



SECURITIES & INVESTMENT INSTITUTE DIPLOMA

SUMMER 2008

CHIEF EXAMINER'S REPORT – BONDS AND FIXED INTEREST MARKETS

General:

I was pleased to see a distinct improvement in the quality of scripts submitted by candidates for this summer's exam. This resulted in a significant improvement in the pass rate and reflects the hard work and preparation done by successful candidates. Major contributors to this improvement were better preparation for section A (which covers the essential basic parts of the syllabus and accounts for 45% of marks), a better understanding of economics and how different levels and directions of economic indicators and activity influence bond markets. I suspect that the global "credit crunch" of the last twelve months and the associated widespread comment and analysis provided a focus for candidates and assisted in their preparation for this exam.

Candidates for future exams are reminded that the syllabus expects candidates to demonstrate "an understanding of the effect of economic, political and related factors on fixed income markets internationally"; this is the case regardless of whether there is economic turmoil, slow or healthy economic growth.

A common shortcoming from virtually all candidates appeared to be a belief that markets only change direction on the publication of good or adverse news. Market levels and their direction reflect both the current situation and the overall expectation of market participants for the foreseeable future. In normal times, when there isn't market turmoil or panic, it is unexpected news which causes movement. Answers to section B would have been significantly better if this had been born in mind.

Congratulations to all candidates who passed, your hard work and preparation has been rewarded. To those who did not succeed this time, most of you displayed a basic knowledge and understanding which, with more work and preparation will take you through if you take this exam again. Only a few candidates whose preparation was totally inadequate decided to present themselves – they know who they are and it was manifest in their poor marks. This exam is not easy and those who pass show competence and expertise for investing in Bond and Fixed Interest Markets.

My specific comments follow overleaf:

Section A

Question 1. This question on basic compound interest covered both zero and coupon paying bonds, duration, modified duration and yield conventions. I was pleased to see that almost all candidates understood the difference between annual and semi-annual yield conventions which are both quoted by convention as a yield per annum. Similarly duration is quoted in years whatever the relevant yield convention. The simplest way to calculate the present value of the coupon stream for the par bond in (f) was to deduct the value of the eight year zero from 100. Most candidates struggled to calculate an approximate value for the modified duration sought in (d); this was a trivial calculation involving the answers from (b) and (c) and the yield difference of 0.1%.

Question 2. A text book question on hedging and financial futures. Answers would have been better if candidates had recalled that hedging involves matching duration. STIR futures contracts are too short for most corporate bond funds. Credit risk (including the trading basis of corporate bonds over governments) is the major risk; other risks are roll-over risk, basis risk, and non-parallel shifts in the yield curve. Interest rate swaps and combining credit default swaps with government bond futures are two ways to hedge with a reduced exposure to credit risk.

Question 3. Answers to this question were a bit disappointing. CBO structures have a hierarchy of bonds which reflect their relative seniority in respect of access to assets and cash flows. Typically the most senior bonds outstanding are the only class to have voting powers, this ensures that their access to assets and cash flows is unimpaired by the interests of subordinate classes of bonds in the event of a shortfall in assets.

Question 4. Standard question on interest rate and currency swaps which was generally answered well. Note that single currency interest rate swaps do not involve an exchange of principal.

Question 5. Whilst a number of candidates scored full marks on this question, the average quality of answers was poor. Candidates should understand how forward rates are related to spot rates and the basic calculations involved. For the last part of this question, the total to be paid on redemption will be par plus the final quarterly coupon.

Question 6. A standard question on par, spot and forward yield curves where many candidates scored full marks. The average score was 64%.

Question 7. Corporate bonds are an important part of the global fixed income markets. Candidates should be familiar with some of the terms which are found in the offering memorandi or prospecti describing such issues. It is common in the UK for corporate bonds to be constituted under a trust deed between the issuer, guarantors (if any) and a trustee (normally a corporate trustee company). The trustee looks after the interest of bondholders and monitors the issuer's compliance with the conditions stated in the trust deed.

Section B

Question 8 Note that this exam was taken in June, a few months before the almost unprecedented events of autumn 2008 which resulted in major recapitalisations and government rescues of major financial institutions. The economic scenario depicted gave conflicting signals. Inflationary pressure suggests that short term interest rates should be either maintained or increased (level is probably lower than 12 months previous due to credit crunch) but does the banking system need reduced short term rates? How long will oil, energy and commodity prices remain high? Is the increase in food prices just a blip? What is exchange rate doing? Changes which may result in inflationary wage rises are undesirable (unemployment is low). Declining corporate profitability suggests business will want an economic stimulus from lower rates but the corporate sector balance sheet is strong and should be able to cope in a downturn.

The shortfall in tax revenue is **large** so is a major concern; it is reasonable to expect a large increase in government bond issuance assuming the authorities do not print extra money. Reducing rates may stimulate the economy but there will be a lag before any stimulus feeds through to tax revenues. One can expect 5–10 year government bond yields to rise (the starting point is not necessary nor given in this question, candidates could have used those stated in the second question (no. 9) in this section). Longer dated yields may move higher but, depending on how short term rates change, a hump in yield curve may result.

It is fair to assume that corporate bond yields are wide already due to the credit crunch – government yields will move first so initially corporate spreads will narrow then move out possibly to current levels. Spreads are likely to be narrower in a year's time as market uncertainty and fear ameliorate and investors look ahead. It is possible for spreads to widen in the course of the year; this could occur if spreads are not very wide due to the credit crunch. It is still reasonable to expect them to narrow from the wide point by the end of 12 months as uncertainty is reduced.

Question 9. The reasons given for each choice were important in awarding marks for this question; thus candidates submitting different forecast scenarios to that preferred by the examiner were not penalised and could still get full marks.

An estimate of the shape of the government bond yield curve was available from the government bond yields at 5, 10 and 20 year maturities in parts (a), (c) and (d); 3 month LIBOR could be determined from data in part (b). The answer to part (a), the 10 year and 20 year government bonds, really depended on the shape of the yield curve forecast by candidates in question 8. Part (b) was not easy: if short term rates remain high on a twelve month view then the FRN was probably better even though the low coupon of the fixed rate bond will result in a strong upward pull in price towards par. On a three year view, as short term rates will ease, the fixed rate bond was preferred.

Candidates should note that the long term average likelihood of a BBB rated bond defaulting is in the order of 0.7% per annum - the likelihood of default occurring, particularly in stable businesses like utilities, by a BBB bond in the first few years is significantly less than 0.7% per annum. The utility probably offers better value in part (c) but the yield spread of the BBB rated domestic high street multiple retailer in part (e) is so large that either the BBB rating is wrong with the market anticipating a significant downgrade or its trading basis reflects market paranoia and the stock is a bargain. The choice between the 20 year government bond and the 20 year World Bank issue could depend on how the yield spread between the two securities was expected to change – given the long duration of these two securities, a small increase in yield margin would lead to a capital loss which would take a few years to claw back. The anticipated high level of government issuance would lead to a narrowing of the spread so, on balance, the world bank issue was preferred.

Both the reinsurance subordinated unsecured and life insurance unsecured bonds in part (f) were rated single A; the yield difference of 64bps appears substantial and is probably more than could be accounted for by the difference in status of these securities and the fact that life insurance is a more stable business. Note that rating agencies tend to “notch down” from the senior level rating when allocating a rating to a subordinated instrument. In part (g) the AA rated EU sovereign had a 10.5% coupon and would suffer from high coupon drag, it was trading 98bps inside the single A rated sovereign; either the A rating was questionable, with a possible downgrade, or the 5.5% A rated issue offered better value. Although one of the property bonds in part (h) was secured and AA rated whilst the other bond was unsecured and BBB rated, I refer readers to my comments above on likelihood of default and BBB ratings.

Section C

Question 10. Many answers to this question were constrained by a level of knowledge and understanding more appropriate to section A. The skills and techniques required to analyse a selection of convertibles for consideration by the investor were revealed by only a few candidates.

Question 11. Many answers to this question on a domestic fixed income fund about to invest in overseas markets failed to mention benchmarks and performance analysis and attribution. Many of the processes and techniques should be similar to those already existing for the domestic fund but it is necessary to investigate structural and trading level differences (e.g. corporate versus governments, liquidity, availability of futures markets etc.). A key question is whether the fund will take currency exposures or hedge them out. It is essential to have economic inputs for the economies and currencies of the international markets being considered. Approved broker list and custodian arrangements may have to be revised. Exposure limits will have to be re-evaluated and include currency and country as well as issuer exposure. The transparency of a market and the availability of liquid cross currency (long term) swaps are other considerations. Is it appropriate to short one market and go long of another? The investment mandate will probably need revising.

Question 12. Candidates are expected to keep abreast of movements in and economic influences on major government bond markets. Although this was the highest scoring question in section C, I was surprised that the answers submitted were often superficial. A significant number of candidates only gave the performance and changes in the US, UK and Eurozone markets and did not explain, as was asked, how the different approaches of the authorities had influenced the markets. **READ THE QUESTION.**

Question 13. This question on bank statutory capital instruments was topical given the events surrounding Northern Rock and many other deposit taking and lending institutions (particularly in the US) over the last twelve months. Such securities must have the ability to absorb losses if they are to qualify as part of a bank's regulatory capital base. Accordingly they must have a subordinated or ultra-subordinated status and payments of interest and capital may be postponed or even lost if payment would jeopardise the regulatory solvency of the institution. Banks generally issue capital instruments as bonds because the interest paid is a pre-tax deduction; these instruments are in other respects similar to dated and callable perpetual cumulative and non-cumulative preference shares. Candidates are recommended to seek more information from broker and investment bank research on these instruments which have become a very significant sector of the fixed income markets.

The appropriateness of these securities for different types of investors had to take account of the quasi-equity nature of these capital instruments which, as stated above, must have the capacity to absorb losses.