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SUBJECT Financial Risk Management.

AASSIGNMENT Final term

SUBMITTED TO Ma'am Maryam saleem

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Question No.1

Answer.

One Year Discount Bond Paying = $2200

Five Year Discount Bond = $3221.02

At 12%

1 Year Bond Present Value = $2200/ (1.12)

= 1964.285

5 year Bond Present Value = $3221.02/ (1.12) ^5

= 3221.02/1.76234

= 1827.69

At 8%

1 Year Bond Present Value = $2200/ (1.08)

= 2037.037

5 year Bond Present Value = $3221.02/ (1.08) ^5

= 3221.02/1.4693

= 2192.213

Question NO#2 part (a)

Answer.

Long-term bonds have a greater duration than short-term bonds. Duration measures the sensitivity of a bond's price to changes in interest rates. For instance, a bond with a duration of 2.0 will lose $2 for every 1% increase in rates. Because of this, a given interest rate change will have a greater effect on long-term bonds than on short-term bonds. This concept of duration can be difficult to conceptualize but just think of it as the length of time that your bond will be affected by an interest rate change. For example, suppose interest rates rise today by 0.25%. A bond with only one coupon payment left until maturity will be underpaying the investor by 0.25% for only one coupon payment. On the other hand, a bond with 20 coupon payments left will be underpaying the investor for a much longer period. This difference in remaining payments will cause a greater drop in a long-term bond's price than it will in a short-term bond's price when interest rates rise.

(ii)

There is a greater probability that interest rates will rise (and thus negatively affect a bond's market price) within a longer time period than within a shorter period. As a result, investors who buy long-term bonds but then attempt to sell them before maturity may be faced with a deeply discounted market price when they want to sell their bonds. With short-term bonds, this risk is not as significant because interest rates are less likely to substantially change in the short term. Short-term bonds are also easier to hold until maturity, thereby alleviating an investor's concern about the effect of interest rate-driven changes in the price of bonds.

Question 2 part (b)

NF = Qs/Qf x ∆s/ ∆F

NF = 1500/ 200 x .70/1.0

NF= (7.5) x .70

NF= 5.25

Because we are using a long hedge In case Market, using a risk management hedge mean that you should take part in short position in the future market.

Question No.3

Answer,

STEP#1

Year Payment Present Value at 1%

1 $1 .9900

2 $1 .980

3 $1 .97059

4 $1 .96098

5 $101 96.098

Year Payment Present Value at 1% Relative Value = Present Value / 100

1 $1 .9900 .0099

2 $1 .980 .0098

3 $1 .97059 .0097059

4 $1 .96098 .0096098

5 $101 96.098 .096098

Step#3

Years Relative Value Year X Relative value

1 0.0099 .0099

2 .0098 .0196

3 .0097059 .0291177

4 .0096098 .0384392

5 .096098 .4.8049

TOTAL 4.9019

The Effective Maturity of Five-Year 1% Coupon-Bond is 4.9019 Years.

Question #4

Answer,

Part (a)

In expert System the credit decision is left to be taken by branch lending officer and he grand credit on the basis of his expertise, subjective judgment and weighting other certain key factors.

Despite of Major Short Comings Banks are still using it because the branch lending officer of that specific area is well aware of his customers and the area and he better can evaluate the riskiness of the credit to be granted.

Example:

Allied Bank using Expert System to grant credit in which their credit risk officer after evaluating each and everything grant the loan.

Part (b)

Standardize Rating approach weight the loan secured by mortgages on residential property at 35% because a residential property occupied by the browser or on rent is easy to be acquired in response of failure of credit return but on the contrary the commercial property has been a recurring cause of troubled asset in banking industry over the past few decades , the Basel Committee holds to the view that mortgages on commercial real estate do not, in principle, justify other than a 100% weighting of the loans secured and it’s very difficult for banks to vacate commercial properties so their risk is weighted 100% by basel committee.

Part (c)

If weather creates a significant uncertainty about the volume of corn that will be harvested, the farmer should not enter into short forward contracts to hedge the price risk on his or her expected production. The reason is as follows. Suppose that the weather is bad and the farmer’s production is lower than expected. Other farmers are likely to have been affected similarly. Corn production overall will be low and as a consequence the price of corn will be relatively high. The farmer’s problems arising from the bad harvest will be made worse by losses on the short futures position. This problem emphasizes the importance of looking at the big picture when hedging. The farmer is correct to question whether hedging price risk while ignoring other risks is a good strategy