EXAM: FINANCIAL MARKETS AND INSTITUTIONS (JAN-FEB23-2)

SOLUTIONS

A) MULTIPLE CHOICE QUESTIONS (1 point each, no penalties, at least 5 to pass)

1 To mitigate adverse selection issues, financial intermediaries use…
(c) methods to assess clients

2 When the yield to maturity of a bond increses…
(a) its price goes down

3 The "weak" version of the efficient market hypothesis assumes that prices…
(c) are the mere result of their past trend and of a random unpredictable component

4 Considering average volumes of transactions, in money markets the leading share is held by…
(a) the secured segment

5 Unlike common stock, a saving stock usually involves…
(d) all of the above

6 Today you need 1,07 USD per EUR, and 0,94 EUR per CHF. The equilibrium USD/CHF exchange rate is therefore…
(b) 1,0058

7 An adjustable rate mortgage (ARM) is a financial contract…
(d) establishing a fixed interest rate initial term, and then shifting automatically to a variable rate

8 During financial crisis, the central bank's intervention is mostly based on…
(a) buy-side open market transactions

9 With self-insurance we typically identify…
(b) contractual clauses that share part of the damage with the insured

10 The contract under which a firm obtains the present value of a commercial receivable, eventually transferring credit risks, is…
(c) factoring

B) OPEN QUESTION (10 points, don't exceed the space below)

Describe the main ways a bond provides returns to its holder.

In any bond a lender can earn from the difference between purchase and reimbursement or selling prices,
or from coupon yields. For zero-coupon bonds, interest is implicit in the difference between nominal and
current prices, whereas for perpetuities it is solely made by coupon payments, except when call options are included.
Coupon interests are tipically fixed (including step-up/down variants), but other forms exist as well: variable
(eventually with caps and floors), indexed to other variables (stock prices, indexes, currencies, commodities,
multiple or inverse of market rates, etc.)
Some bonds (f.i. convertible ones) offer features resembling derivatives (f.i. call options on stocks), and therefore
offer a structured payoff and returns to holders.
Finally, a indirect form of compensation can arise from purchasing a bond denominated in a foreign currency, as well
as from reinvesting coupons or other casflows obtained before the maturity date.

C) EXERCISE (10 points, briefly comment your calculations)

A dealer start today with this book for stock Alfa. Then it gets: a buy order for 15 stocks, a sell order for 20 stocks (booked again at the 42 price), a buy order for 5 stocks. How much was the total net cashflow, and how does the book look like now?

BID		ASK	
Q.ty	Pr.	Pr.	Q.ty
10	35	40	5
15	34	41	25
10	33	42	10

1) Buy: 40*5+41*10=610

2) Sell: -(35*10+34*10)=-690

3) Buy: 5*41=205

4) Net flow: 610-690+205=125

5) Final book

BID		ASK	
Q	P	P	Q
5	34	41	10
10	33	42	30