CHAPTER 2

Solutions to Exercises

Solution to Exercise 1.

The amount of margin exchanges require to be deposited when a trade is initiated is called initial margin and the minimum amount of margin the customer must maintain in his or her account at all times for each open position is called maintenance or variation margin. The initial margin requirement is the amount required to be collateralized in order to open a position.

Solution to Exercise 2.

Futures are exchange traded and centrally cleared while some OTC derivatives are not centrally cleared. Without central clearing, the bilateral trading partners can decide whether collateral is demanded, negotiate on the value of the collateral required and specify the frequency of the collateral payments as well as the variation of the collateral requirements and margin calls.

Solution to Exercise 3.

Centrally cleared derivatives are cleared through a central counter party. As instruments to reduce risk, CCPs demand collaterals in the form of margin requirements as well as contributions to CCP insurance pools.

Solution to Exercise 4.

Open interest refers to the total number of derivative contracts, like futures and options, that have not been settled in the immediately previous time period for a specific underlying security.

Solution to Exercise 5.

(a) One could take a market arbitrage position as follows: buy Honeywell shares and sell General Electric shares. If the merger takes place, the Honeywell shares will convert to GE shares - that is, these shares will become similar and now one can sell the expensive shares and make a profit.

(b) You do not need to deposit funds to take this position.

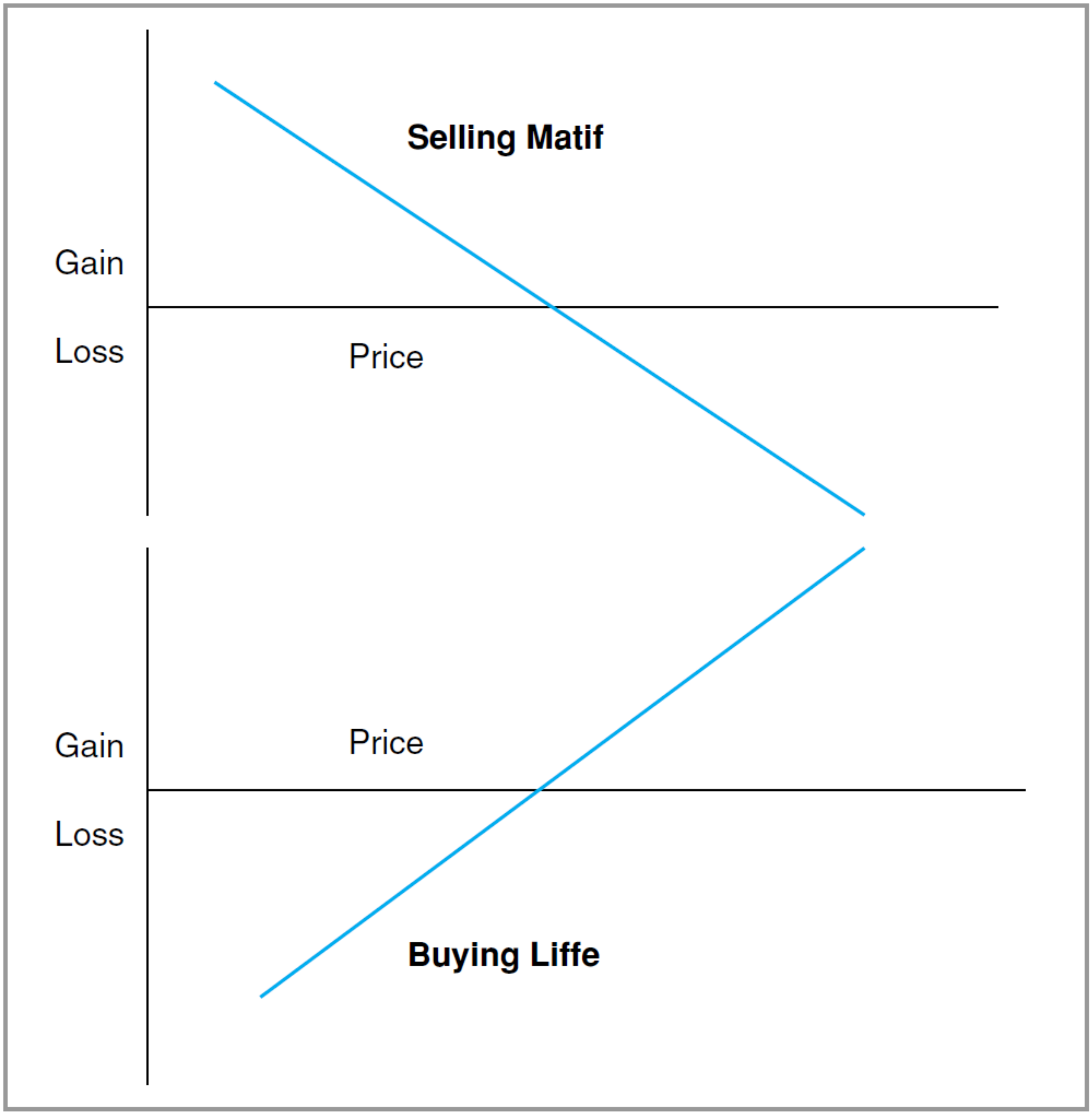
(c) You could borrow funds for this position. You would need to if you do not have any GE shares. If you had them then you could engineer this short position through short selling them.

(d) This is different from the academic sense of the word arbitrage. That involves zero risk and infinite gain. Here we do face a risk (see below) and our gains might be very high - but not infinite!

(e) You would be taking the risk that the merger indeed goes through successfully.

Solution to Exercise 6.

(a) The dealers are selling the Matif contract and buying the Liffe. (See figure below)



(b) The horizontal axis would have price and the vertical axis would show gain and loss.

(c) Since both Euribor and Euro BBA Libor are both European based rates, the profit would simply be scaled down - if all European interest rates would be dramatically lowered.