

Sample Examination – Answers

Level 2

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QUESTION 1 - SAMPLE EXAM

(References: Book 4, SS16: Fabozzi, Chapter 3)

- A. Mortgage-backed securities holders face the risk that they will receive principal faster than expected. This “prepayment risk” has two components: **Contraction Risk** and **Extension Risk**.
1. *Contraction Risk*: When interest rates decline, two bad things can happen: (1) Similar to callable bonds, mortgage-backed securities exhibit **negative convexity** as interest rates decline. This negative convexity is due to the embedded option granted to the mortgage borrower to prepay. Hence, the upside potential of pass through securities is truncated because you receive your principal back sooner than you expected at par value. (2) A related drawback in a declining interest rate environment is **reinvestment rate risk**, or the fact that you must reinvest cash flows at a lower rate.
 2. *Extension Risk*: If interest rates rise, the price of the bond will fall *and* prepayments will slow. This is bad for mortgage investors because they would like to reinvest prepayments at today's higher rate of interest.
- B. **HIGH: Interest Only**: The IO receives the interest payment portion of the mortgage-backed security. As prepayments speed up, the expected cash flows to the IO holder decline since the principal balance of the pool is declining. Since expected cash flows are falling, the value of an IO will fall as prepayments rise.
- HIGH: Principal Only**: In contrast, the value of the PO will rise as prepayments rise. The main reason is that prepayments are made at par value and POs are purchased at a deep discount from par. Hence, higher prepayment rates cause a faster than expected return of principal and a higher yield.

QUESTION 2 - SAMPLE EXAM

(References: Book 2, SS4: Benninga & Sarig, Chapter 5; Book 3, SS10: Damodaran, Chapter 10)

- A. Since we expect Dell to have an 18% market share based on industry revenues of \$16,690.76, Dell's expected 1999 total revenue is:

$$\$16,690.76(.18) = \$3,004.34$$

- B. We need three components to estimate the constant growth valuation:

Expected dividends. First, find net income as 5% of your part A response of \$3,004.34 or expected net income is $(.05)(\$3,004.34) = \150.22 . Since the retention rate is 50%, the dividend payout must be $(1 - .50) = 50\%$. Hence, the expected gross dividend is $\$150.22 * .5 = \75.11 and the dividend per share is $\$75.11/10 = \mathbf{\$7.51}$

Growth rate: $g = (\text{retention rate})(\text{ROE}) = (.50)(\text{net income}/\text{equity book value}) = (.5)(\$150.22/1,200) = .0626$ or **6.26%**.

Required return: $k = \text{risk free} + \text{beta}(\text{market risk premium}) = 6\% + .9(6\%) = \mathbf{11.4\%}$

C. Hence, our constant growth valuation estimate is

$$P = \frac{D_1}{k - g} = \frac{7.51}{.114 - .0626} = \$146.11$$

D. This statement is incorrect. If you analyze the constant growth DDM, it *appears* that if D rises, the valuation will also rise. This may or may not be the case because an increase in the Dividend may also have an impact on both g and k .

- *The effect on k .* As the payout rises, the increased dividend payment may force the firm to take on more leverage due to the decline in internally generated funds for reinvestment. As leverage rises, the required return k may also rise, forcing the valuation down.
- *The effect on g .* Under the assumption that growth is supported solely through retained earnings, g equals the retention rate times ROE. Hence, as the dividend payout rises, retention falls, g falls, and the P/E ratio falls. So although D is rising in the intrinsic valuation, implying an increase in value, g may be falling if the increased dividend comes as a result of an increased dividend payout ratio. Hence, the net result is that the valuation may rise or fall depending on the movement in the dividend payout rate.

QUESTION 3 - SAMPLE EXAM

(References: Book 3, SS9: Reilly, Chapter 20; SS12: Peterson & Peterson)

A. Let's define EVA as:

EVA = Net Operating Profits adjusted for Cash Taxes minus the Dollar Cost of Capital

EVA measures whether or not the firm earned enough to cover its cost of capital. In other words, positive levels of EVA indicate that management has 'added value' for the firm's shareholders.

A **franchise factor** is defined as the relative rate of return on new business opportunities. The **franchise P/E** is that portion of the observed P/E ratio that is attributable to the return to *new* business opportunities. The franchise P/E is computed as: **Franchise P/E = Observed P/E – Base P/E** Where the base P/E = $1/k$. In other words, the base P/E is the no growth P/E and the franchise P/E is the **present value of growth opportunities** in terms of price per dollar of new earnings.

In theory, there is a direct relationship between EVA and MVA in that MVA is equal to the present value of future levels of EVA discounted at the cost of capital. Using a simple constant, no growth assumption, the MVA should equal:

$$\text{Market Value Added} = \frac{\text{Economic Profit}}{\text{WACC}}$$

This is an oversimplification, but it serves to illustrate the point that the MVA should equal the discounted value of the firm's future economic profit.

B. Peterson and Peterson test the usefulness of the EVA concept relative to several traditional measures of performance. The traditional measures of performance that are tested are basic earning power, ROA, ROE, cash flow ROA, and Tobin's q . The authors compare these measures with NOPAT, NOPAT/Capital, and MVA. The results of the study are as follows:

- In general, the correlations between the traditional measures of performance and stock returns are positive and significant.
- The correlations between the economic profit measures and stock returns are also positive and significant. The question is – do the economic profit measures *outperform* the traditional measures in their correlation with stock returns? The answer is not really.
- The bottom line is that although the economic profit measures are *theoretically superior* to the traditional performance methods, they do not outperform in their ability to gauge performance when applied to actual market data.

QUESTION 4 - SAMPLE EXAM

(References; Book 4, SS15-16: Fabozzi, Chapters 2, 5; Buetow et al.)

A. Simply comparing the yield spreads between two bonds of differential quality suffers from two drawbacks:

1. The analysis fails to consider the term structure of interest rates because the yield to maturity assumes that the yield curve is flat.
2. Interest rate volatility may change the value of the call or put option embedded in a callable or puttable bond.

B. *Static Spread*: This analysis concentrates on the first drawback of traditional yield spread analysis: failure to consider term structure.

A method for evaluating corporate bonds with different coupon rates is to compare the corporate to a portfolio of zero coupon Treasury securities with the same cash flow characteristics. The *risk-free* value of the corporate bond is the present value of the portfolio of zero coupon bonds discounted using the Treasury spot rate yield curve.

The difference between the corporate's actual price and the value of the portfolio of zeros represents the risk premium associated with the default risk of the corporate.

Option-Adjusted Spread: The option-adjusted spread compensates for the second drawback of traditional yield spread analysis: interest rate volatility and the value of embedded call options.

The option-adjusted spread takes the value of the embedded call option into account when performing a spread analysis and is measuring the spread without the option. Hence, we can use the OAS to compare bonds of similar credit quality but with differing embedded option features.

- C. Clearly Bond A is a callable bond with an option that is either in- or near-the-money. We know this because Bond A's effective duration is lower than its modified duration and its effective convexity is negative. Hence, use the effective duration and convexity in the approximate percentage price change computation.

$$dP/P = -(ED)(dR) + \frac{1}{2}(EC)(dR)^2 = -(4)(.001) + \frac{1}{2}(-169)(.001)^2 = -.00408$$

Hence, we expect a price decline of .408% for a 10bp increase in rates.

QUESTION 5 - SAMPLE EXAM

(Reference: Book 4, SS18: Fabozzi, Chapter 8)

The conversion value of the bond is the number of shares upon conversion times the stock price. Since we are to receive 10 shares and each share is worth \$40, the conversion value is \$400.

The payback period uses the conversion value in conjunction with the relative coupon pickup to judge how long you have to hold the bond to recoup the difference between the price of the bond and its equity value through the higher yield on the bond relative to the equity.

If converted, you could buy 10 common shares. The income from these shares would be \$4 = \$.40 * 10. Hence, the payback equals: $[920 - 400]/[80 - 4] = 6.84$ years."

Since we don't know the price of the stock at the end of the first year, we will have to approximate the return to the stock investment over two years. The two-year return from holding the stock outright would be approximately $(\$70.80 - \$40)/\$40 = .77$ or annualized is approximately 33.04%.

We don't need to compute the horizon return on the bond to answer the question because if conversion is assumed, a bond that we purchase today for \$920 will only be worth $10 * \$70 = \700 upon conversion in two years. Since the investment horizon is below the payback period, the relative level of coupons will not compensate for this and the horizon return will be negative. Hence, since our investment horizon is two years, we have assumed conversion, and the return on an outright stock investment is expected to be 33.04%, **buy the stock outright.**

QUESTION 6 - SAMPLE EXAM

(Reference: Book 3, SS 10: Damodaran, Chapters 10 & 12; SS13, Billingsley)

- A. According to the CAPM, the required rate of return is:

$$R_{HI} = R_f + \beta(\text{Market Risk Premium})$$

$$R_{HI} = 6\% + 1.3(6\%) = 13.8\%$$

Since HI earned 15% on book value, earnings this year were $\$300,000 = .15 * \2 million .

With a dividend payout of 40%, this gives last year's dividend at $\$300,000 * .4 = \$120,000$.

With 100,000 shares outstanding this gives a $DPS_0 = \$1.20$.

We can also compute the growth rate as $g = \text{retention}(\text{ROE}) = (1 - .4)(15\%) = 9\%$. Hence,

$$\text{Value} = \frac{\$1.2(1.09)}{.138 - .09} = \$27.25$$

- B. HI's old book value per share is $\$2 \text{ million} / 100,000 = \20 per share . If HI sells 10,000 new shares at $\$27.25 \text{ per share}$, book value will increase by $\$27.25 * 10,000 = \$272,500$. Hence, new book value is $\$2,272,500$ and shares outstanding equals 110,000.

New book value per share is:

$$\$2,272,500 / 110,000 = \$20.66 \text{ per share.}$$

- C. First, compute Firm Free Cash Flow as:

$$\begin{aligned} \text{FCFF} &= \text{EBIT}(1-t) + \text{Depreciation} - \text{Additions to Working Capital} - \text{CAPEX} \\ \text{FCFF} &= \$400,000(1-.15) + \$40,000 - \$20,000 - \$30,000 = \mathbf{\$330,000} \end{aligned}$$

Next, compute the WACC:

$$\begin{aligned} \text{WACC} &= (50\% \text{ equity})(\text{Equity cost}) + (50\% \text{ debt})(\text{After-tax cost of debt}) \\ &= .50(.138) + .50(1 - .15)(.10) = .1115 \text{ or } 11.15\% \end{aligned}$$

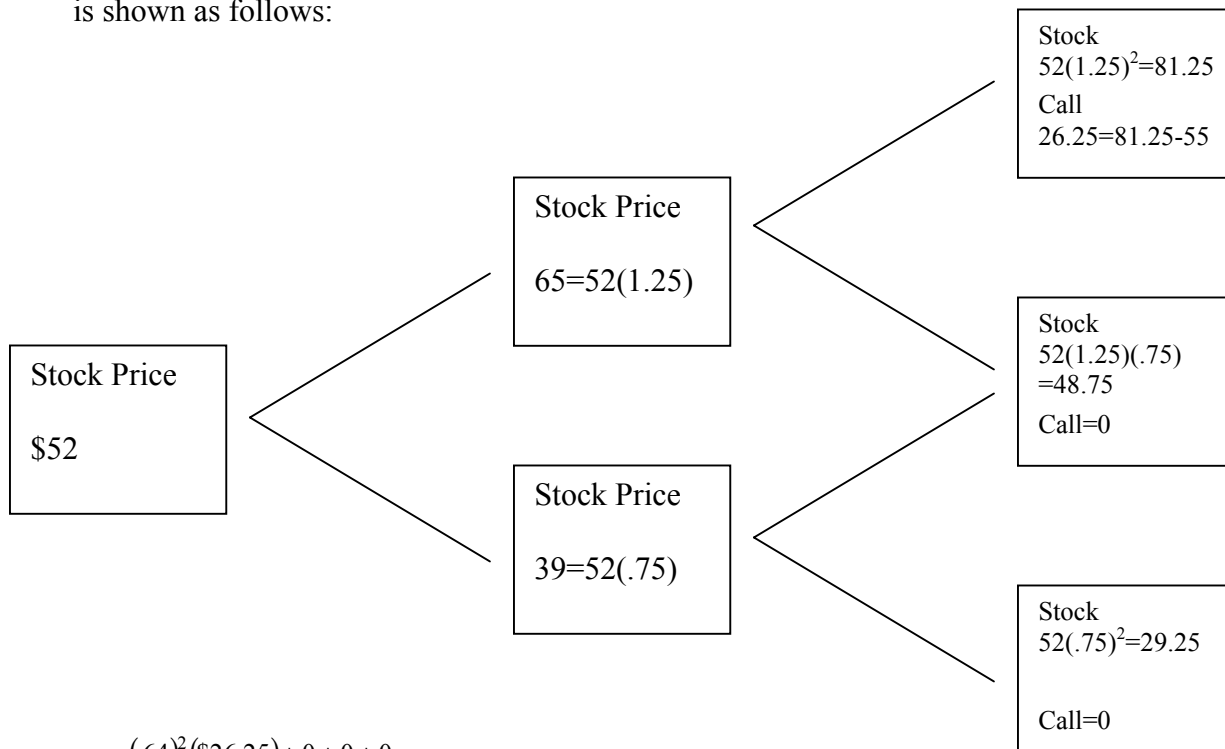
Therefore,

$$\text{Value} = \frac{\$330,000(1.08)}{.1115 - .08} = \$11,314,286$$

Hence, the value of the firm is $\$11,314,286$.

QUESTION 7 - SAMPLE EXAM
(References: Book 2, SS18: Kolb, Chapter 13)

- A. The current stock price is \$52 from the table in the introduction. The completed template is shown as follows:



B.
$$c_t = \frac{(.64)^2(\$26.25) + 0 + 0 + 0}{(1.07)^2} = \$9.39$$

- C. When you own a call option, you do not own the underlying shares and will not receive and cash flows that are paid on the underlying. The impact of a dividend is to decrease the valuation of a call option (all else the same). This is due to the fact that on the ex-dividend date, the share price falls by the amount of the dividend. This expected decrease in the value of the stock must be considered when valuing the option.

QUESTION 8 - SAMPLE EXAM
(References: Book 1, SS1: AIMR)

1. C. The Standards state that members shall not engage in any professional conduct involving dishonesty, fraud, deceit, or misrepresentation or commit any act that reflects adversely on their honesty, trustworthiness, or professional competence. The Standards prohibit misrepresentation by means of any untrue statement or omission of material fact necessary to make the statements not misleading in light of the circumstances under which the recommendations were made. In responding to inquiries about any financial relationship between Wickett and Vector Funds, Philip accurately stated that no relationship existed between them, but he failed to disclose the economic relationship that he personally had with Smith. The fact that Philip was receiving compensation from Smith for selling Vector investment

products was a material fact because such an arrangement would likely be viewed by a reasonable investor as having altered the total mix of information made available. ***This material fact was omitted by Philip.*** Philip thus violated this standard by fraudulently concealing his relationship with Smith and falsely leading clients to believe that his advice was disinterested. The key word in the problem statement is that this arrangement is *personal*.

2. B. There is nothing wrong with the use of his title or his stating that he has a MSc degree. However, Standard II (A) states that “the CFA mark must be used as an adjective, not a noun, and should never be used in the plural or the possessive.” He should refer to himself as a CFA charterholder, or as someone who has earned the right to use the CFA designation.
3. D. Philip is entitled to brew his own beer (within the statutory limitations of his country of residence) and consume it at home. There is nothing to indicate that he is in violation of AIMR Standards in doing so.
4. C. Philip must provide acknowledgment for the source of the information taken from the MacIntosh research report. His failure to do so is in violation of Standard II (C), Prohibition Against Plagiarism. His use of the financial data is acceptable under AIMR Standards.
5. B. AIMR members are required “to disclose fully all actual and potential conflicts of interest.” The fact that the compensation is in a form other than actual cash is not relevant.
6. A. Philip is not under any obligation to disclose the relationship, unless there is some reason to believe that his golfing with the CFO is impairing his ability to make unbiased and objective recommendations. There is no evidence provided to this effect.

QUESTION 9 - SAMPLE EXAM

(References: Book 1, SS2: AIMR – Preston Partners)

1. A Explanation: A is false because Harrison did not adhere to the Fair Dealing standard. Standard IV(B.3) states that no client shall be put at a disadvantage as a result of the portfolio manager’s fiduciary duty to the client. Despite the fact that the company manual was incomplete and did not provide a clear policy or guideline in this matter, Harrison is held accountable for adhering to the Code and Standards, of which he should be aware as a member.

Others are incorrect because: Jamison violated Standard III(E) as the firm did not put into place adequate supervisory procedures and clear compliance policies for the employees of the firm. It is not enough that violations are detected after they have been made. The policies, procedures and monitoring efforts should prevent violations from occurring. Harrison did not violate Standard V(A) relating to

material non-public information since he performed his own due diligence and did not base his investment decision on the meeting of the two executives alone. He relied on the “mosaic” produced by his research and observance of the meeting. The case implies that he did not overhear the conversation, trading on which would have put him in violation of the Standards and the laws.

2. B Explanation: Harrison did not assess the suitability of the two stocks for the different risk tolerances of Jamison’s clients, which can be classified into two categories: conservative and aggressive. Vermont Biochemical was not appropriate for conservative personal trust accounts but he allocated it to them anyway.

Others are incorrect because: Harrison did not violate Standard V(A) relating to material non-public information since he performed his own due diligence and did not base his investment decision on the meeting of the two executives alone. He relied on the “mosaic” produced by his research and observance of the meeting. The case implies that he did not overhear the conversation, trading on which would have put him in violation of the Standards and the laws. Jamison was remiss in discharging their duties as they did not lay down clear policies and guidelines for allocation of block trades, in violation of Standard IV(B.3). As mentioned, Vermont Chemical was probably not an appropriate investment for trust accounts and the statement is, therefore, false.

3. C Explanation: Block trades, if allocated fairly among client accounts, are not a violation of the Standards.

Others are incorrect because: Jamison violated Standard III(E) by not laying down clear policy guidelines and procedures to prevent violations from occurring. Procedures should not only uncover violations but they should also prevent them from taking place.

4. A Explanation: To comply with Standard III(E), supervisors must be held accountable for their employees’ actions governed by laws and regulations and held responsible for ensuring that employees who report to them, directly or indirectly, comply with company policies and procedures.

5. B Explanation: Standard IV(B.3) addresses fair dealing when it comes to clients. Block trades, if executed at different prices, must be allocated in such a way that all client accounts are charged the same average price and commission. One way to achieve this fair allocation is to allocate them pro rata across all accounts, with no preferential treatment. The suitability of investments for a particular client is covered by Standard IV(B.2).

QUESTION 10 - SAMPLE EXAM

(References: Book 1, SS3: Mason, Lind & Marchal, Chapter 12)

1. B Standard Error of the estimate is the measure of dispersion about the regression line, often called the unsystematic variation. The square root of MSE is the standard error. $\sqrt{1032.17} = 32.13$
2. B T-Statistic = slope coefficient/ standard error of slope coefficient = $34.74/9.91=3.5$. The t-statistic is used to test for the significance of the estimated coefficient. If the computed t is greater than the critical t then we reject the null hypothesis that the coefficient estimate is equal to zero.
3. D T-Statistic = coefficient/ standard error of intercept = $47.7/92.28= .52$. This is less than the critical value of t for all reasonable levels of confidence.
4. A F-Statistic = $\frac{SSR/\# \text{ independent variable}}{SSE/n - (\# \text{ independent variable}+1)} = 12665/(8257.37/8) = 12.2$

The F statistic measures the statistical significance of all slope coefficients as a whole. In simple linear regression, the F test and T-test are testing the same thing since there is only one independent variable.

5. C $R^2 = SSR/SS \text{ Total} = 12665.12/20922.5 = .61$. R^2 measures the percentage of variation in the dependent variable that is explained by the variability of independent variable.
6. D Correlation coefficient = $\sqrt{R^2} = \sqrt{.61}=0.78$. Correlation coefficient (ρ) measures the strength of relationship between any two variables. For simple regression, $R^2 = \rho^2$
7. C Estimated Sales = Intercept + Slope(12) = $47.7 + 34.74*12 = 464.5$
8. A $T = \rho(\sqrt{n-2})/\sqrt{1-\rho^2} = .78*\sqrt{8}/\sqrt{1-.61} = 3.5$. This result is greater than the critical value of t at the 95% level but not the 99.99% level.
9. C Upper Limit = Expected Sales + $1.96*(\text{Standard Error of the Estimate})$
 $= 464.54 + 1.96* 32.12 = 527.5$
The confidence interval provides a range of dependent variable values for a given value of the dependent variable and a given level of probability.
10. D Lower Limit = Expected Sales - $1.96*(\text{Standard Error of the Estimate})$
 $= 464.54 - 1.96* 32.12 = 401.5$
11. A Upper Limit = Coefficient + $1.96*\text{Standard Error of the coefficient}$
 $= 34.74 + 1.96*9.91 = 54.17$

12. C Lower Limit = Coefficient - 1.96*Standard Error of the coefficient
= 34.74 - 1.96*9.91 = 54.17

QUESTION 11 - SAMPLE EXAM

(References: Book 2, SS4: Shapiro, Chapter 7)

1. B PPP requires that the differential in the change in the prices between the two countries be reflected in the current exchange rate. Hence, if PPP held strictly and no other forces were at play, then the current spot rate should be equal to the initial spot rate times the ratio of the price level in the U.S. to the price level in the U.K., i.e. $1.17 \times (115/123) = 1.09$.
2. C PPP requires that the differential in the change in the prices between the two countries be reflected in the current exchange rate. Hence, if PPP held strictly and no other forces were at play, then the current spot rate should be equal to the initial spot rate times the ratio of the price level in the U.S. to the price level in the U.K., i.e. $1.17 \times (115/123) = 1.09$. Did PPP hold? Since the PPP estimate of 1.09 is not equal to the actual spot rate of 1.2312, PPP did not hold.
3. A The dollar is appreciating relative to the pound, or, stated conversely, the pound is depreciating relative to the dollar, i.e., it takes fewer dollars to buy a pound in the future than it does today. Hence, it must be the case that interest rates are higher in the U.K. Remember, countries with higher interest rates will experience depreciating currencies.
4. D Under PPP, the future spot rate should change in proportion to the inflation differential between the two countries. Hence, the expected spot rate in three years is the current spot rate times the inflation differential, i.e., $1.2312 \times [(1.02)^3 / (1.04)^3] = 1.1615$.
5. B The generalized Fisher effect says that real rates should be the same across borders, and that nominal is real plus inflation. If markets are integrated, then the real rates must be the same in both countries. So, in the U.K., the interest rate must be: 3% (real) + 4% (inflation) = 7%. In the U.S., the real rate must also be 3% so the nominal rate must be: 3% + 2% = 5%.
6. D While the PPP does not hold in a strict sense, exchange rates do tend to converge to the PPP over the long run. PPP is not useful in predicting short term changes in exchange rates.

QUESTION 12 - SAMPLE EXAM

(References: Book 2, SS4: Shapiro, Chapter 5)

1. B TexsMax is effectively long DM, i.e., they will receive DM as payment on the contract. Hence, they need to short or sell the DM440,000 forward in order to receive \$.

2. B The \$/DM is an American quote in the interbank market (quoted as \$ per unit of FC). In the local markets, the quotes are made as units of domestic currency (DC) per unit of FC, as DC/FC. Hence, the \$/DM could also be considered a direct quote in the local markets in the US. However, \$/DM is an *indirect* quote in Germany. Since the quote is also a spot quote, it is for immediate delivery.
3. D The direct quote in Germany will be DM/£. To obtain the DM/£ quote, simply divide the \$/£ quote by the \$/DM quote to get the DM/£ quote of 2.704, i.e., 1.2312/.4552.
4. A The forward premium or discount is frequently stated as an annualized percentage using the following formula:

$$\left(\begin{array}{c} \text{Forward premium} \\ \text{or discount} \end{array} \right) = \left(\frac{\text{Forward rate} - \text{spot rate}}{\text{spot rate}} \right) \left(\frac{360}{\# \text{ of forward contract days}} \right)$$

For the data given, the discount in raw terms is $-0.016082 [(1.2114 - 1.2312) / 1.2312]$. (Editors Note: the discount or premium in raw terms is frequently referred to as the forward differential). To convert to annualized terms, multiply by 4 (i.e., $360/90 = 4$) to get -0.064327 .

5. C There are several ways to solve this. The easiest is to use the interest rate parity equation rewritten as:

$$1 + r_D = \frac{(1 + r_F)(\text{forward rate})}{\text{spot rate}}$$

The left-hand side of the equation is the domestic interest rate while the right-hand side is the hedged foreign rate. In the problem, you are given all elements other than the foreign interest rate. Let $X = 1 + r_F$. Then, $1.05 = X (\text{forward/spot}) = X (.4723/.4552) = X (1.037566)$. Hence, $X = 1.01198$. So, rounded to the nearest .1 percent, the interest rate in Germany must be 1.2%. Make sure to keep track of the decimal place.

6. D This is essentially an interest rate parity question. Remember, interest rate parity is a simple arbitrage relationship and will always hold. All that you have to do is determine what forward rate eliminates any arbitrage possibilities. Recall that for there to be no arbitrage, $1 + r_D = 1 + r_F (\text{forward} / \text{spot})$. For the question, we know that $1.05 = 1.07 (\text{forward} / 1.2312)$. So, using a little algebra, we see that the forward rate that makes the interest rate differential equal to zero is 1.2082.

QUESTION 13 - SAMPLE EXAM

(References: Book 1, SS5-6: WS&F Chapters 13, 14, 15)

1. B Under consolidation, the debt-to-equity ratio will be higher, because the parent company must include the high amount of debt that the finance company has on their balance sheet. In this case UM, using the equity method, does not carry their finance company's debt on their balance sheet and, therefore, will have a lower debt-to-equity ratio than if it used the consolidation method.
2. D Net income is the same under both methods, but total assets are higher under the consolidated method because all of the finance company's assets must be included on the balance sheet of the parent.
3. B Because of the higher debt level characteristic of finance companies, they typically have a higher interest expense. EBIT is likely to increase under the consolidated method, but the substantially higher interest expense will reduce the interest coverage ratio under consolidation.
4. C Under the consolidation method, sales would not increase because the interest and fee revenues of the finance subsidiary won't be included (interest and fee revenue is not considered as sales to the standard industrial company). However, the accounts receivable of the subsidiary must be included in the parent's balance sheet, increasing their receivables. This will cause the accounts receivable turnover ratio to be lower.
5. D The purchase method of accounting combines two companies without restating prior data and creates a discontinuity in the data. It becomes difficult to discern if changes in growth rates and ratios are a result of the company's ongoing business, or if they are a result of the company's acquisitions.
6. D Crystal's pre-acquisition assets are carried at historical cost, but the assets of each of their acquisitions must be carried at fair market value as of the date of the acquisition. The result is a mixture of assets that are carried at historical cost and some that were marked to market on a date that may be well after the assets were actually acquired. This makes a direct comparison between the asset ratios of UM and C less meaningful.
7. B The local currency is best defined as the currency that is used in the country in which the company is located. In this case the subsidiary is located in Germany, making the local currency the DM. The functional currency is the currency in which the company primarily transacts. Because the majority of the subsidiary's operations take place in France, the FF is considered to be the functional currency. The company is a fully owned subsidiary of National, and therefore the U.S. dollar will be the reporting currency.

8. D The local currency is the DM, the functional currency is the FF, and the USD is the reporting currency.
9. A Remeasurement is the process under which local currency results are translated into the functional currency. The temporal method of currency translation is required under SFAS 52. Under this method non-monetary assets such as inventories and property and liabilities are translated using historical exchange rates. Because the subsidiary uses the FIFO method in accounting for its inventories and the local currency is appreciating relative to the functional currency, sales (translated at the average rate) will increase more rapidly than cost of goods sold, COGS, which will lag in recognizing price level changes. This will cause the gross profit margin percentage to increase.
10. A Because depreciation is based on historical costs, this expense will not increase as rapidly as sales when the local currency is appreciating vs. the functional currency. Thus, the operating profit margin will increase after remeasurement.
11. D Transaction and translation gains and loss will be reported in net income and therefore may offset the lagging effects on COGS and depreciation expense caused by the appreciation of the local currency. This may cause the net profit margin to be higher or lower and therefore there is not enough information to answer this question accurately.
12. B After the results have been translated from the local currency in to the functional currency under the temporal method, they must be translated in to the reporting currency under the all-current method, as required by SFAS 52. All balance sheet items will be translated at the exchange rate prevailing on the date that the financial statements are prepared and all income statement items will be translated at the average exchange rate over the reporting period. Therefore pure income statement ratios will not be affected since they are translated using the same exchange rate.

QUESTION 14 - SAMPLE EXAM

(References: Book 1, SS7: White Sondhi and Fried, Chapter 17)

ABC Company
Adjusted Balance Sheet
(in thousands of dollars)

<u>Assets</u>		<u>Liabilities and Stockholders' Equity</u>	
Cash	\$ 5,000	Accounts payable	\$18,000
Marketable securities	3,000	Notes payable	<u>7,000</u>
Accounts receivable	20,000	Total current liabilities	\$25,000
Inventories	<u>10,000</u>		
Total current assets	\$38,000	Long-term debt	\$25,000
		Capitalized operating leases	10,000
Net P, P, & E	\$90,000	Preferred stock (100,000 shares)	\$7,000
Intangible assets	<u>2,000</u>	Common stock (4 million shares)	40,000
		Retained earnings	32,000
Total assets	\$130,000	Net equity adjustments	<u>-9,000</u>
	0	Total stockholders' equity	<u>\$70,000</u>
		Total liabilities & equity	\$130,000

Equity adjustments: $-\$8,000$ [goodwill] $-1,000$ [increase in long-term debt] = $-\$9,000$

1. a. $\$24,000 / \$79,000 = 0.304$
2. b. $\$35,000 / \$70,000 = 0.500$
3. d. $\$250,000 / \$80,000 = 3.125$ times
4. c. $\$250,000 / \$90,000 = 2.778$ times

QUESTION 15 - SAMPLE EXAM

(References: Book 1, SS5-7: White Sondhi and Fried, Chapter 13, 14, 17)

1. C This is the description of the *cost method*.
2. A In the case of available-for-sale securities, unrealized gains and losses are excluded from the income statement and are reported as a component of shareholders' equity.
3. C $0.20 (\$50,000 + 100,000) = \$30,000$

4. C $[(0.4) (\$10,000)] - [(0.4)(0.3)(\$10,000)] = \$2,800;$
 $(0.4)(\$500) = \$200;$
 $(0.4)(\$900) = \$360.$
5. C The lack of information on liabilities is one of the weaknesses of segment reporting.