CHAPTER 29
CREDIT DEFAULT SWAPS

1. (A) 3%

Explanation

To buy 5-year CDS protection, an investor would have to pay upfront the present value of the difference between the 100bps coupon and the current market spread of 175 bps. In this case, the upfront premium would be:

Upfront premium gr. (Credit spread – Fixed coupon) x Duration

= (175bps – 100bps) x 4 = 3% of the notional.

(Module 29.2, LOS 29.c)

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2. (C) Only one of the two comments is correct.

Explanation

Comment 1 is incorrect. It should say: "In a CDS, the protection buyer is short the credit risk of the reference entity." Note the CDS purchaser is typically referred to as the short party. Long and short for a CDS is relative to credit risk rather than buying or selling the instrument.

Comment 2 is correct. An Index CDS provides default cover for an index (basket) of bonds. Higher default correlation will make it more expensive to buy cover.

(Module 29.1, LOS 29.a)

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3. (A) $1.2 million.

Explanation

The investor is long $3.2 million notional ($400 million / 125) through the index CDS and is short $2 million notional through the single-name CDS. His net notional exposure is $1.2 million.

(Module 29.1, LOS 29.a)

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4. (C) Nathan should position himself short in the short term CDS and long in the long term CDS.

Explanation

The investor anticipates a flattening curve and can exploit this possibility by positioning himself short (buying protection) in the two year CDS while going long in the five-year CDS (selling protection).

(Module 29.1, LOS 29.a)

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5. (B) long the VAX bonds and buy the CDS.

Explanation

This is a basis trade where the strategy is to exploit price differences between the bond market and the CDS market. The transaction is an arbitrage based on credit risk priced into the two products.

Nathan will pick up 60 bps in yield when it buys the bond and buys the CDS. Nathan is also fully protected against credit risk.

(Module 29.3, LOS 29.e)

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6. (C) $1.2 million $198.4 million

Explanation

Notional principal attributable to bonds of company X = $200 million/125 = $1.6 million.

Payoff on the CDS = $1.6 million - (0.25)($1.6 million) = $1.2 million.

After default, the CDS continues with (200-1.6) $198.4 million of notional principal.

(Module 29.1, LOS 29.a)

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7. (B) exposed to the credit risk of the protection seller.

Explanation

The credit protection buyer is exposed to the credit risk of the CDS seller. (Note that a CDS does not entirely eliminate credit risk; it eliminates the credit risk of the reference entity but substitutes it with the credit risk of the CDS seller.) The

protection buyer is said to be short the reference entity's credit risk and is bearish on the financial condition of the reference entity.

(Module 29.1, LOS 29.a)

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8. (B) $320,000 received by the protection buyer.

Explanation

Upfront payment = (CDS spread – CDS coupon) x duration x notional principal

= (0.03 – 0.05) x 4 x 4,000,000 = –$320,000

The protection buyer will receive an upfront premium of $320,000.

(Module 29.2, LOS 29.c)

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9. (A) the only obligation of the reference entity covered by a single-name CDS.

Explanation

The reference obligation is not the only instrument covered by the CDS: any debt obligation issued by the borrower that is ranked equivalently ("pari passu") in priority of claims, or higher, relative to the reference obligation, is covered. A CDS's reference obligation is typically a senior unsecured bond. In the case of physical settlement, the reference obligation is delivered by the protection buyer to the protection seller, in exchange for the CDS notional.

(Module 29.1, LOS 29.a)

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10. (B) The statement describing the bonds covered by a single name CDS.

Explanation

CDS do allow the separation of credit risk and interest risk on a bond. A long position in a CDS buys the protection against credit events and hence the investor is short credit risk.

Typically, a CDS will produce a pay off when any bond that ranks pari passu (same seniority) of the reference entity defaults.

The payoff on a credit event is the notional principal of the reference obligation less the market value of the cheapest to deliver bond. The cheapest to deliver bond must have the same seniority as the reference obligation.

(Module 29.1, LOS 29.a)

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11. (A) Buy the stock of the company and buy CDS protection on company's debt.

Explanation

In the case of a leveraged buyout (LBO), the firm will issue a great amount of debt in order to repurchase all of the company's publicly traded equity. This additional debt will increase the CDS spread because default is now more likely. An investor who anticipates an LBO might purchase both the stock and CDS protection, both of which will increase in value when the LBO happens.

(Module 29.3, LOS 29.e)

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12. (B) be set at 1% for investment-grade debt and 5% for high-yield debt.

Explanation

CDS fixed payments are customarily set at a fixed annual rate of 1% for investment-grade debt or 5% for high-yield debt. Fixed payments are made by the CDS buyer to the CDS seller. The protection buyer is obligated to make regular payments until maturity of the CDS or until default (whichever occurs first).

(Module 29.2, LOS 29.c)

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13. (B) Bond P.

Explanation

Bond Q is trading at the lowest price but the cheapest-to-deliver bond must rank pari passu with the reference obligation. Note that this is a CDS on a senior reference obligation and this bond is subordinated.

Bond R has the same seniority as the reference obligation but trades at a higher price than Bond P. Note that there is no requirement for the CTD bond to have the same maturity as the reference obligation.

Bond P has the same seniority as the reference obligation and trades at the lowest price. Payoff $15m – (0.45)($15m) = $8.25M.

(Module 29.1, LOS 29.a)

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14. (B) £1,440,000.

Explanation

Step 1:

Calculate the CDS spreads:
upfront premium (%) = (credit spread – CDS coupon) x duration
credit spread = (upfront premium / duration) + CDS coupon
At initiation: credit spread = (5/5) + 1 = 2%
1-year later: credit spread = (8/4) + 1 = 3%

Step 2:
Compute the approximate profit to the buyer as:
profit for protection buyer = change in spread x duration
= (0.03 – 0.02) x 4 x £36,000,000
profit = £1,440,000
(Module 29.1, LOS 29.a)
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15. (C) The description and example of the curve trade.
Explanation
The definition of the credit curve is accurate.
The definition of the naked CDS position is also correct. Be careful here because the purchaser of the CDS is said to be taking a short position in credit risk. This seems counter intuitive as we normally describe a purchaser as long and a seller as short.
The definition of a curve trade is correct, however, the example is incorrect. If we believe that the credit condition of the reference entity will improve over time we should purchase protection in a short maturity CDS and sell protection in a long maturity CDS.
(Module 29.1, LOS 29.a)
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16. (B) restructuring.
Explanation
CDS pay off upon occurrence of a credit event, which includes failure to pay, and bankruptcy. Restructuring is not considered a credit event in some countries (such as the United States, where bankruptcy is the preferred route.) Restructuring refers to events such as: reduction or deferral of principal or interest, change in the currency in which principal or interest will be paid, or change in an obligation's seniority or priority.
(Module 29.1, LOS 29.b)
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17. (C) sometimes made by the credit protection seller to the credit protection buyer.

Explanation

The CDS upfront payment may either be from the protection buyer to the seller, or vice-versa. If the credit spread is equal to the coupon rate, the upfront payment can be zero. CDS are valued by calculating the difference between the present value of the protection leg, versus the present value of the payment leg. The amount of upfront payment depends on the difference between the credit spread on the reference obligation and the CDS coupon rate, and hence need not be higher for a high-yield bond compared to an investment grade bond.
(Module 29.2, LOS 29.c)

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18. (A) When a credit event has occurred, with physical settlement, the protection seller receives the reference obligation and the protection buyer receives the market value of the reference obligation immediately prior to the credit event.

Explanation

In case of physical settlement, the protection buyer receives the notional principal and not the market value of the bond prior to the credit event.
(Module 29.1, LOS 29.b)

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19. (A) whenever the credit quality of the reference entity changes.

Explanation

CDS change in value over their lives as the credit quality of the reference entity changes; this leads to gains and losses for the CDS counterparties. This change in value will happen even though default may not have occurred — and even if it may never occur.
(Module 29.2, LOS 29.c)

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20. (B) A curve steepening trade.

Explanation

A credit curve steepening expectation would entail the credit spread for longer maturities increasing relative to the change in credit spread for shorter maturities. In such a scenario, one would buy protection for longer maturities and sell protection for shorter maturity (i.e., a curve steepening trade).
(Module 29.3, LOS 29.d)

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