

Feature Story

PROJECTIONS DISCRETIONS: The Ins and Outs of Economic Forecasting

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Throughout the current economic troubles, one statement has been echoed in all media outlets. “Why couldn’t our best economists accurately predict such a major and catastrophic market failure?” Many have been questioning the use of mathematical models to predict economic trends and help understand the way the world works. Before 70 years of macroeconomic thought are thrown out, a refresher course on what economic models are and are not capable of may be warranted.

How can the best economists and financial forecasters miss such a massive change in the economy? The answer is that most economic models are not designed to see huge swings in the economy one way or another; rather they are designed to extrapolate past data into the future. The goal of an economic model is to find a way to accurately explain what has occurred in the past. The model is accepted as workable when the variables of the past line up in the model and produce the numbers of the past. Economists use this method because economics is not a hard science. The production of a country can’t be put in a lab and manipulated so the outcome can be observed, so looking back is the best method. Another factor in economics is the Hawthorne Effect, where the subject that is being studied reacts differently because of the fact that they are being studied. This is difficult to account for because when a new economic theory becomes plausible, it is often immediately implemented into policy decisions of government and private industry, making the validity of the theory difficult to ascertain.



Beyond this, economists risk much when they predict collapse. Their reputation as a viable source of reliable yet conservative data is how economists keep their jobs and no one wants to be known as a “Chicken Little Economist”. Economists are also aware that their predictions can create self fulfilling prophecy; meaning an economist making negative predictions that are widely accepted can lead to panic and economic collapse. Therefore many economists and virtually all government economists releasing public data, stick to mathematical models that simply extrapolate past trends into the future.

This method is called econometric modeling and utilizes statistical data and regression analysis to predict how people will behave. Regression analysis attempts to determine if a trend or an outcome are statistically

significant or an outlier that should be disregarded as an exceptional case. By doing this economists can look at statistical data and determine whether the changes in that data represent just one strange event; like a furniture store going out of business coinciding with a huge spike in the number of couches bought in a month, or a trend that indicates a general shift in people’s behavior; such as people becoming more health conscious coinciding with a decrease in fast food sales.

Econometric models also allow the determination of what kind of trend is most likely occurring. If you remember your high school math, variables can be related to other variables in many different ways, which create different shapes on a graph. For example a trend of $x=y$ would produce a straight diagonal line, where as $x^2=y$ creates a

graph that looks like a misshapen U called a parabola. When put through a regression analysis, it becomes relatively easy to determine a best fit line which will tell the economist which equation is the closest to accurately portraying changes in actual data. With these two important pieces of information, economists simply extrapolate trends into current data to create a projection.

that is inherent within the model. The standard error should be understood as more than a description of a mathematical uncertainty but as a disclaimer of the uncertainty of the world. An econometric model will predict a change only if model's creator could foresee what caused



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If used properly econometric modeling can be very helpful. The models can be used as a tool to help investors know which stock is the more secure buy, or business owners to know how large a new store should be, or government officials to know the likely employment growth in important industries. Keep in mind that the math behind the model can't see the future. Every econometric model will have a standard rate of error

it; otherwise the design of the model would not take the effects of the change into account. In "statistical speak" this problem is called confounding variables. Since economists cannot possibly factor in all confounding variables into their models, and because no two recessions ever start for exactly the same reason, it is impossible in practice to create an effective model that accurately predicts

recession. (This is sometimes referred to as the "Holy Grail of Economics".)

When reading economic predictions or projections, one must keep these facts in mind. The numbers that you read are valuable because they are educated guesses, but they are still guesses. No person can predict where the world is going to go and how any one thing will be impacted by everything else in the world. Due to this, the farther out into the future the data is projected the more likely the data is going to be dramatically off. For example, when reading data that is projected out through 2080 one should keep the following statement in mind. *They are projecting out 17 years beyond the date Star Trek says we discover 'warp drives.'* Surely that would have a major impact on the economy! ■