2020 EXAMINATIONS

Lancaster University

PART II (SECOND AND FINAL YEAR)

ACCOUNTING AND FINANCE

AcF 304 FINANCIAL MARKETS (JULY/AUGUST sitting)

(Duration: available for 24 hours)

It is recommended that you attempt to complete the exam within 3 hours

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All Sections (A, B, C and D) are compulsory.

The use of standard calculators is allowed.

This is an open-book exam.

Section A (30 marks)

Instructions:

- There are 15 Multiple Choice Questions worth **2 marks** each.
- Choose only **one answer** for each question.
- There are no marks deducted for an incorrect answer.

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1) A bank decides to insure its exposure to the Greek Government bond and buys a 5-year Greek CDS contract on the 30th December 2010 at a CDS spread of 1021 bps and for a $10 million notional amount. What amount does the protection cost?

A) A one-off payment of $1.021 million.
B) An annual payment of $102,100.
C) A one-off payment of $102,100.
D) An annual payment $1.021 million.

2) Consider a Eurobond with the following characteristics:360-day and 3.75% annual coupon, coupon payment date July 1st and 100,000 face amount. A customer sells the bond with a Settlement Date of 15th September. What is the amount of Accrued Interest due to the customer?

A) $1,570.50
B) $392.63
C) $781.25
D) $1100.15

3) Company X files for bankruptcy due to heavy trading losses. Rank creditors in order of priority to receive residual funds from the company liquidation.

A) Senior unsecured bond holders/subordinated bondholders/preferred stock holders/common stock holders
B) Subordinated bondholders/preferred stock holders/common stock holders/senior unsecured bond holders
C) Preferred stock holders/common stock holders/ senior unsecured bond holders/subordinated bondholders/
D) Preferred stock holders/senior unsecured bond holders/common stock holders/subordinated bondholders/

4) The MiFID 2 regulation affects
(I) The Buy Side More than the Sell Side
(II) The Sell Side more than the Buy Side
(III) The Buy Side more than the Sell Side because it is the Buy Side who manage client's money
(IV) The Sell Side more than the Buy Side because the Sell Side has greater capital considerations

A) (I) only
B) (I) & (III)
C) (II) only
D) (I) & (IV)

5) In an IPO for EBAY 3.5 million shares are issued. The IPO launch price is $18.00 per share but the closing first day share price is $44.88 per share. What are the *underpricing* and *money left on the table* (MLOT) figures?

A) Underpricing 229.33% & MLOT $157,080,000
B) Underpricing 269.33% & MLOT $63,000,000
C) Underpricing 249.33% & MLOT $94,080,000
D) Underpricing 149.33% & MLOT $94,080,000

6) A Treasury Inflation-Protected Security (TIPS) has a real coupon rate of 2.5% per annum. An investor purchases 100,000 as soon as the bond is issued. Inflation after 6 months is 4% per annum. What dollar amount of coupon will the investor receive at 6 months?

A) $1,275.00
B) $1,125.00
C) $1,300.00
D) $2,500.00

7) What would be the annualised discount rate % and annualised investment rate % if a Treasury Bill was purchased for $9,360 maturing in 270 days for $10,000?

A) Discount Rate 8.53%, Investment Rate 9.12%
B) Discount Rate 8.65%, Investment Rate 9.24%
C) Discount Rate 8.53%, Investment Rate 9.24%
D) Discount Rate 8.65%, Investment Rate 9.12%

8) Investment Banks are quoting the following EUR/USD rates.

Bank A EUR/USD 1.1400 BID - 1.1410 OFFER
Bank B EUR/USD 1.1405 BID - 1.1415 OFFER
Bank C EUR/USD 1.1402 BID - 1.1412 OFFER

You, the Client, wish to sell EUR/ buy USD. What is the best price you can deal at?

A) 1.1405
B) 1.1415
C) 1.1400
D) 1.1410

9) According to the liquidity premium theory of the term structure:

A) The interest rate on long-term bonds will equal an average of short-term interest rates that people expect to occur over the life of the long-term bonds plus a liquidity premium.
B) Buyers of bonds may prefer bonds of one maturity over another, yet interest rates on bonds of different maturities move together over time.
C) Even with a positive liquidity premium, if future short-term interest rates are expected to fall significantly, then the yield curve will be downward-sloping.
D) All of the above.

10) If the portfolio you manage is holding $25 million of 6s of 2037 Treasury bond with a price of 110, what forward contract would you enter into to hedge the interest-rate risk on these bonds over the coming year?

A) Sell the $25 million of 6s of 2037 at whatever price is available in the market one year from now.
B) Buy the $25 million of 6s of 2037 at a price of $110 one year from now.
C) Sell the $25 million of 6s of 2037 at a price of $110 one year from now.
D) Buy a forward contract in a related Treasury bond.

11) (I) Because interest rates on Treasury bills are more volatile than rates on long-term securities, the return on short-term Treasury securities is usually above that on longer-term Treasury securities.
(II) A Treasury STRIP separates the periodic interest payments from the final principal repayment
(III) The Duration of a STRIP is less than its maturity.

A) (I) is true, (II) false, (III) is false.
B) (I) is false, (II) true, (III) is false.
C) (I) is true, (II) false, (III) is true
D) (I) is false (II) false, (III) true

12) Find the current market price of company's share, assuming D0 = $1.5, dividend growth rate 5% and required rate 12%. Use Gordon Growth Model for share value evaluation.

A) $19.63
B) $21.43
C) $22.42
D) $23.65

13) Under an Interest Rate Swap agreement Party B agrees to receive 4% periodic interest payments and in exchange pays LIBOR + 25 bps to A. If LIBOR is 2.00% what is the net payment between the two parties?

A) B receives 2.00% and pays A nothing.
B) A receives 2.00% and pays B nothing.
C) B receives 1.75% and pays A nothing.
D) A receives 1.75% and pays B nothing.

14) A UK firm knows it is going to receive $100,000 in September. The current spot and future exchange rates are

Exchange Rates GBP/USD	
Period	**Rate**
Spot	1.3050
March	1.3280
June	1.3490
September	1.3730
December	1.3980

The UK firm decides to fully hedge the position. When September arrives, the actual exchange rate is GBP/USD rate is 1.3610. How much did the UK firm gain or lose by this strategy?

A) £642.18 gain
B) £642.18 loss
C) $642.18 gain
D) $642.18 loss

15) Consider a central bank policy to maintain 9% reserves on deposits held by commercial banks. A bank, ALFA, currently has $10 million in deposits and holds $1 million in reserves at the central bank. What is the excess reserve ratio? What will be the requirements if the bank is to add $500,000 additional deposits?

A) Excess Reserve Ratio 0% and $45,000 additional reserve requirement
B) Excess Reserve Ratio 1% and $500,000 additional reserve requirement
C) Excess Reserve Ratio 1% and no additional reserve requirement
D) Excess Reserve Ratio and $45,000 additional reserve requirement

Total 30 marks

Section B (40 marks)

Answer ALL questions.

5 marks per question

1) What are ‘Closet Index Funds’ and why are they a concern for regulators?

2) Explain why interest rates on bank deposits can be negative? Explain whether negative interest rates on deposits always have an expansionary effect?

3) How does the Market Segmentation Theory of the yield curve explain a ‘humped’ shaped yield curve?

4) How did the structure of US Mortgage Bonds instigate the 2008 Financial Crisis?

5) Explain why Passive investment has overtaken Active investment in terms of investor inflows over the last decade.

6) Explain the main influences on the price of oil including consideration of the current Covid-19 crisis.

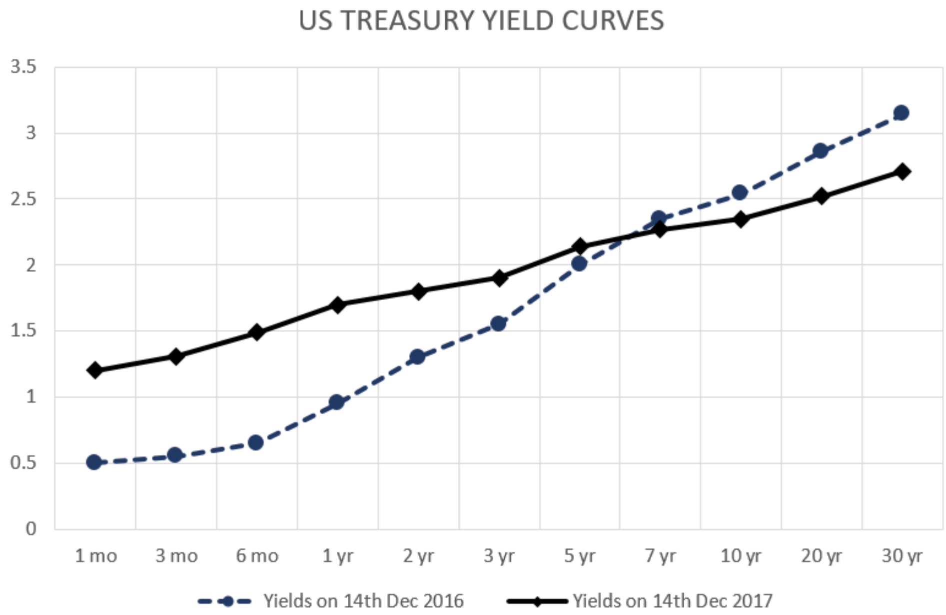
7) Explain how MiFID2 has addressed the issues of ‘price transparency’ and ‘research unbundling’.

8) Explain how Treasury STRIPS are created and what prevents arbitrage with normal Treasury securities? Why might a private investor buy a STRIP rather than a coupon US Treasury Bond?

Total 40 marks

Section C (15 marks)

QUESTION 9



Based on the above chart, provide answers to **ALL** the following questions:

a) What trade, in terms of buying and selling short-term and long-term securities, should a trader have put on to take advantage of the yield curve shift between 2016 and 2017?

2 marks

b) Suppose on 14th December 2017 the US Treasury 2-year note auction went particularly badly. What effect would this have had on the shape of the 14th December 2017 yield curve?

1 mark

c) The US Treasury yield curve flattened between 2016 and 2017 (as shown in the diagram), what did this imply about short-term rates between 2016 and 2017 and expectations of future economic activity at that time?

2 mark

d) Where would 'off-the-run' US Treasury bonds trade in relation to 'on-the-run' bonds and why?'

2 marks

e) To finance Covid-19 government expenditure, if the US Treasury issues significantly more 30-year bonds than any other maturity, what will this likely do to the shape of the yield curve?

1 mark

f) On the 14th December 2017 the US 10-year Treasury was yielding 2.35%. An investor had the choice between buying this bond or a Treasury Inflation Protected Security (TIPS) with a real coupon of 1 %. If inflation turned out to be 1.5% after one year, would the investor have been better off buying the normal US Treasury 10-year or the TIPS?

1 mark

g) IBM issues two 20-year bonds. One is a $300 Million in issue size, one is $1 Billion. All other things being equal, which bond is likely to have a lower yield and why?

2 marks

h) Where would the yield premium over US Treasuries of a 5-year USD IBM bond trade relative to a 20-year USD IBM bond? Why is this?

2 marks

i) Often when bond yields rise, stock prices fall. State the two main reasons why this is so?

2 marks

Total 15 marks

Section D (15 marks)

QUESTION 10

In a paragraph or so explain **3 out of the 4** terms below.

5 marks for each question

a) Fixed Income Liquidity Risk

b) Exchange Traded Funds and their popularity with private investors over the past several years

c) The Dodd Frank and Basle 3 regulations and how the latter limits Investment Banking trading capabilities.

d) Gold as an alternative investment asset. How would you theoretically expect gold to behave in the current Covid-19 crisis and why?

Total 15 marks

END OF EXAM