Evaluating returns

One of the key attributes of successful investors is their ability to measure their returns against the relevant benchmarks. We should remember that we can monitor and manage things that we measure, otherwise we are driving in the dark.

Measurement has 2 key aspects

- Ability to calculate the results – this is about learning to use a tool
- Ability to find the right benchmark to compare – this requires awareness and judgement

Let's look at a few examples:

1. Rajan received a bonus of Rs 50,000 in Jan 2001. He does not need the funds for next 15 years, he believes that Equities are great vehicles for invest, he chose an equity mutual fund to invest. The value of his investment is 2,00,000.
    a. To calculate the return, one should be looking to calculate the annualized return. For this one can use XIRR function in excel.

Example 1		
Date	Description	Value
03-Jan-01	Invested in Equity Mutual fund	-50,000
10-Oct-15	Current value is	2,00,000
	XIRR	**9.8%**

This shows that he has generated a yearly return of 9.8%.

    b. Now the key question is what is the right benchmark for this investment?
        i. If we look at bank rate as benchmark, since bank deposits are taxable the rate received by Rajan seems good. We know that Rajan has taken bigger risk than the bank deposit.
        ii. If we look at the NIFTY as the benchmark we should see how it performed

Example 1 - Benchmark		
Date	Description	Value
03-Jan-01	Invested in Index Fund	-50,000
10-Oct-15	Current value is	3,16,070
	XIRR	**13.3%**

NIFTY was at 1250 in Jan-2001 and is now at 7,900 that is a return of 13.3% on a yearly basis. This means that Rajan's return on the Equity mutual fund has been poor. If he had invested in NIFTY Index he would have 1.16 lakhs more (50% more)

2. Bala is an NRI, he purchased a flat in India for 40 lakhs in Jan 2005. His income from rent is put in a bank, he is paying taxes and has been maintaining the property. His yearly net income from the house was 50,000 a year in 2005 and has been going up by 5000 every year. The value of the property in September 2015 is 80 lakhs.
    a. Let's calculate the yearly returns realized by Bala in this scenario

Example 2		
Date	Descripiton	Value
03-Jan-05	Flat purchased for 40 lakhs	-40,00,000
31-Dec-05	Received Rent + interest on rent - maintenance etc	50,000
31-Dec-06	Received Rent + interest on rent - maintenance etc	55,000
31-Dec-07	Received Rent + interest on rent - maintenance etc	60,000
31-Dec-08	Received Rent + interest on rent - maintenance etc	65,000
31-Dec-09	Received Rent + interest on rent - maintenance etc	70,000
15-Jan-10	Repairs and painting	-75,000
31-Dec-10	Received Rent + interest on rent - maintenance etc	75,000
31-Dec-11	Received Rent + interest on rent - maintenance etc	80,000
31-Dec-12	Received Rent + interest on rent - maintenance etc	85,000
31-Dec-13	Received Rent + interest on rent - maintenance etc	90,000
31-Dec-14	Received Rent + interest on rent - maintenance etc	95,000
01-Sep-15	Value of the property	80,00,000
	XIRR	**7.8%**

    Bala has a return of 7.8% per year on his Flat.

    b. What is the right benchmark for Bala. He is an NRI and is allowed to invest in banks in NRI deposits which are not taxed and the rate of interest is 9%.

Example 2 - Benchmark		
Date	Descripiton	Value
03-Jan-05	Invest in Bank FD 40 lakhs	-40,00,000
01-Sep-15	Amount in FD	1,00,22,927
	XIRR	**9.0%**

    In this case Bala would have Rs 1 crore in his bank account if he had chosen to put his money in a bank FD rather than purchasing a flat, this is 25% more.

3. Ajit is a 28 year old, he decided to purchase a flat worth 40 lakhs on Jan 2000. He had 10 lakhs in cash and took a loan of 30 lakhs at 10% interest for 15 years. His EMI was 32,238. He was living in the house so was saving on the rent. He is assuming that the rent was 1 lakh per year and was increasing at 5% per year. The value of the house in 2015 was 1. 2 crores
    a. Lets use the XIRR formula to find out his annual return.

Example 3				
Date	Descripiton	Value		
01-Jan-00	Flat purchased for 40 lakhs - 10 lakh down and 15 yr loan@10%	-10,00,000	EMI*12	Rent*12
31-Dec-00	Installments - rent saved	-2,86,856	3,86,856	100,000
31-Dec-01	Installments - rent saved	-2,81,856	3,86,856	1,05,000
31-Dec-02	Installments - rent saved	-2,76,606	3,86,856	1,10,250
31-Dec-03	Installments - rent saved	-2,71,094	3,86,856	1,15,762
31-Dec-04	Installments - rent saved	-2,65,305	3,86,856	1,21,551
31-Dec-05	Installments - rent saved	-2,59,228	3,86,856	1,27,628
31-Dec-06	Installments - rent saved	-2,52,846	3,86,856	1,34,010
31-Dec-07	Installments - rent saved	-2,46,146	3,86,856	1,40,710
31-Dec-08	Installments - rent saved	-2,39,110	3,86,856	1,47,746
31-Dec-09	Installments - rent saved	-2,31,723	3,86,856	1,55,133
31-Dec-10	Installments - rent saved	-2,23,967	3,86,856	1,62,889
31-Dec-11	Installments - rent saved	-2,15,822	3,86,856	1,71,034
31-Dec-12	Installments - rent saved	-2,07,270	3,86,856	1,79,586
31-Dec-13	Installments - rent saved	-1,98,291	3,86,856	1,88,565
31-Dec-14	Installments - rent saved	-1,88,863	3,86,856	1,97,993
31-Dec-15	Installments - rent saved	-1,78,963	3,86,856	2,07,893
01-Sep-15	Value of the property	1,20,00,000		
	XIRR	**9.1%**		

He has had a return of 9.1% on his investment.

    b. To determine if the returns he generated are good enough, let's look at him renting a similar house and investing his savings in a tax free bond earning 9.5% interest.

Example 3			EMI*12	Rent*12	Bond value
Date	Descripiton	Value			
01-Jan-00	Investment of 10 lakhs in a tax fee bond @ 7.5%	-10,00,000			41,44,650
31-Dec-00	Investment in tax fee bond	-2,86,856	3,86,856	100,000	10,86,043
31-Dec-01	Investment in tax fee bond	-2,81,856	3,86,856	1,05,000	9,74,533
31-Dec-02	Investment in tax fee bond	-2,76,606	3,86,856	1,10,250	8,73,407
31-Dec-03	Investment in tax fee bond	-2,71,094	3,86,856	1,15,762	7,81,736
31-Dec-04	Investment in tax fee bond	-2,65,305	3,86,856	1,21,551	6,98,671
31-Dec-05	Investment in tax fee bond	-2,59,228	3,86,856	1,27,628	6,23,439
31-Dec-06	Investment in tax fee bond	-2,52,846	3,86,856	1,34,010	5,55,335
31-Dec-07	Investment in tax fee bond	-2,46,146	3,86,856	1,40,710	4,93,716
31-Dec-08	Investment in tax fee bond	-2,39,110	3,86,856	1,47,746	4,37,995
31-Dec-09	Investment in tax fee bond	-2,31,723	3,86,856	1,55,133	3,87,637
31-Dec-10	Investment in tax fee bond	-2,23,967	3,86,856	1,62,889	3,42,157
31-Dec-11	Investment in tax fee bond	-2,15,822	3,86,856	1,71,034	3,01,109
31-Dec-12	Investment in tax fee bond	-2,07,270	3,86,856	1,79,586	2,64,089
31-Dec-13	Investment in tax fee bond	-1,98,291	3,86,856	1,88,565	2,30,729
31-Dec-14	Investment in tax fee bond	-1,88,863	3,86,856	1,97,993	2,00,693
31-Dec-15	Investment in tax fee bond	-1,78,963	3,86,856	2,07,893	1,84,460
01-Sep-15	Value of the property	1,25,80,400			
	XIRR	**9.5%**			

He would have 1.25 crores. It is almost the same value but without a debt burden.

If he had invested in an Index fund that has an average return of 14%

Example 3			EMI*12	Rent*12	Index fund value
Date	Descripiton	Value			
01-Jan-00	Investment of 10 lakhs in a tax fee bond @ 7.5%	-10,00,000			77,89,496
31-Dec-00	Investment in tax fee bond	-2,86,856	3,86,856	100,000	19,60,769
31-Dec-01	Investment in tax fee bond	-2,81,856	3,86,856	1,05,000	16,89,993
31-Dec-02	Investment in tax fee bond	-2,76,606	3,86,856	1,10,250	14,54,837
31-Dec-03	Investment in tax fee bond	-2,71,094	3,86,856	1,15,762	12,50,740
31-Dec-04	Investment in tax fee bond	-2,65,305	3,86,856	1,21,551	10,73,715
31-Dec-05	Investment in tax fee bond	-2,59,228	3,86,856	1,27,628	9,20,280
31-Dec-06	Investment in tax fee bond	-2,52,846	3,86,856	1,34,010	7,87,391
31-Dec-07	Investment in tax fee bond	-2,46,146	3,86,856	1,40,710	6,72,390
31-Dec-08	Investment in tax fee bond	-2,39,110	3,86,856	1,47,746	5,72,957
31-Dec-09	Investment in tax fee bond	-2,31,723	3,86,856	1,55,133	4,87,067
31-Dec-10	Investment in tax fee bond	-2,23,967	3,86,856	1,62,889	4,12,950
31-Dec-11	Investment in tax fee bond	-2,15,822	3,86,856	1,71,034	3,49,064
31-Dec-12	Investment in tax fee bond	-2,07,270	3,86,856	1,79,586	2,94,064
31-Dec-13	Investment in tax fee bond	-1,98,291	3,86,856	1,88,565	2,46,776
31-Dec-14	Investment in tax fee bond	-1,88,863	3,86,856	1,97,993	2,06,177
31-Dec-15	Investment in tax fee bond	-1,78,963	3,86,856	2,07,893	1,86,953
01-Sep-15	Value of the property	2,03,55,620			
	XIRR	**14.0%**			

He would have 2 crores. This is about 66% more.

c. If he had invested 50% in the tax fee bond fund and 50% index fund he would have 1.6 crores (33% more)
   In Ajit's case identifying a benchmark is more involved as this is more subjective. This depends on how comfortable Ajit is with various risks and his life stage.

To summarize:

- Prudent investors should be learn to use tools to evaluate returns. XIIR is one of very powerful tools. You can download an example from the home page of IndusWealth.com – or at the following URL - http://www.induswealth.com/wp-content/uploads/2014/07/XIRR-example.xlsx
- Prudent investors should look for a reasonable benchmark to evaluate the returns from their investments. This always subjective, but investors will be best advised to look for opportunities that are similar from a risk perspective and benchmark them.
- Prudent investors should revisit the investment decisions based on the metrics, this will help them manage their investment plans.