Lease financing

i. Leasing is typically a financing decision and not a capital budgeting decision. Thus, the availability of lease financing cannot affect the capital budgeting decision.

a. True
b. False

Lease payments

ii. The full amount of a lease payment is tax deductible if the contract is a genuine lease.

a. True
b. False

Lease cash flows

iii. The riskiness of the cash flows to the lessee, with the possible exception of residual value, is about the same as the riskiness of the lessee's

a. Equity cash flows.
b. Capital budgeting project cash flows.
c. Debt cash flows.
d. Pension fund cash flows.
e. None of the above.

Net advantage to leasing (NAL)

iv. Redstone Corporation is considering a leasing arrangement to finance some special manufacturing tools that it needs for production during the next three years. A planned change in the firm's production technology will make the tools obsolete after 3 years. The firm will depreciate the cost of the tools on a straight-line basis. The firm can borrow $4,800,000, the purchase price, at 10 percent on a simple interest loan to buy the tools, or it can make three equal end-of-year lease payments of $2,100,000. The firm's tax rate is 40 percent. Annual maintenance costs associated with ownership are estimated at $240,000. What is the net advantage to leasing (NAL)?

a. $0
b. $106,200
c. $362,800
d. $433,100
e. $647,900

Warrants

v. The problem of dilution never arises with call options, but it can arise with warrants.

a. True
b. False
Convertibles

vi. Which of the following statements about convertibles is true?

a. The coupon interest rate on convertibles is generally higher than on straight debt.
b. New equity funds are raised by the issuer when convertibles are converted.
c. Investors are willing to accept lower interest rates on convertibles because they are less risky than straight debt.
d. At issue, a convertible's conversion (exercise) price is often set equal to the current underlying stock price.
e. None of the above statements is true.

Warrants and convertibles

vii. Which of the following statements about warrants and convertibles is false?

a. Both warrants and convertibles are types of option securities.
b. One primary difference between warrants and convertibles is that warrants bring in additional funds when exercised, while convertibles do not.
c. The coupon rate on convertible debt is lower than the coupon rate on similar straight debt because convertibles are less risky.
d. The value of a warrant depends on its exercise price, its term, and the underlying stock price.
e. Warrants usually can be detached and traded separately from their associated debt.

Preferred stock

viii. Which of the following statements concerning preferred stock is most correct?

a. Preferred stock generally has a higher component cost to the firm than does common stock.
b. By law in most states, all preferred stock issues must be cumulative, meaning that the cumulative, compounded total of all unpaid preferred dividends must be paid before dividends can be paid on the firm’s common stock.
c. From the issuer’s point of view, preferred stock is less risky than bonds.
d. Preferred stock, because of the current tax treatment of dividends, is bought mostly by individuals in high tax brackets.
e. Unlike bonds, preferred stock cannot have a convertible feature.

Bond with warrants

ix. Shearson PLC's stock sells for $42 per share. The company wants to sell some 20-year, annual interest, $1,000 par value bonds. Each bond will have attached 75 warrants, each exercisable into one share of stock at an exercise price of $47. Shearson's straight bonds yield 10 percent. The warrants will have a market value of $2 each when the stock sells for $42. What coupon interest rate
must the company set on the bonds-with-warrants if the bonds are to sell at par?

a. 8.00%
b. 8.24%
c. 8.96%
d. 9.25%
e. 10.00%

**Convertibles**

x. Florida Enterprises is considering issuing a 10-year convertible bond that will be priced at its $1,000 par value. The bonds have an 8.0 percent annual coupon rate, and each bond can be converted into 20 shares of common stock. The stock currently sells at $40 a share, has an expected dividend in the coming year of $5, and has an expected constant growth rate of 5.0 percent. What is the estimated floor price of the convertible at the end of Year 3 if the required rate of return on a similar straight-debt issue is 10.0 percent?

a. $ 902.63
b. $ 926.10
c. $ 961.25
d. $ 988.47
e. $1,000.00

**Currency appreciation**

xi. When the value of the U.S. dollar appreciates against another country's currency, we may purchase more of the foreign currency per dollar.

a. True
b. False

c. **International operations motivation**

xii. Which of the following are reasons why companies move into international operations?

a. To take advantage of lower production costs in regions of inexpensive labor.
b. To develop new markets for their finished products.
c. To better serve their primary customers.
d. Because important raw materials are located abroad.
e. All of the above.

**Exchange rates**

xiii. If one U.S. dollar buys 1.64 German deutsche marks, how many dollars can you purchase for one German mark?

a. 1.64
b. 3.28
c. 0.61
d. 1.00

e. 0.37

Currency appreciation Answer: a Diff: E

xiv. Suppose that 288 yen could be purchased in the foreign exchange market for two U.S. dollars today. If the yen is expected to depreciate by 8 percent tomorrow, how many yen could two U.S. dollars buy tomorrow?

a. 311 yen
b. 288 yen
c. 144 yen
d. 267 yen
e. 156 yen

Currency depreciation Answer: d Diff: M

xv. One British pound can purchase 1.82 U.S. dollars today in the foreign exchange market and currency forecasters predict that the U.S. dollar will depreciate by 12 percent against the pound over the next 30 days. How many dollars will a pound buy in 30 days?

a. 1.82
b. 3.64
c. 1.12
d. 2.04
e. 1.63

Cross rates Answer: e Diff: M

xvi. Suppose exchange rates between U.S. dollars and Swiss francs is SF 1.41 = $1.00 and the exchange rate between the U.S. dollar and the German mark is $1.00 = 1.64 DM. What is the cross-rate of Swiss francs to German marks?

a. 2.27
b. 1.41
c. 1.64
d. 0.43
e. 0.86

Purchasing power parity Answer: e Diff: M

xvii. A box of candy costs 28.80 Swiss francs in Switzerland and $20 in the United States. Assuming that purchasing power parity (PPP) holds, what is the current exchange rate?

a. 1 U.S. dollar equals 0.69 Swiss francs
b. 1 U.S. dollar equals 0.85 Swiss francs
c. 1 U.S. dollar equals 1.21 Swiss francs
d. 1 U.S. dollar equals 1.29 Swiss francs
e. 1 U.S. dollar equals 1.44 Swiss francs

Interest rate parity Answer: a Diff: M
xviii. 90-day investments in Britain have a 6 percent annualized return and a 1.5 percent quarterly (90-day) return. In the U.S., 90-day investments of similar risk have a 4 percent annualized return and a 1 percent quarterly (90-day) return. In the 90-day forward market, 1 British pound equals $1.65. If interest rate parity holds, what is the spot exchange rate?

a. 1 pound = $1.6582
b. 1 pound = $1.8000
c. 1 pound = $0.6031
d. 1 pound = $1.0000
e. 1 pound = $0.8500

Also, expect; 1) some listing type questions (e.g. list the differences between operating and financial leases), 2) a currency arbitrage question, and 3) some short answer questions. Most of the exam questions will be based on the assigned End-of-Chapter questions and problems.

i. Lease financing  Answer: b  Diff: E

ii. Lease payments  Answer: a  Diff: E

iii. Lease cash flows  Answer: c  Diff: E
iv. **Net advantage to leasing (NAL)**  

Annual depreciation = $4,800,000/3 = $1,600,000.

*(In thousands)*

<table>
<thead>
<tr>
<th>Year</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
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<tbody>
<tr>
<td>AT loan payment</td>
<td>($) 288</td>
<td>($) 288</td>
<td>($) 5,088</td>
<td></td>
</tr>
<tr>
<td>Maintenance cost</td>
<td>(240)</td>
<td>(240)</td>
<td>(240)</td>
<td></td>
</tr>
<tr>
<td>Maintenance tax savings</td>
<td>96</td>
<td>96</td>
<td>96</td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>1,600</td>
<td>1,600</td>
<td>1,600</td>
<td></td>
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<tr>
<td>Depreciation tax savings</td>
<td>640</td>
<td>640</td>
<td>640</td>
<td></td>
</tr>
<tr>
<td>Net cash flow (Lines 1+2+3+4)</td>
<td>$0</td>
<td>$208</td>
<td>$208</td>
<td>($4,592)</td>
</tr>
<tr>
<td>PV cost of owning (@6%)</td>
<td>($3,474.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**II. Cost of leasing**

8) Lease payment | ($2,100) | ($2,100) | ($2,100) |
9) Lease pymt tax savings (Line 8 x 0.4) | 840 | 840 | 840 |
10) Net cash flow | $0 | ($1,260) | ($1,260) | ($1,260) |
11) PV cost of leasing (@6%) | ($3,368.0) |

**III. Cost comparison**

12) Net advantage to leasing:  

\[ \text{NAL} = \text{PV cost of owning} - \text{PV cost of leasing} = \$3,474.2 - \$3,368.0 = \$106.2. \]

**Time lines: (In thousands)**

**Buying:**  

\[ \text{PV} = ? \]

\[ \begin{array}{cccc}
0 & I = 6\% & 1 & 2 & 3 \\
\text{Net CF} & 208 & 208 & -4,592 \\
\end{array} \]

**Leasing:**  

\[ \text{PV} = ? \]

\[ \begin{array}{cccc}
0 & I = 6\% & 1 & 2 & 3 \\
\text{Net CF} & -1,260 & -1,260 & -1,260 \\
\end{array} \]

**Financial calculator solution: (In thousands)**

**Buying:** Inputs: \( CF_0 = 0; CF_1 = 208; N_1 = 2; CF_2 = -4,592; I = 6. \)  
Output: \( NPV = -\$3,474.2. \)

**Leasing:** Inputs: \( CF_0 = 0; CF_1 = -1,260; N_3 = 3; I = 6. \)  
Output: \( NPV = -\$3,368.0. \)

\[ \text{NAL} = \$3,474.2 - \$3,368.0 = \$106.2. \]
ix. Bond with warrants

\[
\text{Total value} = \text{Straight-debt value} + \text{Warrant value}; \quad \$1,000 = V + 75(\$2)
\]

\[
V = \$850; \quad \$850 = \text{INT} (\text{PVIFA}_{10\%,20}) + \$1,000 (\text{PVIF}_{10\%,20})
\]

\[
\text{INT} = \$82.38; \quad \text{Coupon rate} = 8.24\%.
\]

x. Convertibles

\[
\text{Bond V} = 80 (\text{PVIFA}_{10\%,7}) + 1,000 (\text{PVIF}_{10\%,7}) = 902.63.
\]

\[
\text{Conversion V} = 20(\$40)(1.05)^3 = 926.10.
\]

The floor value is the greater of the bond value or the conversion value. Thus, the floor value is 926.10.

xi. Currency appreciation

You can get 1/1.64, or 0.61 dollars for one mark.

xii. International operations motivation

You can get 1/1.64, or 0.61 dollars for one mark.

xiii. Exchange rates

You can get 1/1.64, or 0.61 dollars for one mark.

xiv. Currency appreciation

If one gets 288 yen for two dollars, the exchange rate is 144 yen per dollar. If the yen depreciates by 8 percent we would get more yen per dollar. One U.S. dollar will equal 144 × 1.08 = 155.5 yen. Two dollars yields 311 yen (2 × 155.5 yen = 311 yen).

xv. Currency depreciation

The British pound will appreciate against the dollar by 12 percent.

\[
1\text{£} = 1.82 \text{US$} \times 1.12 = 2.04 \text{US$}.
\]

xvi. Cross rates

\[
\text{SF/DM} = (1.41/1) \times (1/1.64) = 1.41/1.64 = 0.86 \text{SF/DM}.
\]

xvii. Purchasing power parity

If PPP holds, the candy should cost the same in each country, so that 28.80 Swiss francs equals 20 U.S. dollars. This
relationship implies that 1 U.S. dollar equals 1.44 Swiss francs.

xviii. Interest rate parity

From the interest rate parity formula it follows that \( e_0 = (f_t)(1 + k_t)/(1 + k_h) = (1.65 \text{ dollars/pound})(1.015)/(1.01) = 1.6582 \text{ dollars/pound.} \)