

The Forecaster's Dilemma

In the wake of the Global Financial Crisis, the Queen of England famously asked why economists failed to foresee the impending disaster. Interestingly, the question is still relevant today and probably hasn't received an appropriate answer yet.

Throughout history, forecasters have built a long and distinguished track record of not being able to predict major economic events. From the great depression in the 1920s to the COVID-19 drawdown in March 2020, one of the common themes among these significant economic downturns is that they caught investors by surprise.

However, faced with such a dismal track record, forecasting still holds a lot of weight in the world of investment management. In fact, one only needs to tune into Bloomberg TV on the first Thursday of every month to hear economists fiercely debate what the next Non-farm Payroll^[1] number is going to be.

Before assessing why the track record is so dismal, let us first consider what exactly forecasting is and who tends to use forecasts.

Economic forecasting is the process used to make economic predictions. Governments, businesses and investment professionals use forecasts to help assess policy, budgets, the health of economies and markets and even estimate the value of companies and other assets.

Below, we split users of forecasts into three distinct groups:

- **Economists** use technical economic models to forecast very specific variables – including inflation and interest rates. Central bankers would fall into this group.
- **Portfolio managers** and analysts use forecasts to aid them in developing forward-looking views on asset classes like equities and bonds. For instance, an investment analyst might forecast how much revenue a company is set to generate to determine how profitable that company is likely to be.
- **Talking heads** or the financial press are the third group of users that use forecasts to generate topical conversations related to markets.

Importantly, these groups use forecasts for different reasons. For example, the financial press or talking heads may use forecasts to generate media content while portfolio managers use forecasts to aid in the investment decision-making process.

This tends to change the level of accuracy and care with which forecasts are developed because if the press or talking heads are wrong this may have very few consequences. However, if portfolio managers use bad forecasts, this tends to result in bad investment outcomes.

So, where does our need to forecast future events stem from?

Forecasting – A story as old as time

Investment professionals are geared towards developing a vision of the future so as to plan for it today. In fact, the ability to anticipate future events is one that has intrigued humans for thousands of years. And this is for good reason, being able to successfully predict future events has, throughout history, often been the difference between life and death.

In addition, the innate ability of humans to foresee future events is one of the primary characteristics that has separated people from other species that may be stronger or faster than us. For example, without the ability to predict future events, or form a vision of the likely course of events at the very least, humans would have been relatively ineffective hunters. Trying to fend off a leopard or outrun an impala are not nearly as effective as being able to predict where both those animals are likely to be – either to prepare for the hunt or ward off a potential attack.

In addition to often being the determinant between life and death, prediction has made our lives a lot more efficient. For example, a forager wouldn't spend an entire day examining every single tree in a forest to determine which ones bore fruit, our knowledge of the seasons helps us determine where to look and when.

However, while effective predictive analysis has helped advance humanity through time, we have often been caught in the trap of becoming too reliant on the methods and tools we use to aid us in developing those predictions.

This suggests there is an inherent balance between using predictive analysis as a useful tool and becoming too reliant on our ability to foresee future events. An interesting exercise is to take a look at the history of forecasting through this lens, observing how humanity has struggled to find this balance through time.

A history of forecasting – finding the balance

One of the earliest examples of formal forecasting was developed in ancient Rome and was known as augury, which is the practice of predicting omens based on the behaviour of birds. At first glance, this may seem like a futile exercise but in some ways, it is grounded in logic. For instance, seagulls have been known to sense changes in air pressure that occur before a storm and as a result their flying patterns change. Observing these flying patterns may have helped predict changes in the weather. However, there is evidence that reliance on augury was taken too far. As an example of this, the ancient Romans observed the eating patterns of chickens to determine an army's fortunes during a military excursion, it is difficult to see how this information would be considered useful.

Another example of early forecasting that was developed around the same time as augury, is called *sortilege* which involves making predictions from items drawn at random from some collection – like sticks or stones.

Probably the most popular form of symbolic forecasting through time is astrology. Though today astrology is largely considered a pseudoscience, during Nicolaus Copernicus' lifetime astrology and astronomy were considered parts of a broader subject that was known as the “science of the stars”. In fact, at the time, the terms *astrologer*, *astronomer* and *mathematician* meant virtually the same thing and they generally referred to someone who studied the heavens using math. Copernicus went on to write *On the Revolutions of the Heavenly Spheres* which posited that the earth rotated around the sun and not the other way around. By-and-large one of the most significant advances in human history.

These early examples show how forecasting has been ingrained in human thought for millennia. However, the practice became a more formalized tool when Sir Isaac Newton first developed the mathematical discipline of *calculus*. This was a major step forward that added substantial credence to the practice of forecasting as it provided a framework for modelling systems that change. In a relatively short space of time following the development of calculus, statistical analysis and probability theory were formalized and in the early 20th Century, Sir Ronald Aylmer Fisher built the foundations of *modern statistical science*.

Today, modern statistical analysis is one of the key disciplines that underpins the practice of economic forecasting which is widely used and respected across the world.

However, in contrast to statistical analysis, economic forecasting has not garnered the same acclaim, largely because of the track record it has developed. With that in mind, let us take a look at some of the great forecasting blunders.

A history of forecasting blunders

Indeed, most people with even a passing interest in financial markets will remember some of the great market downturns in history. From the most recent COVID-19 drawdown to the Global Financial Crisis in 2008 and even the Tech Bubble Burst at the turn of the millennium.

However, one period of economic turmoil that stands out among the pack was the Great Depression in the 1920s. Research performed by Mathy and Stekler (2016) that analysed news and media statements by popular forecasters leading up to the Depression shows that most of them failed to predict the economic downturn. In fact, to this day, economists still disagree about the causes of the crash!

Interestingly, one study produced by the IMF analyses over 150 recessions across the world from 1992 to 2014 and finds that economists failed to predict most of these. But, it is not just recessions that have received dismal forecasts. Research by Dovern and Janssen (2015) shows that economists tend to systemically mis-forecast GDP growth. In addition, it is not just the economists that have received a bad rap for their forecasting ability. In 2019 FactSet reported that over a period of five years, 72% of S&P 500 companies beat earnings forecasts.

But why are we so bad at forecasting?

Economic forecasting is difficult for two reasons. Firstly, as shown above we have been obsessed with trying to predict the future for thousands of years, but it is a virtually impossible task to get right. Secondly, economies are complex. With so many moving parts, it is difficult to know what information is relevant and what is just noise.

However, there tend to be three factors that generally result in poor forecasts which we detail below.

Historical data

Economic models describe how an economy fits together through a series of equations and these equations depend on historical data.

For example, to form a forecast of the unemployment rate in a year's time, you need to know what the unemployment rate is today and probably what the unemployment rate has been over a number of years. However, if the economy has changed substantially, those historical estimates may not be relevant. This makes it difficult to forecast from the past.

Psychology

Like all people, forecasters have inherent psychological biases. Some of these biases including the tendency to look for evidence that confirms what is thought to be correct, anchoring to certain beliefs too strongly and assuming that the current state of affairs in the world will not change. As a result, psychological biases make for bad forecasts, because these biases are not grounded in logic.

Complexity

As previously mentioned, the business of developing economic forecasts is tricky not only because it involve making judgements about the future but because markets and economies are incredibly complex. To account for this, economic models are often as complex and easy to misunderstand.

A combination of these three factors makes the business of forecasting incredibly difficult, but yet, we are still reliant on economic forecasts to form investment views. In fact, to this day economic forecasts form an integral part of the portfolio management process.

Reliance on forecasts

Given the track record of economic forecasting blunders through time it is easy to assume that the entire process of making economic forecasts is futile. However, this tends to be a crude assessment. For example, central bankers use a variety of different economic models that forecast the future path of inflation in an economy so that they can set monetary policy accordingly. Without those models, they would still need to make a call on the future level of inflation in an economy so they can set interest rates accordingly. Using the models here helps make those decisions.

Similarly, forecasts are used extensively by investment analysts and portfolio managers for two reasons. Firstly, they help analysts form expectations about sectors, industries and markets which ultimately lend themselves to the portfolio construction process. Secondly, they are used to estimate valuations of specific securities including equities, fixed income and alternative assets. For example, a fundamental equity portfolio manager may develop a model that forecasts the profitability of a certain company over time. Without making use of forecasting, equity portfolio managers would be hard-pressed to determine which stocks to buy and sell in their portfolios because they don't have an estimate of how profitable those companies are likely to be.

Forecasts are used to develop future market and asset-specific expectations. As a result, trying to do either of these things without making use of predictions becomes an extremely difficult task.

This leaves us in a somewhat awkward position. On the one hand we are saying that forecasting is a futile exercise because they tend to be wrong. And on the other hand, we are saying that forecasting forms an integral part of the portfolio management process.

So, where's the sweet spot? Or more specifically, how do managers use forecasts responsibly to construct portfolios?

As a preamble, it is important to note that there is a difference between trying to forecast the future and accepting markets as they are today. For instance, portfolio managers that use valuations are trying to understand a number of factors. These include the robustness of a company's balance sheet; how much market share the business can gain going forward and how consistent dividend payments will be.

Developing robust forecasts help portfolio managers gauge these very important factors that aid in differentiating good investments from bad ones.

Forecasts – use responsibly

The first thing to accept is that global markets are fraught with uncertainty. And, this is difficult, virtually impossible, to escape. Rather than using forecasts to foresee future events we need to accept that as investors we will never be rid of uncertainty.

This leads to an interesting conclusion – there is a difference between forecasting and developing a view of the future. By accepting this axiom there are certain precautions we can take when using forecasts that help us avoid anchoring to certain views or narrowly positioning a portfolio for a predetermined outcome.

Firstly, it is important to exercise humility when using forecasts to develop market expectations. It is impossible to know everything and the chances of being wrong are substantial. This can, at times, be the reason that many funds we look at rate negatively, simply because managers overestimate their ability to forecast accurately.

Secondly, not everything needs to be a forecast. That is, it is often not necessary to develop explicit forecasts either because they will have an invariable effect on the value of a portfolio or because they are just irrelevant. Knowing which markets, asset classes or industries you need to develop a future view on helps in determining which kinds of forecasts to pay attention to.

Thirdly, it is important to understand and accept where your area of expertise lies. For example, when constructing a multi-fund portfolio a large portion of the forecasting task is essentially delegated to the underlying managers. And this makes sense, the managers are closer to specifics related to the securities they invest in.

Lastly, the primary mitigator of forecasting errors is diversification. It pays to be exposed to a broad range of views and not bound to a narrow set of forecasts. Allocating to managers that see the world differently helps mitigate against the uncertainty of the future.

Ultimately, humanity has been forecasting for a while and getting it wrong more than we get it right. However, we are still reliant on forecasts because they help us sort through and rationalise a complex trove of information.

It is understandable that the uncertainty associated with markets is often difficult to stomach. In addition, it is even more difficult to commit capital to a wide range of assets and not be in control of that capital. However, there are processes that can be put in place to alleviate this uncertainty.

These include picking financial advisors that don't overreact to short term news and diversify across a range of different asset classes and finding portfolio managers that are keenly aware of their forecasting inability. A combination of these two factors aid in fostering more certainty in an uncertain world.

^[1] Non-farm payrolls (NFP) are monthly measurements of how many workers there are in the US, excluding farm workers, government workers, private households and non-profit employees. It is one of the most widely used statistics to measure the health of the US economy at any point.

data provided by Refinitiv

MARKET REPORT

31/Oct/21

		3m	YTD	1yr	3yr pa	5yr pa	10yr pa	5yr Vol1	10yr Vol1
LOCAL MARKET INDICES									
FTSE/JSE All Share Index (ALSI)	ZAR	0.1%	18.0%	36.0%	12.6%	9.5%	11.1%	15.4%	13.2%
FTSE/JSE SA Listed Property	ZAR	4.8%	24.3%	65.9%	-6.8%	-6.0%	5.0%	26.0%	21.1%
SA All Bond Index (ALBI)	ZAR	-1.0%	4.8%	10.9%	9.5%	8.3%	7.9%	8.0%	7.9%
SA Cash Index (SteFI)	ZAR	0.9%	3.1%	3.8%	5.7%	6.4%	6.2%	0.4%	0.3%
Balanced Benchmark	ZAR	1.3%	14.3%	26.6%	11.5%	9.5%	11.2%	10.5%	8.7%
SA Inflation (1 month lag)	ZAR	1.7%	4.2%	5.0%	4.2%	4.4%	5.0%	1.2%	1.3%
GLOBAL MARKET INDICES BASED TO USD									
Global Equity (Datastream World)	USD	3.9%	19.9%	41.0%	18.8%	16.1%	12.8%	14.9%	13.2%
Emerging Markets Equity (Datastream EM)	USD	-0.4%	0.0%	17.3%	12.7%	9.8%	5.2%	16.7%	16.5%
Global Property	USD	1.6%	23.4%	38.8%	13.3%	9.7%	9.4%	14.4%	13.9%
Global Bonds (Barclays Global Bond Index)	USD	-3.2%	-6.3%	-3.6%	4.0%	2.0%	1.0%	5.0%	5.0%
Global Cash	USD	0.0%	0.1%	0.2%	1.2%	1.4%	0.9%	0.3%	0.2%
MAJOR INDICES BASED TO RANDS									
FTSE/JSE All Share Index (ALSI)	ZAR	0.1%	18.0%	36.0%	12.6%	9.5%	11.1%	15.4%	13.2%
Global Equity (Datastream World)	ZAR	8.0%	24.1%	31.9%	20.0%	18.9%	20.4%	15.5%	14.4%
Emerging Markets Equity (Datastream EM)	ZAR	3.5%	3.5%	9.8%	13.8%	12.5%	12.4%	13.6%	13.0%
Global Property	ZAR	5.5%	27.7%	29.8%	14.4%	12.3%	16.8%	15.9%	14.3%
SA All Bond Index (ALBI)	ZAR	-1.0%	4.8%	10.9%	9.5%	8.3%	7.9%	8.0%	7.9%
Global Bonds (Citigroup)	ZAR	0.6%	-3.1%	-9.8%	5.0%	4.5%	7.8%	15.2%	14.0%
COMMODITIES									
Gold (US Dollars)	USD	-2.5%	-6.4%	-5.5%	13.5%	6.9%	0.3%	13.1%	15.2%
Gold (Rands)	ZAR	1.3%	-3.1%	-11.6%	14.6%	9.5%	7.1%		
CURRENCIES									
Rand / Dollar	ZAR	-3.9%	-3.5%	6.5%	-1.0%	-2.4%	-6.8%	15.4%	14.9%
Rand / GBP Pound	ZAR	-2.4%	-3.8%	0.8%	-3.4%	-4.8%	-5.0%	14.8%	14.5%
Rand / Euro	ZAR	-1.4%	2.1%	7.1%	-1.7%	-3.5%	-4.8%	14.1%	13.6%

Spot Rates		3-Nov-21	Latest Quarter	1 Year Ago	5 Years Ago	10 Years Ago	20 Years Ago
CURRENCIES							
Rand/US\$	Rand	15.44	14.77	15.48	14.03	8.10	10.28
Rand/GBP	Rand	21.09	20.38	20.65	17.53	12.74	14.68
Rand/EUR	Rand	17.89	17.35	18.51	14.88	10.90	9.20
RATES							
Libor 6m \$	US\$	0.22	0.21	0.26	1.29	0.75	2.03
Repo Rate	Rand	3.50	3.50	3.50	7.00	5.50	9.50
Prime	Rand	7.00	7.00	7.00	10.50	9.00	13.00
All Bond Index Yield	Rand	10.24	10.24	11.64	9.49	8.12	9.74
COMMODITIES							
Gold (\$/oz)	US\$	1 762.85	1 704.74	1 774.39	1 173.76	1 745.85	274.95
Platinum	US\$	1 021.00	1 182.00	979.00	920.00	1 558.00	443.00
Oil (Brent Crude) \$	US\$	81.51	63.52	47.70	50.10	111.11	18.95
INFLATION							
SA Inflation	%	5.0	3.2	3.2	6.6	6.2	9.6

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