Pricing of Financial Securities and Derivatives **Final Exam 7.8.2004**
Time: 4 hours
Calculator may be used
Note: The exam is first graded on a 40 p scale, and then scaled to 60 p.

1. Briefly explain the following words and expressions (8 p):

   a) conversion factor (bond futures)
   b) cheapest to deliver bond
   c) limit order book market
   d) market order

2. Answer the following questions:

   a) In Merton's (1974) model, which factors affect the price of a default risky zero-coupon bond, and why and how? (5 p)
   b) Which problems does Merton's model suffer from when it comes to applying the model in practice? (5 p)

3. Discuss (fixed-to-fixed) currency swaps in the following order: a) what is a currency swap and why are they used?, b) what is the relation between currrency swaps and currency forwards?, c) how is a currency swap valued (at any date) after the contract has been made? (10 p)

4. You observe the following information about a corporate bond on a financial information terminal:

Market value (EUR):	1 074.87
Face value (EUR):	1 000.00
Accrued interest (EUR):	39.72
Coupon rate:	Annual 5.00%
Price:	103.51
Yield:	4.23%
Modified duration:	4.37
Macaulay duration:	4.55
Years to maturity:	5.21
Convexity:	25.10
S&P rating:	A+
Type:	Bullet

Assume you work as a financial advisor, and one of your clients is interested in investing in this bond, but the client is not sure he/she understands the above information. Explain briefly but precisely what all the above information means and how it should be interpreted. (12 p)