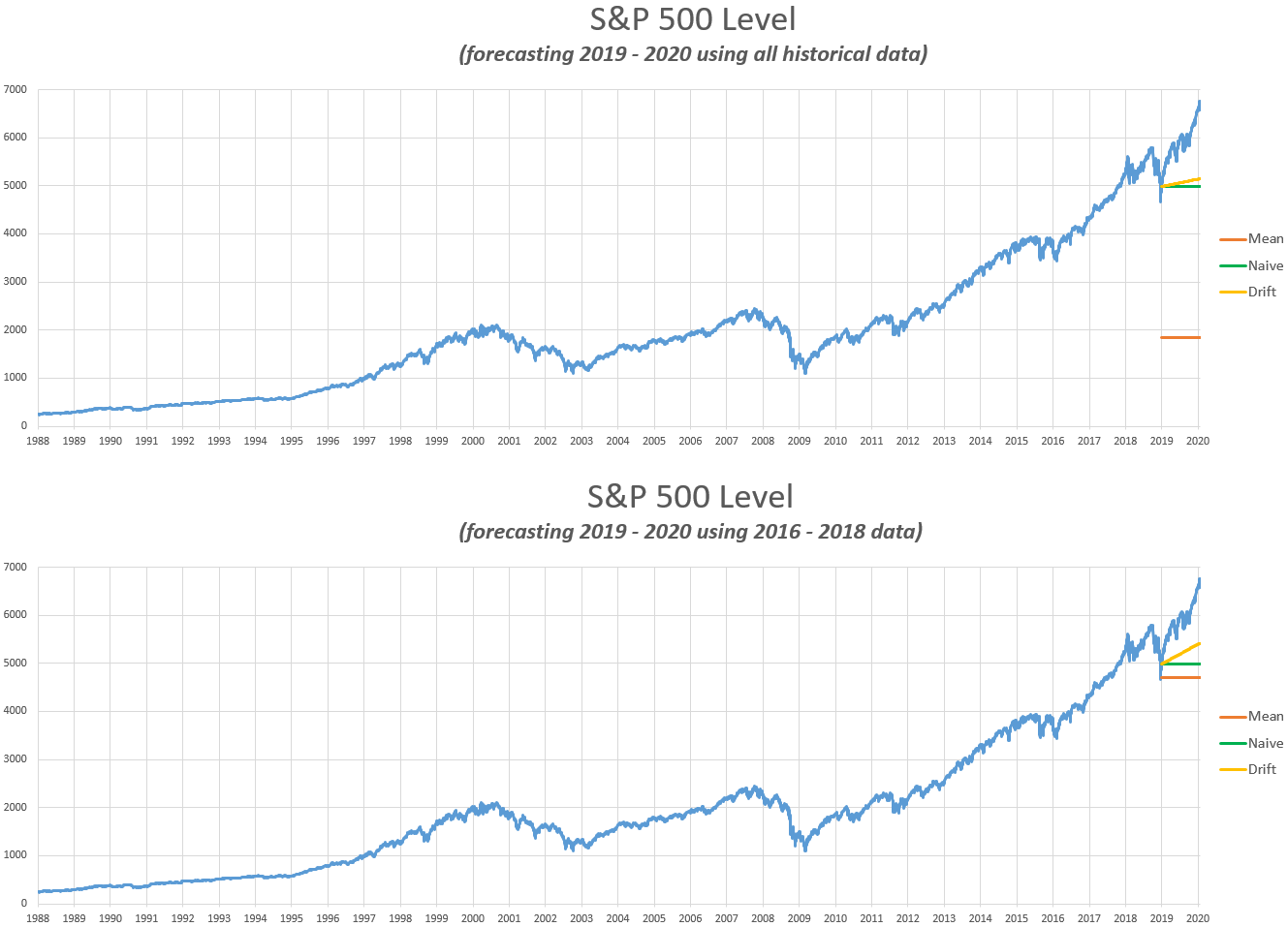
**Chapter 3 – The Forecaster’s Toolbox**

§3.1 Some Simple Forecasting Methods

Some forecasting methods are very simple and surprisingly effective. These simple methods include:

1. Mean
2. Naïve
3. Seasonal Naïve
4. Drift

**Figure 1** The mean, naïve, and drift methods used to forecast the S&P 500 level for differing historical data timeframes.

The naïve method works remarkably well for many economic and financial time series because it is the optimal method when data follow a random walk. This is why the naïve method is also referred to as the random walk forecast.

The seasonal naïve method (seasonal method), equation looks more complicated than it really is. For example, with monthly data, the forecast for all future February values is equal to the last observed February value. Similarly, with quarterly data, all future Q1 values is equal to the last observed Q1 value.

The drift method is equivalent to drawing a line between the first and last observation and then extrapolating that line into the future.

In many cases, these simple methods will serve as benchmarks rather than the actual implemented method. This is a critical concept because any new method we develop will be compared to these simple methods. If the new method does not perform better than these simple methods then it will be discarded and the forecaster has to start at square one.

**Figure 2** The mean, naïve, seasonal naïve, and drift methods used to forecast a perfectly seasonal time series with drift for differing historical data timeframes.

