Analysis of my investment returns

My return is the net sum of:

- capital growth (or loss) on investments net of transaction costs
- dividends
- franking credits
- interest on cash held on deposit
- costs of software, data feed and communications

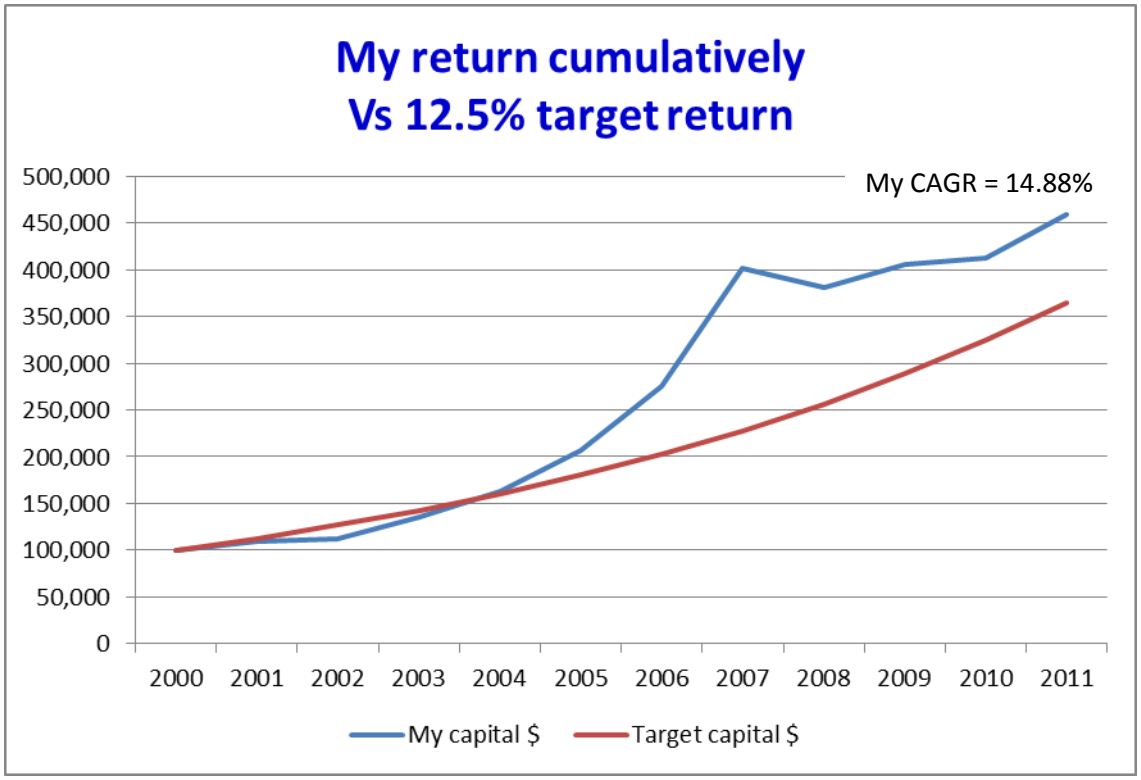
expressed as a percentage of the time weighted average capital for the year. At the end of this document there is a more detailed explanation of the way I calculate my returns, including the time weighted average capital calculation.

The analysis firstly considers my investment returns against my target investment return of an average annual 12.5%pa. *That does not mean that I will make 12.5 per cent or more every year. That is not possible in some years. In other years I will exceed it significantly.* (*Building Wealth in the Stock Market* page 42). Therefore, although I show the year-by-year result against the target investment return, the key comparison is to my cumulative investment return compared to the cumulative target investment return.

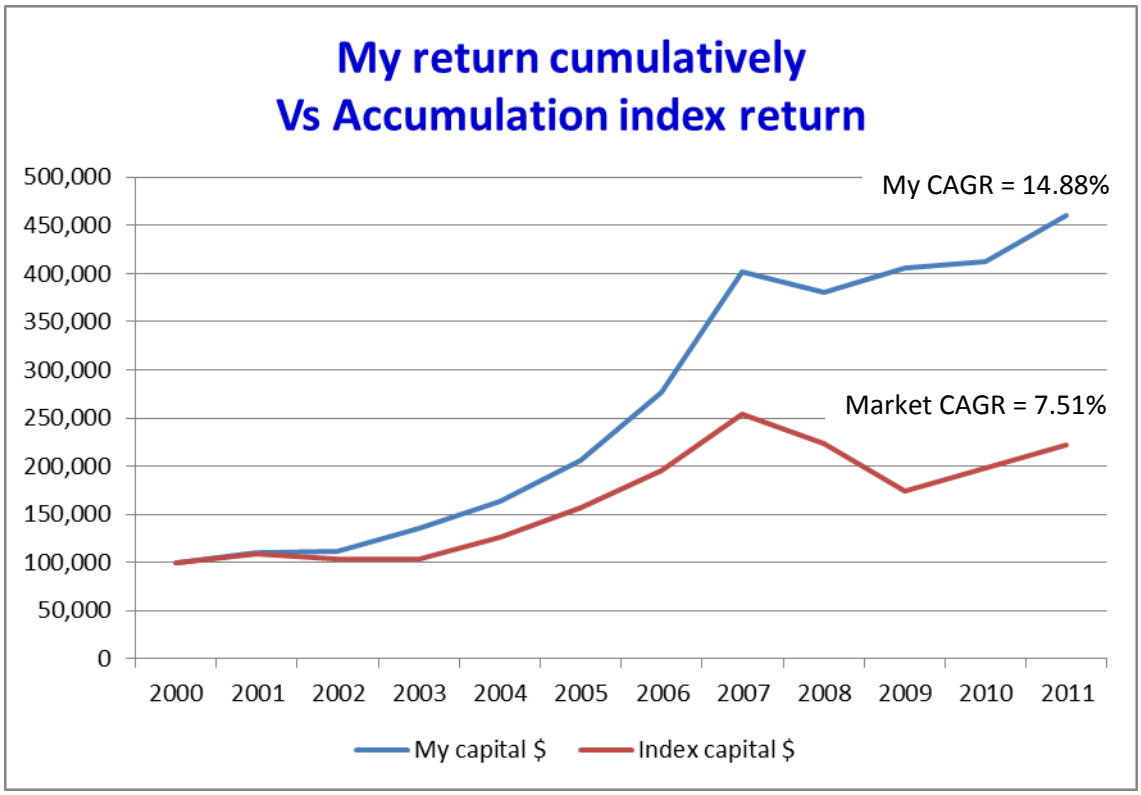
The analysis then considers my investment returns against the ASX All Ordinaries Accumulation index. This is not a pure comparison, because the index notionally reinvests dividends on the ex-dividend date instead of the payment date. Also, the index also does not notionally reinvest franking credits to my knowledge, but I do from the dividend payment date. Nevertheless, it is the best available benchmark for an investor. As with the target investment return analysis, it is unrealistic to expect that I will be able to match or beat the market index in any individual year. Therefore, although I show the year-by-year result against the index, the key comparison is to my cumulative investment return compared to the cumulative index return.

With these considerations in mind, I have only shown charts of my cumulative return versus my target return and against the Accumulation index return. However, following the charts are the detailed tables of results and analyses of the returns.

Members of my website who may be interested in some of the detail behind these summaries will find further schedules on the members' website www.bwts.com.au at Building Wealth Resources/Portfolio Details: Click here. Members will need to log in before accessing this page.



CAGR = Compound Average Growth Rate



CAGR = Compound Average Growth Rate

Year summaries of investment returns

Financial year to June	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
End year balances												
Portfolio value		127,215	93,135	219,362	699,636	599,371	781,006	824,775	0	102,607	1,359,256	1,042,035
Cash reserve		201,504	241,373	181,042	229,383	559,005	823,095	1,028,980	1,818,178	1,736,108	451,873	916,360
Total capital		328,718	334,508	400,404	929,019	1,158,376	1,604,101	1,853,754	1,818,178	1,838,715	1,811,129	1,958,395
Returns for year												
Capital gain/loss		23,786	3,016	57,907	91,979	158,439	299,941	561,133	-201,394	28,235	-56,268	85,931
Dividends		3,764	2,774	7,989	26,654	53,163	49,872	53,455	19,195	0	44,447	70,217
Interest		NA*	NA*	NA*	34,753	17,756	10,386	41,746	84,733	89,581	24,367	22,873
Franking credits		1,645	1,147	3,054	10,808	20,355	20,155	20,631	7,415	0	18,310	28,701
Total return		**29,196**	**6,937**	**68,950**	**164,194**	**249,712**	**380,354**	**676,966**	**-90,051**	**117,816**	**30,856**	**207,721**
		* In these three years the capital gain amount was calculated including interest and I no longer have records to separate them.										
TWAC		301,168	328,718	334,508	800,000	929,019	1,131,472	1,490,633	1,761,579	1,788,719	1,837,062	1,812,800
Return for year %		**9.69**	**2.11**	**20.61**	**20.52**	**26.88**	**33.62**	**45.41**	**-5.11**	**6.59**	**1.68**	**11.46**
Index change												
Accum index open		15,384	16,745	15,991	15,818	19,356	24,146	29,989	39,070	34,336	26,732	30,415
Accum index close		16,745	15,991	15,818	19,356	24,146	29,989	39,070	34,336	26,732	30,415	34,118
% Change		**8.85**	**-4.50**	**-1.08**	**22.37**	**24.75**	**24.20**	**30.28**	**-12.12**	**-22.15**	**13.78**	**12.17**

Analyses of investment returns

Financial year to June	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
My returns annually Vs 12.5% target return annually												
My return %		9.69	2.11	20.61	20.52	26.88	33.62	45.41	-5.11	6.59	1.68	11.46
Target return %		12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Difference		-2.81	-10.39	8.11	8.02	14.38	21.12	32.91	-17.61	-5.91	-10.82	-1.04
My return cumulatively Vs 12.5% target return cumulatively												
Assumes $100,00 invested 1 July 2000												
My capital $	100,000	109,694	112,009	135,097	162,824	206,590	276,037	401,398	380,879	405,966	412,785	460,084
Target capital $	100,000	112,500	126,563	142,383	160,181	180,203	202,729	228,070	256,578	288,651	324,732	365,324
Difference $	0	-2,806	-14,554	-7,286	2,644	26,387	73,308	173,328	124,300	117,315	88,052	94,760
My returns annually Vs accumulation index return annually												
My return %		9.69	2.11	20.61	20.52	26.88	33.62	45.41	-5.11	6.59	1.68	11.46
Index return %		8.85	-4.50	-1.08	22.37	24.75	24.20	30.28	-12.12	-22.15	13.78	12.17
Difference		0.85	6.61	21.70	-1.85	2.13	9.42	15.13	7.00	28.73	-12.10	-0.71
My return cumulatively Vs accumulation index return cumulatively												
My capital $	100,000	109,694	112,009	135,097	162,824	206,590	276,037	401,398	380,879	405,966	412,785	460,084
Index capital $	100,000	108,845	103,946	102,818	125,819	156,955	194,932	253,961	223,193	173,765	197,704	221,770
Difference $	0	849	8,063	32,278	37,006	49,635	81,104	147,437	157,686	232,201	215,080	238,314

Calculation of my Returns

The following section is a discussion of the technical issue of how I have gone about calculating my returns. I have included it because, whenever I have mentioned it in the past, I have received many questions. Hopefully, I will now address those questions for those readers who are interested.

The discussion which follows is entirely a pre-tax calculation. It includes franking credits, because they are a part of the pre-tax return in the Australian taxation system. Overseas investors may simply disregard them.

At the start of the year and at the end of every day through the year, I value my stocks at the last or closing prices for that day. I also deduct the known transaction costs assuming that I realised the holdings at those prices. I do not make any allowance for slippage. Slippage is a jargon term in most markets for the difference between the last or quoted price in the market and the actual price achieved when the transaction is actually executed.

These are five components in calculating my return at any point through the year:

1. The total unrealised gain/loss for stocks currently in my portfolio.
2. The total realised gain/loss for stocks that I have sold during the year.
3. The total of franked dividends, unfranked dividends and franking credits that have been received so far in the year.
4. Interest received on the cash reserve so far in the year.
5. Costs of software, data and communications, but see Note 9 below.

Note 1	The purchase and sale price of all stocks that are in, or have been in, my portfolio is net of brokerage commission and GST. GST may not apply to investors who are not Australian residents for tax purposes.
Note 2	The original cost of a stock holding is reduced for any capital returns by the company.
Note 3	At the start of the year and at the end of every day through the year, I value my stocks at the last or closing prices for that day.
Note 4	In valuing the stocks held at the end of every day through the year, I also deduct the anticipated transaction costs assuming that I had realised the holdings at the closing prices.
Note 5	In valuing the stocks held at the end of every day through the year, I do not make any allowance for slippage. Slippage is a jargon term in most markets for the difference between the last or quoted price in the market and the actual price achieved when the transaction is actually executed.
Note 6	A franking credit is the notional tax already paid by the company on the profit from which the dividend has been paid. This is not relevant for investors who are not Australian residents.
Note 7	Because dividends are received some time after a stock is quoted ex dividend, the return so far in the year will be understated between the ex dividend date and the payment date. This can be significant.
Note 8	I record interest earned on the cash reserve when I receive a bank statement after the end of each month. Until the interest amounts are entered, the return so far in the year will be understated. This can be significant.
Note 9	I also have some costs for software, data feed and communications. These are paid out of my income from writing, which is separate to the investment return calculation. Readers who are in a different situation, or myself if I give up writing, should deduct these costs from their portfolio total return before calculating the rate. These costs are not material for me, so they would not impact on my return if I included them.

The calculation of the rate of return is easy if there are no additions to or subtractions from capital during the course of the year, other than from investment activity. However:

- In some years, there will be a few additions if more capital becomes available for investment.
- There will also be some capital withdrawn for taxation, SMSF administration costs and pensions taken from the SMSF.

This can make things very complicated. There are several ways to work out the return, but as a practical person, I have opted for a fairly simple procedure.

In working out the return, I take the net total of the five items listed above. I then calculate the return not on the starting capital, but on the time weighted average capital (TWAC). The calculation of TWAC is very simple. I work out how much capital I had to invest for how many days and weight it by the fraction of the year for which it was available. Here is a simple example to illustrate the method:

Facts

I start with $1,000,000.

On March 8, I withdraw $50,000.

On September 17, I add $160,000.

TWAC Calculation

Period	Days	Capital Available	Calculation	Time Weighted Capital
Jan 1 – Mar 7	66	1,000,000	1,000,000 × 66 ÷ 365	180,822
Mar 8 – Sep 16	193	950,000	950,000 × 193 ÷ 365	502,329
Sep 17 – Dec 31	106	1,110.000	1,110,000 × 106 ÷ 365	322,356
TWAC	365			**1,005,507**

Note: in a financial year that includes February 29 (occurs in a leap year), use 366, not 365 days.

Return Calculation

So, if the net total of the five items listed above was $185,500, my return for the year would be calculated as follows:

Return ÷ TWAC × 100 = Return%

185,500 ÷ 1,005,507 ×100 = 18.45%

This is the before tax return and is roughly comparable to the ASX Accumulation index, which assumes reinvestment of dividends.