2016Fall Quiz1

Score for this quiz: 70 out of 100

Submitted Sep 23 at 9:34pm

This attempt took 30 minutes.

Question 1

3 / 3 pts

The main function of the financial system is the channeling of funds from deficit units to surplus units

True

Correct!

False

Question 2

3 / 3 pts

“Open outcry” (Floor trading) is a method of dealing in OTC markets

True

Correct!

False

Question 3

3 / 3 pts

Securities are tradable, negotiable financial instruments

Correct!

True

False

Question 4

0 / 3 pts

Brokers carry inventory and take positions

You Answered

True

Correct Answer

False

Question 5

2 / 2 pts

A Eurobond is a bond denominated in Euros

True

Correct!

False

Question 6

4 / 4 pts

According to Alan Greenspan, one main reason why the 1997-1999 Asian financial crisis was so devastating to the Asian economies is that Asian financial markets were almost exclusively relying on indirect finance

Correct!

True

False

Question 7

3 / 3 pts

Which of the following is a legally binding obligation but not a residual claim on a company’s assets:

Correct!

Debt

Equity

Question 8

3 / 3 pts

Examples of OTC markets include all of the following EXCEPT:

Interbank market

Correct!

Futures market

Bond markets

Foreign exchange market

Question 9

3 / 3 pts

Hong Kong Land issuing a bond denominated in USD in the European market which is NOT offered for sale in the US is an example of a:

Foreign Issue

Correct!

Eurobond

Domestic USD issue

Question 10

3 / 3 pts

The MTRC (Hong Kong’s subway and train operator) issues a USD denominated bond in the US market. This is considered an:

Correct!

Internal issue

External issue

Question 11

3 / 3 pts

In the case above, the MTRC is doing a:

Correct!

Foreign Issue

Domestic USD issue

Eurobond

Question 12

3 / 3 pts

In the case above, the BIS will record this issue as a:

Correct!

International issue

National issue

Question 13

0 / 6 pts

Suppose the cash flows for a bond's coupon payment for years 1 through 4 are $100. That is, CFt = $100 for t (t = 1, ... ,4). Further assume the discount rate is 9.00% and at the end of year the bond will pay back the bond's par value of $1,000. To the nearest dollar, what is the correct price for this bond?

$932

You Answered

$1,012

Correct Answer

$1,032

$866

Question 14

3 / 3 pts

The Asian Development Bank is an example of:

Quasi-Sovereign

Correct!

Supranational

Sovereign

Question 15

0 / 2 pts

Miss Apple So sells 100 Hutchinson shares on the HKEx. This is a:

Correct Answer

Secondary market transaction

You Answered

Primary market transaction

Question 16

4 / 4 pts

A corporation acquires new funds only when its securities are sold in the

Correct!

primary market by an investment bank.

secondary market by an investment bank.

secondary market by a stock exchange broker

secondary market by a commercial bank.

Question 17

3 / 3 pts

Intermediaries who are agents of investors and match buyers with sellers of securities are called

Correct!

brokers

dealers

Question 18

0 / 3 pts

The fundamental principle of finance is that the true or correct price of an asset equals the \_\_\_\_\_\_\_\_ of all cash flows that the owner of the asset expects to receive during its life.

You Answered

future value

Correct Answer

present value

asset value

projected value

Question 19

3 / 3 pts

If a $5,000 coupon bond has a coupon rate of 13 percent, then the coupon payment every year is

$13

$130

Correct!

$650

$1,300

Question 20

3 / 3 pts

Real estate agents are an example of:

dealer

Correct!

broker

Question 21

3 / 3 pts

A consol (perpetuity, perpetual) bond is a bond that:

rises in value as its yield to maturity rises.

pays no interest but pays face value at maturity

Correct!

pays interest in perpetuity and never matures

pays interest annually and its face value at maturity

Question 22

4 / 4 pts

The yield to maturity on a consol bond that pays $200 yearly and sells for $1000 is

Correct!

20%

25%

5%

10%

Question 23

0 / 3 pts

The yield to maturity for a one-year discount (zero coupon) bond equals

none of the above.

Correct Answer

the increase in price over the year, divided by the initial price

the increase in price over the year, divided by the interest rate

You Answered

the increase in price over the year, divided by the face value

Question 24

4 / 4 pts

If a $10,000 face value discount (zero coupon) bond maturing in one year is selling for $9,000, then its yield to maturity is

12%

10%

9%

Correct!

11%

Question 25

0 / 5 pts

Which of the following $1,000 face value securities has the highest yield to maturity

A 5 percent coupon bond selling for $1,000

A 10 percent coupon bond selling for $1,000

You Answered

A 15 percent coupon bond selling for $1,000

Correct Answer

A 15 percent coupon bond selling for $900

Question 26

0 / 3 pts

With an interest rate of 8 percent, the present value of $100 received one year from now is approximately

$100

You Answered

$108

$96

Correct Answer

$93

Question 27

0 / 5 pts

With an interest rate of 10 percent, the present value of a security that pays $1,100 next year and $1,460 four years from now is approximately

$3,000

You Answered

$2,560

$1,000

Correct Answer

$2,000

Question 28

5 / 5 pts

Which of the following $1,000 face value securities has the highest yield to maturity?

A 5 percent coupon bond selling for $1,000

A 12 percent coupon bond selling for $1,100

Correct!

A 12 percent coupon bond selling for $1,000

A 10 percent coupon bond selling for $1,000

Question 29

5 / 5 pts

If a $10,000 face value discount bond maturing in one year is selling for $5,000, then its yield to maturity is

Correct!

100%

5%

50%

10%

Quiz Score: 70 out of 100

2016 Fall Quiz2

Question 1

0 / 5 pts

On Friday 2 January 2009 (value/effective date) Abracadra Company borrows HK$10 million for 6 months from Perfid Bank Ltd at a rate of 3% per annum. How much interest will the company have to pay at maturity? Assume that the Modified Following Business Day convention and Actual/365 day basis convention apply. The following are holidays in HK: January 1, 26, 27 and 28, and Wednesday July 1st. 2009 is not a leap year.

Correct Answer

HK$ 148,767

You Answered

HK$ 150,833

Nothing

Question 2

3 / 3 pts

Financial institutions like Schwab which simply execute clients orders are an example of:

Full service brokers

Correct!

Discount brokers

Investment banking boutiques

Question 3

3 / 3 pts

The risk that a borrower may have incentives to engage in undesirable activities making it more likely that it won't pay the loan back is an example of

adverse selection

Correct!

moral hazard

Question 4

2 / 2 pts

Banks benefit from economies of scope when they

Correct!

provide multiple products and services to the same customer

sell the same product to multiple customers

Question 5

3 / 3 pts

Financial intermediaries allow small investors to buy assets which would have been inaccessible due to large minimum investment size ; this is called

Maturity intermediation

Correct!

Denomination intermediation

Credit allocation

Intergenerational wealth transfer

Question 6

3 / 3 pts

All of the following provide financial intermediation EXCEPT

Depository institutions

Insurance companies

Savings and loans

Credit unions

Correct!

Brokers

Question 7

2 / 2 pts

Angel Fok is the head trader in US treasuries at Sticky Fingers Inc and her daily job involves taking views on the market, for which she is allowed substantial intra-day trading limits. Angel is a

Broker

Correct!

Dealer

Question 8

3 / 3 pts

What is the purpose of Chinese Walls?

Preventing insider trading

Preventing leakage of price sensitive information

Correct!

Both of the above

None of the above

Question 9

3 / 3 pts

(All other things being equal) When a bank receives additional deposits, it gains an equal amount of reserves; when it loses deposits, it loses an equal amount of reserves.

Correct!

True

False

Question 10

0 / 3 pts

Which performance indicator would financial analysts focus on to track the quality of a bank’s asset portfolio?

AUM (Assets Under Management)

ROA (Return on Assets)

You Answered

ROE (Return on Equity)

Correct Answer

NPL (Non Performing Loans)

NOI (Net Operating Income)

Question 11

2 / 2 pts

The Global Legal Settlement of 2002 dealt with conflicts of interest in

Accounting firms.

Correct!

Investment banks.

Credit rating agencies.

All of the above.

Question 12

3 / 3 pts

Jason Ng applies for a mortgage from his bank to buy a flat in Tseung Kwan O. His parents provide a financial guarantee. This is an example of:

liquidity enhancement

Correct!

credit enhancement

financial intermediation

Question 13

3 / 3 pts

One of the provisions of SOX (Sarbanes-Oxley) which has been blamed for the loss of competitiveness of Wall Street is

Rule 144A

Correct!

Section 404

Reg FD

Question 14

3 / 3 pts

Within a given level of default risk, \_\_\_\_\_\_\_\_\_ risk can vary widely :

Payment

Correct!

Recovery

Contingency

Question 15

0 / 3 pts

Netting is one of the ways to mitigate:

Industry risk

Correct Answer

Counterparty risk

You Answered

Consumer risk

Question 16

3 / 3 pts

To avoid problems such as experienced by Barings in Singapore or UBS in London due to a rogue trader, what would you recommend be implemented?

concentration limits

Correct!

segregation of duties

credit scoring

ALM policies

Question 17

3 / 3 pts

Financial intermediaries

a)Exist because there are substantial information and transaction costs in the economy.

b)Improve the lot of the small saver.

c)Are involved in the process of indirect finance.

Correct!

Do all of the above.

Do only (a) and (b) of the above.

Question 18

2 / 2 pts

When the potential borrowers who are the most likely to default are the ones most actively seeking a loan, \_\_\_\_\_\_\_\_\_ is said to exist.

adverse segregation

Correct!

adverse selection

moral hazard

fraud

Question 19

0 / 3 pts

The Fisher equation states that

You Answered

a)The nominal interest rate equals the real interest rate plus the expected rate of inflation.

b)The real interest rate equals the nominal interest rate less the expected rate of inflation.

c)The nominal interest rate equals the real interest rate less the expected rate of inflation.

Correct Answer

Both (a) and (b) of the above are true.

Both (a) and (c) of the above are true.

Question 20

2 / 2 pts

Unless a bond defaults, an investor cannot lose money investing in bonds.

True

Correct!

False

Question 21

3 / 3 pts

The term structure of interest rates is

The relationship among interest rates of different bonds with the same maturity.

The structure of how interest rates move over time.

The relationship among the terms to maturity of different bonds.

Correct!

The relationship among interest rates on bonds with different maturities.

Question 22

0 / 3 pts

Bankers’ concern regarding the optimal mix of excess reserves, secondary reserves, borrowings from the Fed, and borrowings from other banks to deal with deposit outflows is an example of

You Answered

liability management.

Correct Answer

liquidity management.

managing interest-rate risk.

none of the above.

Question 23

2 / 2 pts

Banks can protect themselves from the disruption caused by deposit outflows by

a)Holding excess reserves.

b)Selling securities.

c)“Calling in” loans.

Correct!

Doing all of the above.

Doing only (a) and (b) of the above.

Question 24

3 / 3 pts

Examples of off-balance-sheet activities include

a)Loan sales.

b)Foreign exchange market transactions.

c)Trading in financial futures.

Correct!

All of the above.

Only (a) and (b) of the above.

Question 25

3 / 3 pts

A portfolio is made of 1000 coupon bonds with the following characteristics:

Par Value: $1000

Tenor: 5 years

Coupon Rate: 5.00%, Annual

The market price of the bonds is 105% of Par Value.

**Using your financial calculator what is the Yield To Maturity?**

Correct!

3.88%

4.38%

3.38%

4.88%

Question 26

5 / 5 pts

A bond has the following characteristics:

Par Value: $1000

Tenor: 2 years

Coupon Rate: 9.5%, Annual

The market price of the bonds is 95% of Par Value

The Yield To Maturity is 12.48%

What is the Macaulay Duration of that bond?

2.00 years

2.01 years

Correct!

1.91 years

1.85 years

Question 27

3 / 3 pts

Consider a 1.85 years Zero-Coupon bond with a $1000 Par Value. What is this bond’s Price assuming its Yield To Maturity is 12.48%?

$790.40

Correct!

$804.47

$845.44

$815.44

Question 28

6 / 6 pts

Using the Macaulay Duration formula, calculate directly the relative variation of the coupon bond Price for a 10 bp increase of the YTM if its Macaulay Duration is 7.07 years when the YTM is 4.88%.

Correct!

-0.67%

-0.71%

+0.67%

+0.71%

Question 29

0 / 7 pts

Zero-Coupon /Spot Rates are 2.50%, 2.00%, 1.50% for respectively 1, 2 and 3 years.

Calculate the two Forward Rates R1,2 , 1 year in 1 year, and R2,3, 1 year in 2 years.

Correct Answer

1.50% and 0.51% respectively,

You Answered

0.51% and 1.50% respectively,

2.50% and 2.00% respectively,

1.50% and 1.00% respectively

Question 30

8 / 8 pts

Three Government issued coupons bonds with tenors up to 3 years are trading actively in the market. Here are the terms as well as their prices and YTM. Using the Bootstrapping method, calculate a 3 years Zero-Coupon / Spot Rate yield curve.

**Available Government Coupon Bonds:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Tenor | Par value | Coupon % | Coupon $ | Bond Price $ | YTM |
| 1 | $1000 | 3.00% | $30.00 | $971.70 | 6.00% |
| 2 | $1000 | 9.00% | $90.00 | $1092.67 | 4.08% |
| 3 | $1000 | 2.00% | $20.00 | $970.80 | 3.03% |

1, 2 and 3 years Zero Coupon Rates are respectively: 3.00%, 9.00%, and 2.00%

1, 2 and 3 years Zero Coupon Rates are respectively: 6.00%, 4.08%, and 3.03%

Correct!

1, 2 and 3 years Zero Coupon Rates are respectively: 6.00%, 4.00%, and 3.00%

1, 2 and 3 years Zero Coupon Rates are respectively: 3.00%, 4.00%, and 3.00%

Quiz Score: 76 out of 100

**Submission Details:**

|  |  |
| --- | --- |
| **Time:** | 30 minutes |
| **Current Score:** | 76 out of 100 |
| **Kept Score:** | 76 out of 100 |

2018Fall&19Fall Source

**Question 1**

**5 / 5 pts**

On Friday 2 January 2009 (value/effective date) Abracadra Company borrows HK$10 million for 6 months from Perfid Bank Ltd at a rate of 3% per annum. How much interest will the company have to pay at maturity? Assume that the Modified Following Business Day convention and Actual/365 day basis convention apply. The following are holidays in HK: January 1, 26, 27 and 28, and Wednesday July 1st. 2009 is not a leap year.

**Correct!**

**HK$ 148,767**

HK$ 150,833

Nothing

**Question 2**

**0 / 5 pts**

On Friday, 26th September 2008, the treasurer of Glorious Company in Hong Kong calls his banker at Rich Bankers (Hong Kong) Limited to ask for a 2 months loan for HK$ 2 million. Rich Bankers agrees to the transaction on that date with value spot (T+2) and charge interest at the rate of 3% per annum. The applicable convention is actual/365. What amount of interest will Glorious Company have to pay? Note that in this particular case the modified following business day convention applies to BOTH the value and maturity date. The following dates are banking holidays in Hong Kong: 15th September, 1st October, 7th October, 25th and 26th Saturdays and Sundays are not business days.

**HK$ 9,698.63**

**You Answered**

HK$ 9,863.01

HK$ 9,534.25

**Question 3**

**0 / 5 pts**

on 25th February 2009, the treasurer of Lucky Gold Company wishes to draw down a multicurrency line of credit provided by Rich Bankers. He calls his banker to ask for a three months loan in HKD. The applicable conventions are: settlement spot (T+2); day basis actual/365 and Modified Following Business Day for determining the maturity date ONLY. The following are holidays in HK: 4, 10 and 13 April, 1 and 28 May. What will be the maturity date of the loan?

26th May, 2009

**27th May, 2009**

**You Answered**

29th May, 2009

**Question 4**

**0 / 4 pts**

On Wednesday, 24th December, 2008 Anna Ng, the interbank trader at Rich Bankers in Hong Kong, agrees with his counterpart Mohammed Erdogan of Wealthy Bankers in Dubai to place a USD 50 million 1 month interbank deposit with Wealthy Bankers, Dubai. The interest rate is 5% p.a. The applicable conventions are: settlement spot (T+2); day basis actual/365 and Modified Following Business Day for determining the maturity date ONLY. The business day definition covers Hong Kong, Dubai and New York; Saturdays and Sundays are not business days. The following are holidays in HK: 25th and 26thDecember 2008; 1st, 26th, 27th and 28th January 2009. In the United Arab Emirates: 29th December 2008, 1st and 20th January 2009. In New York: 25thDecember 2008; 1st and 19th January 2009; 12th and 16th February 2009. What is the value date of the deposit?

Monday 29th December

**You Answered**

Tuesday 30th December

**Wednesday 31st December**

Thursday 1st January

Friday 2nd January

**Question 5**

**3 / 3 pts**

Banks engage in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ when they \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Economies of scale/accept deposits

**Money creation/make loans**

Money laundering/make loans

Money creation/take deposits

**Question 6**

**3 / 3 pts**

Financial institutions like Schwab which simply execute clients orders are an example of:

**Correct!**

**Discount brokers**

Investment banking boutiques

**Question 7**

**2 / 2 pts**

The risk that a borrower may have incentives to engage in undesirable activities making it more likely that it won't pay the loan back is an example of

adverse selection

**Correct!**

**moral hazard**

**Question 8**

**2 / 2 pts**

Banks benefit from economies of scope when they

**Correct!**

**provide multiple products and services to the same customer**

sell the same product to multiple customers

**Question 9**

**0 / 2 pts**

banks serve as conduit for fiscal policy of the government

**You Answered**

TRUE

**Correct Answer**

**FALSE**

**Question 10**

**3 / 3 pts**

which of the following roles of banks is under attack from big retailers such as Walmart?

Providing deposit accounts

Providing custodian services

**Correct!**

**Providing consumer finance**

**Question 11**

**3 / 3 pts**

Financial intermediaries allow small investors to buy assets which would have been inaccessible due to large minimum investment size ; this is called

Maturity intermediation

**Correct!**

**Denomination intermediation**

Credit allocation

Intergenerational wealth transfer

**Question 12**

**3 / 3 pts**

All of the following provide financial intermediation EXCEPT

Depository institutions

Insurance companies

Savings and loans

Credit unions**ect!**

**Brokers**

**Question 13**

**2 / 2 pts**

Angel Fok is the head trader in US treasuries at Sticky Fingers Inc and her daily job involves taking views on the market, for which she is allowed substantial intra-day trading limits. Angel is a

Broker

**Correct!**

**Dealer**

**Question 14**

**3 / 3 pts**

What is the purpose of Chinese Walls?

Preventing insider trading

Preventing leakage of price sensitive information

**Correct!**

**Both of the above**

None of the above

**Question 15**

**3 / 3 pts**

(All other things being equal) When a bank receives additional deposits, it gains an equal amount of reserves; when it loses deposits, it loses an equal amount of reserves.

**Correct!**

**True**

False

**Question 16**

**3 / 3 pts**

Which performance indicator would financial analysts focus on to track the quality of a bank’s asset portfolio?

AUM (Assets Under Management)

ROA (Return on Assets)

ROE (Return on Equity)

**Correct!**

**NPL (Non Performing Loans)**

NOI (Net Operating Income)

**Question 17**

**2 / 2 pts**

The Global Legal Settlement of 2002 dealt with conflicts of interest in

Accounting firms.

**Correct!**

**Investment banks.**

Credit rating agencies.

All of the above.

**Question 18**

**3 / 3 pts**

Jason Ng applies for a mortgage from his bank to buy a flat in Tseung Kwan O. His parents provide a financial guarantee. This is an example of:

liquidity enhancement

**Correct!**

**credit enhancement**

financial intermediation

**Question 19**

**3 / 3 pts**

One of the provisions of SOX (Sarbanes-Oxley) which has been blamed for the loss of competitiveness of Wall Street is

Rule 144A

**Correct!**

**Section 404**

Reg FD

**Question 20**

**3 / 3 pts**

Within a given level of default risk, \_\_\_\_\_\_\_\_\_ risk can vary widely :

Payment

**Correct!**

**Recovery**

Contingency

**Question 21**

**3 / 3 pts**

Netting is one of the ways to mitigate:

Industry risk

**Correct!**

**Counterparty risk**

Consumer risk

**Question 22**

**3 / 3 pts**

To avoid problems such as experienced by Barings in Singapore or UBS in London due to a rogue trader, what would you recommend be implemented?

concentration limits

**Correct!**

**segregation of duties**

credit scoring

ALM policies

**Question 23**

**3 / 3 pts**

Financial intermediaries

Exist because there are substantial information and transaction costs in the economy.

Improve the lot of the small saver.

Are involved in the process of indirect finance.

**Correct!**

**Do all of the above.**

Do only (a) and (b) of the above.

**Question 24**

**2 / 2 pts**

When the potential borrowers who are the most likely to default are the ones most actively seeking a loan, \_\_\_\_\_\_\_\_\_ is said to exist.

adverse segregation

**Correct!**

**adverse selection**

moral hazard

fraud

**Question 25**

**2 / 2 pts**

Unless a bond defaults, an investor cannot lose money investing in bonds.

True

**Correct!**

**False**

**Question 26**

**Original Score: 0 / 3 pts Regraded Score: 3 / 3pts**

**This question has been regraded.**

a “run” on the bank creates an immediate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ problem

**Correct!**

**Asset management**

adverse selection

moral hazard

fraud

**Question 27**

**3 / 3 pts**

the ability of banks to access financing is called

Market liquidity risk

**Correct!**

**Funding liquidity risk**

**Question 28**

**3 / 3 pts**

Bankers’ concern regarding the optimal mix of excess reserves, secondary reserves, borrowings from the Fed, and borrowings from other banks to deal with deposit outflows is an example of

**liability management.**

**Correct!**

liquidity management.

managing interest-rate risk

none of the above.

**Question 29**

**2 / 2 pts**

contingent liabilities such as back up lines of credit are

On balance sheet

**Correct!**

**Off balance sheet**

**Question 30**

**2 / 2 pts**

Banks can protect themselves from the disruption caused by deposit outflows by

Holding excess reserves.

Selling securities.

“Calling in” loans.

**Correct!**

**Doing all of the above.**

Doing only (a) and (b) of the above

**Question 31**

**3 / 3 pts**

Which of the below is asset management for a bank?

Make sure the bank has enough cash to meet deposit outflows

**Correct!**

**Pursue an acceptably low level of risk by acquiring assets with low default rate and diversifying asset holdings**

Acquiring funds at low cost

Decide the amount of capital the bank should maintain and acquire this capital

**Question 32**

**3 / 3 pts**

when banks hold assets denominated in a currency other than their reference currency they are exposed to:

Credit risk

**Correct!**

**Market risk**

Operational risk

Legal risk

**Question 33**

**3 / 3 pts**

which type of policy can banks use to prevent money laundering problems?

AML policy

SEE policy

**Correct!**

**KYC policy**

**Question 34**

**3 / 3 pts**

Examples of off-balance-sheet activities include

Loan sales.

Foreign exchange market transactions.

Trading in financial futures.

**Correct!**

**All of the above.**

Only (a) and (b) of the above.

2019Spring Quiz 1 Additional Q:

The balance sheet presents a picture of what the firm \_\_\_(assets) and what is \_\_\_(liabilities)

answer: owns/ owes

----------------------------------------------------------------------------------------

Graphical user interface, text, application, email

Description automatically generated

Financial Institutions like Schwab which simply execute clients orders are an example of:

Graphical user interface, text, application, email

Description automatically generated

The risk that a borrower may have incentives to engage in undesirable activities making it more likely that it won’t pay the loan back is an example of

Banks benefit from economies of scope when they

Graphical user interface, text, application, email

Description automatically generated

Financial Intermediaries allow small investor to buy assets which would have been inaccessible due to large minimum investment size ; this is called

All of the following provide financial intermediation EXCEPT

Graphical user interface, text, application, email

Description automatically generated

Angel Fok is the head trader in US treasuries at Sticky Fingers Inc and her daily job involves taking views on the market, for which she is allowed substantial intra-day trading limits. Angel is a

What is the purpose of Chinese Walls?

Graphical user interface, text, application, email

Description automatically generated

The Global Legal Settlement of 2002 dealt with conflicts of interest in

Jason Ng applies for a mortgage from his bank to buy a flat in Tseung Kwan O. His parents provide a financial guarantee. This is an example of:

Graphical user interface, text, application, email

Description automatically generated

(All­­­­­ other things being equal) When a bank receives additional deposits, it gains an equal amount of reserves; when it loses deposits, it loses an equal amount of reserves.

Which performance indicator would financial analysts focus on to tract the quality of a bank’s asset portfolio

Graphical user interface, text, application, email

Description automatically generated

One of the provisions of SOX (Sarbanes-Oxley) which has been blamed for the loss of competitiveness of wall street is

Within a given level of default risk, risk can vary widely

Graphical user interface, text, application, email

Description automatically generated

Netting is one of the ways to mitigate

To avoid problems such as experienced by Barings in Singapore or UBS in London due to a rogue trader, what would you recommend be implemented

Graphical user interface, text, application, email

Description automatically generated

Financial Intermediaries

When the potential borrowers who are the most likely to default are the ones most actively seeking a loan, is said to exist.

Graphical user interface, text, application, email

Description automatically generated

The Fisher Equation states that

Unless a bond defaults, an investor cannot lose money investing in bonds

Graphical user interface, text, application, email

Description automatically generated

The term structure of interest rates is

Bankers’ concern regarding the optimal mix of excess reserves, secondary reserves, borrowings from the Fed, and borrowings from other banks to deal with deposit outflows is an example of

Graphical user interface, text, application, email

Description automatically generated

Banks can protect themselves from the disruption caused by deposit outflows by

Examples of off-balance-sheet actives include

Graphical user interface, text, application, email

Description automatically generatedGraphical user interface, text, application, email

Description automatically generated

A portfolio is mad of 1000 coupon bond with the following characteristics

A bond has the following charateristics

Graphical user interface, text, application, email

Description automatically generatedGraphical user interface, text, application, email

Description automatically generated

Consider a 2.85 Zero-Coupon bond with a $1000 Par Value. What is this bond’s Price assuming its Yield to Maturity is 6.5%

Using the Macaulay Duration, calculate directly the relative Variation of the coupon bond price for a 5bp increase of YTM if its Macaulay Duration is 10.17 years when the YTM is 7.88%

Zero-Coupon/ Spot Rates are 2.50%, 2.00%, 1.50% for respectively 1,2 and 3 years. Calculate the two Forward Rates R1,2, 1 year in 1 year, and R2,3 1 year in 2 years

Graphical user interface, text, application, email

Description automatically generated

Three government issued coupons bonds with tenors up to 3 years are trading actively in the market. Here are the terms as well as their prices and YTM. Using the Bootstrapping method calculate a 3 year Zero-Coupon / Spot Rate Yield Curve.

---------------------------------------------------------------------------------------

**Question 1**

**3 / 3 pts**

The main function of the financial system is the channeling of funds from deficit units to surplus units

True

**False**

**Question 2**

**3 / 3 pts**

“Open outcry” (Floor trading) is a method of dealing in OTC markets

True

**False**

**Question 3**

**2 / 2 pts**

Securities are tradable, negotiable financial instruments

**Correct!**

**True**

False

**Question 4**

**3 / 3 pts**

Brokers carry inventory and take positions

True

**Correct!**

**False**

**Question 5**

**2 / 2 pts**

A Eurobond is a bond denominated in Euros

True

**Correct!**

**False**

Question 5.5

Firms in France and the EU present financial statements according to

Ans:

IFRS

**Question 6**

**4 / 4 pts**

According to Alan Greenspan, one main reason why the 1997-1999 Asian financial crisis was so devastating to the Asian economies is that Asian financial markets were almost exclusively relying on indirect finance

**Correct!**

**True**

False

**Question 7**

**2 / 2 pts**

Which of the following is a legally binding obligation but not a residual claim on a company’s assets:

**Correct!**

**Debt**

Equity

**Question 8**

**3 / 3 pts**

Examples of OTC markets include all of the following EXCEPT:

Interbank market

Bond markets

Foreign exchange market

**Correct!**

**Futures market**

**Question 9**

**3 / 3 pts**

Hong Kong Land issuing a bond denominated in USD in the European market which is NOT offered for sale in the US is an example of a:

Domestic USD issue

Foreign Issue

**Correct!**

**Eurobond**

**Question 10**

**3 / 3 pts**

The MTRC (Hong Kong’s subway and train operator) issues a USD denominated bond in the US market. This is considered an:

**Correct!**

**Internal issue**

External issue

**Question 11**

**2 / 2 pts**

In the case above, the MTRC is doing a:

Domestic USD issue

**Correct!**

**Foreign Issue**

Eurobond

**Question 12**

**2 / 2 pts**

In the case above, the BIS will record this issue as a:

National issue

**Correct!**

**International issue**

**Question 13**

**6 / 6 pts**

Suppose the cash flows for a bond's coupon payment for years 1 through 5 are $100. That is, CFt = $100 for t (t = 1, ... ,5). Further assume the discount rate is 8.00% and at the end of year 5 the bond will pay back the bond's par value of $1,000. To the nearest dollar, what is the correct price for this bond?

$860

$980

**Correct!**

**$1,080**

$1,100

**Question 14**

**2 / 2 pts**

The Asian Development Bank is an example of:

**Correct!**

**Supranational**

Sovereign

Quasi-Sovereign

**Question 15**

**2 / 2 pts**

Miss Apple So sells 100 Hutchinson shares on the HKEx. This is a:

Primary market transaction

**Correct!**

**Secondary market transaction**

**Question 16**

**4 / 4 pts**

A corporation acquires new funds only when its securities are sold in the

secondary market by an investment bank.

**Correct!**

**primary market by an investment bank.**

secondary market by a stock exchange broker

secondary market by a commercial bank.

**Question 17**

**3 / 3 pts**

Intermediaries who are agents of investors and match buyers with sellers of securities are called

**Correct!**

**brokers**

dealers

**Question 18**

**3 / 3 pts**

The fundamental principle of finance is that the true or correct price of an asset equals the \_\_\_\_\_\_\_\_ of all cash flows that the owner of the asset expects to receive during its life.

**Correct!**

**present value**

future value

projected value

asset value

**Question 19**

**3 / 3 pts**

If a $2,000 coupon bond has a coupon rate of 7 percent, then the coupon payment every year is

$700

$70

**Correct!**

**$140**

$14

 Question 19.5

When a strat-up raises equity capital from investors, it

answer: issues shares

**Question 20**

**3 / 3 pts**

Real estate agents are an example of:

**Correct!**

**broker**

dealer

**Question 21**

**2 / 2 pts**

A zero coupon bond is a bond that:

pays interest annually and its face value at maturity

pays interest in perpetuity and never matures

**Correct!**

**pays no interest but pays face value at maturity**

rises in value as its yield to maturity rises.

**Question 22**

**4 / 4 pts**

The yield to maturity on a consol bond that pays $100 yearly and sells for $1000 is

5%

**Correct!**

**10%**

20%

25%

**Question 23**

**3 / 3 pts**

The yield to maturity for a one-year discount (zero coupon) bond equals

**Correct!**

**the increase in price over the year, divided by the initial price**

the increase in price over the year, divided by the face value

the increase in price over the year, divided by the interest rate

none of the above.

**Question 24**

**4 / 4 pts**

If a $10,000 face value discount (zero coupon) bond maturing in one year is selling for $9,000, then its yield to maturity is

9%

10%

**Correct!**

**11%**

12%

**Question 25**

**5 / 5 pts**

Which of the following $1,000 face value securities has the highest yield to maturity

A 5 percent coupon bond selling for $1,000

A 10 percent coupon bond selling for $1,000

A 15 percent coupon bond selling for $1,000

**Correct!**

**A 15 percent coupon bond selling for $900**

**Question 26**

**3 / 3 pts**

With an interest rate of 7 percent, the present value of $100 received two years from now is approximately

**Correct!**

**$87**

$99

$100

$103

**Question 27**

**5 / 5 pts**

With an interest rate of 9 percent, the present value of a security that pays $900 next year, $1,200 three years from now and $1,350 four years from now is approximately

$1,800

**Correct!**

**$2,700**

$2,860

$3,000

**Question 28**

**5 / 5 pts**

Which of the following $1,000 face value securities has the highest yield to maturity?

A 5 percent coupon bond selling for $1,000

A 10 percent coupon bond selling for $1,000

**Correct!**

**A 12 percent coupon bond selling for $1,000**

A 12 percent coupon bond selling for $1,100

 Question 28.5

When a company is losing money, its earnings are:

ans: negative

**Question 29**

**5 / 5 pts**

If a $10,000 face value discount bond maturing in one year is selling for $5,000, then its yield to maturity is

5%

10%

50%

**Correct!**

**100%**

**Question 30**

**3 / 3 pts**

Dan buys a property for $230,000. He is offered a 25-year loan by the bank, at an interest rate of 8% per year. What is the annual loan payment Dan must make?

$18,653.76

**Correct!**

**$21,546.12**

$26,115.26

$29,846.02

**Question 31**

**3 / 3 pts**

Helen wants to buy a car which is worth $50,000-. She has saved $10,000 already. The bank offers a loan for 80% of the value of the car at an APR of 8% for 5 years with equal monthly payments. If Helen can only save $500 per month to pay the installments on the loan, can she afford to buy the car?

Yes

**Correct!**

**No**

The problem cannot be solved

Unnamed Source:

Quantitative Problems Chapter 9

1. What would be your annualized yield on the purchase of a 182-day Treasury-Bill for $4,925 that pays $5,000 at maturity?

Solution: Text

Description automatically generated with low confidence

= 3.05%

2. What is the annualized yield on a Treasury bill that you purchase for $9,940 and will mature in 91 days for $10,000?

Solution: 2.42%

3. If you want to earn an annualized yield of 3.5%, what is the most you can pay for a 91-day Treasury-Bill $5,000 at maturity?

Solution: Table

Description automatically generated with medium confidence

P = $4,956.74

4. What is the annualized yield on a Treasury bill that you purchase for $9,900 that will mature in 91 days for $10,000?

Solution: 4.05%

5. The price of 182-day commercial paper is $7,840. If the annualized yield is 4.04%, what will the paper pay at maturity?

Solution: A picture containing table

Description automatically generated

6. How much would you pay for a Treasury bill that matures in one year and pays $10,000 if you require a 1.8% return?

Solution: $9,823.18

7. The price of $8,000 face value commercial paper is $7,930. if the annualized yield is 4%, when will the paper mature?

Solution:

($8,000 − $7,930)/($7930) × 365/X = 4.00%

X = 80 days

8. How much would you pay for a Treasury bill that matures in one year and pays $10,000 if you require a 3% return?

Solution: $9,708.74

9. The annualized yield on a particular money market instrument is 3.75%. The face value is $200,000 and it matures in 51 days. What is it’s price? What would be the price if it had 71 days to maturity? Solution:

$200,000 − P 365 × = 3.75% P 51 P = $198,958

$200,000 − P

P

P = $198,552

×

365

71

= 3.75% Text, letter

Description automatically generated

10. The annualized yield is 3% for 91-day commercial paper and 3.5% for 182-days commercial paper.

What is the expected 91-day commercial paper rate 91 days from now?

Assuming the difference is just due to higher future interest rates, an investor should be able to earn the same return over 182 days using either 182-day paper or a 91-day paper rollover strategy. Assume that the 182-day paper has a $100,000 face value. The current price is:

$100,000 − P 365 × = 3.5% P 182 P = $98,284.73 Now, invest the same amount in 91-day paper.

F − 98,284.73 365 × = 3.0% 98,284.73 91 F = $99,019.87. That is, such an investment should payoff $99,019.87 after 91 days.

Now, invest $99,019.87 in 91-day paper again. It is expected to give a final value of $100,000 (just like the 182-day paper).

100,000 − 99,019.87 365 × = 3.97%. The 91-day rate in 91-days is expected to be 3.97%. 99,019.87 91 Text, application, letter

Description automatically generated

11. Assume that 45% of a Treasury Bill auction was sold for $998 per $1,000 per value, 35% was sold for $997, and the last 20% was sold for $996. What would be the weighted average price paid by a noncompetitive bid?

Solution: $998 × 0.45 + $997 × 0.35 + $996 × 0.20 = $997.25 Noncompetitive bidders pay $997.25 per $1,000 of Treasury Bills purchased.

12. In a Treasury auction of $2.5 billion par value 91-day T-bills, the following bids were submitted:

|  |  |  |
| --- | --- | --- |
| **Bidder** | **Bid** **Amount** | **Price** |
| 1 | $500 million | $0.9940 |
| 2 | $750 million | $0.9901 |
| 3 | $1.5 billion | $0.9925 |
| 4 | $1 billion | $0.9936 |
| 5 | $600 million | $0.9939 |

(b) If the Treasury also received $750 million in noncompetitive bids, who will receive T-bills, what quantity, and at what price?

Solution: (a) If only the competitive bids are received, the following bids, quantities, and prices will be awarded:

|  |  |  |
| --- | --- | --- |
| **Bidder**  **Bid** **Amount** | **Price** | **Amount** **Paid** |
| 1  $500 million | $0.9940 | $497.00 million |
| 5  $600 million | $0.9939 | $596.34 million |
| 4  $1 billion | $0.9936 | $993.60 million |
| 3  $400 million | $0.9925 | $397.00 million |

Competitive Bids

|  |  |  |  |
| --- | --- | --- | --- |
| **Bidder** | **Bid** **Amount** | **Price** | **Amount** **Paid** |
| 1 | $500 million | $0.9940 | $497.00 million |
| 5 | $600 million | $0.9939 | $596.34 million |
| 4 | $650 million | $0.9936 | $645.84 million |

Noncompetitive Bids

$750 million

$0.9938\*

$745.35 million

$0.9938 = (500 × 0.9940 + 600 × 0.9939 + 650 × 0.9936)/1,750

Table

Description automatically generated

2021 Fall Quiz 2:

**Question 1**

**8 / 8 pts**

On Friday 2 January 2009 (value/effective date) Abracadra Company borrows HK$10 million for 6 months from Perfid Bank Ltd at a rate of 5.9% per annum. How much interest will the company have to pay at maturity? Assume that the Modified Following Business Day convention and Actual/365 day basis convention apply. The following are holidays in HK: January 1, 26, 27 and 28, and Wednesday July 1st. 2009 is not a leap year. (your answer to 2 decimal place, no need to input $ sign)

**Correct!**

**Correct Answer**

292,575.34 margin of error +/- 1

**Question 2**

**7 / 7 pts**

On Friday, 26th September 2008, the treasurer of Glorious Company in Hong Kong calls his banker at Rich Bankers (Hong Kong) Limited to ask for a 2 months loan for HK$ 2 million. Rich Bankers agrees to the transaction on that date with value spot (T+2) and charge interest at the rate of 3% per annum. The applicable convention is actual/365. What amount of interest will Glorious Company have to pay? Note that in this particular case the modified following business day convention applies to BOTH the value and maturity date. The following dates are banking holidays in Hong Kong: 15th September, 1st October, 7th October, 25th and 26th Saturdays and Sundays are not business days.

**Correct!**

HK$ 9,698.63

HK$ 9,534.25

HK$ 9,863.01

**Question 3**

**7 / 7 pts**

on 25th February 2009, the treasurer of Lucky Gold Company wishes to draw down a multicurrency line of credit provided by Rich Bankers. He calls his banker to ask for a three months loan in HKD. The applicable conventions are: settlement spot (T+2); day basis actual/365 and Modified Following Business Day for determining the maturity date ONLY. The following are holidays in HK: 4, 10 and 13 April, 1 and 28 May. What will be the maturity date of the loan?

**Correct!**

27th May, 2009

29th May, 2009

26th May, 2009

**Question 4**

**6 / 6 pts**

On Wednesday, 24th December, 2008 Anna Ng, the interbank trader at Rich Bankers in Hong Kong, agrees with his counterpart Mohammed Erdogan of Wealthy Bankers in Dubai to place a USD 50 million 1 month interbank deposit with Wealthy Bankers, Dubai. The interest rate is 5% p.a. The applicable conventions are: settlement spot (T+2); day basis actual/365 and Modified Following Business Day for determining the maturity date ONLY. The business day definition covers Hong Kong, Dubai and New York; Saturdays and Sundays are not business days. The following are holidays in HK: 25th and 26th December 2008; 1st, 26th, 27th and 28th January 2009. In the United Arab Emirates: 29th December 2008, 1st and 20th January 2009. In New York: 25th December 2008; 1st and 19th January 2009; 12th and 16th February 2009. What is the value date of the deposit?

Monday 29th December

Tuesday 30th December

Thursday 1st January

**Correct!**

Wednesday 31st December

Friday 2nd January

**Question 5**

**3 / 3 pts**

Banks engage in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ when they \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Money laundering/make loans

**Correct!**

Money creation/make loans

Money creation/take deposits

**Question 6**

**2 / 2 pts**

The risk that a borrower may have incentives to engage in undesirable activities making it more likely that it won't pay the loan back is an example of

adverse selection

**Correct!**

moral hazard

**Question 7**

**2 / 2 pts**

Banks benefit from economies of scope when they

sell the same product to multiple customers

**Correct!**

provide multiple products and services to the same customer

**Question 8**

**1 / 1 pts**

banks serve as conduit for fiscal policy of the government

**Correct!**

FALSE

TRUE

**Question 9**

**2 / 2 pts**

which of the following roles of banks is under attack from big retailers such as Walmart?

**Correct!**

Providing consumer finance

Providing custodian services

Providing deposit accounts

**Question 10**

**2 / 2 pts**

Financial intermediaries allow small investors to buy assets which would have been inaccessible due to large minimum investment size ; this is called

**Correct!**

Denomination intermediation

Credit allocation

Maturity intermediation

Intergenerational wealth transfer

**Question 11**

**2 / 2 pts**

All of the following provide financial intermediation EXCEPT

Insurance companies

Credit unions

Savings and loans

Depository institutions

**Correct!**

Brokers

**Question 12**

**2 / 2 pts**

Angel Fok is the head trader in US treasuries at Sticky Fingers Inc and her daily job involves taking views on the market, for which she is allowed substantial intra-day trading limits. Angel is a

**Correct!**

Dealer

Broker

**Question 13**

**2 / 2 pts**

(All other things being equal) When a bank receives additional deposits, it gains an equal amount of reserves; when it loses deposits, it loses an equal amount of reserves.

**Correct!**

True

False

**Question 14**

**2 / 2 pts**

Jason Ng applies for a mortgage from his bank to buy a flat in Tseung Kwan O. His parents provide a financial guarantee. This is an example of:

liquidity enhancement

**Correct!**

credit enhancement

financial intermediation

**Question 15**

**2 / 2 pts**

One of the provisions of SOX (Sarbanes-Oxley) which has been blamed for the loss of competitiveness of Wall Street is

**Correct!**

Section 404

Reg FD

Rule 144A

**Question 16**

**1 / 1 pts**

Dealers act as agents

True

**Correct!**

False

**Question 17**

**3 / 3 pts**

Financial intermediaries

1. Exist because there are substantial information and transaction costs in the economy.
2. Improve the lot of the small saver.
3. Are involved in the process of indirect finance.

**Correct!**

1,2 & 3

1 & 2 only

2 only

3 only

1 only

**Question 18**

**2 / 2 pts**

When the potential borrowers who are the most likely to default are the ones most actively seeking a loan, \_\_\_\_\_\_\_\_\_ is said to exist.

adverse segregation

moral hazard

fraud

**Correct!**

adverse selection

**Question 19**

**1 / 1 pts**

Unless a bond defaults, an investor cannot lose money investing in bonds.

True

**Correct!**

False

**Question 20**

**2 / 2 pts**

a “run” on the bank, which happens when many depositors want to withdraw their money all at the same time, creates an immediate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ problem

Capital management

Asset management

**Correct!**

Liquidity management

Liability management

**Question 21**

**2 / 2 pts**

the ability of banks to access financing is called

Market liquidity risk

**Correct!**

Funding liquidity risk

**Question 22**

**2 / 2 pts**

contingent liabilities such as back up lines of credit are

**Correct!**

Off balance sheet

On balance sheet

**Question 23**

**3 / 3 pts**

Bankers’ concern regarding the optimal mix of excess reserves, secondary reserves, borrowings from the Fed, and borrowings from other banks to deal with deposit outflows is an example of

1. liability management.
2. liquidity management.
3. managing interest-rate risk.

1,2& 3

3 only

1 & 2 only

1 only

**Correct!**

2 only

**Question 24**

**2 / 2 pts**

Banks can protect themselves from the disruption caused by deposit outflows by

1. Holding excess reserves.
2. Selling securities.
3. “Calling in” loans.

**Correct!**

1,2 & 3

2 only

1 & 3 only

3 only

1 only

**Question 25**

**2 / 2 pts**

Which of the below is asset management for a bank?

Make sure the bank has enough cash to meet deposit outflows

Acquiring funds at low cost

**Correct!**

Pursue an acceptably low level of risk by acquiring assets with low default rate and diversifying asset holdings

Decide the amount of capital the bank should maintain and acquire this capital

**Question 26**

**2 / 2 pts**

Axel works in an investment bank in FX: he spends his time quoting two way prices to customers on the USD/EUR desk, Axel is a:

Dealer

Broker

**Correct!**

Market Maker

**Question 27**

**3 / 3 pts**

Examples of off-balance-sheet activities include

1. Loan sales.
2. Foreign exchange market transactions.
3. Trading in financial futures.

1 & 2 only

1 only

3 only

2 only

**Correct!**

1,2 & 3

**Question 28**

**5 / 5 pts**

Suppose the cash flows for a bond's coupon payment for years 1 through 5 are $100. That is, CFt = $100 for t (t = 1, ... ,5). Further assume the discount rate is 8.00% and at the end of year 5 the bond will pay back the bond's par value of $1,000. To the nearest dollar, what is the correct price for this bond?

$860

**Correct!**

$1,080

$1,100

$980

**Question 29**

**2 / 2 pts**

If a $2,000 coupon bond has a coupon rate of 7 percent, then the coupon payment every year is

**Correct!**

$140

$14

$700

$70

**Question 30**

**2 / 2 pts**

A zero coupon bond is a bond that:

**Correct!**

pays no interest but pays face value at maturity

pays interest in perpetuity and never matures

pays interest annually and its face value at maturity

rises in value as its yield to maturity rises.

**Question 31**

**3 / 3 pts**

The yield to maturity for a one-year discount (zero coupon) bond equals

**Correct!**

the increase in price over the year, divided by the initial price

the increase in price over the year, divided by the interest rate

coupon rate

the increase in price over the year, divided by the face value

**Question 32**

**4 / 4 pts**

If a $10,000 face value discount (zero coupon) bond maturing in one year is selling for $9,000, then its yield to maturity is

12%

9%

10%

**Correct!**

11%

**Question 33**

**5 / 5 pts**

Which of the following $1,000 face value securities has the highest yield to maturity

A 15 percent coupon bond selling for $1,000

A 10 percent coupon bond selling for $1,000

A 5 percent coupon bond selling for $1,000

**Correct!**

A 15 percent coupon bond selling for $900

**Question 34**

**4 / 4 pts**

If a $10,000 face value discount bond maturing in one year is selling for $5,000, then its yield to maturity is

5%

10%

50%

**Correct!**

100%

Quiz Score: **100** out of 100

Score for this quiz: **100** out of 100

Submitted Mar 3 at 9:45pm

This attempt took 14 minutes.

**Question 1**

**3 / 3 pts**

The main function of the financial system is the channeling of funds from deficit units to surplus units

True

**Correct!**

False

**Question 2**

**3 / 3 pts**

“Open outcry” (Floor trading) is a method of dealing in OTC markets

True

**Correct!**

False

**Question 3**

**3 / 3 pts**

Securities are tradable, negotiable financial instruments

**Correct!**

True

False

**Question 4**

**5 / 5 pts**

the balance sheet presents a picture of what the firm \_\_\_\_(assets) and what it \_\_\_\_\_(liabilities)

**Correct!**

owns/owes

owes/owns

**Question 5**

**3 / 3 pts**

A Eurobond is a bond denominated in Euros

True

**Correct!**

False

**Question 6**

**4 / 4 pts**

Firms in France and the EU present financial statements according to

**Correct!**

IFRS

US GAAP

**Question 7**

**4 / 4 pts**

Which of the following is a legally binding obligation but not a residual claim on a company’s assets:

**Correct!**

Debt

Equity

**Question 8**

**4 / 4 pts**

Examples of OTC markets include all of the following EXCEPT:

**Correct!**

Futures market

Foreign exchange market

Interbank market

Bond markets

**Question 9**

**4 / 4 pts**

Hong Kong Land issuing a bond denominated in USD in the European market which is NOT offered for sale in the US is an example of a:

Foreign Issue

Domestic USD issue

**Correct!**

Eurobond

**Question 10**

**3 / 3 pts**

The MTRC (Hong Kong’s subway and train operator) issues a USD denominated bond in the US market. This is considered an:

**Correct!**

Internal issue

External issue

**Question 11**

**3 / 3 pts**

The MTRC (Hong Kong’s subway and train operator) issues a USD denominated bond in the US market., the MTRC is doing a:

Domestic USD issue

Eurobond

**Correct!**

Foreign Issue

**Question 12**

**3 / 3 pts**

The MTRC (Hong Kong’s subway and train operator) issues a USD denominated bond in the US market., the BIS will record this issue as a:

Domestic issue

**Correct!**

International issue

**Question 13**

**4 / 4 pts**

The fundamental principle of finance is that the true or correct price of an asset equals the \_\_\_\_\_\_\_\_ of all cash flows that the owner of the asset expects to receive during its life.

future value

projected value

asset value

**Correct!**

present value

**Question 14**

**4 / 4 pts**

The Asian Development Bank is an example of:

Quasi-Sovereign

**Correct!**

Supranational

Sovereign

**Question 15**

**3 / 3 pts**

Miss Apple So sells 100 Hutchinson shares on the HKEx. This is a:

Primary market transaction

**Correct!**

Secondary market transaction

**Question 16**

**4 / 4 pts**

A corporation acquires new funds only when its securities are sold in the

secondary market by an investment bank.

secondary market by a commercial bank.

**Correct!**

primary market by an investment bank.

secondary market by a stock exchange broker

**Question 17**

**4 / 4 pts**

Intermediaries who are agents of investors and match buyers with sellers of securities are called

dealers

**Correct!**

brokers

**Question 18**

**4 / 4 pts**

Swire properties issues a HKD bond to HK investors. The placing banks are targeting individual retail investors in HK. This is a:

**Correct!**

Public issue

Private issue

**Question 19**

**3 / 3 pts**

In a mutual organization, the \_\_\_\_\_\_\_\_\_\_\_\_\_ are the shareholders

Suppliers

Employees

**Correct!**

Customers

**Question 20**

**4 / 4 pts**

With an interest rate of 5.5 percent, the present value of $7,000 received 8years from now is approximately\_\_\_\_\_\_\_\_\_\_\_\_\_(answer to nearest dollar, no need to input $ sign, eg, if answer is 3381.624, then you input 3382)

**Correct!**

**Correct Answer**

4,561 margin of error +/- 1

**Question 21**

**5 / 5 pts**

With an interest rate of 9 percent, the present value of a security that pays $900 next year, $1,200 three years from now and $1,350 four years from now is \_\_\_\_\_\_\_\_\_\_\_\_\_

(answer to nearest dollar, no need to input $ sign, eg, if answer is 3381.624, then you input 3382)

**You Answered**

**Correct Answers**

1 (with margin: 2,640)

**Question 22**

**Original Score: 0 / 3 pts Regraded Score: 3 / 3 pts**

**This question has been regraded.**

When a company is losing money, its earnings are

positive

**Correct!**

negative

**Question 23**

**6 / 6 pts**

Dan buys a property for $230,000. He is offered a 25-year loan by the bank, at an interest rate of 7.5% per year. What is the annual loan payment Dan must make? (in dollar, to 2d.p., eg if your answer is $1234.5678, key in 1234.57)

**Correct!**

**Correct Answer**

20,633.45 margin of error +/- 1

**Question 24**

**5 / 5 pts**

Helen wants to buy a car. The bank offers a loan at annual rate of 7% for 8 years with equal annual payments. If Helen can only save $4000 per year to pay the installments on the loan, How much she could borrow to buy the car? (answer to nearest dollar, no need to input $ sign, eg, if answer is 3381.624, then you input 3382)

**Correct!**

**Correct Answer**

23,885 margin of error +/- 5

**Question 25**

**3 / 3 pts**

When a start-up raises equity capital from investors, it

Issues bonds

Borrows a loan from the bank

**Correct!**

Issues shares

**Question 26**

**3 / 3 pts**

All securities listed on HKEX are actively traded

True

**Correct!**

False

**Question 27**

**3 / 3 pts**

When Alibaba issues shares, which type of market does it use

DCM

**Correct!**

ECM

Quiz Score: **100** out of 100

Practise Exercise

* 1. Time Value of Money - Present Value

Ally wishes to leave a provision in her will that $7000 will be paid annually in perpetuity to a local charity. How much must she provide in her will for this perpetuity if the interest rate is 6%?

A) $58,334

B) $93,334

C) $116,667

D) $70,000

Answer: C

Explanation: C) PV perpetuity = $7000 / 0.06 = $116,666.67

* 1. Time Value of Money - Future Value

An annuity pays $13 per year for 53 years. What is the future value (FV) of this annuity at the end of that 53 years given that the discount rate is 9%?

A) $8258.91

B) $16,517.82

C) $19,270.79

D) $13,764.85

Answer: D

Explanation: D) Using TVM keys input PMT = $13, number of  and interest  computing 

1.3 Valuing a Stream of Cash Flows

Salvatore has the opportunity to invest in a scheme which will pay $5000 at the end of each of the next 5 years. He must invest $10,000 at the start of the first year and an additional $10,000 at the end of the first year. What is the present value of this investment if the interest rate is 3%?

A) -$3189.80

B) -$5907.57

C) 5907.57

D) $3189.80

Answer: D

Explanation: D) The first step is to calculate the investment in PV terms: using TVM keys input    which gives  total  using CF keys input    using interest  

You are given two choices of investments, Investment A and Investment B. Both investments have the same future cash flows. Investment A has a discount rate of 4%, and Investment B has a discount rate of 5%. Which of the following is true?

A) The present value of cash flows in Investment A is higher than the present value of cash flows in Investment B.

B) The present value of cash flows in Investment A is lower than the present value of cash flows in Investment B.

C) The present value of cash flows in Investment A is equal to the present value of cash flows in Investment B.

D) No comparison can be made—we need to know the cash flows to calculate the present value.

Answer: A

* 1. Applications – IRR

You are considering investing in a zero-coupon bond that will pay you its face value of $1000 in twelve years. If the bond is currently selling for $496.97, then the internal rate of return (IRR) for investing in this bond is closest to \_\_\_\_\_\_\_\_.

A) 5.0%

B) 7.1%

C) 6.0%

D) 8.2%

Answer: C

Explanation: C) PV = -496.97

FV = 1000

*PMT* = 0

*N* = 12

Compute *I* = 6.0%.

1.4 Applications - – Mortgages/Loans

Dan buys a property for $210,000. He is offered a 30-year loan by the bank, at an interest rate of 8% per year. What is the annual loan payment Dan must make?

A) $18,653.76

B) $22,384.51

C) $26,115.26

D) $29,846.02

Answer: A

Explanation: A) Calculate PMT using TVM keys: input   and  

2.1 Bond Pricing Basics - Zero Coupon Bond

Which of the following risk-free, zero-coupon bonds could be bought for the lowest price?

A) one with a face value of $1,000, a YTM of 4.8%, and 5 years to maturity

B) one with a face value of $1,000, a YTM of 3.2%, and 8 years to maturity

C) one with a face value of $1,000, a YTM of 6.8%, and 10 years to maturity

D) one with a face value of $1,000, a YTM of 5.9%, and 20 years to maturity

Answer: D

Explanation: D) Price = $1,000 / (1 + 5.9%)20 = $318 (lowest price)

A risk-free, zero-coupon bond has 10 years to maturity. Which of the following is closest to the price per $1000 of face value that the bond will trade at if the YTM is 6.1%?

A) $663.78

B) $774.42

C) $553.15

D) $885.05

Answer: C

Explanation: C) Price = (Face value) / (1 + YTM)N. Price = ($1000) / (1 + 6.1%)10 = $553.15

A bank is negotiating a loan. The loan can either be paid off as a lump sum of $80,000 at the end of four years, or as equal annual payments at the end of each of the next four years. If the interest rate on the loan is 6%, what annual payments should be made so that both forms of payment are equivalent?

A) $14,630

B) $18,287

C) $25,602

D) $29,259

Answer: B

Explanation: B) Calculate PMT with FV = $80,000,  and  which gives 

2.2 Bond Pricing Basics - Coupon Bond

What is the coupon payment of a 25-year $1000 bond with a 4.5% coupon rate with quarterly payments?

A) $3.75

B) $11.25

C) $22.50

D) $45.00

Answer: B

Explanation: B) $1000 × 0.045 / 4 = $11.25

What is the yield to maturity of a(n) eight-year, $5000 bond with a 4.4% coupon rate and semiannual coupons if this bond is currently trading for a price of $4723.70?

A) 6.31%

B) 5.26%

C) 7.36%

D) 2.63%

Answer: B

Explanation: B) Using FV = $5000, periods to maturity = 16,  and  calculate  

The Sisyphean Company has a bond outstanding with a face value of $1000 that reaches maturity in 15 years. The bond certificate indicates that the stated coupon rate for this bond is 8% and that the coupon payments are to be made semiannually.

How much are each of the semiannual coupon payments? Assuming the appropriate YTM on the Sisyphean bond is 8.8%, then at what price should this bond trade for?

Answer:

Coupon payments = (coupon rate × face value) / number of coupons per year

= (.08 × $1,000) / 2 = $40

FV = 1,000

*I* = 4.4% (8.8/2)

*PMT* = $40 ($80/2)

*N* = 30 (15 × 2)

Compute PV = $934.07

Version 2 of pracitise questions:

* 1. Time Value of Money - Present Value

Ally wishes to leave a provision in her will that $7000 will be paid annually in perpetuity to a local charity. How much must she provide in her will for this perpetuity if the interest rate is 6%?

A) $58,334

B) $93,334

C) $116,667

D) $70,000

Answer: C

Explanation: C) PV perpetuity = $7000 / 0.06 = $116,666.67

* 1. Time Value of Money - Future Value

An annuity pays $13 per year for 53 years. What is the future value (FV) of this annuity at the end of that 53 years given that the discount rate is 9%?

A) $8258.91

B) $16,517.82

C) $19,270.79

D) $13,764.85

Answer: D

Explanation: D) Using TVM keys input PMT = $13, number of  and interest  computing 

1.3 Valuing a Stream of Cash Flows

Salvatore has the opportunity to invest in a scheme which will pay $5000 at the end of each of the next 5 years. He must invest $10,000 at the start of the first year and an additional $10,000 at the end of the first year. What is the present value of this investment if the interest rate is 3%?

A) -$3189.80

B) -$5907.57

C) 5907.57

D) $3189.80

Answer: D

Explanation: D) The first step is to calculate the investment in PV terms: using TVM keys input    which gives  total  using CF keys input    using interest  

* 1. Applications – IRR

You are considering investing in a zero-coupon bond that will pay you its face value of $1000 in twelve years. If the bond is currently selling for $496.97, then the internal rate of return (IRR) for investing in this bond is closest to \_\_\_\_\_\_\_\_.

A) 5.0%

B) 7.1%

C) 6.0%

D) 8.2%

Answer: C

Explanation: C) PV = -496.97

FV = 1000

*PMT* = 0

*N* = 12

Compute *I* = 6.0%.

1.4 Applications - – Mortgages/Loans

Dan buys a property for $210,000. He is offered a 30-year loan by the bank, at an interest rate of 8% per year. What is the annual loan payment Dan must make?

A) $18,653.76

B) $22,384.51

C) $26,115.26

D) $29,846.02

Answer: A

Explanation: A) Calculate PMT using TVM keys: input   and  

2.1 Bond Pricing Basics - Zero Coupon Bond

A risk-free, zero-coupon bond has 10 years to maturity. Which of the following is closest to the price per $1000 of face value that the bond will trade at if the YTM is 6.1%?

A) $663.78

B) $774.42

C) $553.15

D) $885.05

Answer: C

Explanation: C) Price = (Face value) / (1 + YTM)N. Price = ($1000) / (1 + 6.1%)10 = $553.15

2.2 Bond Pricing Basics - Coupon Bond

What is the yield to maturity of a(n) eight-year, $5000 bond with a 4.4% coupon rate and semiannual coupons if this bond is currently trading for a price of $4723.70?

A) 6.31%

B) 5.26%

C) 7.36%

D) 2.63%

Answer: B

Explanation: B) Using FV = $5000, periods to maturity = 16,  and  calculate  

Practise Exercise 2 on bond price

**Exercises:**

Problem A:

A portfolio is made of 1000 coupon bonds with the following characteristics:

Par Value: $1000

Tenor: 4 years

Coupon Rate: 8%, Annual

The market price of the bonds is 110% of Par Value.

1) Using your financial calculator what is the Yield To Maturity?

2) Consider a Zero-Coupon bond with a $1000 Par Value which tenor is 3.6 years. What is its bond price assuming its Yield To Maturity is the same as the coupon bond?

3) Assuming interest rates (YTM) increase by 0.10% (e.g. +10 Basis Points = +10bp), what is the new bond price for the Zero-Coupon?

4) With your financial calculator, calculate directly the new coupon bond price after that +10bp increase of the YTM you found in Q1.

**Solutions:**

Problem A:

A portfolio is made of 1000 bonds with the following characteristics:

Par Value: $1000

Tenor: 4 years

Coupon Rate: 8%, Annual

The market price of the bonds is 110% of Par Value.

1. **What is the Yield To Maturity?**

C=$80

P=$1000

Bond Price=$1100

Find YTM so that:

With your financial calculation you input FV=$1000, PMT=$80, PV=-1100, n=4 and you find i => **YTM=5.17%**

2) **Consider a Zero-Coupon with a $1000 Par Value which tenor 3.6 years. What is its bond price assuming its Yield To Maturity is the same as the coupon bond?**

Bond Price =

Bond Price =

**Bond Price =**

3) **Assuming interest rates (YTM) increase by 0.10% (e.g. +10 Basis Points = +10bp), what is the new bond price for the Zero-Coupon?**

New YTM=5.17% + 0.10%=5.27%

Bond Price =

**Bond Price =$831.20**

4**) With your financial calculator, calculate directly the new coupon bond price after that +10bp increase of the YTM you found in Q1.**

C=$80

P=$1000

n=4

YTM/i=5.17%+0.10%=5.27%

=> **Bond Price=$1096.20**

2014 Fall Midterm Mock with answer:

Part I: There are 30 multiple choice questions in this part. for each question.

Please circle the best answer

Question 1 Which of the following items is consistent with the cash flow concept in finance?

I. The initial investment of a long-term asset that a company pays for its purchase.

II. The book value of a long-term asset that a company records in its financial statements.

III. The proceeds from the sale of a long-term asset that a company receives.

A. III only

B. I and II only

C. I and III only

D. I, II and III

Explanation I is a cash outflow and III is a cash inflow. The book value of a long-term asset is an accounting concept, which may not be consistent with the cash flow concept in finance. Hence, C is the best answer.

Question 2 Mary borrows a one-year loan of $50,000 that she has to pay the principal plus interest in year 1. The annual flat rate is quoted as 12%, but actually it is compounded on a monthly basis. What will be the interest payment that Mary has to make in a year’s time?

A. $6,000

B. $6,275.44

C. $6,341.25

D. $6,373.73

Explanation Principal plus interest in a year’s time = $50,000\*(1+12%/12) 12 = $56,341.25

Interest payment = $56,341.25 - $50,000 = $6,341.25

C is the best answer.

1

Question 3 Which of the following is a systematic risk factor that affects the financial market as a whole?

I. The economic growth rate.

II. The inflation rate.

III. The quality of the management team of a company.

IV. The business nature of a company.

A. II only

B. I and II only

C. III and IV only

D. I, II, III and IV

Explanation Both I and II are macroeconomic factors that affect all companies and securities, i.e. the financial market as a whole. Hence, they are systematic risk factors.

Both III and IV are firm-specific factors that affect a particular company and hence they are unsystematic factors.

The best answer is B.

Question 4 Borrowers are usually better informed about their credit standing than lenders. If lenders just charge an average interest rate on borrowers of different risk types, they may end up lending money mainly to high risk borrowers. This type of asymmetric information problem in the financial system is known as:

A. the moral hazard problem.

B. the risk sharing problem.

C. the transaction cost problem.

D. the adverse selection problem.

Explanation This type of asymmetric information problem arises before a loan is made. It is known as the adverse selection problem. D is the best answer.

Question 5 Which of the following is a primary market activity in the financial system?

2

I. A company issues new shares to be bought by a selective group of investors.

II. Newly issued bonds are offered to the investors through a public offering.

III. The majority shareholder of a company sells his shares to the general public.

A. I only

B. I and II only

C. I and III only

D. II and III only

Explanation A primary market is a market for trading newly issued securities. Hence, both I and II are primary market activities. III involves trading of already-issued securities and hence it is a secondary market activity. The best answer is B.

Question 6 Which of the following statements about a financial market is correct?

I. The maturity of a money market instrument is one year or less.

II. An exchange has a central market place for buyers and sellers to conduct trades.

III. Companies issue new securities in the secondary market.

A. I only

B. I and II only

C. I and III only

D. II and III only

Explanation Both I and II are correct. Companies issue new securities in the primary market. III is not correct. The best answer is B.

Question 7 Which of the following is a statutory regulator in Hong Kong?

I. The Securities and Futures Commission

II. The Hong Kong Exchanges and Clearing Limited

III. The Office of the Commissioner of Insurance.

IV. The Mandatory Provident Fund Schemes Authority.

Hence,

3

A. I and II only.

B. I, III and IV only.

C. II, III and IV only.

D. I, II, III and IV.

Explanation The Hong Kong Exchanges and Clearing Limited is a self-regulatory body and the others are statutory regulators. The best answer is B.

Question 8 Which of the following regulators is responsible for monitoring the fund management sector in Hong Kong?

A. The Hong Kong Monetary Authority.

B. The Securities and Futures Commission.

C. The Mandatory Provident Fund Schemes Authority.

D. The Office of the Commissioner of Insurance.

Explanation The Hong Kong Monetary Authority is responsible for monitoring the banking sector. The Mandatory Provident Fund Schemes Authority is responsible for monitoring the mandatory provident fund sector. The Office of the Commissioner of Insurance is responsible for monitoring the insurance sector. The Securities and Futures Commission is responsible for monitoring the securities and futures sector and the fund management sector. The best answer is B.

Question 9 When a central bank carries out an expansionary monetary policy by buying government securities in the open market, the money supply and the interest rates .

A. increases ; rise

B. increases ; fall

C. decreases ; rise

D. decreases ; fall

Explanation When a central bank carries out an expansionary monetary policy by buying more government securities in the open market, the money supply increases and the interest rates

4

fall.

The best answer is B.

Question 10 Which of the following is a characteristic of the money market?

I. Foreign currencies are traded in the money market.

II. The maturity of a money market instrument is one year or less.

III. Money market instruments are actively traded in the secondary market.

IV. Money market instruments involve relative low default risk.

A. I and II only

B. III and IV only

C. II, III and IV only

D. I, II, III and IV

Explanation Foreign currencies are traded in the foreign exchange market while mainly short-term debt securities are traded in the money market. Hence, I is incorrect. II, III and IV are all characteristics of the money market. The best answer is C.

Question 11 An investor is considering the purchase of a 182-day euro-denominated money market instrument with a face value of €1,000,000. Its price is quoted at 99 and the day count convention is ACT/360. Given that there are 365 days in the year, what is the annualized discount rate for this money market instrument?

A. 1.00%

B. 1.98%

C. 2.01%

D. 2.04%

Explanation discounted price = €1,000,000\*99% = €990,000 discount rate = (€1,000,000-€990,000)/ €1,000,000 \* 360/182 = 1.98% The best answer is B.

Question 12 A large commercial bank, acting as a dealer, quotes HIBID and HIBOR for a 3-month

5

interbank loan as 0.34% and 0.39% respectively. The day count convention is ACT/365 and the number of calendar days in three months is 90 days. If another commercial bank wants to borrow $20 million from this dealer, which of the following statements is correct with respect to this transaction?

I. The interest payment is $16,767.12.

II. The interest payment is $19,232.88.

III. The interbank loan is traded on an interest to maturity basis.

IV. The interbank loan is traded on a discount basis.

A. I and III only

B. I and IV only

C. II and III only

D. II and IV only

Explanation Interbank loans are traded on an interest to maturity basis. The interest rate for the interbank loan is HIBOR (0.39%).

Hence, IV is not correct.

Interest payment = $20,000,000\*0.39%\*90/365 = $19,232.88.

Hence, I is not correct. The best answer is C.

Question 13 An investor bought a 10-year floating rate note at a coupon rate equal to the three-month HIBOR plus 0.25%. The three-month HIBOR three months ago was 1% while the current three-month HIBOR is 1.5%. What is the applicable coupon rate for determining the coupon payment for the current period?

A. 1.00%

B. 1.25%

C. 1.50%

D. 1.75%

Explanation

applicable coupon rate = 1% + 0.25% = 1.25%

B is the best answer.

Question 14

6

Which of the following statements is correct with respect to the common stocks and bonds issued by a company?

I. Both interest expenses and dividends paid by a company are tax deductible.

II. The bondholders are a company’s creditors while common stockholders are its owners.

III. The bondholders of a company have higher priority than its stockholders over the proceeds from sale of assets upon its liquidation.

IV. A company has contractual obligations to provide regular cash flows to both its bondholders and stockholders.

A. I and III only

B. I and IV only

C. II and III only

D. II and IV only

Explanation Interest expenses are tax-deductible while dividends are not. Hence, I is not correct. The company has contractual obligations to provide regular cash flows to the bondholders, but the dividends to the stockholders are at the discretion of the company. Hence, IV is not correct. The best answer is C.

Question 15 Which of the following factors is likely to lead to a higher yield for a bond?

I. The credit standing of the bond issuer is deteriorating.

II. The bond includes an embedded option granted to the bondholders.

III. The maturity of the bond increases.

A. I and II only

B. I and III only

C. II and III only

D. I, II and III

Explanation When a bond includes an embedded option granted to the bondholders, the bondholders are willing to pay a higher bond price resulting in a lower yield. The best answer is B.

Question 16

7

Which of the following statements is correct with respect to derivatives?

I. The buyer of a futures contract has the right, but not the obligation, to decide whether to exercise it while the seller of the futures contract has to fulfill the obligations once it is exercised.

II. The buyer of an option contract has the right, but not the obligation, to decide whether to exercise it while the seller of the option contract has to fulfill the obligations once it is exercised.

III. The buyer of a futures contract has to pay a premium to the seller at the inception of the contract.

IV. The buyer of an option contract has to pay a premium to the seller at the inception of the contract.

A. I and III only

B. I and IV only

C. II and III only

D. II and IV only

Explanation Both the buyer and seller of a futures contract have the obligations to execute the contract as specified upon maturity. Hence, I is not correct. No money changes hand between the buyer and seller of a futures contract at the inception of the contract. Hence, III is not correct. The best answer is D.

Question 17 An investor sold a Hang Seng Index (HSI) futures contract at the market close of 22,000 through a brokerage house yesterday. The dollar multiplier is $50 per index point. The initial margin and maintenance margin have been and are still set at $72,000 and $57,600 respectively. Today, the settlement price for the HSI futures contract is 22,300. Which of the following statements is correct?

A. The investor has earned a profit of $15,000 from his position in the HSI futures contract.

B. The brokerage house will issue a margin call to the client.

C. The investor holds a long position in the HSI futures contract.

D. After being adjusted for today’s profit and loss, the margin account balance of the client is $58,000.

Explanation

8

The investor has incurred a loss of (22,000 – 22,300)\*$50 = -$15,000 (loss). Hence, A is not correct. When an investor sells the HSI contracts, he holds a short position. Hence, C is not correct. The adjusted margin account balance is $72,000 - $15,000 = $57,000. Hence, D is not correct. As the adjusted margin account balance falls short of the maintenance margin level, the brokerage issue will issue a margin call to the client. The best answer is B.

Question 18 The strategy that an investor uses derivative products to reduce or eliminate an existing risk exposure faced by him is known as:

A. hedging.

B. speculation.

C. investment.

D. arbitrage.

Explanation This is the definition of hedging.

The best answer is A.

Question 19 Which of the following is a characteristic of preferred stocks?

I. Preferred stockholders have priority over creditors and common stockholders in receiving the proceeds from sale of assets upon liquidation.

II. Preferred stock issuers have mandatory obligations to provide dividends to their shareholders.

III. Preferred stockholders of a company receive fixed dividends even through the company performs very well.

IV. Preferred stockholders can generally vote in the annual general meetings of the issuing companies.

A. None of the above

B. III only

C. I and II only

D. I, III and IV only

Explanation Preferred stockholders have priority over common stockholders, but not creditors, upon

9

liquidation. Hence, I is not correct. The dividend announcements to preferred stockholders are at the discretion of the board of directors of the issuing companies. Hence, II is not correct. In general, preferred stockholders cannot vote in the annual general meetings. Hence IV is not correct. The best answer is B.

Question 20 A company does not have any significant assets or operations, but it maintains the listing status in Hong Kong. This company is usually known as:

A. a small-cap company.

B. a penny company.

C. a B share company.

D. a shell company.

Explanation It is the definition of a shell company.

The best answer is D.

Question 21 If the cum-dividend stock price and dividend per share of a company are $12.5 and $1.5 respectively, the net assets of the company will because of the dividend payment and the ex-dividend price is expected to be on the ex-dividend date.

A. increase; $11

B. decrease; $11

C. increase; $14

D. decrease; $14

Explanation As the company pays dividends in cash, its net assets will decrease. is $11 = $12.5 - $1.5. B is the best answer.

Question 22 When the exchange rate of GBP/HKD rises, it means that GBP GBP is said to be the currency.

A. appreciates; base

B. appreciates; quoted

C. depreciates; base

The ex-dividend price

against HKD.

10

D. depreciates; quoted

Explanation When the exchange rate of GBP/HKD rises, it means that GBP appreciates against HKD. GBP is said to be the base currency. The best answer is A.

Question 23 When the currency of country X depreciates against that of country Y, the imports from country X appear to be to the residents of country Y and the imports from country Y appears to be to the residents of country X.

A. cheaper; cheaper

B. cheaper; more expensive

C. more expensive; cheaper

D. more expensive; more expensive

Explanation When the currency of country X depreciates against that of country Y, the imports from country X appear to be cheaper to the residents of country Y and the imports from country Y appears to be more expensive to the residents of country X. The best answer is B.

Question 24 If USD/JPY has gone up from 93.44 to 98.38, which of the following statements best describes the change in the exchange rate?

A. USD depreciates against JPY by 5.02%.

B. USD appreciates against JPY by 5.02%.

C. USD depreciates against JPY by 5.29%.

D. USD appreciates against JPY by 5.29%.

Explanation USD appreciates against JPY by (98.38-93.44)/93.44 = 5.29%.

The best answer is D.

Question 25 Which of the following is a traditional function of commercial banking?

I. To receive deposits from investors through bank accounts.

II. To help corporate clients to carry out mergers and acquisitions.

11

III. To act as the banker of last resort.

IV. To provide loans to individual and corporate clients.

A. I and IV only

B. I, II and IV only

C. I, III and IV only

D. I, II, III and IV

Explanation Investment banking involves the facilitation of a corporate client to carry out mergers and acquisitions. Hence, II is not correct. A central bank usually acts as the banker of last resort. Hence, III is not correct. The best answer is A.

Question 26 Which of the following factor has been a main driver of commercial banking in the last three decades?

I. The volatilities of the exchange rates and interest rates in the financial markets have been increasing over time.

II. Deregulation of commercial banking occurred in 1980s.

III. The technology in telecommunications and computer has been advancing over time.

IV. Stricter regulation of commercial banking has emerged after the financial tsunami in 2008.

A. I, II and III only

B. I, III and IV only

C. II, III and IV only

D. I, II, III and IV

Explanation All of the above have been the main drivers of commercial banking in the last three decades. The best answer is D.

Question 27 In Hong Kong, the system for settling interbank payments is known as:

A. the Delivery Versus Payment System.

B. the Continuous Net Settlement System.

12

C. the Real Time Gross Settlement System.

D. the Central Clearing and Settlement System.

Explanation The intebank payment system is the Real Time Gross Settlement System. is C.

The best answer

Question 28 Which of the following represents the bid-ask spread in the fee structure of a managed fund?

A. The switching fee.

B. The redemption fee.

C. The annual management fee.

D. The front-end fee.

Explanation The front-end fee represents the bid-ask spread.

The best answer is D.

Question 29 The determines a managed fund’s long-term mix of asset classes which are groups of securities with similar investment characteristics.

A. strategic asset allocation

B. investment objective

C. investment constraint

D. benchmark index

Explanation The strategic asset allocation determines a managed fund’s long-term mix of asset classes which are groups of securities with similar investment characteristics. The best answer is A.

Question 30 The market values of the assets and liabilities of a managed fund are $100 million and $40 million respectively. The fund has 10 million shares outstanding. What is the net asset value per share of the fund?

A. $4

B. $6

13

C. $10

D. cannot be determined with the information provided

Explanation NAV per share = ($100 -$40)/10 = $6 The best answer is B.

Part II: There are 6 questions in this part. for each question.

Question 31

Please write your answers in the space provided

(a) An insurance company decides to buy an Exchange Fund Bill issued by the Hong Kong Monetary Authority with a face value of $500,000 and a term to maturity of 85 days. The quoted discount rate on the Exchange Fund Bill is 3.75%. The day count convention is stated as A/365.

(i) What is the purchase price of the Exchange Fund Bill?

(ii) What is the discount size on the Exchange Fund Bill upon its maturity?

(iii) What is the effective annual yield on the Exchange Fund Bill?

(b) In London, a bank intends to borrow an overnight interbank loan of ￡50 million from another bank which gives the two-way quotes as 4%-4.25%. The day count convention is A/365. Calculate the maturity proceeds for the interbank loan.

Explanation

(a) (i) purchase price = $500,000\*(1-3.75%\*85/365) = $495,633.56

(ii) discount size = $500,000 - $495,633.56 = $4,366.44

(iii) effective annual yield = ($500,000/$495,633.56) 365/85 - 1 = 3.848%

(b) As the bank wants to borrow an interbank loan, the ask rate 4.25% is the relevant interbank rate.

maturity proceeds = ￡50,000,000\*(1+4.25%\*1/365) = ￡50,005,821.92

Question 32

(a) Consider a $1,000 par bond that has a 10% coupon rate and a 2-year maturity. If investors require a return of 8% on this bond and it pays interest semi-annually, calculate the bond price.

(b) What is the accrued interest? How does it affect the settlement price of a bond?

Explain.

(c) What does it mean by the positive convexity of a bond? Explain.

14

Explanation

(a) The bond price is $50/(1+4%) + $50/(1+4%) 2 + $50/(1+4%) 3 + $1,050/(1+4%) 4 = $1,036.30.

(b) For transactions taking place on non-coupon payment dates, the buyer has to compensate the seller for the accrued fraction of the next coupon due. The amount of interest that the seller should receive is called the accrued interest. As the quoted price does not include accrued interest, the final settlement price is equal to the summation of the quoted price and the accrued interest.

(c) The effect of a 1% fall in interest rate on the bond price is different from that of a 1% rise in interest rate. In particular, the effect of a fall in interest rate is greater than that of a rise in interest rate. This asymmetric effect gives a convex shape to the bond price-interest rate curve. It is referred to as the positive convexity of a bond.

Question 33 State whether each of the following statements is true or false. explain why.

If the statement is false,

(1) When an investor holds a long position in the underlying asset and a short position in the futures contract to hedge against the risk exposure of the underlying asset, it is called a long hedge.

(2) When an investor simultaneously buys an undervalued underlying asset and sells an overvalued derivative on the underlying asset with the objective to earn riskless profit from the mispricing, this is known as offsetting.

(3) The buyer of a forward rate agreement expects that the interest rate will go up so that he can lend money out at a high interest rate.

(4) If the underlying asset price is higher than the exercise price of a put option, the put option is said to be out-of-the money.

|  |  |
| --- | --- |
|  | answer |
| statement (1) | true or false? |
| explanation (if applicable): |
| Statement (2) | true or false? |
| explanation (if applicable): |
| Statement (3) | true or false? |

15

|  |  |
| --- | --- |
|  | explanation (if applicable): |
| Statement (4) | true or false? |
| explanation (if applicable): |

Explanation

|  |  |
| --- | --- |
|  | answer |
| statement (1) | false (0.25 mark) |
| When an investor holds a long position in the underlying asset and a short position in the futures contract to hedge against the risk exposure of the underlying asset, it is called a short hedge. (1.25 mark) |
| Statement (2) | false (0.25 mark) |
| When an investor simultaneously buys an undervalued underlying asset and sells an overvalued derivative on the underlying asset with the objective to earn riskless profit from the mispricing, this is known as arbitrage. (1.25 mark) |
| Statement (3) | false (0.25 mark) |
| The buyer of a forward rate agreement expects that the interest rate will go up so that he can restrict the interest rate at a specified level. (1.25 mark) |
| Statement (4) | true (0.5 mark) |
| not applicable |
| Table  Description automatically generated |  |

|  |  |  |
| --- | --- | --- |
| Question 34 | Company X | Company Y |
| Fixed rate | 6.5% | 5% |
| Floating rate | HIBOR + 1.5% | HIBOR + 0.5% |
| Want to borrow | fixed | floating |
| Loan principal | $50 million | $50 million |

Suppose the two companies have borrowed the type of loans that they have the comparative advantage in the loan market. In addition, the two companies then arrange an interest rate swap in which Company X pays 5.8% to Company Y in exchange for HIBOR+1%. Fill in

16

the blank for the following table.

|  |  |
| --- | --- |
| Issues to consider | Fill in the blank in the following |
| Which company has the absolute advantage in borrowing in the loan market? |  |
| Which company has the comparative advantage in borrowing a fixed rate loan in the loan market? |  |
| What is the size of the benefit to be shared by the two parties in this arrangement? |  |
| What is the net interest rate paid by Company X after taking into account the loan and the interest rate swap? |  |
| What is the net benefit to Company X? |  |
| What is the net interest rate paid by Company Y after taking into account the loan and the interest rate swap? |  |
| What is the net benefit to Company Y? |  |

Explanation

Text

Description automatically generated with low confidence

|  |  |
| --- | --- |
| Issues to consider | Fill in the blank in the following |
| Which company has the absolute advantage in borrowing in the loan market? | Company Y |
| Which company has the comparative advantage in borrowing a fixed rate loan in the loan market? | Company Y |
| What is the size of the benefit to be shared by the two parties in this arrangement? | interest rate differential for fixed rate loan = 6.5% - 5% = 1.5% interest rate differential for floating rate loan = (HIBO+1.5%) – (HIBOR+0.5%) = 1% size of benefit = 1.5%-1% = 0.5% |
| What is the net interest rate paid by Company X after taking into account the loan and the interest rate swap? | 5.8% - (HIBOR+1% ) + (HIBOR+1.5%) = 6.3% |
| What is the net benefit to Company X? | 6.5% - 6.3% = 0.2% |
| What is the net interest rate paid by Company Y after taking into account the loan and the interest rate swap? | (HIBOR+1%) – 5.8% + 5% = HIBOR+0.2% |
| What is the net benefit to Company Y? | (HIBOR+0.5%) – (HIBOR+0.2%) = |

17

0.3%

Question 35 A foreign exchange dealer quotes the following exchange rates:

spot EUR/USD: 1.3363 spot USD/JPY: 92.69 3-month forward EUR/USD = 1.3423 Assume that there are 92 days in 3 months and the day count convention is ACT/360. What is the cross rate of EUR/JPY? State whether EUR trades at a premium or discount against USD for the 3-month forward. Calculate the annualized premium/discount for the 3-month forward. If the nominal interest rate in the US rises against that in Japan, what is the impact on the exchange rate of USD/JPY? Explain your answer.

Explanation

EUR/JPY = 1.3363\*92.69 = 123.86

As the 3-month forward rate is higher than the spot rate, EUR trades at a premium against USD for the 3-month forward.

annualized premium = (1.3423-1.3363)/1.3363 \* 360/92 = 1.76% If the nominal interest rate in the US rises against that in Japan, international investors tend to pull money out of Japan and invest in the US. Given that the real interest rates are the same under the interest rate parity, USD will depreciate against JPY in order to induce international investors to keep investing in Japan.

Question 36 State three differences between an open-end fund and a closed-end fund.

Any three of the following: (2 marks each for the first two correct answers, 1 mark for the third correct answer)

|  |  |  |
| --- | --- | --- |
|  | open-end fund | closed-end fund |
| Trading market | over-the-counter | exchange |
| Who provides the market? | fund management company | exchange |
| Where to buy the shares/units? | fund management company and its appointed brokers | exchange |
| Number of shares/units outstanding | variable | fixed |
| Any redemption? | yes | no |
| Pricing of shares/units | net asset value as bid price | depend on demand and |

18

supply conditions in market

- The End -

2013 Spring Midterm with answer:

Hong Kong University of Science and Technology FINA1303 Introduction to Financial Markets Quiz 1

There are 20 multiple choice questions in this quiz. question.

Please circle the best answer for each

Question 1 Which of the following items is consistent with the cash flow concept in finance?

I. The initial investment of a long-term asset that a company pays for its purchase.

II. The book value of a long-term asset that a company records in its financial statements.

III. The proceeds from the sale of a long-term asset that a company receives.

A. III only

B. I and II only

C. I and III only

D. I, II and III

Explanation I is a cash outflow and III is a cash inflow. The book value of a long-term asset is an accounting concept, which may not be consistent with the cash flow concept in finance. Hence, C is the best answer.

Question 2 John has just won a cash prize in a talent competition and the relevant organization gives him several options of how to receive the prize. Given that the prevailing interest rate is 5% per annum and it is compounded on an annual basis, which of the following options will give John the highest present value?

A. To receive $100,000 right away.

B. To receive $104,000 in a year’s time.

C. To receive $52,500 in each of the coming two years.

D. To receive $110,000 in two year’s time.

Explanation PV of option A = $100,000

PV of option B = $104,000/(1+5%) = $99,047.62

1 (FINA1303)[2013](s)midterm~=ibbidkdt^\_50174.pdf downloaded by khheung from http://petergao.net/ustpastpaper/down.php?course=FINA1303&id=1 at 2018-10-08 00:53:37. Academic use within HKUST only.

PV of option C = $52,500/(1+5%) + $52,500/(1+5%) 2 = $97,619.05

PV of option D = $110,000/(1+5%) 2 = $99,773.24

Option A gives the highest present value and hence A is the best answer.

Question 3 Mary borrows a one-year loan of $50,000 that she has to pay the principal plus interest in year 1. The annual flat rate is quoted as 12%, but actually it is compounded on a monthly basis. What will be the interest payment that Mary has to make in a year’s time?

A. $6,000

B. $6,275.44

C. $6,341.25

D. $6,373.73

Explanation Principal plus interest in a year’s time = $50,000\*(1+12%/12) 12 = $56,341.25

Interest payment = $56,341.25 - $50,000 = $6,341.25

C is the best answer.

Question 4 David has $50,000 spare cash and he wants to invest in a financial instrument for one year. Given that he prefers more wealth to less and he is risk averse, which of the following financial instruments is his most preferable choice?

A. Financial instrument A with an expected return of 12% and a volatility of returns of 22%.

B. Financial instrument B with an expected return of 15% and a volatility of returns of 22%.

C. Financial instrument C with an expected return of 12% and a volatility of returns of 25%.

D. Financial instrument D with an expected return of 15% and a volatility of returns of 25%.

Explanation B is more preferred to A because they have the same risk and B offers a higher expected return.

D is more preferred to C because they have the same risk and D offers a higher expected return.

2 (FINA1303)[2013](s)midterm~=ibbidkdt^\_50174.pdf downloaded by khheung from http://petergao.net/ustpastpaper/down.php?course=FINA1303&id=1 at 2018-10-08 00:53:37. Academic use within HKUST only.

B is more preferred to D because they have the same expected return and B involves a lower risk level.

The best answer is B.

Question 5 A financial instrument has a current price of $1,000. It is expected to generate an annual interim income of $75 and to sell at $1,050 in a year’s time. What is the expected rate of return on the financial instrument?

A. 7.14%

B. 7.50%

C. 11.90%

D. 12.50%

Explanation expected rate of return (total return) = ($1,050 - $1,000 + $75)/$1,000 = 12.50% The best answer is D.

Question 6 The observed nominal rate of return on a financial instrument is 8% and the expected inflation rate is 3%. The real rate of return on the financial instrument is approximately equal to:

A. 3%

B. 5%

C. 8%

D. 11%

Explanation real rate of return ≈ 8% - 3% ≈ 5% The best answer is B.

Question 7 In modern financial theory, the risk-free rate can be measured through:

A. the yield on a government bond.

B. the rate of return on a stock market index.

C. the interest rate on an interbank loan.

3 (FINA1303)[2013](s)midterm~=ibbidkdt^\_50174.pdf downloaded by khheung from http://petergao.net/ustpastpaper/down.php?course=FINA1303&id=1 at 2018-10-08 00:53:37. Academic use within HKUST only.

D. the inflation rate.

Explanation Government bonds are assumed to be credit risk-free and hence its yield can be considered as the risk-free rate. The best answer is A.

Question 8 Which of the following is a systematic risk factor that affects the financial market as a whole?

I. The economic growth rate.

II. The inflation rate.

III. The quality of the management team of a company.

IV. The business nature of a company.

A. II only

B. I and II only

C. III and IV only

D. I, II, III and IV

Explanation Both I and II are macroeconomic factors that affect all companies and securities, i.e. the financial market as a whole. Hence, they are systematic risk factors.

Both III and IV are firm-specific factors that affect a particular company and hence they are unsystematic factors.

The best answer is B.

Question 9 Fatima holds a portfolio consisting of five securities and she should be concerned about its .

A. beta

B. unsystematic risk

C. total risk

D. systematic risk

Explanation A portfolio of five securities is likely to be non-diversified and hence is subject to both the systematic and unsystematic risks (though part of the unsystematic risk has been diversified

4 (FINA1303)[2013](s)midterm~=ibbidkdt^\_50174.pdf downloaded by khheung from http://petergao.net/ustpastpaper/down.php?course=FINA1303&id=1 at 2018-10-08 00:53:37. Academic use within HKUST only.

away).

In other words, she should be concerned with its total risk.

The best answer is C.

Question 10 A financial instrument is expected to generate a cash flow of $100, $100 and $1,100 in years 1, 2 and 3 respectively. The nominal risk-free rate is 2% and the risk premium of the financial instrument is 3%. What is the fair value of the financial instrument based on the discounted cash flow model?

A. $1,136.16

B. $1,198.00

C. $1,230.71

D. $1,238.10

Explanation risk-adjusted return = nominal risk-free rate + risk premium = 2% +3% = 5%

fair value = $100/(1+5%) + $100/(1+5%) 2 + $1,100/(1+5%) 3 = $1,136.16

The best answer is A.

Question 11 Which of the following financial institutions is a financial intermediary under indirect finance?

I. A mutual fund.

II. A commercial bank.

III. A brokerage house.

IV. An insurance company.

A. II and III only

B. I, II and III only

C. I, II and IV only

D. I, II, III and IV

Explanation A brokerage house facilitates the trading between the buyers and sellers in the financial market. Hence, it is not a financial intermediary. A mutual fund, a commercial bank or an insurance company pools the funds of surplus units and transfers them to the deficit units. They are financial intermediaries. The best answer is C.

5 (FINA1303)[2013](s)midterm~=ibbidkdt^\_50174.pdf downloaded by khheung from http://petergao.net/ustpastpaper/down.php?course=FINA1303&id=1 at 2018-10-08 00:53:37. Academic use within HKUST only.

Question 12 Borrowers are usually better informed about their credit standing than lenders. If lenders just charge an average interest rate on borrowers of different risk types, they may end up lending money mainly to high risk borrowers. This type of asymmetric information problem in the financial system is known as:

A. the moral hazard problem.

B. the risk sharing problem.

C. the transaction cost problem.

D. the adverse selection problem.

Explanation This type of asymmetric information problem arises before a loan is made. It is known as the adverse selection problem. D is the best answer.

Question 13 Which of the following is a primary market activity in the financial system?

I. A company issues new shares to be bought by a selective group of investors.

II. Newly issued bonds are offered to the investors through a public offering.

III. The majority shareholder of a company sells his shares to the general public.

A. I only

B. I and II only

C. I and III only

D. II and III only

Explanation A primary market is a market for trading newly issued securities. Hence, both I and II are primary market activities. III involves trading of already-issued securities and hence it is a secondary market activity. The best answer is B.

Question 14 Which of the following is an institutional investor?

I. An insurance company.

II. A high net worth investor.

III. A commercial bank.

6 (FINA1303)[2013](s)midterm~=ibbidkdt^\_50174.pdf downloaded by khheung from http://petergao.net/ustpastpaper/down.php?course=FINA1303&id=1 at 2018-10-08 00:53:37. Academic use within HKUST only.

IV. A pension fund.

A. I, II and III only

B. I, II and IV only

C. I, III and IV only

D. II, III and IV only

Explanation An institutional investor is a financial institution which pools funds from individual investors or business organizations and invests them in the financial market. Hence, an insurance company, a commercial bank and a pension fund are all institutional investors. A high net worth investor is an individual investor who is rich. The best answer is C.

Question 15 Which of the following functions is performed by the secondary market in a financial system?

I. To provide a channel for a company to raise funds through the issue of new securities.

II. To provide a frame of reference to pricing new securities issued by a company.

III. To provide liquidity to the securities already issued by a company

IV. To provide a mechanism to contact institutional and high net worth investors through private placements of newly issued securities.

A. I and IV only

B. I and III only

C. II and III only

D. II, III and IV only

Explanation I and IV are the functions of a primary market while II and III those of a secondary market. C is the best answer.

Question 16 Which of the following statements about a trading system of financial instruments is correct?

A. In an order-driven trading system, if an investor wants to buy a financial instrument, the transaction price is the bid price provided by a market maker.

B. In an order-driven trading system, if an investor wants to buy a financial instrument, the

7 (FINA1303)[2013](s)midterm~=ibbidkdt^\_50174.pdf downloaded by khheung from http://petergao.net/ustpastpaper/down.php?course=FINA1303&id=1 at 2018-10-08 00:53:37. Academic use within HKUST only.

transaction price is the ask price provided by a market maker.

C.

D.

In a quote-driven trading system, if an investor wants to buy a financial instrument, the transaction price is the bid price provided by a market maker.

In a quote-driven trading system, if an investor wants to buy a financial instrument, the transaction price is the ask price provided by a market maker.

Explanation In an order-driven trading system, there are no market makers and hence both A and B are not correct. When an investor wants to buy a financial instrument, it means that the market maker has to sell it and the transaction price is the ask price. Hence C is incorrect. D is the best answer.

Question 17 If a trader inputs a sell limit order for a financial instrument, the specified limit price is usually its current selling price and the objective of the order is to .

A. lower than; restrict the maximum loss to a certain level

B. lower than; liquidate his/her position as a downtrend is predicted when the specified price is hit

C. the same as; execute the trade at the prevailing market price

D. higher than; trade at a more favorable term than the prevailing market term

Explanation Both A and B refer to a stop-loss order. limit order. The best answer is D.

C refers to a market order.

D is the nature of a sell

Question 18 Which of the following statements best describes the settlement process in the financial market?

A. It involves the negotiation of the contract terms and conditions between the buyer and the seller.

B. It involves the actual exchange of cash for securities between the buyer and the seller.

C. It involves the process of updating the trading records after a trade is concluded between the buyer and the seller.

D. It involves the input of instructions directed to the financial market where a trade can be arranged between the buyer and the seller.

8 (FINA1303)[2013](s)midterm~=ibbidkdt^\_50174.pdf downloaded by khheung from http://petergao.net/ustpastpaper/down.php?course=FINA1303&id=1 at 2018-10-08 00:53:37. Academic use within HKUST only.

Explanation A refers to the trading process. of orders. B is the best answer.

C refers to the clearing process.

D refers to the inputting

Question 19 Which of the following regulators is responsible for monitoring the fund management sector in Hong Kong?

A. The Hong Kong Monetary Authority.

B. The Securities and Futures Commission.

C. The Mandatory Provident Fund Schemes Authority.

D. The Office of the Commissioner of Insurance.

Explanation The Hong Kong Monetary Authority is responsible for monitoring the banking sector. The Mandatory Provident Fund Schemes Authority is responsible for monitoring the mandatory provident fund sector. The Office of the Commissioner of Insurance is responsible for monitoring the insurance sector. The Securities and Futures Commission is responsible for monitoring the securities and futures sector and the fund management sector. The best answer is B.

Question 20 Under the Banking Ordinance, which of the following financial institutions can accept deposits from the general public in Hong Kong?

I. Brokerage houses.

II. Licensed banks.

III. Mutual Funds.

IV. Restricted licence banks.

A. II and IV only

B. I, II and III only

C. I, II and IV only

D. I, II, III and IV only

Explanation Under the Banking Ordinance, only licensed banks, restricted license banks and deposit-taking companies can accept deposits from the general public in Hong Kong. The

best answer is A.

- The End –

2018 Fall Midterm Analysis:

* (2 pts) Intermediaries who link buyers and sellers by buying and selling securities at stated prices are called
  1. Investment bankers.
  2. Brokers.
  3. **Dealers.**
  4. None of the above.
* (2pts) Which performance indicator would financial analysts focus on to track the size of a bank’s asset portfolio?
  1. **AUM (Assets Under Management)**
  2. ROA (Return on Assets)
  3. ROE (Return on Equity)
  4. NPL (Non Performing Loans)
  5. NOI (Net Operating Income)

Table

Description automatically generated with medium confidence

* (2 pts) Arthur is an analyst in the Rating Advisory team of Goldilocks Investment Bank. Which of the following parts of the investment bank does Arthur belong to:
  1. Global Markets
  2. **Investment Banking**
  3. Support Functions