

Date: 25/05/2022 "Assignment"

MTWTFSS

Group members.

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Section #8A

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Section #8A

Q. 015 ?

1) $\Rightarrow 4.808$ Buy and hold interpretation from AAPL.

If 18 was invested in AAPL at start of January 2016 at end of December 2020 under buy and hold strategy.

$\Rightarrow 14.838$ Simple moving average interpretation for Tesla.

If 18 was invested in Tesla at start of January 2016 at end of December 2020 it would give 14.838 return SMA strategy.

$\Rightarrow 5.748$ ex-weighted moving average interpretation for AMZN.

If 18 was invested in AMZN at start of January 2016 at end of December 2020, it would give us 5.748 return EWA.

Q 25 ??

$$\begin{aligned}
 \text{a) expected return} &= w_{MSFT} \cdot \bar{r}_{MSFT} + w_{AMZN} \cdot \bar{r}_{AMZN} \\
 &= (12)(0.4) + (13)(0.6) \\
 &= 4.8 + 7.8 \\
 &\Rightarrow \boxed{12.6} \text{ Ans.}
 \end{aligned}$$

$$\begin{aligned}
 \text{b) (standard deviation)}^2 &= w_{MSFT}^2 \cdot \sigma_{MSFT}^2 + w_{AMZN}^2 \cdot \sigma_{AMZN}^2 \\
 &\quad + 2 w_{MSFT} \cdot w_{AMZN} \cdot \text{Corr}_{MSFT, AMZN} \\
 &= (0.4)^2 (18)^2 + (0.6)^2 (25)^2 + 2(0.4)(0.6)(18)(25) \\
 &\Rightarrow (0.16)(324) + (0.36)(625) + 8.64 \\
 &= 51.84 + 225 + 8.64 \\
 &= 285.48
 \end{aligned}$$

Tak Square root both side.

$$\text{std} = \sqrt{285.48}$$

$$\boxed{\text{std} = 16.896} \text{ Ans}$$

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Ques?? Simple moving average is the best strategy. In this scenario buy and hold strategy gives us the maximum return compared to others strategies, so that my justification for this scenario SMA.