

## The Basics of Business Forecasting

It is not unusual to hear a company's management speak about forecasts: "Our sales did not meet the forecasted numbers," or "we feel confident in the forecasted economic growth and expect to exceed our targets." In the end, all financial forecasts, whether about the specifics of a business, like sales growth, or predictions about the economy as a whole, are informed guesses. In this article, we'll look at some of the methods behind financial forecasts, as well as the actual process and some of the risks that crop up when we seek to predict the future.

### Financial Forecasting Methods

There are a number of different methods by which a business forecast can be made. All the methods fall into one of two overarching approaches: qualitative and quantitative.

#### Qualitative Models

Qualitative models have generally been successful with short-term predictions, where the scope of the forecast is limited. Qualitative forecasts can be thought of as expert-driven, in that they depend on market mavens or the market as a whole to weigh in with an informed consensus. Qualitative models can be useful in predicting the short-term success of companies, products and services, but meets limitations due to its reliance on opinion over measurable data. Qualitative models include:

- Market Research Polling a large number of people on a specific product or service to predict how many people will buy or use it once launched.
- Delphi Method: Asking field experts for general opinions and then compiling them into a forecast

#### Quantitative Models

Quantitative models discount the expert factor and try to take the human element out of the analysis. These approaches are concerned solely with data and avoid the fickleness of the people underlying the numbers. They also try to predict where variables like sales, gross domestic product, housing prices and so on, will be in the long-term, measured in months or years. Quantitative models include:

- The Indicator Approach: The indicator approach depends on the relationship between certain indicators, for example GDP and unemployment rates, remaining relatively unchanged over time. By following the relationships and then following indicators that are leading, you can estimate the performance of the lagging indicators, by using the leading indicator data.
- Econometric Modeling: This is a more mathematically rigorous version of the indicator approach. Instead of assuming that relationships stay the same, econometric modeling tests the internal consistency of data sets over time and the significance or strength of the relationship between data sets. Econometric modeling is sometimes used to create custom indicators that can be used for a more accurate indicator approach. However, the econometric models are more often used in academic fields to evaluate economic policies.
- Time Series Methods: This refers to a collection of different methodologies that use past data to predict future events. The difference between the time series methodologies is usually in fine details, like giving more recent data more weight or discounting certain outlier points. By tracking what happened in the past, the forecaster hopes to be able to give a better than average prediction about the future. This is the most common type of business forecasting, because it is cheap and really no better or worse than other methods.

### How Does Forecasting Work?

There is a lot of variation on a practical level when it comes to business forecasting. However, on a conceptual level, all forecasts follow the same process.

1. A problem or data point is chosen. This can be something like "will people buy a high-end coffee maker?" or "what will our sales be in March next year?"
2. Theoretical variables and an ideal data set are chosen. This is where the forecaster identifies the relevant variables that need to be considered and decides how to collect the data.

3. Assumption time. To cut down the time and data needed to make a forecast, the forecaster makes some explicit assumptions to simplify the process.
4. A model is chosen. The forecaster picks the model that fits the data set, selected variables and assumptions.
5. Analysis. Using the model, the data is analyzed and a forecast made from the analysis.
6. Verification. The forecaster compares the forecast to what actually happens to tweak the process, identify problems or in the rare case of an absolutely accurate forecast, pat himself on the back.

### **Problems With Forecasting**

Business forecasting is very useful for businesses, as it allows them to plan production, financing and so on. However, there are three problems with relying on forecasts:

1. The data is always going to be old. Historical data is all we have to go on and there is no guarantee that the conditions in the past will persist into the future.
2. It is impossible to factor in unique or unexpected events, or externalities. Assumptions are dangerous, such as the assumptions that banks were properly screening borrows prior to the subprime meltdown, and black swan events have become more common as our dependence on forecasts has grown.
3. Forecasts can't integrate their own impact. By having forecasts, accurate or inaccurate, the actions of businesses are influenced by a factor that can't be included as a variable. In a worst case scenario, management becomes a slave to historical data and trends rather than worrying about what the business is doing now.

### **The Bottom Line**

Forecasting can be a dangerous art, because the forecasts become a focus for companies and governments, mentally limiting their range of actions, by presenting the short to long-term future as already being determined. Moreover, forecasts can easily breakdown due to random elements that can't be incorporated into a model, or they can be just plain wrong from the beginning. The negatives aside, business forecasting isn't going anywhere. Used properly, forecasting allows businesses to plan ahead of their needs, raising their chances of keeping healthy through all markets. That's one function of business forecasting that all investors can appreciate.