Personal Finance Paranoia

Are All My Beliefs Wrong?

Prerequisites

What is this?

Some years ago I used to write a little PFA (Personal Finance and Investing) blog. I was obsessed with the subject and wanted to share my various learnings as a way to check my understanding (and for fun).

Much of the content I found out there was naive. Seldom did I encounter someone as paranoid as I believed someone thinking properly about the problem should be. No one was asking (all of) the right questions.

That is what the blog became and what this booklet is a compressed version of. It's my PFA paranoia manifest(o).

It's just some of my questions and overly-pessimistic views after thinking about these topics a little too much. It may not apply to you or your circumstances. Examples, opinions and criticisms are intended to illustrate ideas rather than recommend or discourage any specific investment, financial product, provider or course of action.

In reality, I do some things that I criticise and question here. Isn't that hypocritical? No - the criticisms and questions gave me greater understanding and, counter-intuitively, confidence in what I was doing was the right thing to do.

Content

I assume at least an intermediate level of PFA knowledge. If you don't know what a bond is, if you have 0 savings, if interest rates baffle you, this booklet isn't for you. There are many resources to help you get started with the basics. Use those. Then maybe come back here.

I've compressed the information as much as possible. There is no space for interesting side-notes, caveats, illustrations, examples, references, etc. Sorry about that.

Financial Disclaimer

All information contained within this document is informational only and is not financial/investment advice or recommendations. No writer of this document is

a registered or regulated financial adviser, lawyer, or accountant. None are regulated by the Financial Conduct Authority in this capacity.

Before reading this document you must read all the Financial Disclaimers, and read and agree to the Terms Of Service - see the Appendix.

Themes

Become obsessed with it!

When you participate in PFA you're actually making two separate investments. Sure, you invest in stocks, bonds, real estate, etc. but you also invest your time, energy, and mental focus into the act of deciding how to invest and save. The second type of investment has a return associated with it, like the first.

The more personal resources (like time) you put into your investments, the lower your return on these resources is likely to be.

By spending all your time and energy learning and thinking about personal finance, you also become obsessed with arbitrary metrics. What you measure tends to be what you focus on, at the cost of everything else. If the goal is the only thing you really care about, then fine. But this is very hard to determine.

It can hurt your investment returns, too. Those who obsess about investing can end up over-thinking, over-committing, over-paying…but not over-performing. This happens because your ability to generate returns does not increase at the same rate that you learn. This increase in knowledge probably increases the amount of time and money you think you have to commit to investment decisions (and your confidence in these decisions), but this often doesn't translate to increased returns.

In fact, this increase in knowledge can lead to *worse* returns. Higher confidence in decisions leads to over-exposure in positions. It also typically results in over-trading with the resulting costs harming returns.

But it's not just increased information that can harm. Ingesting the wrong type of information can have the same effect. Focusing on details and small wins can get you into trouble. Purely focusing on the next step and the immediate environment means that you neglect exploring the search space. This is one of the reasons why you need to maintain a broad view. If you focus on the pennies, you lose track of the pounds.

Personal finance is just one part of life. It must improve your life as a whole, otherwise it's a waste of time. So maybe don't live frugally forever? It doesn't sound very fun, even though it does sound fun for your bank account. Don't make investments that prevent you from sleeping at night, even if they are likely to increase your portfolio returns.

All PFA decisions should be conducive to the life you're living or the life you want to live.

Have big, ambitious goals and stick to them!

There are fundamentally two ways to approach personal finance: bottom-up or top-down.

Implementing a top-down approach means placing an emphasis on financial goals and saving/investing in such a way to meet these goals. The goals are at the forefront and financial discipline is used as a tool to achieve them.

The advantages of such an approach are fairly obvious. The main benefit is that it gives you something to work towards. It gives you a reason for why you can't go out this Saturday or why you and your boyfriend decided not to go on holiday this year. This keeps you motivated.

This framework, however, can cause problems. It's hard to change your mind whilst operating within this system and the consequences of doing so can be severe. If you are investing for some goal that is at least 10 years down the line your investment approach might be incompatible with a goal that you need the cash for next year. It also allows for very little experimentation and exploration of the investment landscape to capitalise on opportunities, real or perceived. Your plan dictates you must stick to a rigid investing agenda.

A rigid top-down approach can give you a false sense of security, especially if your assumptions are slightly off. You may wake up one day and whilst browsing your financial plan excel sheet you realise that you actually have not been saving enough over the past 5 years due to weak financial market performance. Life gets messy very quickly and small changes in input parameters can have a material impact on outcomes.

This can be fixed by checking/adjusting your plan frequently and/or setting pessimistic expectations of exogenous parameters. But using pessimistic expectations can lead to over-saving. How many personal finance obsessives, I wonder, over-saved and wished they had spent a bit more when they were younger? Ambitious goals can lead to over-investing, too. Chasing returns is a fool's game and using "required return" to make investment decisions can lead to disaster.

It's incredibly difficult to forecast many of these exogenous parameters.

Take interest rates, for example.

To know what interest rate will be set by the central bank in the short term, you have to know how the members of the committee that set this rate will vote.

Maybe it's a bit easier in the long term? Can't we use data? Imagine your great-grandson is working for the Bank of England in the 50s. He is forecasting the Base Rate over the next 10-20 years. This seems simple: looking at the rate over the last 250 years we see that it has been fairly stable, fluctuating between about 2.5% and 7.5%. You assume this will continue. A maximum of 10% for the future rate seems sensible, if not a little over-cautious. Over 15% is impossible. Within 25 years interest rates will have reached 15%.

Parameters like this feed into all sorts of financial decisions. Like how important saving is vs. growth, whether to buy a house, FIRE calculations, and much more.

Optimise your finances!

By trying to optimise, you increase vulnerability and reduce robustness. This happens for two reasons.

First, you can't increase the probability of a better result in one dimension without sacrificing another dimension. It's a trade-off. Second, optimisation usually involves some type of maximisation, which involves pushing to the limits and trying to get everything perfect. Mistakes are both more likely and more costly.

Optimising is particularly ill-advised in the realm of PFA. Because this world is complex. Shit happens. Things change. In complex domains, where outcomes and probabilities of said outcomes are unknown, it's better to be robust than optimised. You don't know what's going to happen, so you must be able to cope with multiple different scenarios.

The optimisation idea is applied all throughout PFA. Some examples:

1. **Building the perfect personal finance structure**. Squeeze every last piece of value out of your structure to maximise saving and investments. If anything goes wrong, you'll have to change the whole thing, which is often costly. The time required to set this up is also usually not worth the extra money generated from it.

2. **Take on good debt**. What this classification of debt as "good" misses is that life is not purely about what the best expected payoff is. It's not clear that utilising

debt to increase expected payoff is a good strategy. Because this payoff is expected. What if something goes wrong? What if you lose your job? You have to pay that debt. No matter what.

3. **Maximise risk-adjusted returns**. Some people will have you believe that there is an optimal way to build a portfolio. They claim that using fancy mathematical models and (naive) statistics will maximise your expected return whilst minimising the "risk" associated with your portfolio. Or people optimise via a psychotic devotion to one asset. By trying to choose the best asset to invest in, these people are completely reliant on the asset they choose to be the best.

4. **Leverage good investments**. A model might imply that you could generate more return at an acceptable risk level by using leverage. A leveraged position leaves you extremely susceptible to decreasing prices. If the chosen asset isn't the best thing since sliced bread, your leveraged position will be toast.

Your money is safe!

Why not just keep it all in cash (or cash-like equivalents)? Despite lots of common advice to the contrary, this isn't a bad idea. Cash gives you options. So if you're saving to buy a house but decide instead to travel the world, you can. At no loss. And you can do a similar thing with non-cash use cases: you can decide to invest when you had previously been saving – you just make investments with the savings. Simple.

But cash has faults.

The first of these is that its real value is eroded by inflation. With inflation $>$ account interest rate, the real value of the money you have been accumulating in your account slowly starts to shrink. Inflation forces us to take more risk for fear of the real value of your wealth being eroded.

There are ways to hedge against it, but the problem with these is that they don't hedge *specific* inflation. True inflation protection is about hedging future consumption. *Your specific* future consumption. Practically this is very difficult to do.

How do I hedge against the rent on my dingy 7th floor flat in South London rising exponentially? I could purchase some type of retail-focused, London-focused Real Estate Investment Trust but this doesn't give me much protection against micro-area-specific demand-supply imbalances.

Cash also has to be stored somewhere. Physically (e.g. at your house) has obvious risks. As does handing it to an institution.

How about governments? They seem pretty safe. Why not just buy government bonds?

Governments fail, too. Sure – if their debt is domiciled in the domestic currency, it's probably going to be repaid. Because the genius central bank can simply print more of the domestic currency. But only to a (realistic) limit.

What about alternatives? Real assets surely retain value?

Real estate, for example. Performed well, sure. But again – what happens when the population declines or the government decides to build lots and lots of new houses? Or the location simply becomes less popular?

Commodities? How do you know what price they're going to be in 50 years? Crypto? Maybe, but which token is going 0 and which isn't?

Invest it all!

It's hard to consistently invest a substantial amount. You have to get multiple things right – high income, low expenses, investing knowledge, etc. And you must have the right disposition: enough conviction to commit to assets and hold/buy assets when markets are wobbling.

Aside from the obvious conundrum of deciding what exactly to invest in, it's actually not 100% clear that we should be investing at all.

Because there are lots of useful things you can do with your saved money. Some people want to buy a house. Some people want to start a business. Some people want to take a year out to travel. Some want to invest.

This isn't a problem if you know exactly what you want to do and how your life will play out. But 1) lots of us don't and 2) people change their minds. And those that are certain may want to think about if they should be. Doing some reading and calculations and introspection might lead you to different conclusions.

Investing makes money turn into more money, sure, but probably to a lesser extent than you think. Because money in the future is worth less than money today. This is due to inflation. But this is also because money in real terms is worth less to future you. Think about it – is £100 more valuable to you today or in 20 years' time? Today (I hope), even adjusting for inflation. Take this to the extreme: is £100,000 (again, in real terms) worth more to you when you're 20 or when you're 90? Or when you have 1 year left to live? Or when you're on your deathbed?

Time is finite. It's a precious resource. You can always make more money, you can't make more time. Investing comes with an opportunity cost – the cost of spending money today. But investments compound, too. You're betting that this rate of compounding is greater than your rate of diminishing marginal utility of money.

We must also factor-in uncertainty. Because I *know* what I want to spend money on today. And I know how much it's worth to me. What I don't know is how much it's going to be worth in the future, in every sense of the word.

How much money you and I and whoever else will need, how big your investment pot will be, what you will spend money on and why, are all unknowns. You can have some idea of the above but being able to predict it with any type of accuracy is either naive or, if possible, just plain sad.

People change. Are you the same person you were 10 years ago? I hope not. Is your life really that boring that you know for a fact that none of your plans will change over the next 10 years? Again, I hope not. Even if you are mentally composed in such a way, an exogenous event may force you to sell. If your ageing mother needs to pay for urgent medical attention I hope you don't deny her this because it doesn't fall in line with your investment strategy.

Things that happen outside of your portfolio can determine when you liquidate positions as well.

You can beat the market!

The question of whether retail investors can outperform the market has been supposedly definitively answered by the collection of individuals referred to as the finance community. Their answer is: no.

Why?

These investors are competing with professionals. Although many of these upstanding citizens do stupid things sometimes, they at least have some type of non-beginner knowledge of investing. Many, in fact, have lots of knowledge.

Why does this matter? The market is a price-discovery mechanism and every transaction has a winner and a loser because one party bought/sold under/over the "true value" of the asset and the other party did the opposite. Therefore, retail investors are in direct competition with professionals, who are responsible for most of the volume. You are competing with people who do this for a living. A large proportion of the smartest people in the world aren't trying to solve climate change or cure cancer, they're trying to beat you. And they're working 12 hours a day, using the best technology, and have access to more information.

Markets are pretty efficient. Most of the currently-existing research, analysis, and information is reflected in the price of assets. This means that generating alpha is difficult. You must exploit mispricing in the market, profiting as the market corrects.

The asset must be incorrectly priced. But this is rare. Mispricings get corrected. Alpha gets arbitraged away. As others realise the mispricing, they enter the market with the same trade, shrinking the spread between the theoretically correct price and the actual price. This process continues until the alpha is no longer available.

Why do markets arrive at the incorrect price? Something about the information, or analysis, or research, or psychology, or cognition, or something else of some of the market participants is defective. But not all of them – some will be without these defects. These non-defectives can trade with the in-some-way-defectives to generate excess returns, because they are pricing assets differently and can therefore agree on a price to trade that both think is a good deal.

To be less defective consistently means you have to have a consistent advantage over other market participants. These advantages fall into one of the following categories: analytical, technological, informational, or psychological.

In which of these areas do you have an edge?

What about the other professionals? If you can't, then surely they can?

Sort of. Many active managers do not beat the index net of fees.

Ok then why not just invest in winners? Although asset managers don't beat the market on average, many managers out-perform and do it consistently.

Unfortunately, past performance is not always a good indicator of future performance. Performance does not typically exhibit consistency. There seems to be significant randomness in returns, which explains both of these outcomes. You can see this via simulation.

I am not suggesting that all performance is random, just that it's probably more random than most people fully appreciate, especially retail investors.

But: some people can genuinely out-perform the market. Just invest in these all-star fund managers, who have extensive track records and have shown they can beat the market on a consistent basis, right?

Firstly, it's possible that this performance was due to luck and not skill. Secondly, assuming that some of these managers are skilled and not lucky, the question now becomes whether it's possible to identify these out-performers before the period of out-performance. To do this, you need to know who is skilled.

And even then, even if the performance was due to skill, this doesn't necessarily mean that these skills will be useful in the future. A manager can employ a successful method that works, but it may not work over the next 10 years. The market changes. Investors adapt. Specifically, the market is very good at destroying profitable strategies because as soon as a profitable strategy is known, it is instantly eroded as more and more investors attempt to exploit it.

Stocks always go up!

Most people in finance, at least those who share their ideas publicly, believe that the stock market will always go up in the "long-term". What's more, many are married to a specific rate of return, assuming this is the "equilibrium" for the market.

Many strategies seem to imply that the stock market will enjoy a certain rate of return -

or at least a certain advantage over fixed income (the Equity Risk Premium). Many more assume this gap will be large, or the return to be at some set level.

How confident can we be about these assumptions? Over what time periods are they more likely to be true? What are the consequences of them not being true?

Markets are complex. They are adaptive, dynamic and exhibit emergent properties. The future may not be like the past.

"The market has historically risen 5% and will therefore always go up 5% in the long-run."

Could this be a dangerous assumption to make?

Firstly, to justify this claim purely empirically is a mistake. History shows us what could happen, not what will happen.

Looking at history we can see that some markets have not risen in 50-100 year periods. I don't see why this can't happen again. Stock market prices of any single country are not guaranteed to rise over time frame.

The market is not some closed system. It does not exist within a vacuum with set rules. Anything can happen. Algorithms may go haywire. Retail investors using apps could cause massive bubbles and subsequent crashes. Trading could be heavily taxed and become far less appealing/profitable. Becoming publicly listed may become less popular. The list of things that could happen is infinite. Some could be permanent. Some could change market dynamics forever.

Why should the market have some equilibrium return that we always observe in the long-term? What is the reason for this? And why is this different from country to country? Will US companies always be better than Brazilian companies? Maybe not. Then why would the US stock market have a higher equilibrium return in the long-term? I see no reason for this.

Even if markets were in some kind of equilibrium, what's to stop them from moving to a new one?

Might businesses stop increasing their profits at some point? This seems possible.

Might the population decline? It can not perpetually increase (on this planet). We are already seeing birth rates declining. A lower population means fewer consumers of your product, less revenue, and lower profits.

What about inflation? Won't that raise prices and result in stock returns? Because it increases the nominal profits that a company generates. But it is only *nominal* profits. This should lead to a nominal increase in the price but will it be a real one? This is important we care about *real* returns. Increases in share price that are uniquely driven by inflation are not beneficial in a broader PFA context.

Just passively invest in a diversified basket of assets!

It's all well and good deciding to construct a "passive" portfolio but unfortunately this leaves one major question outstanding: what should the composition of this passive portfolio look like? Ultimately, this requires some type of decision as to which assets to include and in what quantities.

One always has to make some set of decisions when constructing a portfolio, which are in some ways subjective.

If one were to select based on some measure of performance, one still has to choose this measure. It's not clear what to aim for. Shall we construct a portfolio that reduces the probability of a loss? Or the probability of unfavourable outcomes over our time horizon? Or how about one that has the potential for the highest returns?

There might be an objectively best approach for each individual, factoring in socio-economic situation, goals, personality, etc. If one could accurately identify and communicate all of this information there might be some type of objectively-optimal approach. But this is not possible, because some of these factors are not observable.

Just for fun (well, I think it's fun at least) let's say your optimal approach was known. Now the question becomes how to translate this approach into the assets one holds.

Imagine we wanted maximum safety: just hold government bonds?

Unfortunately, again, it's not clear that this is the best approach. One is highly exposed to the fortunes of that specific government. If default is even a remote possibility, you could be in trouble.

Or consider a strategy to maximise compound returns. Some would go about this by observing the highest-returning assets over the past X number of years and purchasing this collection of assets. This approach is deeply flawed.

Even if this was a valid method, there are always other assets out there that have probably returned more than those in your portfolio. Why are you not including them?

What proportion do we invest in these assets? Should we invest everything into the historically-best performer? A weighting based on the probability of performance?

We are uncertain. Different assets have different flaws.

It seems sensible, then, to diversify in a 1/N-type manner. Just buy all the assets in equal amounts and hope that results in a satisfactory return.

The obvious problem with this is practical implementation. Are you really going to buy…everything? Ugandan government bonds? Pork belly futures? How would that work? You are restricted in some way, so have to make a choice about which assets you will choose to invest in. Which brings us back to the problems already discussed.

And there are smaller choices. Do we invest equally or weighted by market cap? Do we rebalance the portfolio? How often? Do we choose investment platforms that give us the most options or just do the best with what we have?

And if we restrict our investment universe to only the main assets, we will be left with a false sense of security about our level of diversification.

Investing has been solved!

Most people think retail investing has been solved.

"Just invest in a Global Index Fund". I have seen this advice distributed many times across many different platforms. I can certainly see the appeal. It's simple, it's easy, and seemingly safe. It allows you to capture the growth of emerging markets without being too exposed to their wild fluctuations. It allows you to, apparently, enjoy the benefits of economic powerhouses without being overly exposed to crashes in those countries. Alluring prospects indeed.

But it is not perfect.

If you purchase a GIF (Global Index Fund) you do not receive the exact returns of the markets that the index tracks. This is because of imperfect tracking, systematic underperformance, and exposure to the issuing organisation.

When some invest in a GIF they think they are essentially investing in all the big companies in the world, evenly distributed throughout the world. But they aren't spread out very much. You're essentially investing in North America, Western Europe, China and Japan.

The global economy is also becoming increasingly interconnected. Global markets are moving more in unison, particularly in turbulent periods. GIFs can give us a false sense of diversification. We think we are protected from a crash in the Chinese markets (they only make up less than 5% of a typical GIF), but these types of events reverberate across the globe.

There are also problems with geographic diversification itself. Assuming you are going to be spending the majority of your life in one country, maybe you should be exposed to the fortunes of that country? Inflation in Japan could be particularly painful to a Tokyo resident if he has no protection against devaluation of the yen.

So we should probably include some other assets, then? A 60/40 portfolio seems to be popular. But then why this split? Why these assets?

How about a LCF (Life-Cycle Fund)?

This idea is sensible: just invest in increasingly "safer" assets the closer you get to retirement.

In slightly more formal terms, the idea is that your portfolio should transition to less-volatile assets as you approach retirement. More-volatile assets, like stocks, out-perform on average and over the long term. Hence, you want a high % of these assets in your portfolio in the beginning of your investment journey to capture some of this out-performance. However, as you approach retirement, you need more stability.

But they are not perfect. Switching between funds and constantly rebalancing to match some desired allocation all incur transaction costs, which lower returns. LCFs are typically associated with higher fees than other pure-passive products, too. This is because your money has to be managed in some way. You are paying to have your performance determined by someone else (fees reduce your return).

LCF providers may not take your personal situation into account. For example, they may not observe your risk profile. Two different investors, with two different abilities to take risk, should have two different portfolios, even if their retirement dates are the same.

Appendix

Terms of Service

1. **All content within this booklet reflects the writers' views and opinions.** All content is in no way associated with past, present, or future companies that they have been, are, or will be associated with.

2. **This content is to be used for entertainment/informational purposes ONLY.** The content should not be viewed as any type of advice. None of the writers are licensed professionals in any field. They are simply sharing their own experiences and opinions. ALWAYS seek professional advice when doing anything associated with any topic mentioned in this booklet.

3. **Use this information at your own risk.** Under no circumstances can any of the writers be held liable to you for any kind of loss or damage, either direct or indirect, as a result of the use of this booklet or as a result of any information contained within this booklet.

4. **This booklet is authentic but is prone to errors and absence of some key information.** The information contained within this booklet is provided on an "as is" basis, with absolutely no guarantees of completeness, accuracy, usefulness or timelessness and without warranties of any kind, either expressed or implied.

By reading/using this booklet, you accept these terms of service in full. If you disagree with ANY part of this disclaimer, please do not read/use this booklet.

Full Financial Disclaimer

Information Only

All content contained within this booklet is information only.

It is intended to be used for entertainment/informational purposes and should not, under any circumstances, be interpreted as financial/investment advice/recommendations.

- **It is not financial advice:** we do not give advice/recommendations on how to make financial decisions.

- **It is not investment advice:** we do not give advice/recommendations on how to buy/sell financial assets of any kind or about investment strategy in a general sense.

Your Personal Finance Situation

This booklet is written for a general audience and does not take account of your personal circumstances, financial objectives, tax position or attitude to risk. Nothing in this booklet should be interpreted as a personal recommendation or regulated financial advice.

This includes but is not limited to the policy environment. Regulations and laws may change. Tax rules change over time and depend on your individual circumstances.

The information here should not be relied upon when making financial decisions.

Investment Risk

All types of investment are accompanied by investment risk.

The value of investments, and income derived from these investments, fluctuate. You may not get back all of your investment. You may lose more than your original investment. Do not invest any money you cannot afford to lose.

Past performance is neither a guarantee nor a reliable indicator of future returns.

Always consult a regulated and registered financial adviser before investing.

Your investments are your responsibility

You are responsible for your own investment decisions.

We take no responsibility, and do not accept any liability of any kind, for you acting as a result of any information in this booklet. Use the information in this booklet for entertainment purposes only. Do your own research and consult with a registered and regulated financial adviser before making any investment decisions.

The information in this booklet does not take your personal situation into account. Your decisions will depend on your unique situation, something the writers can not and do not take into account. Any information in this booklet may not apply to you and your situation.

Do not, under any circumstances, make and financial/investment decisions based on any information in this booklet. Always seek professional help from registered and regulated financial advisers.