How to Retire Early in India

Steps to plan & achieve financial independence

freefincal.com

Preface

Early retirement or financial independence is the holy grail of most salaried employees today. This e-book is an as-is compilation of seven posts on early retirement from freefincalcom.

Early retirement in India is quite different from what is discussed at popular US blogs like ERE and MMM. It is quite easy to calculate with a high real return (excess return above inflation) and arrive at a pleasing corpus. However early retirement is fraught with many dangers. High inflation and an unlucky sequence of returns from equity can spell disaster. Therefore is it is extremly important to err on the side of caution. This compilation is an attempt to highlight such issues while also providing a list of tools to plan and track your early retirement.

Since it is an unabridged compilation, apologies if it is 'in your face' and abrupt.

Do let me know if you have any feedback: freefincal@gmail.com

Retirement Planning – A Slide Show

Here is a set of slides on retirement planning that I have used at the investor workshops. The aim is to convey the importance of retirement planning in a few slides to young earners.

1. Imagine how your monthly income will evolve in the future

The abrupt stoppage in income represents retirement.

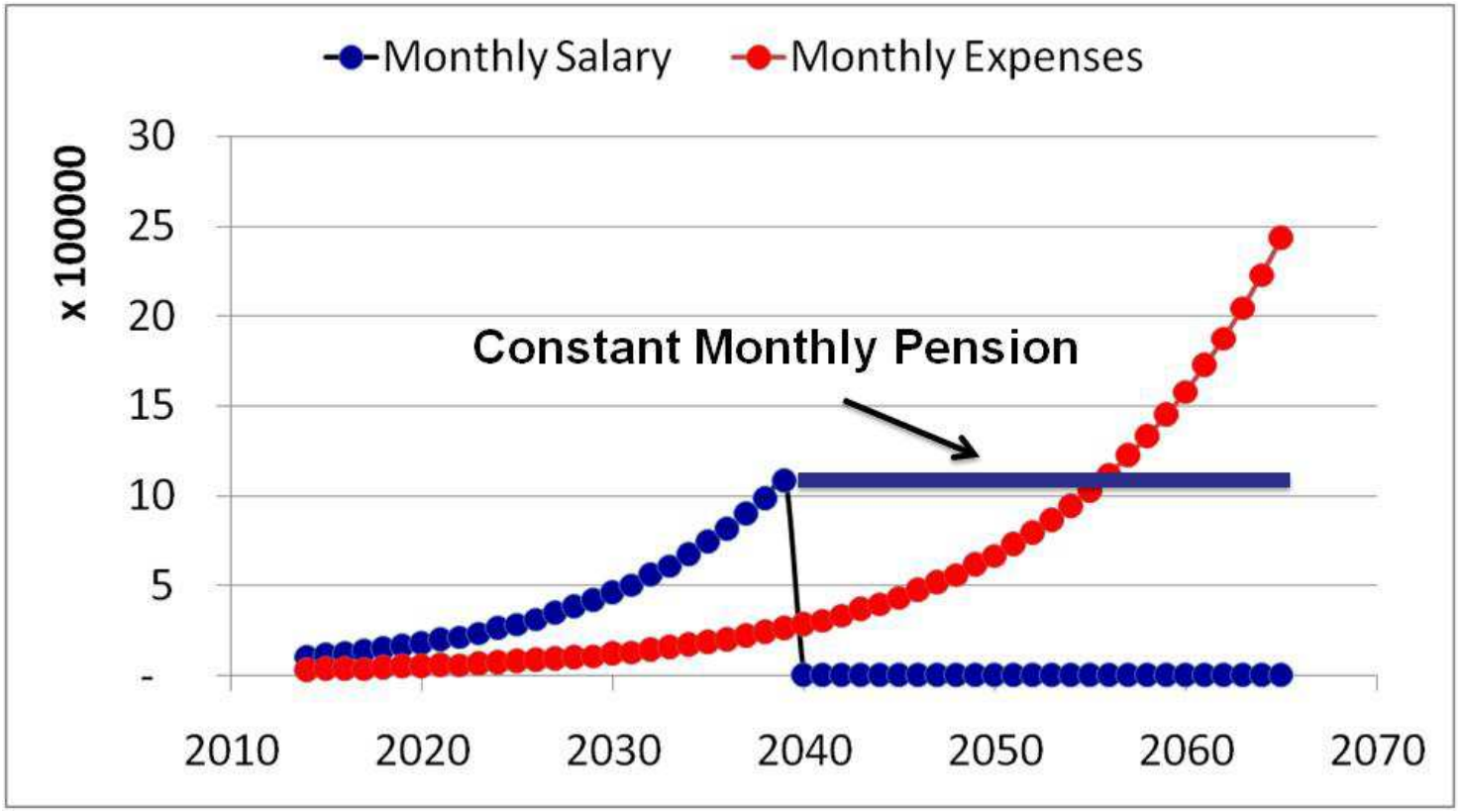
2. Now imagine how your monthly expenses will evolve in the future

Obviously expenses do not stop when income stops. So those who do not have the means to account for expenses when income stops, better hope they are dead on or before retirement!

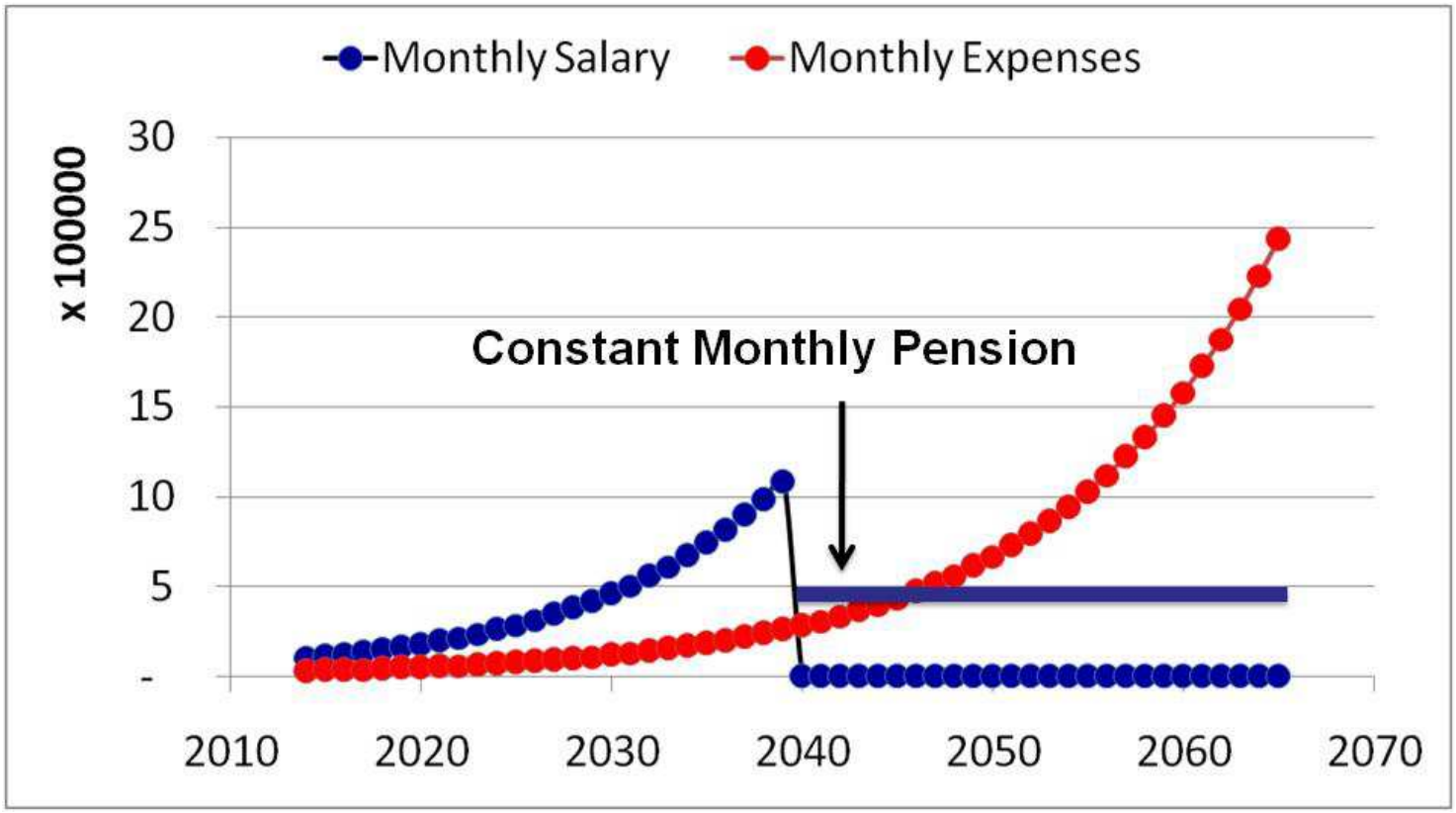
The expenses in the above graph seem to head for the roof. Let us rescale it over our expected lifetime.

In about 15 years after retirement, the monthly expenses, thanks to inflation is higher the last drawn pay!

Meaning, if I had an (imaginary) monthly pension that equals my last drawn pay, I will only be financially independent for about 15 years after retirement. So we need to do a lot better!

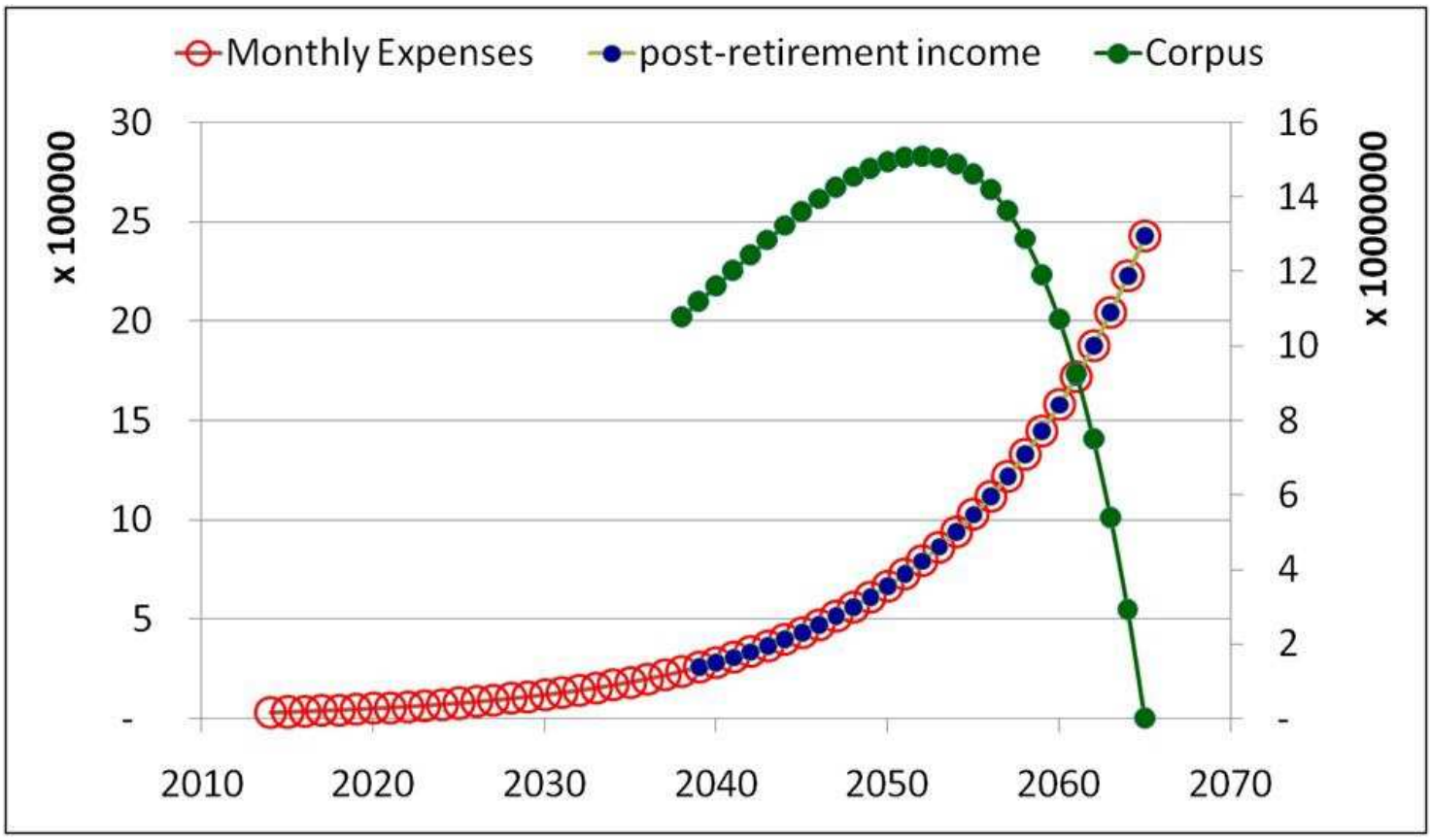


The sad truth is actual pensions (be it from a pension plan or employer-provided annuity) are much, much lower than the last drawn pay. Something like this.



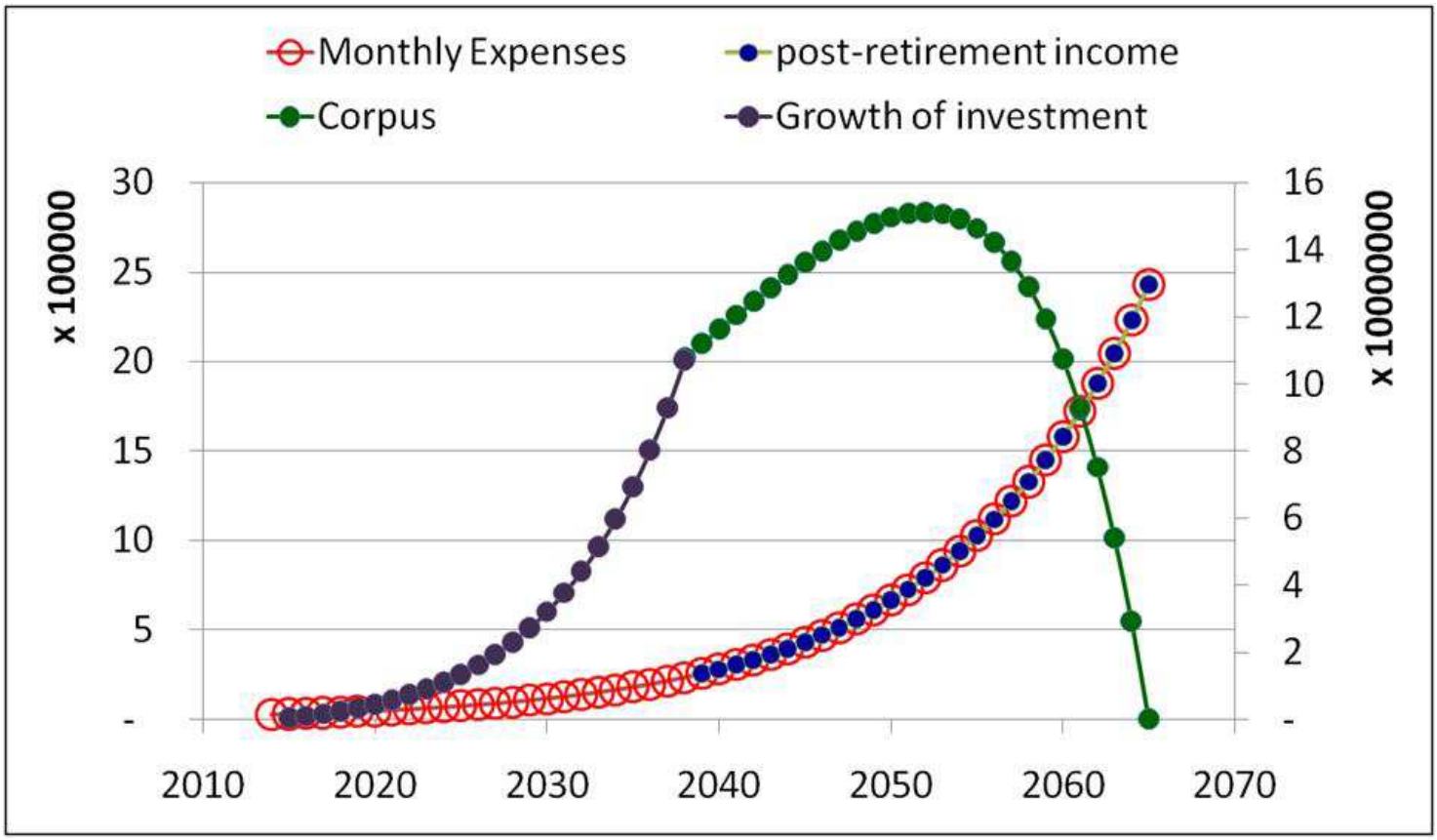
Therefore, for your own sake, eradicate the concept of a 'pension' from your minds.

Instead, think: **Inflation-protected income** (blue dot within the red circles, below)

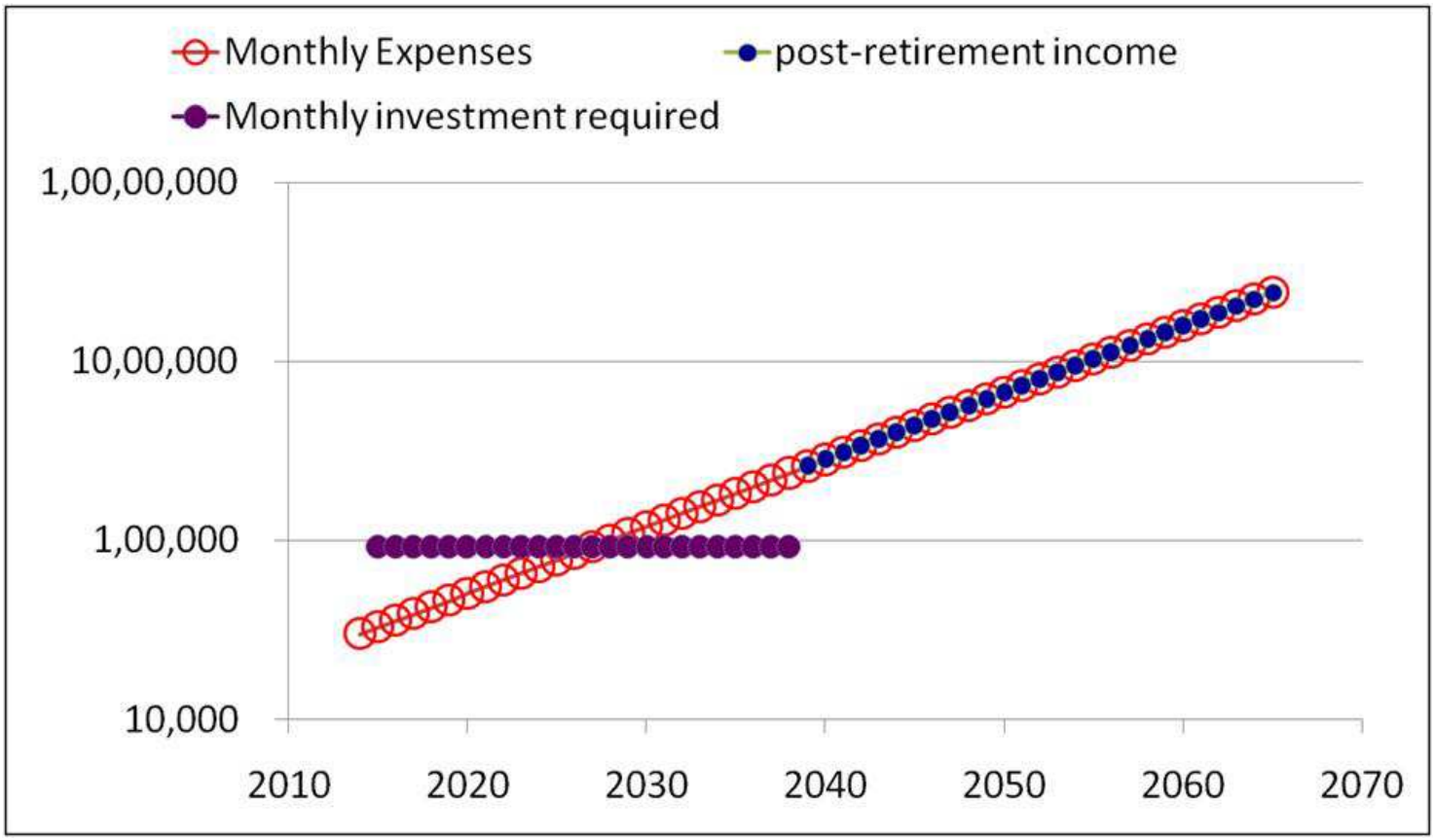


To generate this inflation-protected income, you need a corpus that is anywhere between ~ 25-35 times (depends on inputs) your annual expenses at the time of retirement (the earliest green dot). As you withdraw more and more from the corpus, it decreases and drops to zero hopefully when you die, and only when you die. Ensuring this, is the **third stage** in retirement planning.

The second stage is to ensure our investments grow and hits the first green dot, when we retire.



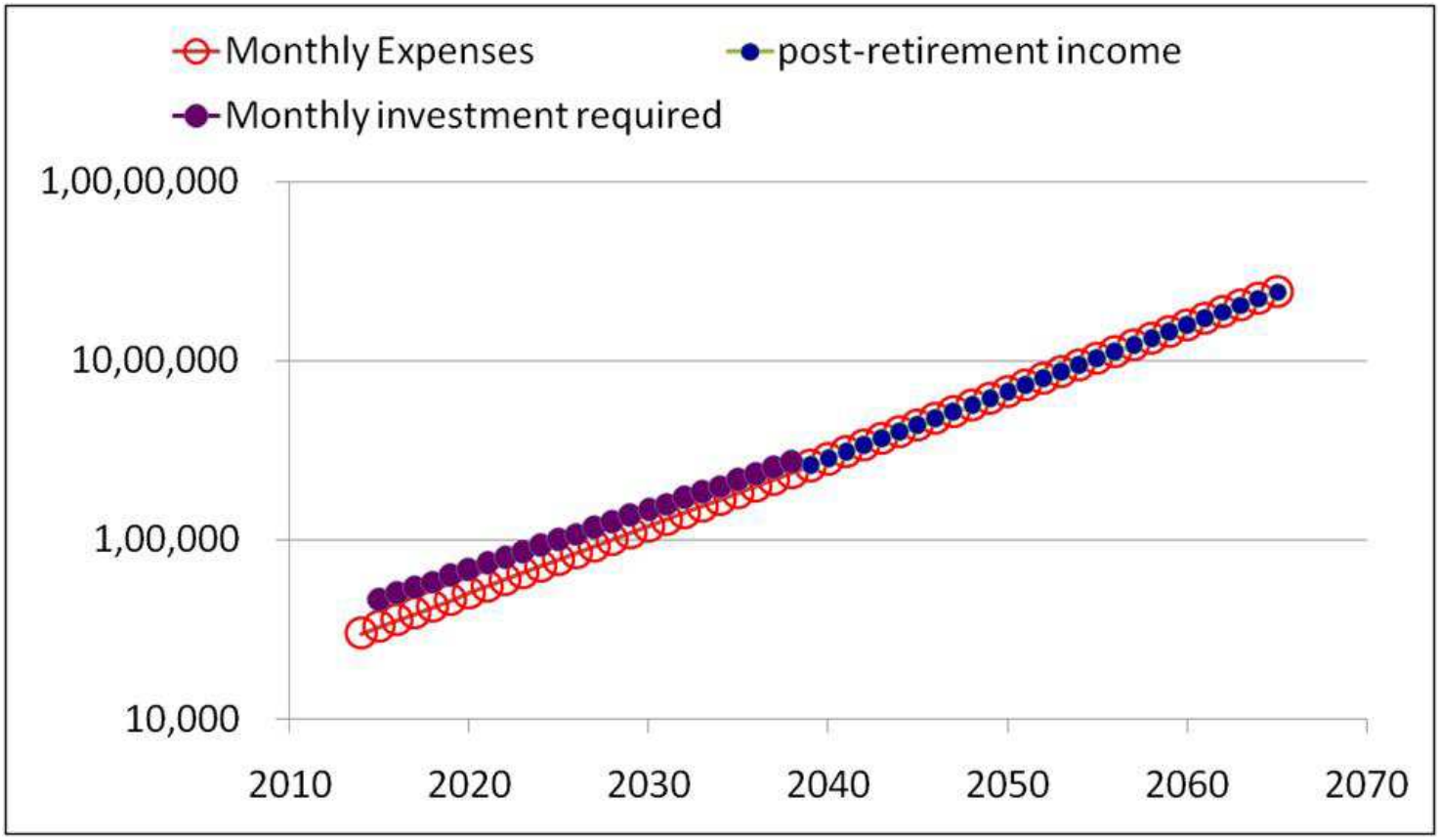
We need to do two things to grow the corpus. 1. Choose a productive, but diversified portfolio; 2. Invest



One cannot choose to invest a constant sum because, the monthly investment to be made immediately will be much

larger than monthly expenses. The above graph has a logarithmic *y*-axis and hence the lines appear linear.

To ease our burden, we can instead choose to increase out investment each year from now until retirement.



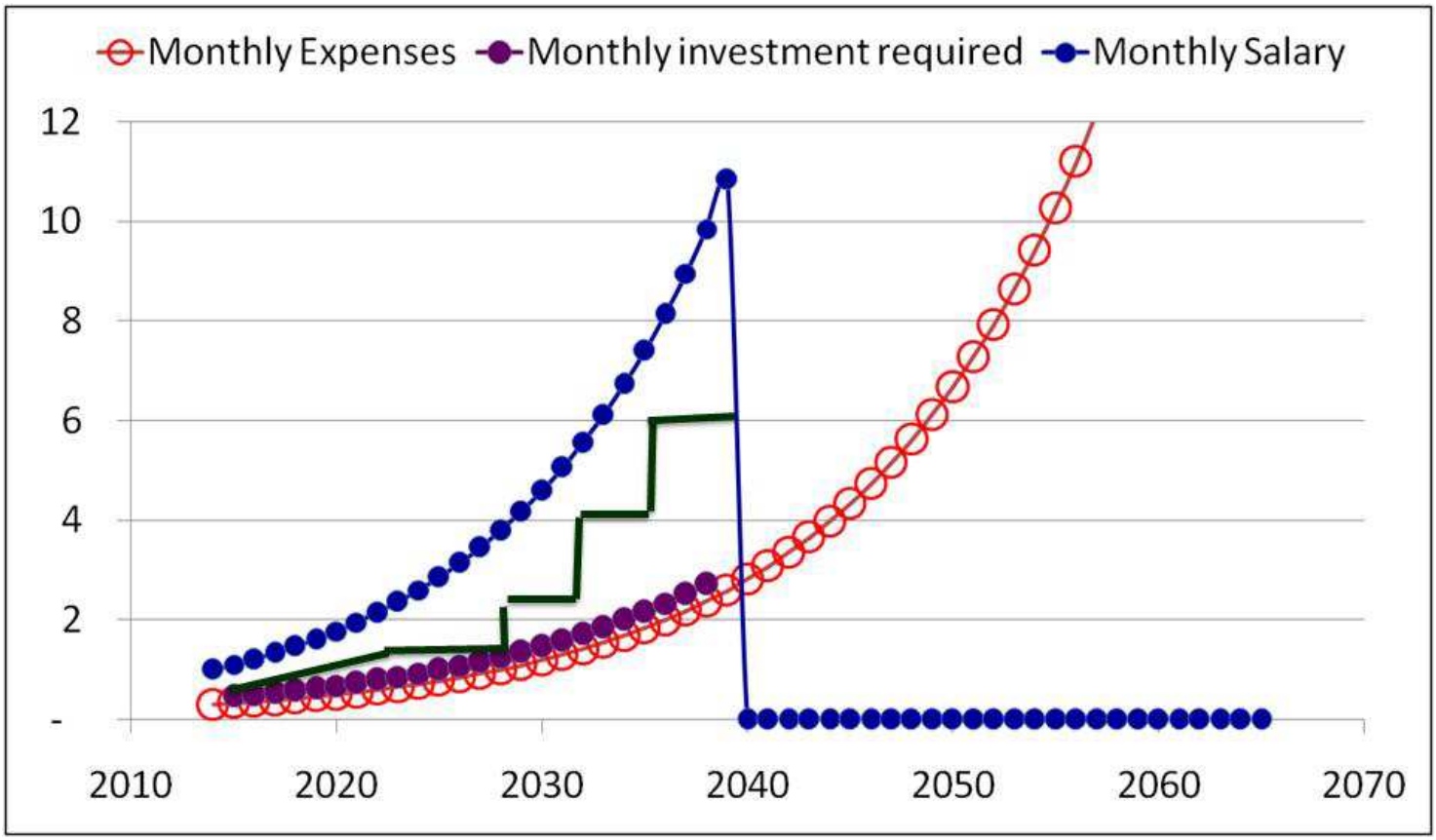
Invest as much as you spend each month for retirement!

This would imply we must strive to invest as much as spend.

This is easier said than done. Let us have a look at the second graph again

In this picture, the gap between the monthly salary and monthly expenses increases as we approach retirement. If this is how our lives pan out, then we can mange to invest as much as we spend with a little effort and discipline.

Unfortunately,



Our expenses tend to grow in steps as shown in green above. Call it lifestyle creep if you like. If we embrace every new technology that arrives, if we cannot distinguish between our needs and wants, if we succumb to peer pressure and buy what others buy, we will never be able to invest enough.

Meaning, we are sowing the seeds for our future financial doom today.

Lifestyle creep, the desire to spends for today and enjoy when young, resides in all of us. What is needed is a definite boundary: We can spend the way, we wish as long as we can manage to invest as much as we can spend.

Safeguarding that boundary is the first and foremost step of retirement planning.

If you want to get started with your retirement planning, do give this a try: The low-stress retirement calculator (hopefully!)

Is it possible to retire early in India?

Is early retirement in India possible? Can a 45-year-old with 'enough' saved up, hang up his boots and avoid a full-time job for the rest of his life?

In this post, I do a feasibility study considering three different scenarios for early retirement to determine the most practical approach.

Early retirement is a phrase that has become extremely popular in recent year thanks to successful blogs like

- *Early Retirement Extreme*
- *Mr. Money Mustache*
- *Getrichslowly*
- *The Simple Dollar*

and many more that have cropped up by inspiration.

Many Indians get inspired by these blogs and seek early retirement without understanding the implications of inflation levels in India and what it actually means to a retirement plan. Some even have designed retirement calculators ignoring post-retirement inflation!

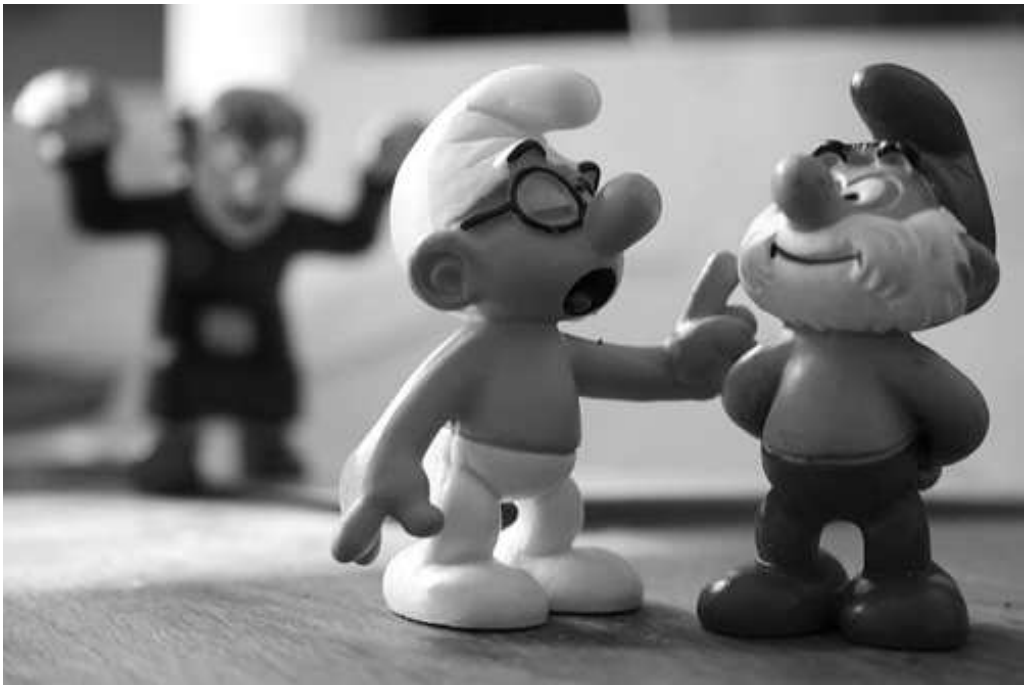
No one seems to understand how fragile their plans look on paper. So this post is to debunk some popular notions on early retirement and to provide a reasonably practical solution.

Early retirement is an extremely common dream. You long to say good-bye to your tough corporate job, tell your evil boss to f%%% off, begin an entirely new phase in your life!

Almost everyone dreams it, but only a few people decide to do something about it. Will those few succeed? How practical is it to retire early in a country where inflation is close to double digits?

Let try and answer these questions in this post by taking the case *Brainy Smurf*. Regular readers may recall we considered *Grouchy Smurfs* ***retirement planning with fixed and recurring deposits*****.**

Brainy Smurf is a nerd who loves numbers. He would like to meticulously plan his retirement before quitting his job. He is convinced that with a frugal lifestyle and intelligent investing, he will be able to retire early in India.



Brainy Smurf explaining to Papa Smurf about early retirement while inflation is preparing to strike! Photo Credit: **Vik Nanda**Opens in a new window

Note: Although this post considers early retirement is meant for *everyone*. All of us should understand why it is crucial to plan for retirement as early as possible and invest as much as possible – **preferably, as much as you spend!**

This is a lengthy post where we consider different scenario cash flow charts with graphs. I would like the reader to observe the cash flow charts and make their observations.

If you are serious about early retirement, you will need to spend extra time with the charts.

Let us now run through Brainy Smurfs numbers and check see where he stands.

Age at retirement: 45

Years in retirement: 45! (He assumes he will live up to 90)

Monthly Expenses: 20,000 per month. This is much lower than most Indian households. When you reach the end of this post, recall this fact and figure out what would the situation if monthly expenses are higher than this!

Annual Expenses: 20,000 X 12 + 20,000 = 2,60,000. We add an extra months expenses to account for health insurance, and other annual expenses. We are going to use these inputs in three scenarios:

1. **The Income drawdown strategy (decreasing corpus)**
2. **The constant withdrawal rate strategy (increasing corpus)**
3. **Using a perpetuity (constant corpus)**

- **Accounting for the unexpected**

Scenario I: The Income drawdown strategy (decreasing corpus)

Inflation: 8%. **Return expected on retirement corpus** 8%. The *real return* is zero. That is our annual return is equal to the average rate of inflation. Using the **"how much is required to retire?"** tool, we find that the corpus

required is 1,17,00,00 or 117 Lakhs. Here is how the cash flow chart would pan out.

Scenario I: The Income drawdown strategy (decreasing corpus)					
Year	Corpus Value Year Start	Expenses	Corpus Value Year End	Withdrawal Rate	Real Return
1	11700000	260000	12355200	2.22%	0.00%
2	12355200	280800	13040352	2.27%	0.00%
3	13040352	303264	13756055	2.33%	0.00%
4	13756055	327525	14502812	2.38%	0.00%
5	14502812	353727	15281012	2.44%	0.00%
6	15281012	382025	16090906	2.50%	0.00%
7	16090906	412587	16932584	2.56%	0.00%
8	16932584	445594	17805949	2.63%	0.00%
9	17805949	481242	18710683	2.70%	0.00%
10	18710683	519741	19646217	2.78%	0.00%
11	19646217	561320	20611689	2.86%	0.00%
12	20611689	606226	21605900	2.94%	0.00%
13	21605900	654724	22627269	3.03%	0.00%
14	22627269	707102	23673781	3.13%	0.00%
15	23673781	763670	24742919	3.23%	0.00%
16	24742919	824764	25831608	3.33%	0.00%
17	25831608	890745	26936131	3.45%	0.00%
18	26936131	962005	28052057	3.57%	0.00%
19	28052057	1038965	29174139	3.70%	0.00%
20	29174139	1122082	30296221	3.85%	0.00%
21	30296221	1211849	31411122	4.00%	0.00%
22	31411122	1308797	32510512	4.17%	0.00%
23	32510512	1413501	33584772	4.35%	0.00%
24	33584772	1526581	34622847	4.55%	0.00%
25	34622847	1648707	35612071	4.76%	0.00%
26	35612071	1780604	36537985	5.00%	0.00%
27	36537985	1923052	37384128	5.26%	0.00%
28	37384128	2076896	38131810	5.56%	0.00%
29	38131810	2243048	38759864	5.88%	0.00%
30	38759864	2422491	39244362	6.25%	0.00%
31	39244362	2616291	39558317	6.67%	0.00%
32	39558317	2825594	39671341	7.14%	0.00%
33	39671341	3051642	39549275	7.69%	0.00%
34	39549275	3295773	39153782	8.33%	0.00%
35	39153782	3559435	38441895	9.09%	0.00%

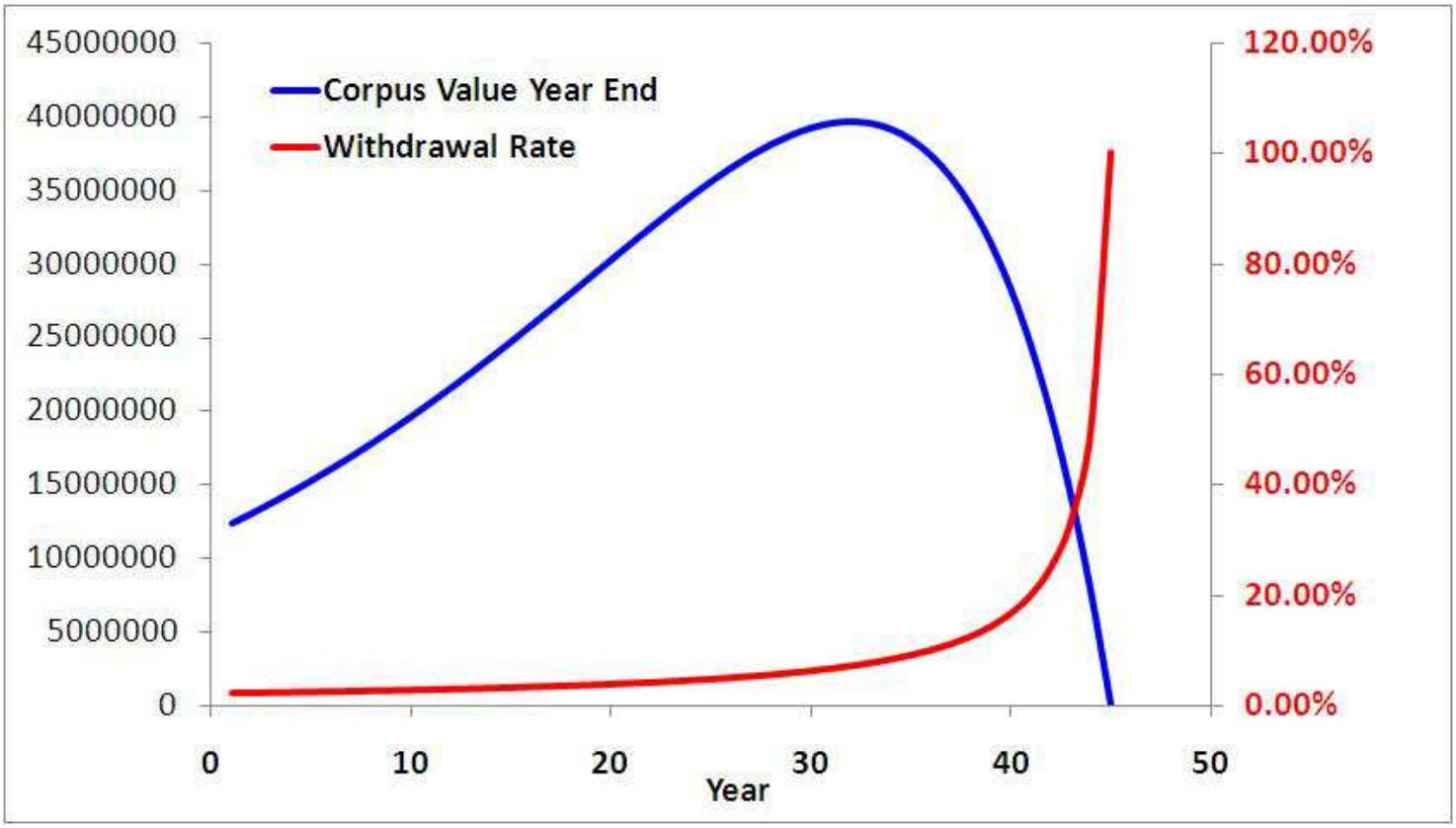
36	38441895	3844190	37365522	10.00%	0.00%
37	37365522	4151725	35870901	11.11%	0.00%
38	35870901	4483863	33898002	12.50%	0.00%
39	33898002	4842572	31379864	14.29%	0.00%
40	31379864	5229977	28241878	16.67%	0.00%
41	28241878	5648376	24400983	20.00%	0.00%
42	24400983	6100246	19764796	25.00%	0.00%
43	19764796	6588265	14230653	33.33%	0.00%
44	14230653	7115327	7684553	50.00%	0.00%
45	7684553	7684553	0	100.00%	0.00%

Notice how the corpus initially increases and then decreases when expenses become high due to inflation.

It becomes zero after 45 years. This is known as an *income drawdown* strategy. Brainy allows his corpus to grow at some rate (8% in this case) and withdraws from it each year to handle his expenses that increase each year with inflation (8% in this case).

The real rate of return =(1+return)/(1+inflation)-1 = 0%

Notice how the withdrawal rate = expenses/(corpus value @ year start), rapidly increases.



Myth: Withdrawal rate is a constant

Truth: Withdrawal rates are constant only if you plan for them to be so. In a drawdown strategy, the withdrawal rate *cannot* be constant even if inflation is assumed to be zero!

Scenario II: The constant withdrawal rate strategy (increasing corpus)

In this case, the percentage *Brainy* withdraws from a corpus at the start of each year is assumed to be a constant.

That is *Brainy* will need 2,60,000 in the first year of retirement. So assuming a withdrawal rate of 3%, he will need a corpus of 86.7 Lakhs to start with.

Notice this is considerably lower than the 117 Lakhs need in the drawdown strategy.

If inflation is assumed to be zero and for 3% withdrawal rate each year in retirement, *brainy Smurf* will only need a return of 3.1% on his corpus.

His corpus will not reduce in value and will remain 86.7 Lakhs after 45 years! Since inflation is zero, the *real return* = return = 3.1%

For an inflation of 3%, the return required = 6.2% and *real return* = 3.1% **for each year in retirement** to maintain the withdrawal rate constant at 3%

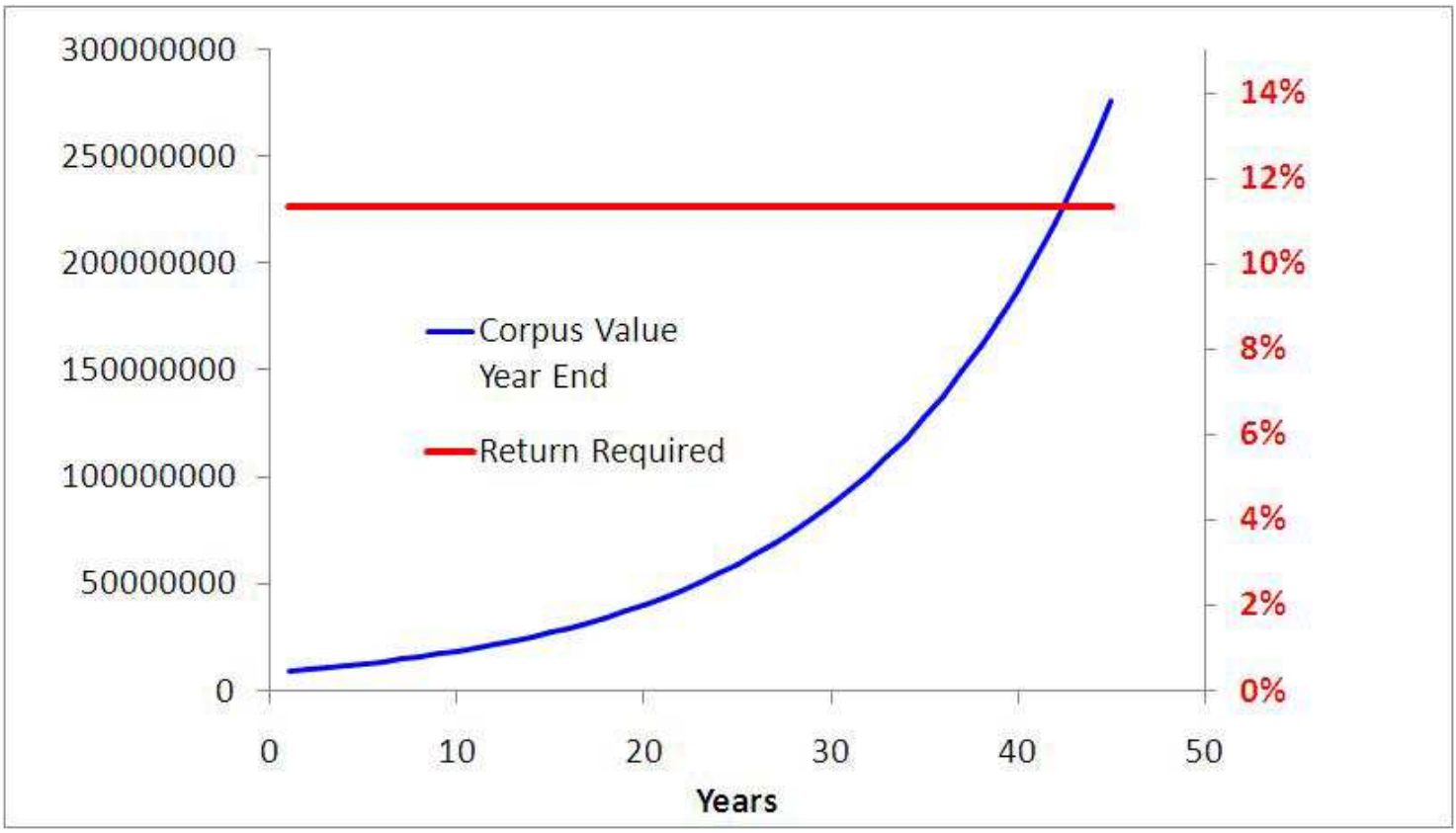
For an inflation of 8%, the return required = 11.34% and *real return* = 3.1% **for each year in retirement** to maintain the withdrawal rate constant at 3%

This is how the cash flow chart looks like

Scenario II: The constant withdrawal rate strategy (increasing corpus)						
Year	Corpus Value Year Start	Expenses	Corpus Value Year End	Withdrawal Rate	Return required	Real Return
1	8666667	260000	9360000	3%	11.34%	3.09%
2	9360000	280800	10108800	3%	11.34%	3.09%
3	10108800	303264	10917504	3%	11.34%	3.09%
4	10917504	327525.1	11790904	3%	11.34%	3.09%
5	11790904	353727.1	12734177	3%	11.34%	3.09%
6	12734177	382025.3	13752911	3%	11.34%	3.09%
7	13752911	412587.3	14853144	3%	11.34%	3.09%
8	14853144	445594.3	16041395	3%	11.34%	3.09%
9	16041395	481241.9	17324707	3%	11.34%	3.09%
10	17324707	519741.2	18710683	3%	11.34%	3.09%
11	18710683	561320.5	20207538	3%	11.34%	3.09%
12	20207538	606226.1	21824141	3%	11.34%	3.09%
13	21824141	654724.2	23570072	3%	11.34%	3.09%
14	23570072	707102.2	25455678	3%	11.34%	3.09%
15	25455678	763670.3	27492132	3%	11.34%	3.09%
16	27492132	824764	29691503	3%	11.34%	3.09%
17	29691503	890745.1	32066823	3%	11.34%	3.09%
18	32066823	962004.7	34632169	3%	11.34%	3.09%

19	34632169	1038965	37402743	3%	11.34%	3.09%
20	37402743	1122082	40394962	3%	11.34%	3.09%
21	40394962	1211849	43626559	3%	11.34%	3.09%
22	43626559	1308797	47116684	3%	11.34%	3.09%
23	47116684	1413501	50886018	3%	11.34%	3.09%
24	50886018	1526581	54956900	3%	11.34%	3.09%
25	54956900	1648707	59353452	3%	11.34%	3.09%
26	59353452	1780604	64101728	3%	11.34%	3.09%
27	64101728	1923052	69229866	3%	11.34%	3.09%
28	69229866	2076896	74768255	3%	11.34%	3.09%
29	74768255	2243048	80749716	3%	11.34%	3.09%
30	80749716	2422491	87209693	3%	11.34%	3.09%
31	87209693	2616291	94186468	3%	11.34%	3.09%
32	94186468	2825594	101721386	3%	11.34%	3.09%
33	101721386	3051642	109859097	3%	11.34%	3.09%
34	109859097	3295773	118647825	3%	11.34%	3.09%
35	118647825	3559435	128139651	3%	11.34%	3.09%
36	128139651	3844190	138390823	3%	11.34%	3.09%
37	138390823	4151725	149462088	3%	11.34%	3.09%
38	149462088	4483863	161419055	3%	11.34%	3.09%
39	161419055	4842572	174332580	3%	11.34%	3.09%
40	174332580	5229977	188279186	3%	11.34%	3.09%
41	188279186	5648376	203341521	3%	11.34%	3.09%
42	203341521	6100246	219608843	3%	11.34%	3.09%
43	219608843	6588265	237177550	3%	11.34%	3.09%
44	237177550	7115327	256151754	3%	11.34%	3.09%
45	256151754	7684553	276643895	3%	11.34%	3.09%

The top cell in the withdrawal rate column is green to signify that it is an input. This is how the corpus grows with time.



Lower the withdrawal rate, higher the initial corpus required lower the return.

For example, for a withdrawal rate of 5%, *Brainy* would need only 52 Lakhs to start with, but require an *annual* return of 13.7%

For a withdrawal rate of 1%, *Brainy* would need only 260 Lakhs to start with, and required an *annual* return of 5.3%. (Thanks to Satish for pointing out a mistake here)

So he needs to find an optimum withdrawal rate to keep the initial corpus and return required low.

However is this scenario practical? Can you manage a *real return of 3.1%* year after year for the kind of inflation that exists in India? Many of the early retirement fans seem to think it is not such a big deal!

Have to find out what they are smoking! One could argue that a real return need not be obtained each year in retirement, and it is some kind of average after a few years.

Point taken. However, we are talking the return for the *entire* corpus to grow. So even if we invest part of the corpus in equity and part in debt, how practical is to achieve an *average real* return of 3%? This would mean much of the corpus will have to be in equity.

So a couple of bad years and *Brainy would be screwed.*

They also talk of something called a *safe withdrawal rate(SWR)*. This is the rate at which one can withdraw from a corpus taking into account volatility in its growth rate and inflation. All this talk of SWR is impractical in a high inflation rate scenario.

What one needs is a *Safe rate of return.* That is, *before* we actually retire, we should plan with a volatility-free return, that can be realistically achieved year after year in retirement.

After we retire, we should divide the corpus in **different buckets** and allow them to grow at different rates. Even then, the *net* portfolio return has to be realistic!

Resigning our job in the hope of achieving an unrealistic high *net portfolio* returns is madness.

Retirement math is simple. No matter when you retire, the math is the same. It is neither ***shocking simple****Opens in a new window,* not alarmingly complex. You **do not need concepts like SWR.**

Prepare for the worst and pray for the best. To assume that withdrawal rate (= SWR) will be constant in retirement, for high inflation scenarios is plain dumb in my opinion. I will leave you to be the judge.

Scenario III: Perpetuity (constant corpus)

Perpetuity is nothing but an pension or annuity that is constant and forever. Such annuities are sold by insurance companies and last until the lifetime of the retiree.

If you want one to last forever (that is outlive you) your corpus will have to increase each year by the *exact same amount* that you withdraw.

Then the corpus will never diminish like it does in a drawdown strategy (scenario I), nor will it increase like the constant withdrawal rate strategy (scenario II).

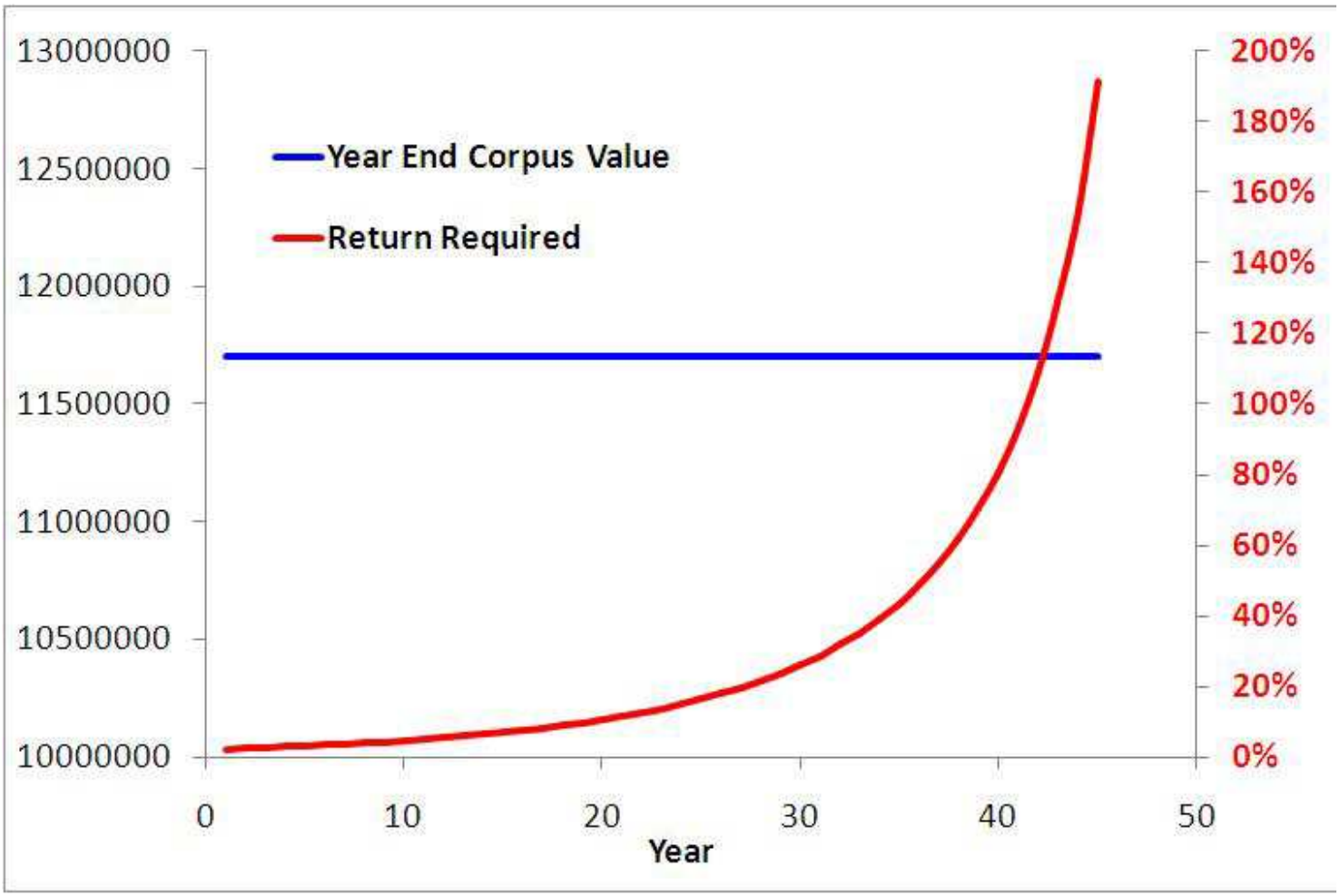
When inflation is zero, scenarios II and III become identical.

Now with 8% inflation, if *Brainy* uses 117 Lakhs as the corpus required (same as scenario I), this how the cash flow chart pans out

Scenario III: Perpetuity (constant corpus)						
	Corpus Value	Expenses	Corpus Value	Withdrawal	Return	Real
Year	Year Start		Year End	Rate	required	Return
1	11700000	260000	11700000	2%	2.27%	-5.30%
2	11700000	280800	11700000	2%	2.46%	-5.13%
3	11700000	303264	11700000	3%	2.66%	-4.94%
4	11700000	327525.1	11700000	3%	2.88%	-4.74%
5	11700000	353727.1	11700000	3%	3.12%	-4.52%
6	11700000	382025.3	11700000	3%	3.38%	-4.28%
7	11700000	412587.3	11700000	4%	3.66%	-4.02%
8	11700000	445594.3	11700000	4%	3.96%	-3.74%
9	11700000	481241.9	11700000	4%	4.29%	-3.44%
10	11700000	519741.2	11700000	4%	4.65%	-3.10%
11	11700000	561320.5	11700000	5%	5.04%	-2.74%
12	11700000	606226.1	11700000	5%	5.46%	-2.35%
13	11700000	654724.2	11700000	6%	5.93%	-1.92%
14	11700000	707102.2	11700000	6%	6.43%	-1.45%
15	11700000	763670.3	11700000	7%	6.98%	-0.94%
16	11700000	824764	11700000	7%	7.58%	-0.39%
17	11700000	890745.1	11700000	8%	8.24%	0.22%

18	11700000	962004.7	11700000	8%	8.96%	0.89%
19	11700000	1038965	11700000	9%	9.75%	1.62%
20	11700000	1122082	11700000	10%	10.61%	2.41%
21	11700000	1211849	11700000	10%	11.55%	3.29%
22	11700000	1308797	11700000	11%	12.60%	4.25%
23	11700000	1413501	11700000	12%	13.74%	5.32%
24	11700000	1526581	11700000	13%	15.01%	6.49%
25	11700000	1648707	11700000	14%	16.40%	7.78%
26	11700000	1780604	11700000	15%	17.95%	9.21%
27	11700000	1923052	11700000	16%	19.67%	10.80%
28	11700000	2076896	11700000	18%	21.58%	12.58%
29	11700000	2243048	11700000	19%	23.72%	14.55%
30	11700000	2422491	11700000	21%	26.11%	16.77%
31	11700000	2616291	11700000	22%	28.80%	19.26%
32	11700000	2825594	11700000	24%	31.84%	22.07%
33	11700000	3051642	11700000	26%	35.29%	25.26%
34	11700000	3295773	11700000	28%	39.22%	28.90%
35	11700000	3559435	11700000	30%	43.72%	33.08%
36	11700000	3844190	11700000	33%	48.93%	37.90%
37	11700000	4151725	11700000	35%	55.00%	43.52%
38	11700000	4483863	11700000	38%	62.14%	50.13%
39	11700000	4842572	11700000	41%	70.62%	57.98%
40	11700000	5229977	11700000	45%	80.83%	67.44%
41	11700000	5648376	11700000	48%	93.34%	79.02%
42	11700000	6100246	11700000	52%	108.94%	93.46%
43	11700000	6588265	11700000	56%	128.89%	111.93%
44	11700000	7115327	11700000	61%	155.20%	136.29%
45	11700000	7684553	11700000	66%	191.37%	169.79%

The green cell indicates that corpus is an input in this case. Although the corpus is constant, notice the return required.



Notice the return required is low initially and the rapidly increases. Therefore, for nearly 20 years the *real* return is quite small and in fact negative for several years initially.

After that it is impractically large! So assuming again the idea of a perpetuity as it is defined will not work in a high inflation rate scenario.

Hey! Wait a minute, the return required for the first several years is too small. Why can't *Brainy* assume a higher rate of return? He sure can!

Only that it will not become a perpetuity then.

For example. If the rate of return required is an achievable 8% (= inflation rate) for all 45 years, then you will simply reproduce scenario I. That is the corpus will reduce to zero.

If you take the rate of return is higher than the inflation for all years in retirement, you will reproduce scenario II: the corpus will increase. Again, the question of how practical this is, looms large.

Mixed Bag Scenario

What if we combine Scenarios I and III? That is choose 10% as required return for first 20 years in retirement (real return 1.85%, still a tall order but barely manageable), 8% as required return for next years (real return is zero since inflation is 8%) and then plan for a perpetuity

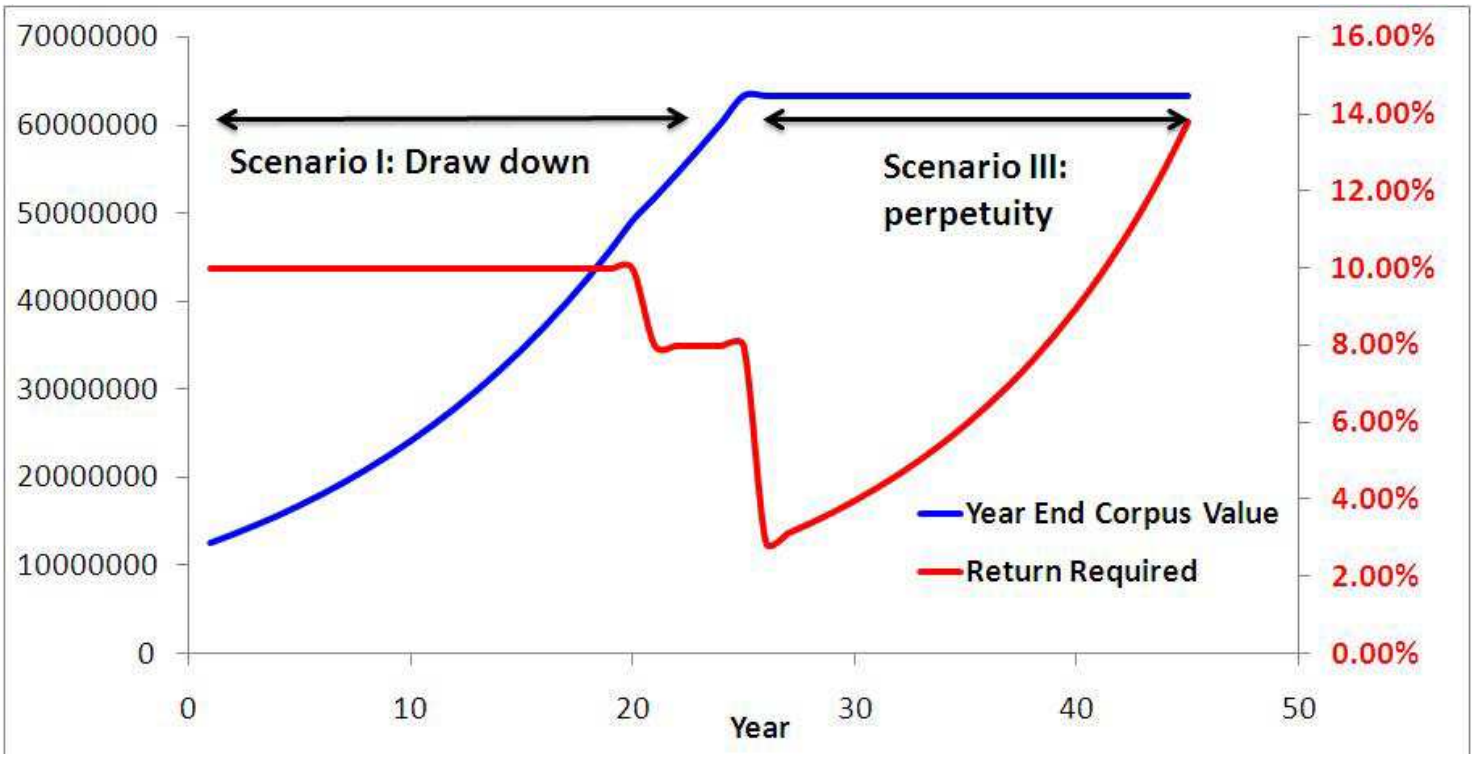
. That is we choose scenario I for first 25 years in retirement and then switch to scenario III for the last 20 years.

Here is the cash flow chart

Mixed bad: Scenarios I for 25 years and scenario III for 20 years						
	Corpus Value	Expenses	Corpus Value	Withdrawal	Return	Real
Year	Year Start		Year End	Rate	required	Return
1	11700000	260000	12584000	2%	10.00%	1.85%
2	12584000	280800	13533520	2%	10.00%	1.85%
3	13533520	303264	14553282	2%	10.00%	1.85%
4	14553281.6	327525.1	15648332	2%	10.00%	1.85%
5	15648332.13	353727.1	16824065	2%	10.00%	1.85%
6	16824065.5	382025.3	18086244	2%	10.00%	1.85%
7	18086244.22	412587.3	19441023	2%	10.00%	1.85%
8	19441022.58	445594.3	20894971	2%	10.00%	1.85%
9	20894971.1	481241.9	22455102	2%	10.00%	1.85%
10	22455102.17	519741.2	24128897	2%	10.00%	1.85%
11	24128897.06	561320.5	25924334	2%	10.00%	1.85%
12	25924334.22	606226.1	27849919	2%	10.00%	1.85%
13	27849918.89	654724.2	29914714	2%	10.00%	1.85%
14	29914714.13	707102.2	32128373	2%	10.00%	1.85%
15	32128373.15	763670.3	34501173	2%	10.00%	1.85%
16	34501173.09	824764	37044050	2%	10.00%	1.85%
17	37044050.04	890745.1	39768635	2%	10.00%	1.85%
18	39768635.44	962004.7	42687294	2%	10.00%	1.85%
19	42687293.82	1038965	45813162	2%	10.00%	1.85%
20	45813161.63	1122082	49160187	2%	10.00%	1.85%
21	49160187.29	1211849	51784206	2%	8.00%	0.00%
22	51784205.51	1308797	54513441	3%	8.00%	0.00%
23	54513441.44	1413501	57347936	3%	8.00%	0.00%
24	57347936.21	1526581	60287064	3%	8.00%	0.00%
25	60287064.11	1648707	63329426	3%	8.00%	0.00%
26	63329425.69	1780604	63329426	3%	2.89%	-4.73%
27	63329425.69	1923052	63329426	3%	3.13%	-4.51%
28	63329425.69	2076896	63329426	3%	3.39%	-4.27%
29	63329425.69	2243048	63329426	4%	3.67%	-4.01%
30	63329425.69	2422491	63329426	4%	3.98%	-3.72%
31	63329425.69	2616291	63329426	4%	4.31%	-3.42%
32	63329425.69	2825594	63329426	4%	4.67%	-3.08%
33	63329425.69	3051642	63329426	5%	5.06%	-2.72%
34	63329425.69	3295773	63329426	5%	5.49%	-2.32%
35	63329425.69	3559435	63329426	6%	5.96%	-1.89%
36	63329425.69	3844190	63329426	6%	6.46%	-1.42%

37	63329425.69	4151725	63329426	7%	7.02%	-0.91%
38	63329425.69	4483863	63329426	7%	7.62%	-0.35%
39	63329425.69	4842572	63329426	8%	8.28%	0.26%
40	63329425.69	5229977	63329426	8%	9.00%	0.93%
41	63329425.69	5648376	63329426	9%	9.79%	1.66%
42	63329425.69	6100246	63329426	10%	10.66%	2.46%
43	63329425.69	6588265	63329426	10%	11.61%	3.34%
44	63329425.69	7115327	63329426	11%	12.66%	4.31%
45	63329425.69	7684553	63329426	12%	13.81%	5.38%

The green cells as usual represent the variables. Notice that return required is now just about manageable for almost 41 years in retirement. That is a reasonably good achievement.



Notice how the scenarios are combined. We have used the fact that the corpus grows in the initial phase of scenario I and combined it with the constant corpus perpetuity in scenario 3.

The region in scenario I when the corpus starts to decrease has been avoided. This provides a reasonably manageable scenario. The starting corpus used is the same as in scenario I: 117 Lakhs.

Scenario IV: Accounting for the unexpected

Phew! If you have made it to this point, thank you very much!

Now, all of the above are scenarios on paper. Life does not work quite like that.

Trouble with the early retirement extreme folk (including *Brainy*) is that they think frugality and DIY can solve all problems of life. This is nonsense.

You may want to be frugal, but life may not allow you to do so. You may think you have your expenses in control when an **unexpected recurring expense** can wreck havoc on your plans.

Banking on frugality to defeat inflation is dumb. Yes, frugality will help you combat inflation but you will also have to take into the ups and downs of life. I can tell you with the full benefit of hindsight that a **frugal lifestyle** has helped me keep expenses in check. I cannot however assume that it will continue to remain the same.

I may buy only what I *need*, but that can change with time!

We have already discussed the trouble with banking on real returns after retirement.

So what does this mean for *Brainy*? What scenario should he choose?

Brainy should plan with a drawdown strategy – this is the standard used in all retirement plans. When it comes to implementation he should choose ***the bucket method*** which in some sense a variation of the mixed bad scenario discussed above and try to prolong the life of the corpus as much as possible without taking undue risks.

Bottomline: Do not hate your job too much! If you are not assuming realistic rates of return and inflation, you will not able to retire as early as you think.

Besides if you don't know how to spend your time in retirement, why bother retiring? Your time would be better spent investing wisely and enriching your skill set.

Dear *Brainy Smurfs,* Get real!

Do not retire early if your corpus is lesser than that given by the drawdown strategy with reasonable inputs.

What do you think? Do you think it is possible to retire early in India?

What if the expenses were higher than that assumed here?

How much do I need to retire early in India?

A look at 'how much' or 'what is the corpus required for early retirement in India?'. I had earlier written a detailed post on this subject and the common misconceptions youngsters seeking financial freedom form after reading blogs like ERE and MMM.

The central message of that post was, early retirement is possible, but one must have a comfortable corpus taking into account the high inflation levels in India. Unfortunately, many people misunderstood it and assumed that I meant early retirement is not possible. Either before or after reading this post, I strongly suggest you read that one as well: **Is it possible to retire early in India? Opens in a new window**

Over the past few years, I have reviewed 5/6 portfolios of early retirees and discussed their views of risk and reward. All of them, have huge margins of safety when it comes to estimating the retirement corpus (which is an annual exercise before and after retirement. See why **hereOpens in a new window**)

Personally I have similar if not higher margins of safety. I am not desperate for financial independence but do seek it aggressively. With a simple MDBSC approach in mutual funds, and with copious amount of luck, I might get there before I turn 50: **Retirement Planning: My Story So FarOpens in a new window**

The reason I state the above is, "margin of safety" depends on the age of the person. It is hard to convince a 25-year-old kid who has not seen the vicissitudes that assuming a 4% alpha after retirement like Mr. MMM advocates, can be suicidal or having 80% equity after retirement to compensate for a low corpus, completely ignores the importance of sequence of returns.

It is obvious that bad experience is a great teacher. Almost a decade ago, while I was waiting to be interviewed for my current job, I met my teacher and told him about my **hardshipOpens in a new window** after my father took ill. He said, "you should be happy that you are going through this when young. Will give you a lot of strength". I was 31 then and thought it was bollocks. At 40, considering what I experienced afterward, I believe those are golden words.

My point is, while retiring early it is extremely important to account extreme situations and that comes with age and/or experience.

Let us go through an early retirement planning calculation to illustrate my point.

Consider an individual (or couple) who is(are) planning for 40 years in retirement.

Zero real return

If their current expenses are say, Rs. 3,60,000, then, for an assumed 7% yearly increase in pension (due to inflation) and for a conservative (but safe) post-tax return of 7% from the entire portfolio (zero real return), the corpus required is **1.44 Crores** (40 times annual expenses at retirement)

1% real return

Same assumptions as above, but now with 8% post-tax return from entire portfolio (~ 1% real return), the corpus required is **1.20 Crores** (33 times annual expenses at retirement)

2% real return

Same assumptions as above, but now with 9% post-tax return from entire portfolio (~ 2% real return), the corpus

required is **1.02 Crores** (28 times annual expenses at retirement)

3% real return --> **88 Lakhs** (24 times annual expenses at retirement)

4% real return --> **76 Lakhs** (21 times annual expenses at retirement)

What would you do if these were your numbers?

My view of early retirement is simple: I should have enough so that I don't have to work again. I might take up part-time assignments, but I should not be dependent on this income.

I will sleep peacefully if I can retire with 1.44 Crores. If I hate my current job, I will probably retire with 1 crore (2% real return). Dangerous to assume a real return above that.

Let us see how one can pull off early retirement with 2% real return (some luck is necessary in this case though).

Suppose my retirement corpus is X. I divide the corpus into 4 parts.

X = A + B+ C+ D

A --> invested in fixed income assets (7% post-tax) and used to generate income increasing at 7% a year.

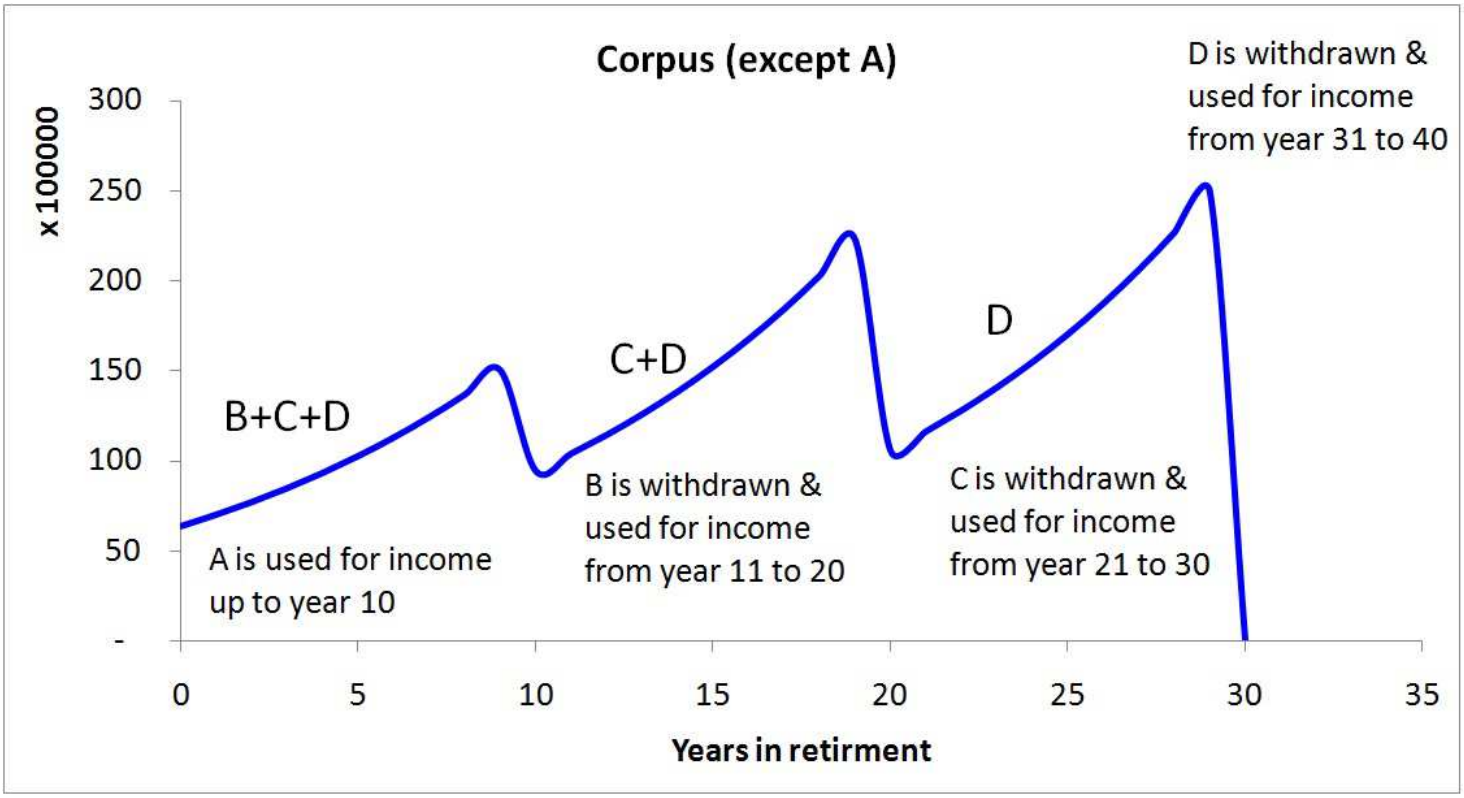
A = 10 times the annual expenses in 1st year.

B, C and D are invested in a portfolio with 60% equity (12% return) and 40% debt (7% post-tax)

B is invested for 10 years. After which it is taken out and used to generate income for years 11 to 20 in the same manner as A.

C is invested for 20 years. After which it is taken out and used to generate income for years 21 to 30 in the same manner as A.

D is invested for 30 years. After which it is taken out and used to generate income for years 31 to 40 in the same manner as A.



Note: return assumptions are invalid over a 40-year period, but since they are reasonable wrt initial years, I think it is not terrible. In any case, one can easily rework with lower returns from both equity and debt down the line.

This strategy is equivalent to an overall real return of about 2%. So if the couple has a corpus which is more than 28 times (preferably 30) current annual expenses, it is reasonably safe for them to retire.

What can go wrong with this plan?

1) Extended sideways market (bad sequence of returns)

2) **unexpected recurring expenses**

3) inflation higher than expected.

How do you safeguard yourself against such circumstances? With age, we realize that the best way to handle this is to have a slightly larger corpus to begin with.

My take: Work with min 7-8% inflation (I work with 9%) and not more than 2% real return (I work with zero real return). Do not decide to retire unless you have a corpus that is at least 30 times your current annual expenses.

This early retiree checks *each year* if his corpus is 35 times annual expenses: **Achieving Financial Independence: A Forthright Interview**

The above illustration can be downloaded from here: **Early retirement illustration**

This is only an illustration and not a calculator. If you want to make changes, you need to know how the sheet is written.

If you want a calculator, try this: **Inflation-protected Income Simulator**

You can also consider checking out these posts:

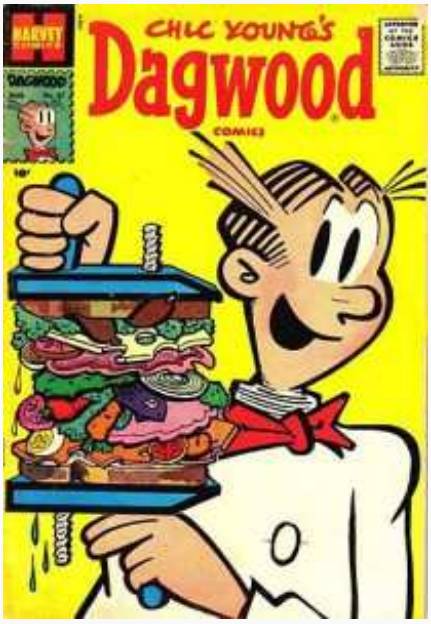
Generating an inflation-protected income with a lump sum

Illustration: Generating inflation-protected post-retirement income

Retire early to lower your retirement corpus!

The sooner you retire, lower the retirement corpus necessary for financial freedom!*
* terms and conditions apply!
Let us consider this counterintuitive aspect of retirement calculators in this post, which stems from Sudhindra Aithal's comment on this topic in response to the **low-stress retirement calculator**.

Let us consider a 30-year-old, Dagwood Bumstead who wishes to plan for retirement. For those who may not know, Dagwood is the husband of Blondie - a long running comic strip!



Used for illustrative purposes only. No copyright infringement intended.

He wants to decide the age at which he could retire. Since there are (too) many parameters in a retirement calculator, Dagwood wishes to keep the following inputs fixed:

1. Inflation before and after retirement: 8.5%
2. Life Expectancy: 90
3. Return expected on retirement corpus: 9% A real return of 0.46% (not 0.5%!!)

- If Dagwood wishes to retire at 65 (25 years in retirement), he would need a corpus of 14.8 Crores.
- If he prepones his retirement to 60(30 years in retirement), he would only need 11.8 Crores.
- If he wishes to retire even earlier at 50 (40 years in retirement), he would only 6.7 Crores. More than 50% reduction for 15 additional years in retirement!!!

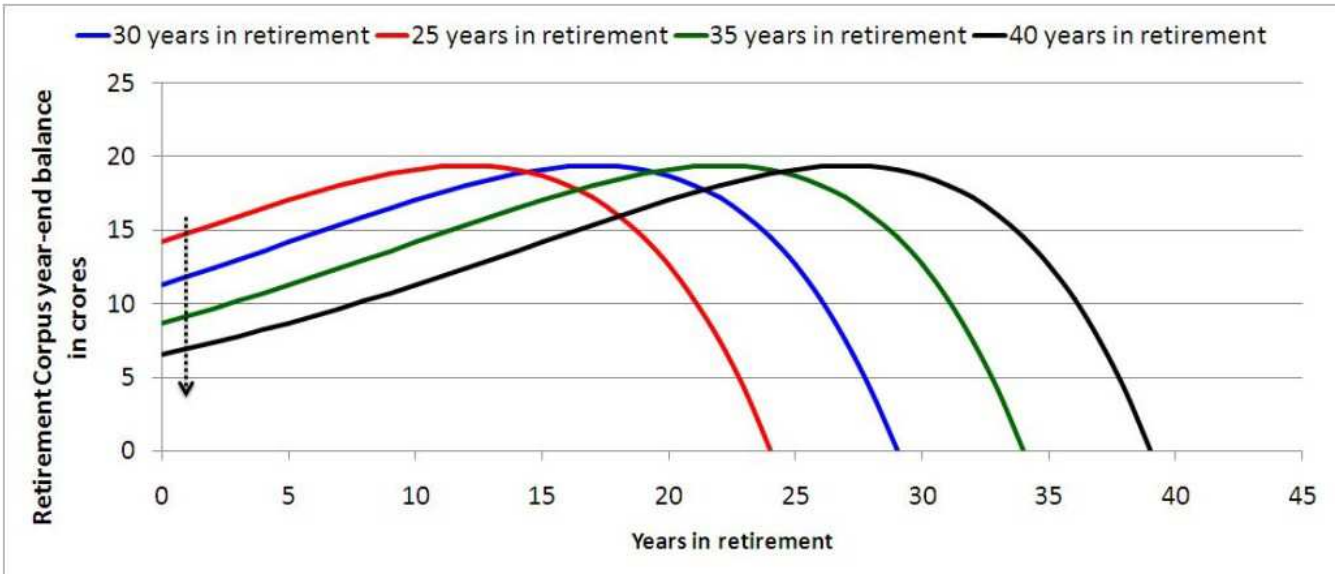
At first sight this is astounding! The longer Dagwood needs to live in retirement, lower is the corpus he needs!

The reason for this is the interplay between negative and positive compounding.

Negative compounding refers to the effect of inflation and positive compounding refers to the grow rate of the retirement corpus.

The sooner Dagwood retires, lower would be the expenses at the start of retirement. If he retires at 50, his expenses would be about 30% lower than at 65 (the projected value).
Meaning, he would withdraw less from his corpus. Therefore, more of the corpus can grow.
Thus, he needs a lower corpus at 50 than he would at 65!

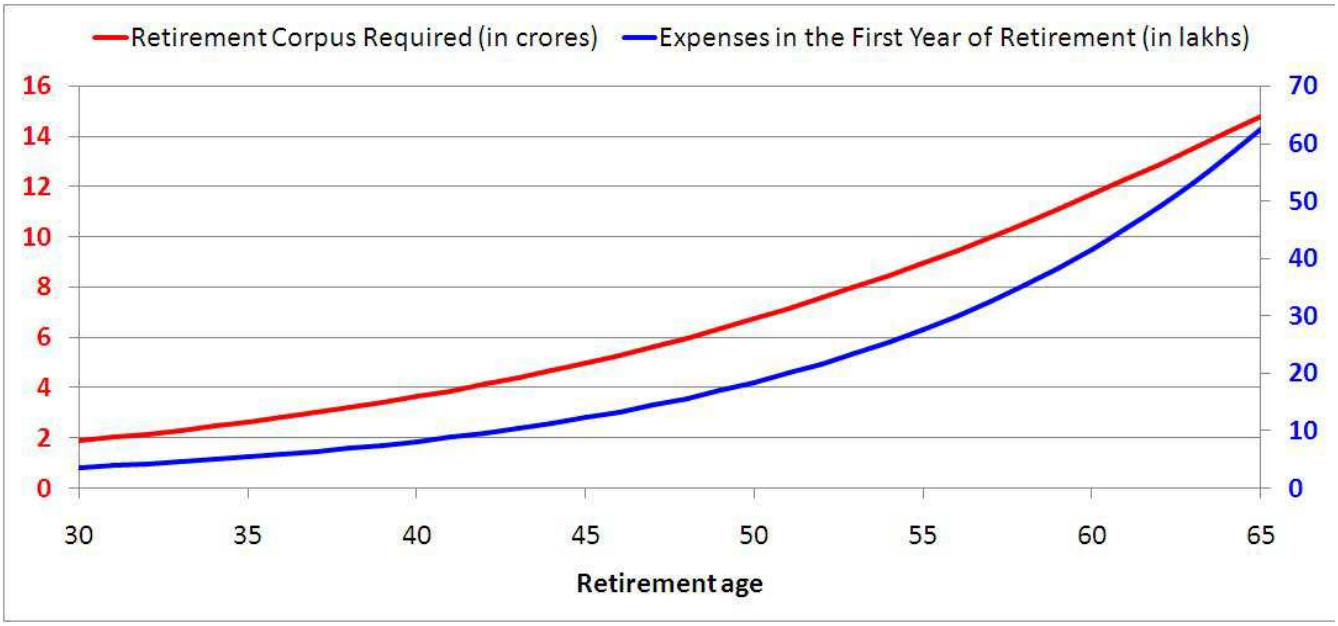
This bizarre but easy to understand idea, is illustrated below.



The retirement corpus initially increases because the growth is higher than withdrawals. Soon due to inflation, the withdrawals exceed the growth. Therefore, the corpus peaks and then rapidly falls with each additional year in retirement to zero (at age 90 in each case).

Earlier the retirement or more the years in retirement, the longer it takes for the corpus to peak and then fall. That is the annual growth of the corpus is higher than the annual withdrawals for more number of years. This is why one can do with a relatively lower corpus (vertical dotted arrow).

This aspect can also be illustrated by compared the retirement corpus required for different retirement age and the expenses in the first year of retirement.

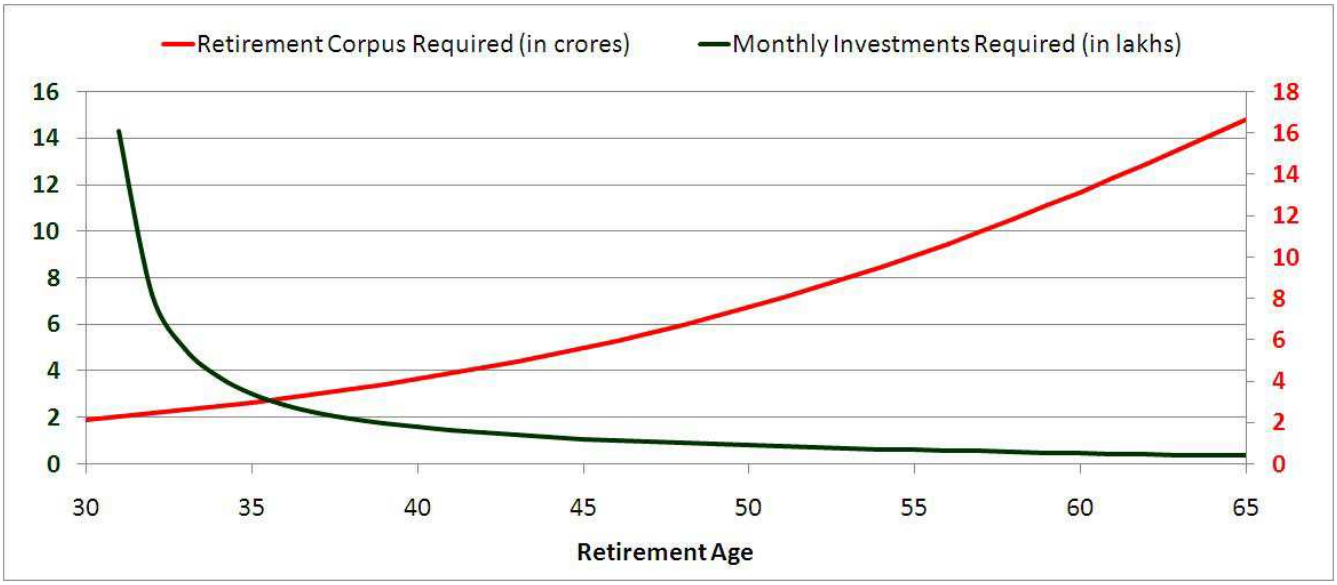


Higher the retirement age, higher the corpus because of higher the initial expenses.

Where is the catch?

This does not mean that one can retire early!! Although a lower corpus is required, the time needed to accumulate it is also lower.

That is, there is not enough time for Dagwoods monthly investment to grow! To offset this, Dagwood will need to increase his monthly investments.
Lower the corpus required, higher the monthly investment! In fact, the investment rapidly increases with decrease in retirement age and soon become impractical. This is calculated assuming Dagwood has not made any investment so far.



Thus, if Dagwood wishes to retire at 50 rather than 65, his monthly investments should more than double (while his corpus is less than half!).

Moral of the story: No free lunch!

What Should Be Your Retirement Withdrawal Rate?

March 17, 2013

Manish Chauhan's second book, **"How to be your own financial planner in 10 steps"** is a great 'action' book guiding people through the basic steps of financial planning. This post describes a retirement calculator inspired by the book and is based on 'corpus withdrawal rate'

Step no. 6 is "Start your retirement planning". In this chapter Manish writes: "If you had to take only one learning from this book and implement it, I would suggest that you take this particular point from this book and seriously save for your retirement. If you don't do anything else, life will still move on, but this particular part cannot be ignored, simply cannot!". The 'point' being, 'delaying your retirement planning will put serious pressure on your retirement life'.

When I made the **cost of postponement calculator** (again a suggestion by Subra!) I was surprised to see that that the cost of postponement is deadlier than inflation. Each year you postpone saving for retirement the amount you need to save each month for building your retirement nest egg increases by an alarming 16% - the power of compounding has a dark side! This is almost twice as much as inflation!

The chapter on retirement planning is quite impressive and the all-important, "*How much will you need at retirement*" is addressed in terms of the **'withdrawal rate'**.

What is the withdrawal rate? If I have a corpus of 5 crores and if my annual expenses amount to 12 lakhs, the withdrawal rate is 12/500 or 2.4%. This the rate for the first year of retirement. What about the second year and later? The withdrawal rate (lets denote this by **w**) is not a constant. It depends on

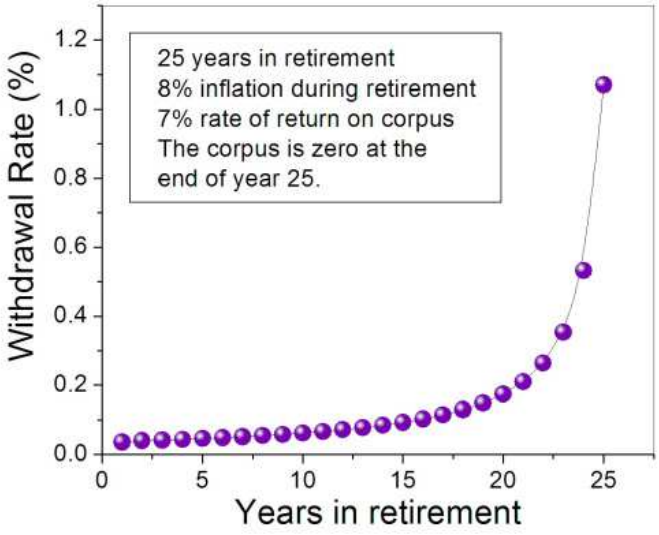
- the rate of inflation during retirement (**i**)
- the rate of return on the corpus (**r**)
- duration of retirement (**k**)

This is the formula connecting **w,i,r** and **k** (feel free to ignore it if math nauseates you!)

It is often assumed that the withdrawal rate for the second year will increase with inflation. That is if inflation is 8% then **w**(2nd year) = 2.4%X(1+8%) = 2.6% and so on. However this is not true and the above formula has to be used.

$$w = \frac{(1+t)^k t}{(1+t)\left((1+t)^k - 1\right)}, \text{ with } t = \frac{(1+r)}{(1+i)} - 1$$

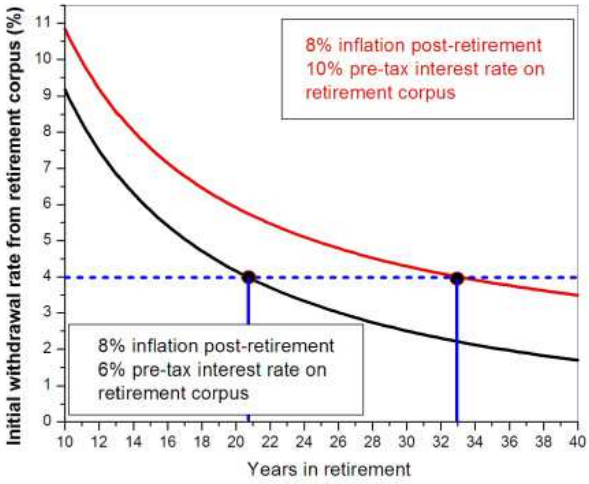
This is how the withdrawal rate typically looks for each year in retirement. The initial rate (for 1st year) is 3.5% in this example. (Click on the picture for a clearer view)

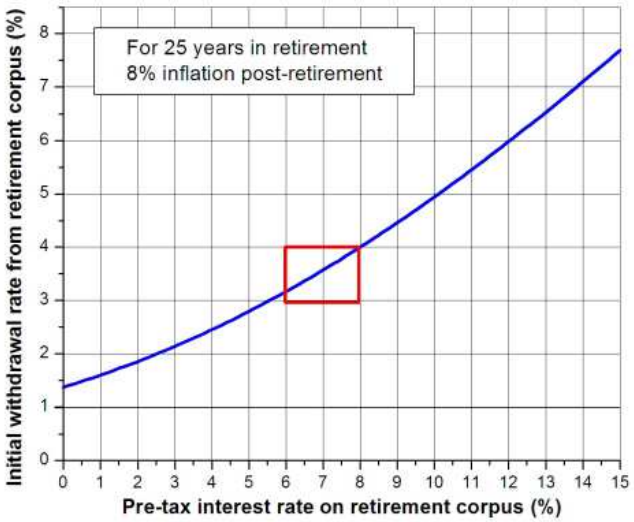


Safe to say that the withdrawal rate changes with time in a complicated way! The point is, only the withdrawal rate for the 1st year in retirement or the *initial withdrawal rate* can be guessed (along with other assumptions: at least two out of **i**, **r** and **k**). The **withdrawal rate for subsequent years should not be guessed** and has to be computed using the above formula.

Here are some further insights about the *initial* withdrawal rate (Click the pictures for a clearer view)

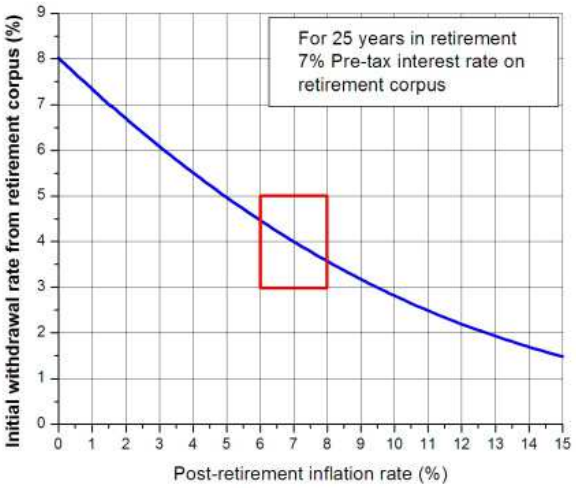
How long the corpus lasts depends on whether returns can beat inflation or not. For a 4% initial withdrawal rate and 8% post-retirement inflation, if returns are 2% above inflation the corpus will for nearly 33 years. However if returns are 2% below inflation the corpus will last only for about 21 years. This will make a huge difference for a person who retires in his/her mid-50s.





Suppose we plan for 25 years in retirement and assume 8% post-retirement inflation, the initial withdrawal rate will range between 3-4% for returns between 6-8%.

Notice that the initial withdrawal rate *decreases* with *increase* in inflation. Counter-intuitive as this may seem it is due to the need for a higher corpus due to higher inflation. Here again inflation rates between 6-8% correspond to withdrawal rates between 3.5-4.5% for a return of 7%



Inspired by Manish's book I have reworked my online retirement calculator to output the withdrawal rate each year. Manish outlines 5 steps to calculate retirement corpus and I have modeled the calculator along these lines incorporating the first 4 steps (the last step is 'where to invest' and cannot be calculated!). You don't need to read the book to use the calculator. However if you do need help in putting your financial life in order I strongly recommend buying the book **and** following the **all** the steps.

Download the Withdrawal Rate based Retirement Calculator

(please note: the mathematics remains the same for all retirement calculators and can be rewritten depending on what you wish to see as output.)

A checklist and calculator for early retirement in India

Here is a calculator and a checklist to consider if you wish to retire early in India. When I earlier asked " **Is it possible to retire early in India?Opens in a new window**", many readers assumed that I meant early retirement is not possible in India. All I wanted to convey was that excessive portfolio volatility is not the answer to combat the high inflation in India.

I followed that post with a friendlier illustration on "**How much do I need to retire early in India?**". The message was still the same: when it comes to retirement, *safety first!* However, this was perceived more positively.

Now I would like to discuss a simple checklist which might help readers assess their preparedness for early retirement. The calculator is based on the above illustration.

What is early retirement?

It simply refers to cessation of regular employment. The person could still earn from consultancy (part-time or full-time) or by other means, but that income is considered temporary and is not included in the retirement plan. That is, we are financially in a position to work if and when we please.

Retirement planning is counterintuitive! Very few realise that **earlier we retire, lower our retirement corpus!** So planning for early retirement with a 'low' corpus could well be easier than planning for normal retirement with a 'low' corpus (more on this later).

Before we look at the checklist, some dont's:

1. Get rid of the notion of a "safe withdrawal rate". If you must use the idea of a withdrawal rate, replace 'safe' by 'initial'. Use this calculator to see why I say so: **What Should Be Your Retirement Withdrawal Rate?**
2. Recognise the importance of "sequence of returns". A few bad years in the stock market can destroy a retirement portfolio. I have the had the privilege of studying some robust early retirement portfolios and the equity component has never exceeded 50%.
3. Even after you retire (early), you need to review the portfolio each year and determine if you can afford to stay retired.

If you wish to retire early, here are some tools that might help

Understand the corpus accumulation process:

Step 1: The low-stress retirement calculator (hopefully!)

Step 2: The even lower stress retirement calculator!

Step 3: Low-stress retirement calculator with flexible asset allocation (advanced version of step 1. If you want me to add this feature to step 2, leave a comment)

Step 4: Stress Test Your Retirement Plan

Understand the corpus management process:

Step 1: Generating an inflation-protected income with a lump sum

Step 2: Illustration: Generating inflation-protected post-retirement income

Step 3: Inflation-protected Income Simulator

Step 4: Try out the game: **Retirement 'Bucket Strategy' Simulator**

A checklist for early retirement in India

(perhaps anywhere!)

1. Do I have an emergency fund which is at least equal to 12 months expenses, preferably 24 months? A part of it should be liquid and a part of it should grow in perhaps a ultra-short term debt fund for future use. The health of this fund should be reviewed each year.
2. Do I have a health insurance cover for all my family members, be they dependents or not. Preferably an individual health cover for each.
3. Do I need to continue my term life insurance cover after I retire? I think early retirees should continue and let the policy run its course, especially if it is an online policy.
4. Do I have enough money (call this C1) to allocate to fixed income assets so that I can receive an **inflation-protected income** for at least the first 15 years of retirement (years 1-15: called the first segment in the calculator).
5. Do I have enough money (call this C2) to invest in a reasonably aggressive portfolio (not 100% equity) so as to generate a corpus with which I can receive inflation-protected income for the next 15 years of retirement (years 16-30: called the second segment in the calculator)
6. Do I have enough money (call this C3) to invest in a reasonably aggressive portfolio so as to generate a corpus with which I can receive inflation-protected income for the last 15 years of retirement (years 31-45: called the third segment in the calculator)
    - Total corpus required for early retirement = C1 + C2+ C3. Use the calculator (link below) to play around with this. I have used 10% as the portfolio return for the growth of C2 and C3. This is not offered an input, but you can change it yourself easily.
    - This is just an illustration. An alternative but similar illustration can be found here: " **How much do I need to retire early in India?**"
7. Have I used reasonable inputs for expenses, inflation and return in the calculator?
8. Do I know what I am going to do after quitting my regular job?
9. Do I know how I am going to use any part time income that I might generate?
10. If I am going to travel or use funds for expensive hobbies, do I have a budget and a separate corpus or source for the same?
11. Does my early retirement plan depend on my frugality? Do I understand that frugality is a luxury?! We may want to be frugal, but life should let us.
12. Do I understand that life is uncertain, will not pan out like it does on an Excel sheet and that the best plans can go awry in an instant?

What do you think? Have I missed out anything?

Early retirement calculator

Here is a screenshot.

Early Retirement Calculator			
Fill only green cells			
	First segment	Second segment	Third Segment
Amount needed in first year (expenses)	5,20,000	12,46,210	29,86,615
Interest rate on corpus	6%	6%	6%
Inflation rate	6%	6%	6%
Years payments are required	15	15	15
	First 15 years in retirement	Next 15 years in retirement	Next 15 years in retirement
Corpus for first segment	78,00,000	1,86,93,154	4,47,99,231
Amount initially required to generate corpus for second segment		44,74,992	
Amount initially required to generate corpus for third segment			25,67,379
		Total corpus initial required to retire early	**1,48,42,372**

Download the early retirement calculator

Updated: Thanks to feedback from Atul.

A tool to check if you are on track to retire early

Here is a simple tool to check if you are on track to early retirement. It is also suitable for normal retirement and will work on Google sheets as well. Users can enter the current value of the corpus from online portfolio trackers.

It is basically an Excel retirement calculator, with a focus on tracking. The entries that will change with each retirement plan have been segregated.

Therefore, once a user enters the inputs for the first time, the effort required for tracking progress to retirement will take very little time.

I have been using this sheet integrated with the Automated Mutual Fund & Financial Goal Tracker. If you have been this tracker, you can also do the same by inserting the sheets in this tool inside the tracker and making suitable changes.

I had earlier written about my progress to financial independence: Retirement Planning: My Story So Far. Upon review, I found a big mistake, but thankfully on the side of caution. As I went about correcting that mistake, this sheet came into being.

The retirement tracker tool integrates the following calculators:

The low-stress retirement calculator (this is a basic retirement calculator with asset allocation explicitly factored in)

Inflation-protected Income Simulator (here the retirement is assumed to grow in different buckets of varying risk. First time users who are not familiar with the idea of bucket strategy can consider reading: Generating an inflation-protected income with a lump sum

EPF Corpus Calculator with Contribution Schedule (this calculates EPF corpus with all necessary details. There is talk about changes in EPF rules - can anyone please let me know if that is true and what they are?)

Please note tracking a retirement corpus is serious business and therefor setting up the sheet for the first time will require about 15-30 minutes depending on your comfort level. However, once you have done that, tracking becomes quite simple.

Early Retirement Tracker

Inputs that vary quite often can be found here. They must be updated whenever you want to review your progress towards early retirement
When using the sheet for the first time, be sure to complete all green entries in inputs-2 sheet.

Step 1	**Current** Total average monthly expenses (annual/12)	30,000	**Use only green cells to enter data**		
Step 2	Year to Early retirement (depends on inputs sheet)	12	years to normal retirement	28	
Step 3	Value of current equity invesments	25,00,000	19%	**Percentage completion**	
Step 4	Value of current taxable debt investments (FD, debt fund etc.)	25,00,000	50%		
Step 5	Value of current tax-free debt investments (PPF+SSY)	7,00,000	40%		
Step 6	Current EPF Balance	5,00,000	26%		
Step 7	Current EPS Balance	25,000			
Step 8	Current basic pay	25,000			
Step 9	Current rate of interest (EPF)	8.50%			
Step 10	Lump sum expected at the time of retirement		Leave this empy if not known		
Step 11	Current monthly mandatory EPF contribution	25,000			

Monthly investment required with constant post-retirement return	70,016
Monthly investment required with bucket strategy	38,999

If you keep investing this sum as per the asset allocation mentioned in inputs-2 and if the return expectations are met*, you should be able to retire as planned

* return expected from equity and fixed income(debt) after 12 years

The green cells have to updated with current values each time the retirement plan is reviewed.

The progress can be tracked from the outputs (marked in red). The monthly investment amount should always be manageable with each review.

Once the percentage completion of corpus targets head close to 60%, 70%, the inputs in the bucket strategy sheet can be reviewed closely. As of now, the inputs are reasonable and conservative.

Do give this a try and let me know if you can suggest improvements.

Download the early retirement tracker