

table: TWR

	A	B	C	D	E
1	Date	Market Value (€)	Cash Flow (€)	Market Value Post Cash Flow (€)	
2	12/31/97	200,000		200,000	
3	1/31/98	208,000		208,000	
4	2/16/98	217,000	40,000	257,000	
5	2/28/98	263,000		263,000	
6	3/22/98	270,000	-30,000	240,000	
7	3/31/98	245,000		245,000	
8	q	1.1636308			
9	TWRR	16.36%			
10	Date	Market Value (€)	Cash Flow (€)	Market Value Post Cash Flow (€)	
11	12/31/97	200,000			
12	1/31/98	208,000			
13	2/16/98	#N/A	40,000	#N/A	
14	2/28/98	263,000			
15	3/22/98	#N/A	-30,000	#N/A	
16	3/31/98	245,000			
17					
18	Cash Flows with - for investments and + for disinvestments				
19	(- for potfolio inflow and + for portfolio outflow)				
20	Date	Cash Flow (€)			
21	12/31/97	-200,000			
22	2/16/98	-40,000			
23	3/22/98	30,000			
24	3/31/98	245,000			
25	IRR p.a.	84.08%			
26	IRR	16.48%	one quarter		
27		16.24%	exact day count		
28	Date	Market Value (€)	Cash Flow (€)	Market Value Post Cash Flow (€)	
29	12/31/97	200,000		200,000	
30	1/31/98	208,000		208,000	
31	2/16/98	213,639	40,000	253,639	
32	2/28/98	263,000		263,000	
33	3/22/98	272,853	-30,000	242,853	
34	3/31/98	245,000		245,000	
35	q	1.1592732			
36	r	15.93%			

ModIRR

	A	B	C	D	E	F	G	H	I	J	K
1	1) "Modified IRR Method" BAI										
2	algebraic signs of cash flows as in calcmethod.pdf										
3	Date	Cash Flow (€) [F _i]	i	W _i	Fi(1+R) ^{W_i}		Date	Cash Flow (€)	i	W _i	Fi(1+R) ^{W_i}
4	1/31/98	208,000	0	1.000	221,877.34		2/28/98	263,000	0	1.000	275,404.09
5	2/16/98	40,000	1	0.429	41,122.66		3/22/98	-30,000	1	0.290	-30,404.09
6	2/28/98	263,000			263,000.00		3/31/98	245,000			245,000.00
7	R	6.672%		Error	0.00		R	4.716%		Error	0.00
8	2) Excel Function										
9	Date	Cash Flow (€) [F _i]					Date	Cash Flow (€) [F _i]			
10	1/31/98	-208,000					2/28/98	-263,000			
11	2/16/98	-40,000					3/22/98	30,000			
12	2/28/98	263,000					3/31/98	245,000			
13	IRR p.a.	132.085%					IRR p.a.	72.051%			
14	IRR	6.672%					IRR	4.716%			
15											
16	Estimate the unknown market value of the portfolio before cash flow										
17	2/16/98						3/22/98				
18	$MV_{1e} = MV_0 (1+R)^{W_0-W_1} =$				215,820.00						271,743.82

TWRa1

	A	B	C	D
1	Use the estimated portfolio values from sheet ModIRR to calculate TWR			
2	Date	Market Value (€)	Cash Flow (€)	Market Value Post Cash Flow (€)
3	12/31/97	200,000		200,000
4	1/31/98	208,000		208,000
5	2/16/98	215,820	40,000	255,820
6	2/28/98	263,000		263,000
7	3/22/98	271,744	-30,000	241,744
8	3/31/98	245,000		245,000
9	q	1.1617096		
10	r	16.17%		

	A	B	C	D	E
1	Date	Market Value (€)	Cash Flow (€)	Market Value Post Cash Flow (€)	Benchmark
2	12/31/97	200,000		200,000	100.00
3	1/31/98	208,000		208,000	104.50
4	2/16/98	216,957	40,000	256,957	109.00
5	2/28/98	263,000		263,000	110.00
6	3/22/98	270,173	-30,000	240,173	113.00
7	3/31/98	245,000		245,000	117.00
8	q	1.1635019			
9	r	16.35%			

Example2

	A	B	C	D
		Market Value (€)	Cash Flow (€)	Market Value Post Cash Flow (€)
1	Date			
2	12/31/99	500,000		500,000
3	1/31/00	509,000		509,000
4	2/19/00	513,000	50,000	563,000
5	2/28/00	575,000		575,000
6	3/12/00	585,000	-20,000	565,000
7	3/31/00	570,000		570,000
8	R	7.55%		

Composite

	A	B	C	D	E	F	G	H	I	J
1		Portfolio 1			Portfolio 2			Composite		
2	Date	Value (\$)	Flow (\$)	Value Post Cash Flow	Value (\$)	Flow (\$)	Value Post Cash Flow	Value (\$)	Flow (\$)	Value Post Cash Flow
3	12/31/99	100,000		100,000	500,000		500,000	600,000	0	600,000
4	1/10/00	103,000	20,000	123,000	512,000		512,000	615,000	20,000	635,000
5	1/22/00	130,000		130,000	530,000	-70,000	460,000	660,000	-70,000	590,000
6	1/31/00	133,000		133,000	470,000		470,000	603,000	0	603,000
7	R	11.37%			8.30%			8.88%		