

Portfolio 1

Date	Market Value (\$)	External Cash Flow (\$)	Market Value Post Cash Flow (\$)
12/31/99	100,000		
1/10/00	103,000	20,000	123,000
1/22/00	130,000		
1/31/00	133,000		

Monthly Return = 11.32%

Portfolio 2

Date	Market Value (\$)	External Cash Flow (\$)	Market Value Post Cash Flow (\$)
12/31/99	500,000		
1/10/00	512,000		
1/22/00	530,000	-70,000	460,000
1/31/00	470,000		

Monthly Return = 8.26%

Composite Return

Beginning Market Value-Weighted Method:

$$R_{BMV} = \frac{(100,000 \times 0.1132) + (500,000 \times 0.0826)}{(100,000 + 500,000)} = 8.77\%$$

Beginning Market Value plus External Cash Flow-Weighted Method:

$$W_{PORT1} = \frac{(31 - 10)}{31} = 0.68$$

$$W_{PORT2} = \frac{(31 - 22)}{31} = 0.29$$

$$R_{BMV + CF} = \frac{((100,000 + (20,000 \times 0.68)) \times 0.1132) + ((500,000 + (-70,000 \times 0.29)) \times 0.0826)}{((100,000 + (20,000 \times 0.68)) + (500,000 + (-70,000 \times 0.29)))} = 8.85\%$$

Aggregate Return Method (using Modified Dietz Method):

$$W_{Port1} = \frac{(31-10)}{31} = 0.68$$

$$W_{Port2} = \frac{(31-22)}{31} = 0.29$$

$$R_{January} = \frac{((133,000 + 470,000) - (100,000 + 500,000)) - (20,000 - 70,000)}{(100,000 + 500,000 + (20,000 \times 0.68) + (-70,000 \times 0.29))} = 8.93\%$$