DIPLOMA SUMMER 2011 EXAMINATION

BONDS AND FIXED INTEREST MARKETS

DATE OF EXAM	Wednesday 22 June 2011
3 HOURS	10.00 am – 1.00 pm
RUBRIC	SECTION A - ***ALL*** questions in this section are to be answered
	SECTION B – ***ALL*** questions in this section are to be answered
	SECTION C – ***TWO*** questions in this section are to be answered

Candidates are reminded that no marks will be awarded for illegible work

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NOTES TO CANDIDATES

1. Please insert your Candidate Number on the Answer Book cover. *Do not insert your name*.

2. Show *all* workings in your Answer Book.

3. Candidates may attempt the sections in any order. Please indicate clearly in your Answer Book which questions you are answering.

4. Please insert in the box provided on the cover of your Answer Book the numbers of the questions you have attempted in the order in which they appear in the Answer Book.

5. You may use the calculator provided or one approved by the Chartered Institute for Securities & Investment.

6. You must hand your Answer Book to an invigilator before you leave the Examination Hall. *Failure to do so will result in disqualification*.

7. Once submitted, the examination scripts become the property of the Chartered Institute for Securities & Investment and will not be returned to candidates.

PLEASE TURN OVER WHEN INSTRUCTED

SECTION A TOTAL 45 MARKS

Answer ALL questions in this section

1 Describe the differences, including risk profiles, between these two securities:

A 5-year maturity 6% coupon £500m convertible bond issued by a BBB rated telecoms company.

A 5-year maturity 3% coupon £500m exchangeable bond issued by a AAA rated financial institution which converts into the shares of a BBB rated telecoms company. *(3 marks)*

2 Calculate the clean price of the following three German government securities. You may assume that all three securities each have a maturity of exactly five years:

a) The 4% coupon Bund which has a yield to maturity of 3.20%. *(1 mark)*

b) The zero coupon bond which can be stripped from Bund A. *(1 mark)*

c) The coupon strip which can be stripped from Bund A. *(1 mark)*

3 a) List the typical features of a covered bond issued by a bank. *(2 marks)*

b) What advantages and disadvantages do they provide to the investor when compared with senior unsecured debt issued by a bank? *(1 mark)*

c) What are the advantages to the issuing bank? *(1 mark)*

4 Describe, with reasons, the impact on the debt to equity ratio of a company if it were to issue each of the following securities (the debt to equity ratio is 60%):

a) A rights issue (additional equity issue) *(1 mark)*

b) A 5-year maturity convertible bond *(1 mark)*

c) A 3-year maturity mandatory convertible bond *(1 mark)*

d) A 5-year maturity 5½ % coupon senior unsecured bond *(1 mark)*

5 A UK holding company issues an unsecured sterling eurobond. Define the following items which may be found in the “Terms and Conditions” of the bond and highlight any benefits or weaknesses for investors.

a) Negative Pledge

b) Guarantor Subsidiaries

c) Priority Borrowing Limits *(6 marks)*

6 List, giving reasons, the following bonds in order of Macaulay duration:

A a 20-year 5% bond (annual interest) yielding 4.25% to redemption
B a 15-year 5% bond (annual interest) yielding 4.00% to redemption
C a 18-year zero coupon bond yielding 4.15% to redemption
D a 25-year FRN paying 6 month LIBOR plus 2.50%
E a 15-year 5% bond (semi-annual interest) yielding 4.0% to redemption

(5 marks)

7 You are the treasurer of a trading company where a significant proportion of working capital is funded by issuing commercial paper and/or borrowing on a floating rate basis.

a) Describe three methods you might use to "lock in" funding costs for the next 12 months when the market expects an increase in interest rates. *(3 marks)*

b) Give two reasons why the strategies outlined in your answer to a) might not lead to any savings. *(2 marks)*

c) You make the following comparison:

	Q1	**Q2**	**Q3**	**Q4**
Market rates	1.25%	1.35%	1.55%	1.75%
Your expectations	1.15%	1.45%	1.50%	1.70%

Explain, with calculations, whether you would decide to hedge. *(3 marks)*

8 A Gilt Fund owns £25m nominal of the 2 ¾% January 2015 gilt trading at a price of 99.93. The fund manager decides to purchase a 96.00 put to 102.00 call strike price 1-year collar, the prices of which are as follows:

Call income received: 22 basis points (5 yield points)
Put cost paid: 38 basis points (8.5 yield points)

a) Describe the risk reward profile of the position (owning the gilt and collar combined). *(2 marks)*

b) How would the strategy have performed (relative to the gilt), and why, if the clean price of the gilt is 105 in one year's time? *(2 marks)*

c) How would the strategy have performed (relative to the gilt), and why, if the clean price of the gilt is 93 in one year's time? *(2 marks)*

d) How would the strategy have performed (relative to the gilt), and why, if the clean price of the gilt is 99.93 in one year's time? *(2 marks)*

9 You are a fund manager responsible for running a convertible bond fund. One of your investment banking contacts calls you to judge your interest in a convertible issue for which he has been mandated. He gives you the following information:

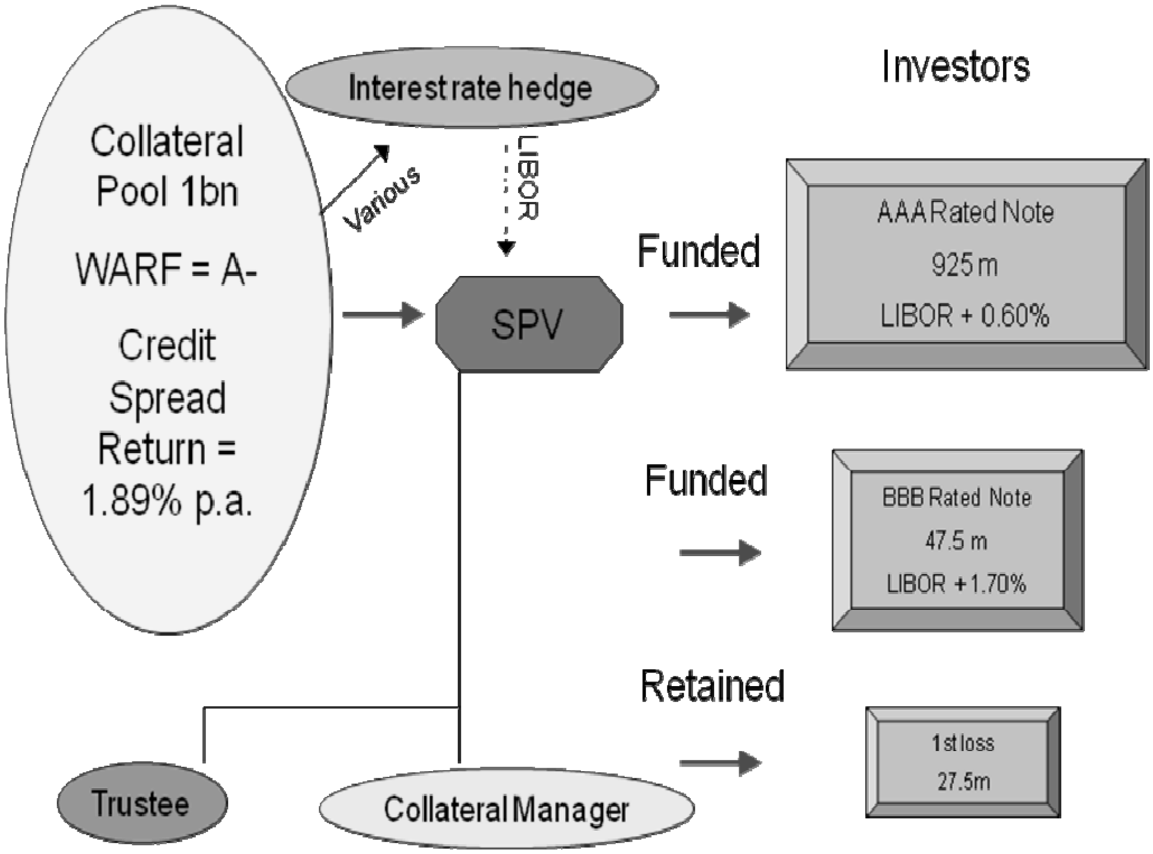
Issuer:	A- rated major retailer
Maturity:	5 years
Conversion Premium:	15%
Spread to 5-year gilt:	3.50%
Coupon:	4%

You believe that the economy will begin a steady but not spectacular recovery in six months' time. Describe the pros and cons of this investment. *(4 marks)*

SECTION B TOTAL 25 MARKS

Answer ALL questions in this section

10 You have been analysing a Residential Mortgage Backed Security (RMBS), which is shown in the diagram below (please note WARF is the Weighted Average Rating Factor and the currency is £ Sterling):



What is the purpose of each of the following parts of the structure?

a) The Collateral Pool *(2 marks)*

b) The Collateral Manager *(2 marks)*

c) The interest rate hedge and its provider *(2 marks)*

d) The Special Purpose Vehicle (SPV) *(2 marks)*

e) The 1st Loss Piece *(1 mark)*

f) If the collateral pool suffers losses of £30m after recoveries have been taken into account, how much do the BBB Rated Note Investors receive on maturity of the notes? *(1 mark)*

g) Why have Sub-Prime RMBS caused such problems to the banking system? *(4 marks)*

h) What other information would an investor wish to see before making an investment decision? *(3 marks)*

11 You are a hedge fund manager running a total return bond fund. You specialise in long short trades. You are considering a long (Germany) short (Portugal) position of €10m nominal for each bond, being short the Portuguese Bond. The properties of the bonds are as follows:

Issuer	**Coupon**	**Maturity**	**Price**	**YTM**
Germany	2%	2nd Feb 2016	97.45	2.56%
Portugal	7%	7th Mar 2016	95.54	8.11%

You expect to hold the trade for 30 days during which time you expect the Portuguese bond price to fall to 93.54 and the German bond price to remain the same. You are able to borrow from your Prime Broker at an interest rate of 3% ACT/360.

The repo rates for the two bonds are as follows (you may assume that no haircut is applied to this trade):

German Government Bond	1.25% p.a. ACT/360
Portuguese Government Bond	0.85% p.a. ACT/360

a) If your assumptions are correct and you execute this trade, what is your profit after 30 days? *(5 marks)*

b) What risks will you incur if you undertake this trade? *(3 marks)*

SECTION C TOTAL 30 MARKS

Answer TWO of the FOUR questions in this section.

Each question carries 15 marks.

12 Banks are able partly to rebuild their capital bases with "innovative" debt instruments that automatically convert into equity if their Tier 1 Ratio falls below a predetermined level. The debt instruments called Contingent Capital Bonds, or CoCos, pay higher coupons than corresponding debt instruments without any conversion obligations. Discuss the advantages and disadvantages to an investor in investing in these instruments.

13 Discuss the potential solutions to the problem of a two speed Europe with core Europe exhibiting GDP growth and peripheral Europe struggling with huge sovereign debt. Include in your discussion comments on the future of the euro and European debt markets.

14 In the past 12 months, several mid and high grade issuers have been issuing bonds targeted at retail investors eg,

Tesco Bank plc (the banking arm of a major UK supermarket)	5.20% coupon	2018 maturity
Provident Financial plc (the UK's largest door-to-door lender to people with poor credit histories)	7.50% coupon	2016 maturity

Discuss how these and other new issues and the newly established London Stock Exchange retail bond market will help investors access the fixed income markets.

15 Substantial liquidity in government bond markets has stemmed from the trading and, often short term, position taking of the proprietary trading activities of banks. Under proposed legislation, banks are required to scale down their proprietary trading activities. Discuss the implications for liquidity in the government bond markets and how this might affect fund management customers and their investment strategies.