Portfolio Construction Theory Edition 10

There have been some changes to your Portfolio Construction Theory Edition 10 workbook, which may impact your study preparation for your forthcoming exam. Detailed below are the changes to your workbook.

Chapter 1, Section 3.3, Utility, has been added and amended to read:

The reasoning behind the simple equation for utility is consistent with the view that the second term in the expression is a penalty attached to the expected return to be gained from the investment. This penalty, scaled down to ½ in the above formula, reflects the risk of the investment measured in variance terms and the individual's risk aversion coefficient (A). 'A' is a characteristic that defines the risk attributes of the individual - for a large range of investors, it can typically take values from 2 to 6. A high 'A' value signifies high-risk aversion (or a low tolerance for risk).

The scaling factor (ie, the penalty) used in the equation can be varied or set to 1.

Chapter 1, Section 6.5, Table 1.9 – Example Stock Index Monthly Prices, Return and Risk Calculations, the Monthly Variance row has been amended to read:

313.51/12 = 26.13

Chapter 1, Section 6.5, Annualised risk equation has been amended to read:

$$\text{Annualised risk } \left(\sigma_{\text{annualised}}\right) = \sigma_{\text{monthly}} \times \sqrt{12}$$

Chapter 1, Section 6.9.2, under 'Combining Assets and Calculating the Portfolio Standard Deviation' Portfolio Value equation has been amended to read:

$$\text{Portfolio value } \sigma_p^2 = W_A^2\sigma_A^2 + W_B^2\sigma_B^2 + 2W_A W_B \text{Cov}_{AB}$$

Chapter 2, Section 4.3, The Performance of Equities, second paragraph has been amended to read:

Between the Great Depression and 2021, US equities provided an average annual return of 9.59% compared with 5.59% from US government bonds and 8.50% from a balanced portfolio (ie, a combination of 60% equities and 40% bonds)17. This is despite large market falls in the interim period, including the dot-com bubble, the global financial crisis, and the COVID-19 pandemic, among others.

Chapter 2, Section 4.6.2, Active Equity Investing, the Analysis of the Example has been amended to read:

Analysis

- Coefficient of variation (CV) of the large caps = standard deviation/return = 19.9/14.5= 1.37
- CV of the blended portfolio (90% large cap with 10% small cap) = 20.3/15.1 = 1.34

Chapter 2, Section 6.4.3, Returns from Rent, the question of the Example has been amended to read:

A house is divided into four flats, each of which is expected to be rented for £800 per complete month. Void periods are expected for 10% of the time of ownership. The house was purchased for £500,000, with SDLT costing a further £20,000. Other purchase costs were £1,500, and there was a £50,000 fee paid to a contractor to convert the property so that it was suitable for tenant occupancy. The agent's expenses will be charged at 15% of the gross rent, and further expenses are estimated at 5% of the gross rent. What is the rental yield?

Chapter 4, Section 4.5, The Role of Derivatives in Wealth Management, 4th paragraph first line has been amended to read:

In 1973, two US academics , Fischer Black and Myron Scholes produced the Black-Scholes option pricing model.

Chapter 5, Section 1.2, Correlation and Diversification, the Table 5.4 – Strong Positive Correlation has been amended to read:

Month	Asset A Return			Asset B Return			$(R_A-\mu_A)$ x $(R_B-\mu_B)$
	Return R_A (%)	$R_A-\mu_A$ (%)	$(R_A-\mu_A)^2$	Return R_B (%)	$R_B-\mu_B$ (%)	$(R_B-\mu_B)^2$	
1	2.0	-1.0	1.0	3.0	1.2	1.4	-1.1667
2	3.0	0.0	0.0	5.0	3.2	10.0	0.0000
3	-1.0	-4.0	16.0	-1.5	-3.3	11.1	13.3333
4	12.0	9.0	81.0	8.0	6.2	38.0	55.5000
5	7.0	4.0	16.0	4.0	2.2	4.7	8.6667
6	-5.0	-8.0	64.0	-7.5	-9.3	87.1	74.6667
Sum =	**18.0**		**178.0**	**11.0**		**152.3**	**151.0**

Chapter 5, Section 1.2, Correlation and Diversification, the Table 5.5 – Strong Negative Correlation has been amended to read:

Month	Asset A Return			Asset B Return			$(R_A-\mu_A)$ x $(R_B-\mu_B)$
	Return R_A (%)	$R_A-\mu_A$ (%)	$(R_A-\mu_A)^2$	Return R_B (%)	$R_B-\mu_B$ (%)	$(R_B-\mu_B)^2$	
1	2.0	-1.0	1.0	-3.0	-1.2	1.4	1.1667
2	3.0	0.0	0.0	-5.0	-3.2	10.0	0.0000
3	-1.0	-4.0	16.0	1.5	3.3	11.1	-13.3333
4	12.0	9.0	81.0	-8.0	-6.2	38.0	-55.5000
5	7.0	4.0	16.0	-4.0	-2.2	4.7	-8.6667
6	-5.0	-8.0	64.0	7.5	9.3	87.1	-74.6667
Sum =			**178.0**			**152.3**	**-151.0**

Chapter 5, Section 1.2, Correlation and Diversification, the Table 5.6 – Weak Positive Correlation has been amended to read:

Month	Asset A Return			Asset B Return			$(R_A-\mu_A)$ x $(R_B-\mu_B)$
	Return R_A (%)	$R_A-\mu_A$ (%)	$(R_A-\mu_A)^2$	Return R_B (%)	$R_B-\mu_B$ (%)	$(R_B-\mu_B)^2$	
1	2.0	-1.0	1.0	7.0	5.0	25.0	-5.0
2	3.0	0.0	0.0	7.0	5.0	25.0	0.0
3	-1.0	-4.0	16.0	-5.5	-7.5	56.3	30.0
4	12.0	9.0	81.0	3.0	1.0	1.0	9.0
5	7.0	4.0	16.0	-2.0	0.0	0.0	0.0
6	-5.0	-8.0	64.0	-1.5	-3.5	12.3	28.0
Sum =			**178.0**			**119.5**	**62.0**

Chapter 5, Section 2.2.1, The Single Index Model, the Example has been amended to read:

Example

Assume that a portfolio has a standard deviation of 35% and the market has a standard deviation of 20%. If the correlation between the two returns was +0.95, then the portfolio beta calculated from the equation will be: $\beta i = (0.95 \times 0.35) / 0.20 = 1.66$. Thus, if the market index falls or rises by 1%, the security will fall or rise by 1.66%.

Chapter 6, Section 2.2.14, Framing, the last paragraph has been amended to read:

Advisers and portfolio managers must be careful to discuss risk in as neutral a way as possible, particularly when attempting to assess a client's risk tolerance.

Chapter 7, Section 1.2.2, Semi-Strong Form Efficiency, the Example has been amended to read:

Example

An investor holds a portfolio of securities. The risk-free rate is 2% and the benchmark index has an expected return of 10%. Over the previous year, the portfolio returned 15% and had a beta of 1.25 when measured against the benchmark index. Calculate the portfolio's abnormal return. Using CAPM, the portfolio should have returned: RP = 2% + (1.25 x (10% – 2%)) = 12%. Consequently, the abnormal return during the previous year was 15% – 12% = 3%.

Chapter 7, Section 6, Table 6.1 – The Benefits and Limitations of Active Management, Limitations column has been amended to read:

Benefits	Limitations
• Investors can tailor an active strategy to meet specific investment goals. • Active investors have the potential to generate better performance relative to a benchmark index over time, even after fees. • Investors have flexibility of choice and are free to choose assets that they believe will provide a strong return. • This flexibility allows investors to reduce risk (eg, they may move between specific economic sectors, asset classes or individual securities as market conditions change, and/ or can use strategies such as **put options** to protect against losses). • Many active managers are supported by teams of analysts, who carry out extensive research to identify attractive and suitable investment opportunities. • Active investing can offer a challenge, which some may enjoy, and allows investors to be more involved in managing their money.	• Better performance is not guaranteed. Active strategies can lag their benchmarks if market movements are misjudged, or poor investment decisions are made. • Investors must be continuously vigilant about the performance of their investments, so active investing can be hard work and time consuming. • Consequently, fees for professionally managed portfolios tend to be high, which has a compounding effect over time. • Top managers can be selective as to which new clients they take on; eg, they may set minimum initial investment thresholds (typically £250,000), thus limiting access for some investors. • Some actively managed funds may be 'closet trackers'; in other words, they look like (and charge fees similar to) active funds but behave like a passive fund.

Chapter 10, Section 4.2.2, The Sharpe Ratio, the second paragraph of the Example has been amended to read:

However, in practice, what has happened is that the £100 grew to £150 in the first period, and then dropped by 50% of this value in the second period to £75. The geometric mean, which is -13.4%, is the correct measure to use.

We wish you every success with your studies.

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