > R1High CP > R1Low securitizations
 - d. Treasury bills < R1High CP < R1High BA < R2High Corporate Bonds
 - e. R1High CP < R2High BA < R2Low CP < Treasury Bills

6. The Bank of Canada's monetary policy is based on:
 - a. creating full employment
 - b. Price-Level Path Targeting
 - c. Money Supply Targeting
 - d. the demands of parliament
 - e. **Inflation Targeting**

7. Which of the following statements is **not** true of non-market intermediaries in Canada:
 - a. they all maintain cash balances for liquidity purposes
 - b. **they all participate in the CPA**
 - c. they all engage in asset transformation
 - d. they all manage portfolios of assets
 - e. the question is a trick, all of the above **are** true

8. A Purchase and Resale Agreement involves:
 - a. the Bank of Canada selling securities to chartered banks
 - b. an interest-free loan from the Bank of Canada to a chartered bank to maintain liquidity
 - c. decreasing the money supply
 - d. **a bank paying a higher price in the future for a security it owned before the PRA**
 - e. the purchasing of distressed assets from commercial banks

9. Inflation is driven by:
 - a. the demand and supply for goods and services
 - b. the supply of money
 - c. the cost of raw inputs
 - d. expectations about future inflation
 - e. **all of the above**

10. If one-year Treasury bills are currently yielding 3%, what probability of default is implied for commercial paper promising to pay 4% in 1 year?
 - a. 4%
 - b. 1%
 - c. **2.9%**
 - d. 3.9%
 - e. cannot be calculated from this information

11. The Bank Rate is the:
 - a. top classification assigned to borrowers by international debt-rating agencies
 - b. interest rate charged by banks on loans to their best customers
 - c. set by the chairman of the US Federal Reserve system
 - d. **interest rate charged by the Bank of Canada to banks that borrow from it**
 - e. the spread between Treasury bills and the prime rate

12. The sub-prime mortgage crisis was largely the result of:
- the sale of securitizations
 - excessive risk-taking by banks, pension plans, and insurance companies
 - the failure of Lehman Brothers and other large investment banks
 - inflationary pressure
 - a lack of accountability in lending practices**
13. The Bank of International Settlements is involved in all of the following **except**:
- buying/selling gold
 - lending to member countries
 - negotiating international financial agreements
 - the issuance and marketing of securities
 - enforcing transparency in foreign exchange markets**
14. If a 60-day Government of Canada Treasury bills is priced to offer a 4% yield with a maturity value of \$1000, the current price will be quoted as:
- \$99.338
 - \$99.353
 - \$993.38
 - \$99.347**
 - \$993.47
15. Securitization involves:
- repackaging debts into a pre-fabricated portfolio**
 - splitting up expected cash flows and re-selling the components
 - connecting sources of foreign capital to Canadian capital markets
 - using certain securities to shield an institution against downside risk on its investments
 - the purchase and re-sale of mortgage loans, credit card debts, and government-backed securities
16. Fractional reserve banking creates:
- wealth
 - transparency
 - currency
 - liquidity**
 - financial crises
17. When investment dealers market an offering of new securities on a best-efforts basis, they are acting as _____ in the _____ market.
- agents; primary**
 - principals; primary

- c. agents; third
 - d. principals; secondary
 - e. agents; stock
18. Which of the following is true about the Canadian Payments Association (CPA)?
- a. cheques are settled when banks pay what they owe by writing cheques on their Bank of Canada deposit accounts.
 - b. the CPA is privately run by the chartered banks to clear and settle cheques and other inter-bank payments.
 - c. debits, automatic bank payments and payments for large securities transactions average \$20 billion a day and are settled electronically through the Large Value Transfer System
 - d. it was created by an act of parliament in 1934 to help deal with the Great Depression
 - e. **chartered banks are paid interest on settlement balances held at the Bank of Canada, based on the target overnight rate less 0.25%**
19. If a 30-day Government of Canada Treasury bill sells for a 0.5% discount, its effective yield is:
- a. 0.5000%
 - b. 6.0000%
 - c. 6.0830%
 - d. **6.1139%**
 - e. 6.0303%
20. Canadian banking differs from US banking in that:
- a. we don't allow branch banking across the country
 - b. **we have no reserve requirements**
 - c. the US market is highly concentrated
 - d. Canadian banks require a 10% reserve requirement
 - e. all of the above
21. Basel 1 requires that banks:
- a. disclose all their risks to government regulators
 - b. retain a percentage of deposits to ensure liquidity
 - c. **have sufficient equity capital to absorb loan losses**
 - d. have Tier 1 capital equal to at least 6% of their total assets
 - e. bring their off-balance sheet liabilities onto their balance sheet
22. CDIC provides insurance to individuals in the event of:
- a. **bank failure**
 - b. securities fraud
 - c. corporate bankruptcy
 - d. insurance default
 - e. all of the above

23. The Canadian bond market is mostly made up of:
- a. bonds issued by large, credit-worthy corporations
 - b. mortgage bonds
 - c. **government bonds**
 - d. securitizations
 - e. maple bonds

24. Based on the following bond quote:

CANADA	9.10	DEC 31/11	106.54	107.12	6.55
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- a. you can buy this bond for \$1065.40, plus accrued interest
 - b. the bond is priced to offer an annual real return of 6.55%
 - c. holding the bond to maturity would provide an annual return of 9.10%
 - d. **you can buy this bond for \$1071.20, plus accrued interest**
 - e. the bond's next coupon payment is due December 31, 2011
25. A zero coupon bond paying \$100 at maturity 10 years from now has a current price of \$50. Its yield to maturity is **closest** to:
- a. 5%
 - b. 6%
 - c. **7%**
 - d. 8%
 - e. cannot be calculated from this information

CONTINUE TO SHORT ANSWER SECTION ----->

PART B – Short Answer Questions. (25% of total grade)

Please answer briefly on this paper in the space provided. All questions have equal weight.

1. Choose one of the major types of Canadian financial institutions and answer the following questions in no more than one sentence each:

- a. Name the institution and its type **(1 mark)**

any will do here but make sure they provide the name of the institution - the type is only worth a half mark

- b. What are its assets? **(1 mark)**

pensions - stocks, bonds, and other investments

banks - loans

insurance companies - stocks, bonds, and other investments

mutual funds - stocks, bonds, and other investments

- c. What are its liabilities? **(1 mark)**

pensions - payments to retirees

banks - deposits

insurance companies - claims

mutual funds - payments to unit holders

- d. What types of assets do they hold in their portfolios? **(1 mark)**

pension - cash, stocks, bonds, and other investments

banks - government securities, low risk bonds, cash

insurance companies - cash, stocks, bonds, and other investments

mutual funds - cash, stocks, bonds, and other investments

- e. What (if any) insurance is provided to those providing the capital? **(1 mark)**

pension - none

banks - CDIC

insurance companies - Re-insurance

mutual funds - CIPF

2. a. Identify and briefly explain two factors that can affect the rating of a new debt security.
(4 marks) - *one mark for identifying, the other for explaining*

1. ***Core profitability - profits***
2. ***Asset quality - are their accounts receivable and inventory worth anything?***
3. ***Strategy and management strength - are good decisions being made by leaders?***
4. ***Balance sheet strength - how is their liquidity?***
5. ***Business strength - do they have pricing power?***
6. ***Miscellaneous issues - pretty much anything relevant can go here***

- b. Why is there is moral hazard problem when a rating agency is paid by the issuer of a new security. (1 mark)

It is hard to be impartial towards the only clients your business has. Investors rely on this impartiality.

3. a. Explain briefly how loan losses in a fractional reserve system could lead a bank with insufficient capital to suffer a bank run (3 marks)

step 1 - loan losses reduce the value of held reserves

step 2 - without sufficient equity capital to absorb losses, bad loans will lead to fewer assets to match against deposits

step 3 - since there is no longer any source from which to recover the money owed to depositors, they may be concerned about their ability to get their money out of the bank and thus cause a bank run

- b. Identify 2 steps the government of Canada taken to alleviate this risk (2 marks)

1. ***CDIC - insures deposits up to \$100,000 per account***
2. ***Created the Bank of Canada as the lender of last resort***
 - ***Emergency Liquidity Facility at the Bank of Canada***
 - ***Purchase and Re-Sale Agreements***

4. Explain briefly how the Bank of Canada moving Canadian government deposits into the commercial banks can lead to lower unemployment **(5 marks)**

- *moving deposits into the commercial banks increases the amount of funds available for loans*
- *this increase in the money supply reduces interest rates*
- *lower interest rates reduces the costs of operating projects, encouraging businesses to invest in them*
- *new projects require new employees, thus leading to an increase in employment (lower unemployment)*

give one mark for each piece, 5 marks if they got the process correct.

5. a. Provide an example of a positive bond covenant and an example of a negative bond covenant **(2 marks)**

positive covenants - anything the bond issuer MUST do (supply financial statements, maintain pledged assets in good order, maintain suitable financial ratios, etc)

negative covenants - anything the bond issuer MUST NOT do (pledge collateralized assets against other debts, borrow any further money, allow inventories or A/R to rise too high, etc)

b. From 1979-1982 and again from 1989-1992, the yield curve sloped downwards, meaning that short-term rates were higher than long term rates. Why did this happen? **(3 marks)**

- *the Bank of Canada decided to pursue the goal of lower inflation and did so by pushing up short-term borrowing rates to reduce demand in the economy*
- *since the Bank had announced its policy intentions, people expected lower interest rates in the future (high rates were temporary)*
- *since long-term rates average current rates with future rates, they were lower than the short-term rates - thus creating a downward sloping yield curve*