


 34


 SECURITY MARKET
INDEXES

- With regard to stock market indexes, it is least likely that:
 - the use of price weighting versus market value weighting produces a downward bias on the index.
 - buying 100 shares of each stock in a price-weighted index will result in a portfolio that tracks the index quite well.
 - a market-cap weighted index must be adjusted for stock splits but not for dividends.
- The table below lists information on price per share and shares outstanding for three companies-Lair Enterprises, Kurlaw, Inc., and Mowe, Ltd.

Stock	As of Beginning of Year		As of End of Year	
	Price Per Share (\$)	# Shares Outstanding	Price Per Share (\$)	# Shares Outstanding
Lair	15	10,000	10	10,000
Kurlaw	45	5,000	60	5,000
Mowe	90	500	110	500

Assume that at the beginning of the year, the value of the market-weighted index was 100. The one-year return on the market-cap weighted index is closest to:

- 13.33%.
 - 30.0%.
 - 8.33%.
- Which of the following equity indexes is an example of a market capitalization weighted index?
 - Dow Jones Industrial Average.
 - MSCI All Country World Index.
 - Nikkei Stock Average.
 - Which of the following statements regarding fixed income indexes is most accurate?
 - Because some fixed income securities are illiquid, indexes may include estimates of value.

- (B) Compared to stock indexes, turnover is typically lower in fixed income.
- (C) It is typically easier for portfolio managers to replicate a fixed income index than an equity index.

5. Which type of stock index must be adjusted for stock splits?

- (A) Market capitalization weighted index.
- (B) Price weighted index.
- (C) Equal weighted index.

6. Voluntary reporting of performance by hedge fund managers leads to:

- (A) no appreciable bias in hedge fund index returns.
- (B) an upward bias in hedge fund index returns.
- (C) a downward bias in hedge fund index returns.

7. Equal weighting is the most common weighting methodology for indexes of which of the following types of assets?

- (A) Equities.
- (B) Fixed income securities.
- (C) Hedge funds.

8. What is the market-cap weighted index of the following three stocks assuming the beginning index value is 100 and a base value of \$150,000?

As of December 31		
Company	Stock Price	Shares Outstanding
X	\$1	5,000
Y	\$20	2,500
Z	\$60	1,000

- (A) 100.
- (B) 77.
- (C) 30.

9. The value of a security market index at the end of December is 1,200. The index returns for the next six months are:

Month	Return
January	3.89%
February	8.76%
March	-4.74%

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April	6.88%
May	-5.39%
June	-8.12%

The index value at the end of June is closest to:

- (A) 1,214.
- (B) 1,200.
- (C) 1,186.

10. Commodity price indexes are based on the prices of:

- (A) commodities.
- (B) futures contracts.
- (C) real assets such as grains, oil, and precious metals.

11. In one year, a security market index has the following quarterly price returns:

First quarter	3%
Second quarter	4%
Third quarter	-2%
Fourth quarter	5%

The price return for the year is closest to:

- (A) 10.00%
- (B) 10.2%.
- (C) 9.9%.

12. An equity index comprised of value stocks, identified by their price-to-earnings ratios, is best described as a:

- (A) style index.
- (B) sector index.
- (C) fundamental weighted index.

13. Creating a bond market index is more difficult than constructing a stock market index due to:

- (A) lower price volatility of bonds versus stocks.
- (B) lack of continuous trade data for bonds.
- (C) a narrower universe of bonds versus stocks.

14. Which of the following indexes is a price weighted index?
- (A) The New York Stock Exchange Index.
 - (B) The Nikkei Dow Index.
 - (C) The Standard and Poor's Index.
15. Which of the following is least likely required when defining a security market index? The:
- (A) number of securities in the index.
 - (B) target market the index will represent.
 - (C) weighting method for the index.
16. James Investments is calculating an equally weighted index on a four stock portfolio.

Stock	Number of Shares	Initial Cost	Current Cost
W	100	5.00	5.00
X	1,000	10.00	12.50
Y	500	7.50	10.00
Z	1500	5.00	8.00

If the initial index value is 100, the current index is closest to:

- (A) 129.5.
 - (B) 142.6.
 - (C) 137.9.
17. The target market for a security market index is best described as the:
- (A) investors who will follow the index.
 - (B) market or segment the index is designed to measure.
 - (C) portfolio managers who will track the index.
18. Which of the following statements regarding bond market indexes is least accurate?
- (A) The bond universe is more stable than the stock universe.
 - (B) There are more bond issues than stocks.
 - (C) Unlike stocks, bonds lack continuous price trading data.
19. Contreras Fund is a mutual fund that invests in value stocks. The most appropriate type of equity index to use as a benchmark of manager performance for Contreras Fund is a:
- (A) broad market
 - (B) sector index.
 - (C) style index.

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20. Which type of equity market index is most likely to be adjusted for free float?

- (A) Price weighted.
- (B) Value weighted.
- (C) Fundamental weighted.

21. An index was recently begun with the following two stocks:

- Company A - 50 shares valued at \$2 each.
- Company B - 10 shares valued at \$10 each.

Given that the value-weighted index was originally set at 100 and Company A's stock is currently selling for \$4 per share while Company B's stock is still at \$10 per share, what is the current value of the price-weighted index and the market-cap-weighted index?

<u>Price-weighted</u>	<u>Market-cap-weighted</u>
(A) 7	150
(B) 7	300
(C) 8	150

22. Which of the following sets of indexes are price-weighted?

- (A) Dow Jones Industrial Average and Nikkei Dow Jones Stock Market Average.
- (B) S&P 500 Index and Dow Jones Industrial Average.
- (C) Dow Jones World Stock Index and Russell Index.

23. The table below lists information on price per share and shares outstanding for three stocks.

Stock	As of beginning of Year		As of End of Year	
	Price per Share (\$)	# Shares Outstanding	Price per Share (\$)	# shares Outstanding
Mertz	10	10,000	15	10,000
Norton	50	5,000	50	5,000
Rubble	100	500	85	500

At the beginning of the year, the value of a market-cap weighted index of these three stocks was 100. The index value at year-end is closest to:

- (A) 44.3
- (B) 93.8
- (C) 110.6

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24. When a security is added to a widely followed market index, the security's price is most likely to:
- (A) be unaffected.
 - (B) decrease.
 - (C) increase.
25. An analyst using the capital asset pricing model is most likely to use a security market index as a proxy for:
- (A) beta.
 - (B) the risk-free rate.
 - (C) the market return.
26. Compared to S&P 500 index weighting, an equities index that is weighted based on a fundamental factor, such as earnings, will most likely.
- (A) have a value tilt.
 - (B) have a momentum tilt.
 - (C) overweight firms with high EPS.

27. What is the price-weighted index of the following three stocks?

As of December 31, 2001		
Company	Stock Price	Shares Outstanding
A	\$50	10,000
B	\$35	20,000
C	\$110	30,000

- (A) 80.
 - (B) 65.
 - (C) 75.
28. Which of the following is NOT a reason bond market indexes are more difficult to create than stock market indexes?
- (A) Bond deviations tend to be relatively constant.
 - (B) There is a lack of continuous trade data available for bonds.
 - (C) The universe of bonds is much broader than that of stocks.

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29. The providers of the Smith 30 Stock Index remove Jones Company from the index because it has been acquired by another firm, and replace it with Johnson Company. This change in the index is best described as an example of:
- (A) reconstitution.
 - (B) redefinition.
 - (C) rebalancing.
30. Reconstitution of an index refers to:
- (A) removing some securities from the index and adding others.
 - (B) adjusting the weights of the securities that constitute the index.
 - (C) changing the methodology used to calculate the value of the index.
31. Ken Miller, CFA, wants to compare the returns on government agency bonds to the returns on corporate bonds. Peg Egan, CFA, wants to compare the returns on high yield bonds in developed markets to the returns on investment grade bonds in emerging markets. Which of these analysts is most likely able to use bond indexes for their analysis?
- (A) Both of these analysts.
 - (B) Neither of these analysts.
 - (C) Only one of these analysts.
32. Which of the following statements is most accurate regarding commodity indexes?
- (A) Commodity indexes are based on spot prices, while most investors purchase futures contracts.
 - (B) The return to commodity indexes consists of two major components: the risk-free rate of return and the roll yield.
 - (D) Weighting methodology varies among index providers and leads to differences in index risk and returns.
33. The Top Banking Index contains stocks in the finance industry that represent more than 90% of the total market capitalization for the finance industry. The index is best described as a:
- (A) broad market index.
 - (B) sector index.
 - (C) style index.
34. The most appropriate benchmark for measuring the relative performance of an investment manager is:
- (A) an index that matches the manager's investment approach.
 - (B) the risk-adjusted return on the market portfolio.
 - (C) a broad market index.

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35. The first step in developing a security market index is choosing the index's:
- (A) constituent securities.
 - (B) target market.
 - (C) weighting method.
36. The type of securities market index that has a bias toward value stocks is an index with weights based on:
- (A) earnings.
 - (B) security prices.
 - (C) market capitalization.
37. A high yield bond fund states that through active management, the fund's return has outperformed an index of Treasury securities by 4% on average over the past five years. As a performance benchmark for this fund, the index chosen is:
- (A) inappropriate, because the index does not reflect the actual bonds in which the fund invests.
 - (B) inappropriate, because the index return does not reflect active management.
 - (C) appropriate.
38. Assume a stock index consists of many firms who have recently split their stock. Which of the following weighting schemes will see a bias due to the impact of stock splits?
- (A) Market value-weighted series.
 - (B) Price-weighted series.
 - (C) Unweighted price series.
39. Which of the following statements about a security market index is most accurate?
- (A) An index must use actual prices from market transactions.
 - (B) An index may reflect dividends paid by its constituent securities.
 - (C) If an index increases by 5% in one year, the market return for the year is 5%.
40. Compared to a value-weighted index, the type of index most likely to have a value tilt is a(n):
- (A) equal-weighted index.
 - (B) fundamental-weighted index.
 - (C) price-weighted index.
41. Which of the following statements best describes the investment assumption used to calculate an equal weighted price indicator series?
- (A) A proportionate market value investment is made for each stock in the index.
 - (B) An equal dollar investment is made in each stock in the index.
 - (C) An equal number of shares of each stock are used in the index.

42. Which of the following statements about indexes is CORRECT?
- (A) An equal weighted index assumes a proportionate market value investment in each company in the index.
 - (B) A market weighted series must adjust the denominator to reflect stock splits in the sample over time.
 - (C) A price-weighted index assumes an equal number of shares (one of each stock) represented in the index.
43. Six months after inception, the price return and the total return of an equal-weighted index will be different if:
- (A) capital gains exceed capital losses or vice versa.
 - (B) constituent securities have paid dividends.
 - (C) market prices have not changed.
44. The value of a total return index:
- (A) may increase at either a faster or slower rate than the value of a price return index with the same constituent securities and weights.
 - (B) can be calculated by multiplying the beginning value by the geometrically linked series of periodic total returns.
 - (C) is determined by the price changes of the securities that constitute the index.
45. When using a security market index to represent a market's performance, the performance of that market over a period of time is best represented by:
- (A) the index value.
 - (B) the percent change in the index value.
 - (C) the change in the index value.
46. An index provider maintains a price index and a total return index for the same 40 stocks. Assuming both indexes begin the year with the same value, the total return index at the end of the year will least likely be:
- (A) equal to the price index if the constituent stocks do not pay dividends.
 - (B) greater than the price index.
 - (C) less than the price index if the price index increases and greater than the price index if the price index decreases.
47. The measure of return on a security market index that includes any dividends or interest paid by the securities in the index is known as the:
- (A) total return.
 - (B) price return.
 - (C) cash flow return.

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48. Use the data below to determine which of the statements is most accurate?

As of December 31		
A	\$25	20,000
B	\$50	20,000
C	\$100	10,000

- (A) A 100% increase in the stock price of Company A will have a smaller impact on the price-weighted index than a 100% increase in the stock price of Company C.
- (B) For a given percentage change in the stock price, Company B will have less of an impact on the market-cap weighted index as Company C.
- (C) For a given percentage change in the stock price, Company A will have a greater impact on the market-cap weighted index than Companies B or C.

