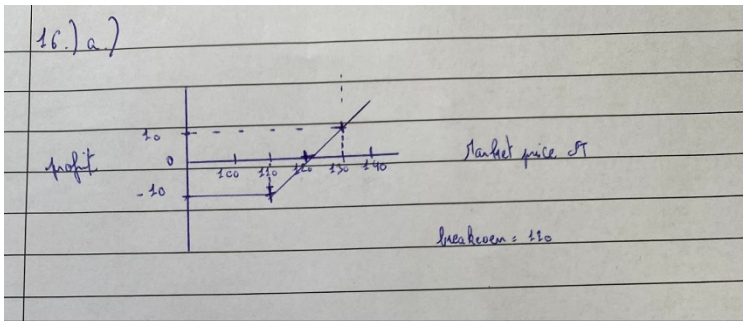
16- Profit diagram for a future defined on Treasury Bonds - Buyer's perspective

I:

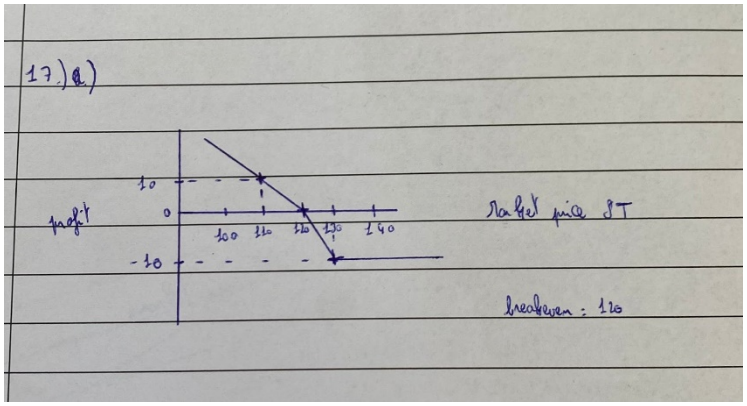


II: Bond futures are contractual agreements where the asset to be delivered is a government or Treasury bond. A bond futures contract can be held until maturity, and it can also be closed out before the maturity date.

III:

17- Profit diagram for a forward defined on Treasury Bonds - Seller's perspective

I:



II : Selling the forward is a good deal because as we can see on the diagram, the price of the spot is expected to decrease. The breakeven rate is at 120 points, and then, everything is out of money.

18- Using Foreign Currency forwards for speculation

a-b) If I want to bet on the fall of the peso relatively to the dollar, I would sign a buying forward contract, and then wait the peso to fall to buy 1 000 000 pesos at a lower price in dollar. Then you just have to wait the value of the peso to increase relatively to the dollar. This position is a long term position, because you don't know if and when the value of the peso relatively to the dollar will grow.

19- Using Foreign Currency forwards for speculation

a)

Maturity for the exchange rate = 1 000 000 x 0,15 = 150 000$ for 1 000 000PS
Real rate at expiration date = 1 000 000 x 0,10 = 100 000$ for 1 000 000PS

In as much as you sell a forward with an exchange rate at USD= 0,15PS on the expiration date, you will gain on the speculation because the real exchange rate was even lower on the expiration date.

b) They were correct but not precise. But in this case, the lack of accuracy made gain money to the seller on the expiration date.

20- Again using foreign currency forwards for speculation

a)
Maturity for the exchange rate : 1 000 000 x 0,12 = 120 000$
Real rate at expiration date : 1 000 000 x 0,2 = 200 000$

In this case, I would lose because of the speculation.

b) The expectation were not correct because the forward rate was largely under estimated, which lead to a big miss to win.

21- Your forward contract has a counterparty of course

a) 1st march : USD = 0,12/PS which means 1 000 000PS = 120 000$
1st July : USD = 0,2/PS which means 1 000 000PS = 200 000$

My counterparty will gain money because I underestimated the forward rate value, which means my counterparty will have more dollars with the same amount of PS at maturity, than 1st of March.

b) To make the decision of buying forward 1 000 000PS reasonable, I have either to advance the date of maturity to minimize the risks, or increase in the forward maturity contract the rate value of the maturity.

22- LIBOR and SWAPS

a)

Interest & Swap Payments	First 6-months	Second 6-months	Third 6-months	Fourth 6-months
a. LIBOR increases 50 basis pts/6 months	0,500%			
Expected LIBOR	4,500%	5,000%	5,500%	6,000%
Current loan agreement:				
Expected LIBOR (for 6 months)	-2,250%	-2,500%	-2,750%	-3,000%
Spread (for 6 months)	-1,000%	-1,000%	-1,000%	-1,000%
Expected interest payment	-3,250%	-3,500%	-3,750%	-4,000%
Swap Agreement:				
Pay fixed (for 6-months)	-3,500%	-3,500%	-3,500%	-3,500%
Receive floating (LIBOR for 6 months)	2,250%	2,500%	2,750%	3,000%
Net interest (loan + swap)	-4,500%	-4,500%	-4,500%	-4,500%
Swap savings?				
Net interest after swap	$ (225 000)	$ (225 000)	$ (225 000)	$ (225 000)
Loan agreement interest	(162 500)	(175 000)	(187 500)	(200 000)
Swap savings (swap cost)	$ (62 500)	$ (50 000)	$ (37 500)	$ (25 000)

b)

b. LIBOR decreases 25 basis pts/6 months	-0,250%			
Expected LIBOR	3,750%	3,500%	3,250%	3,000%
Current loan agreement:				
Expected LIBOR (for 6 months)	-1,875%	-1,750%	-1,625%	-1,500%
Spread (for 6 months)	-1,000%	-1,000%	-1,000%	-1,000%
Expected interest payment	-2,875%	-2,750%	-2,625%	-2,500%
Swap Agreement:				
Pay fixed (for 6-months)	-3,500%	-3,500%	-3,500%	-3,500%
Receive floating (LIBOR for 6 months)	1,875%	1,750%	1,625%	1,500%
Net interest (loan + swap)	-4,500%	-4,500%	-4,500%	-4,500%
Swap savings?				
Net interest after swap	$ (225 000)	$ (225 000)	$ (225 000)	$ (225 000)
Loan agreement interest	(143 750)	(137 500)	(131 250)	(125 000)
Swap savings (swap cost)	$ (81 250)	$ (87 500)	$ (93 750)	$ (100 000)

In both cases CB Solutions is suffering higher total interest costs as a result of the swap.