Economic Prediction and the Christian Worldview

Our objective here is to carefully explore the limits of economic prediction within the context of personal investing, especially from a Christian worldview. To motivate this topic, suppose it is mid-September of a given year when the stock market has declined significantly, and many "experts" believe the market will fall further. In a media interview, a Christian Investment Professional (CIP) has been discussing biblical truths about finance, covering many important topics. The reporter now turns to current events.

> *Reporter*: "So considering recent events and expectations that the stock market will fall further, should people speed up their retirement contributions now rather than continuing to make monthly contributions? Further, if the stock market remains down in January, should people make their entire year's contributions in January if they are financially able?"
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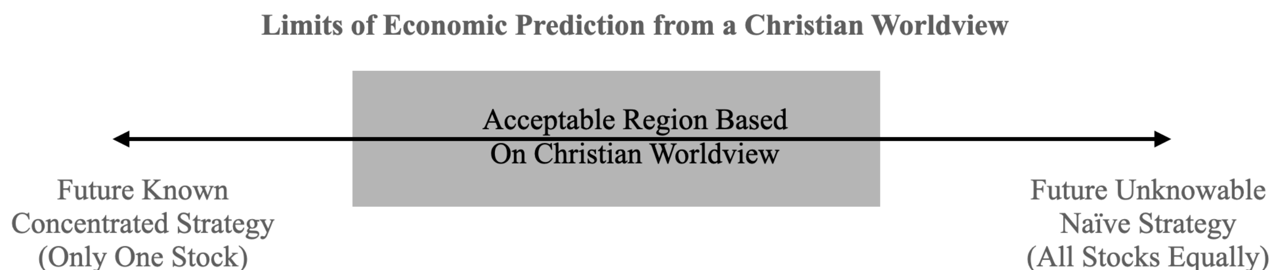
> *CIP*: "Given the evidence that the stock market will continue its decline, I believe speeding up retirement contributions this year and making their entire yearly contribution in January is prudent."

Economic prediction lies at the heart of most investment strategies. Interestingly, passive index investment strategies have provided a significant challenge to the merits of active investment strategies. Passive index investment strategies seek to mimic the performance of some specified benchmark rather than based on economic prediction. Passive index investment strategies inherently presume that after fees, economic prediction by investment professionals is unwarranted.

While our object here is not to wade into the relative merits of active versus passive investment strategies, we provide an interesting anecdote from a recent *Wall Street Journal* article, "Over the long run, few funds manage to beat their benchmarks. Over the 20 years through June, only about 5% of large-cap U.S. funds beat the S&P 500, according to the S&P report. Just staying in business was an accomplishment, with about 26% of the funds surviving over that time."[1] Thus, there is overwhelming evidence that professional money managers, in aggregate, lack economic forecasting abilities that translate into fund outperformance. Thus, if you wish to outperform *95%* of active large-cap funds, simply invest in passive index funds! Further, it seems extremely naïve at best or very arrogant at worst to assume superior economic forecasting skill when compared to professional fund managers. One clear exception is not investing in companies engaged in practices diametrically opposed to the Christian worldview, regardless of their prospects for great returns.[2]

Recall we seek to explore the limits of economic prediction. The following figure crudely depicts this exploration. At one extreme, if the future is known say over the next month, then the appropriate investment strategy is to purchase the one stock that will pay the highest return (ignoring trading on margin or short selling). At the other extreme, if one has no knowledge whatsoever about the future, then the appropriate investment strategy is known as the naïve strategy (investing the same dollar amount in all stocks equally).



[1] Karen Langley, "Almost Half of Stock Pickers Beat the Market in Early 2022 Selloff," *Wall Street Journal*, September 15, 2022.
[2] For efforts to identify bad acting companies, see www.2ndvote.com. For investment vehicles implementing this information, see www.2ndvoteadvisers.com.

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As detailed next, there is considerable latitude within the Christian worldview related to economic prediction. The Bible clearly teaches that we do not know the future but also that the future often casts its shadow in certain contexts. As the economic stakes are extremely high for each of us, the key rests within the context of biblical humility.

Biblical perspective

Out of the wisdom literature, we find the clear admonition not to place our confidence in forecasting:

> **Proverbs 27** [1]Do not boast about tomorrow, for you do not know what a day may bring.

Matthew 6:25-34 encourages us not to worry about this uncertainty as God cares very deeply about us and provides abundantly. Further, Solomon wisely advocates for diversification as well as not being too risk averse:

> **Ecclesiastes 11** [1]Cast your bread upon the waters, for you will find it after many days. [2]Give a portion to seven, or even to eight, for you know not what disaster may happen on earth. [3]If the clouds are full of rain, they empty themselves on the earth, and if a tree falls to the south or to the north, in the place where the tree falls, there it will lie. [4]He who observes the wind will not sow, and he who regards the clouds will not reap. [5]As you do not know the way the spirit comes to the bones in the womb of a woman with child, so you do not know the work of God who makes everything. [6]In the morning sow your seed, and at evening withhold not your hand, for you do not know which will prosper, this or that, or whether both alike will be good.

Note that modern investment theory suggests that diversification into seven or eight asset classes typically mitigates most diversifiable risk. As expected, Biblical wisdom is borne out in empirical observations.

The key New Testament passage is found in James:

> **James 4** [13]Come now, you who say, "Today or tomorrow we will go into such and such a town and spend a year there and trade and make a profit"— [14]yet you do not know what tomorrow will bring. What is your life? For you are a mist that appears for a little time and then vanishes. [15]Instead you ought to say, "If the Lord wills, we will live and do this or that." [16]As it is, you boast in your arrogance. All such boasting is evil. [17]So whoever knows the right thing to do and fails to do it, for him it is sin.

According to Barnes, "The apostle here introduces a new subject, and refers to another fault which was doubtless prevalent among them, as it is everywhere, that of a presumptuous confidence respecting the future, or of forming plans stretching into the future, without any proper sense of the uncertainty of life, and of our absolute dependence on God."[3] Clearly, the maturing Christian needs to develop a "proper sense of the uncertainty of life."

Matthew Poole further elaborates that James does "… not condemn merchants travelling into other countries, nor trading there, nor designing gain by their trade, nor forecasting their business; but their promising themselves the continuance of their life, the accomplishing their designs, and the success of their labours, without respect to God's providence and direction, as if their times and their works were in their own hands, not in his."[4] Therefore, the maturing Christian may make financial decisions based on their own family's vocational calling all the while trusting in God's providential directing.

At least within the natural sciences, prediction is warranted. For example, Jesus suggest that weather is somewhat predictable.

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[3]See Barnes Commentary, https://biblehub.com/commentaries/james/4-13.htm.

[4]See Matthew Poole Commentary, https://biblehub.com/commentaries/james/4-13.htm.

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> **Matthew 16** [1]And the Pharisees and Sadducees came, and to test him they asked him to show them a sign from heaven. [2]He answered them, "When it is evening, you say, 'It will be fair weather, for the sky is red.' [3]And in the morning, 'It will be stormy today, for the sky is red and threatening.' You know how to interpret the appearance of the sky, but you cannot interpret the signs of the times.

Investments falls within the social sciences and suffers from performativity. Performativity exists where the "practical use of an aspect of economics makes economic processes more like their depiction by economics."[5] Humans adapt to the changing economic environment making historical economic data notoriously bad at informing one of future economic observation.

Evidenced by a recent headline in the *Wall Street Journal*, "Wall Street and Fed Flopped in Trying to Predict 2022," Akane Otani leads off with an empirically factual statement, "Almost everyone on Wall Street and in Washington got 2022 wrong."[6] Interestingly, the same article concludes with several prognostications for 2023! Thus, both biblical revelation and empirical evidence suggest that economic prediction should be exercised with significant care. Now enter original sin and its pernicious impact on our mindset regarding prediction.

Slippery Slope of Economic Forecasting

Like any addiction or obsession, arrogant economic forecasting starts very small and innocuous. One thinks, if a particular event occurs in the future and you believe it will, then this stock index will rise. In time, the event does in fact occur, and the stock index jumps up. This remembrance is typically the first step toward potential disaster.

The second step involves acting on the next belief. Although my memory of the details is sketchy, on October 21, 1987, Adam, an undergraduate student, floated into my university office having made around $500,000 on a $5,000 investment (an out-of-the-money put option). Around October 15, 1987, he placed this leveraged speculative trade that would profit significantly if the stock market dropped. And then Black Monday (October 19, 1987) occurred where the real crash was in the first few hours of trading on Tuesday (October 20, 1987) when Adam liquidated his position for the massive payoff.

It turns out that one of the worst experiences for a new stock market participant is to profit excessively on early trades. Although I implored him to set aside his profits and not act for at least six months, he did not listen and as you might expect lost all his funds within a few months. Why? Adam had come to the wrong conclusion regarding his forecasting ability.

The third step is a version of confirmation bias: For example, the current high inflation confirms what an economist now thinks was prior beliefs. Suppose over the past year, an economist waivered on the potential for high inflation—sometimes the economist believes there would be no substantial inflation and other times the economist believes there will be high inflation. Given the current high inflation, the memory of believing there would be no substantial inflation wanes and the memory of believing there will be high inflation is inflated.

The final and very costly step is acting on the belief one has superior economic forecasting ability. The devastating economic consequences can be illustrated in the following thought experiment: Based on monthly return data of the S&P 500 stock index (high risk) and U.S. Treasury bills (Tbills, low risk) from January 1926 through November 2022, we consider six possibilities.

1. Perfect correct monthly forecast (always right, PC)
2. Perfect incorrect monthly forecast (always wrong, PI)
3. Initial allocation of 50% stocks and 50% Tbills (I50)
4. Rebalanced monthly back to 50% stocks and 50% Tbills (R50)
5. Initial allocation of 100% Tbills (TB)
6. Initial allocation of 100% stocks (S)

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[5]See Donald MacKenzie, *Engine Not a Camera*, p. 17.
[6]See Akane Otani, "Wall Street and Fed Flopped in Trying to Predict 2022," *Wall Street Journal*, (December 26, 2022), online.

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The following table provides some statistics from this historical thought experiment. First, the allure of investment forecasting compares with winning the lottery. Perfect forecasting results in $100 becoming $217,483,751,569,067 over this period! Perfect incorrect forecasting results in essentially nothing. Second, in the long run, stocks outperform Tbills. Remember, however, that the U.S. emerged as the world's superpower over this period and did not collapse. Note that when a country falls, it really does not matter whether you invested in low risk Tbills or high risk stocks as all is lost. Finally, the economic cost of rebalancing is very high. The strategy of an initial allocation of 50% stocks and 50% Tbills with no further rebalancing results in an allocation of 99.85% stocks by the end of the period. Rebalancing monthly back to 50-50 results in $69,164. Thus, being "conservative" and moving out of stocks into Tbills, even 50-50 upon retirement will likely prove very costly if you live for decades more.

Statistics\Strategy	1. PC	2. PI	3. I50	4. R50	5. TB	6. S
Terminal Value	$217T	$0.000009	$578,313	$69,164	$1,766	$1.1M
Geometric Average	29.3%	–16.7%	8.9%	6.7%	3.0%	9.6%
Standard Deviation	12.0%	11.0%	14.3%	9.4%	0.9%	18.7%

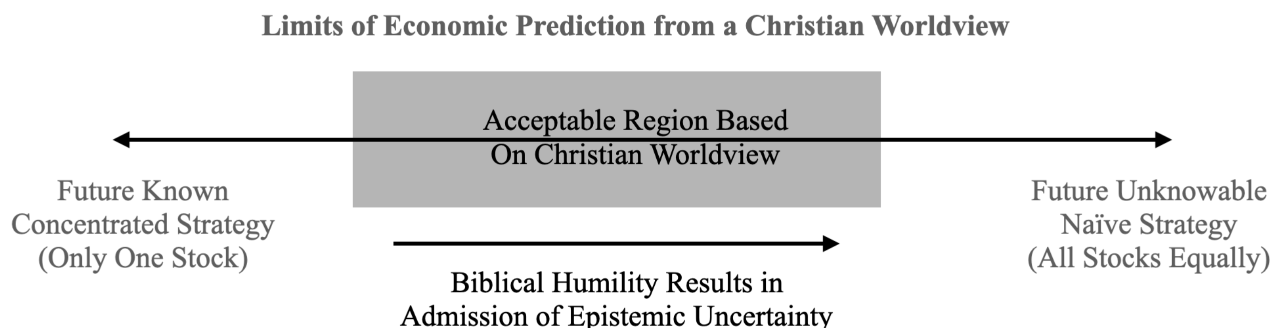
Note: T denotes *trillions*, M denotes millions, geometric averages and standard deviations are annualized and total returns (as opposed to price index) are used to incorporate dividends. Standard deviation is a measure of risk or variation in value.

The allure of economic prediction is clear—$100 becomes trillions. Unfortunately, biblical revelation as well as empirical observations suggest most economic prediction is deeply flawed. For example, Brooks and Gray conclude, "Our analysis of semiannual U.S. Treasury bond yield forecasts as presented in the *Wall Street Journal* show that the consensus forecast is poor. Over the past 43 forecast periods, the consensus estimate of the yield change has been wrong in direction 65% of the time. A naïve forecast of the current yield results in an 11% reduction in the standard deviation of forecast error. The consensus estimate is beneficial only from a contrarian viewpoint."[7]

We conclude that great caution should be exercised when making financial decisions based on one's economic predictions. As a rule, we are much better off in our financial decisions when based on the humble admission that our own economic predictions are most often severely flawed. The following figure illustrates the importance of migrating toward admitting more uncertainty and allowing our financial decisions to be so influenced. Significant improvement to our personal wealth is likely when starting with the following assumption:

Better financial decisions are made when conceding little, if any, economic forecasting ability.

Limits of Economic Prediction from a Christian Worldview



In summary, an alternative response to the initial reporter's questions might be the following:

[7]See Robert Brooks and Brian Gray, "History of the Forecasters," *The Journal of Portfolio Management* (Fall 2004), 113-117.

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Reporter: "So considering recent events and expectations that the stock market will fall further, should people speed up their retirement contributions now rather than continuing to make monthly contributions? Further, if the stock market remains down in January, should people make their entire year's contributions in January if they are financially able?"

CIP: "Given the evidence that the stock market is nearly impossible to forecast, I believe you should keep your monthly contributions unaltered. Sticking to an objective plan avoids deep regret from our poor financial decisions when attempting to react constantly to changing economic circumstances. Further, this financial discipline frees up our mental faculties to focus on enhancing our own God-given creativity, thus glorifying God, and advancing His Kingdom."

Robert E. Brooks, Ph.D., CFA
Financial Risk Management, LLC
FRMHelpForYou@gmail.com
www.robertebrooks.org
https://www.youtube.com/@FRMHelpForYou
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