A Simple and Effective Economic Forecasting Model

PAUL M. WENDEE

PAUL M. WENDEE is principal of Paul M. Wendee & Associates, LLC in Laguna Niguel, CA.
pwendee@cox.net

Investor relations professionals, like their counterparts in corporate management and investment management, need to understand some things about the economy to best serve their companies. Specifically, they need to have an understanding of where the economy is today, where it is going, and what major factors are driving economic growth.

Understanding the economy may be accomplished best by keeping the analysis simple. I was inspired to this way of thinking by an article entitled "Economic Forecasting in Three Steps," by David Wessel in *The Wall Street Journal* (July 19, 2001, p. A1). In his article, Mr. Wessel makes the point that "Economic forecasting can be complex or simple. Complex isn't always more accurate."

I don't believe we are going to put the practitioners of the dismal science out of business—nor do I believe we should. Good economic research adds much to our understanding of the economy and where it is headed. But for investment and investor relations professionals, a broader and more simplistic view of the economy may provide a bit of important insight for making investment decisions and positioning companies for investor awareness.

THREE ECONOMIC FACTORS

Mr. Wessel suggests, "Boil the economy down to three factors: 1) consumer spending; 2) business investments in machinery, buildings, computers, and software; and the 3) vitality of the rest of the world."

Can it be that simple? To answer this question, I went back to my economic textbooks from college. (I was an economics major as an undergraduate at the University of California, Riverside. That, by the way, does not make me an economist!) What I found was quite surprising—and quite simple! Let's look at one of the most basic identities in macroeconomics, the product side measurement of gross domestic product (GDP):

$$GDP = C + I + G + (X - M)$$

where

C = spending on consumer goods and services;
I = spending on investment goods;
G = spending on government goods and services; and
(X – M) = net exports, or exports (X) minus imports (M).

So, if we boil the economy down to the three factors that Mr. Wessel suggests, we may be capturing the majority of the factors in the computation of GDP.

But what about the government's spending on goods and services? This is noticeably absent from Mr. Wessel's analysis but is an important component in the calculation of GDP. The answer, I believe, is that government spending—barring a major change in fiscal

EXHIBIT 1

Weighted Average Subjective Probability of Positive Impact—An Example

FACTOR	Factor Weight	Degree of Positive Impact	Weighted Average Subjective Probability
Consumption	78%	90%	70%
Business Investment	17%	35%	6%
Net Exports	5%	-60%	-3%
Total	100%	n/a	73%

policy—tends to be fairly stable from one year to the next. Therefore, if one is trying to figure out where the economy may be going, it is the more volatile components that produce change in the economy that should be analyzed.

A SCENARIO APPROACH

To better quantify our expectations for the economy, I believe it is helpful to use a scenario approach in our forecasting. Accordingly, I have added a scenario methodology to the forecasting model that Mr. Wessel proposed.

What we are looking for in our analysis is the combined *degree of positive impact* the three factors have on economic growth. To do this, we will use a *weighted average subjective probability* approach of the degree of positive impact that each of the three factors has on the economy.

The weights of each of the factors are based on the approximate proportion that each of them has in the calculation of GDP. On a proportionate basis, consumer spending is about 67%, business investment is about 15%, and net exports are about 4%. Government spending makes up the balance. Because we are considering only the impact of three of the factors, leaving out government spending, we have to recast their weights as a proportion of their combined total. For example, using the numbers above, the three factors combined represent 86% of GDP (67% + 15% + 4%). But when we recast them as a percentage of their combined total of 86% of GDP, consumer spending is 78%, business investment is 17%, and net exports are 5%. It is the recast weights that we will use in our scenario forecasting.

Having determined the weights to use, we now must make a subjective estimate of the degree of positive impact that each of the three factors will have on the economy. Let's say that we believe consumer spending will be very strong. In this case, we might estimate the degree of positive impact to be 90% on a scale of 1%-100% with 100% representing the highest possible degree of optimism. If we don't believe that business investment will be very strong, its degree of positive impact would be relatively weak at, say, 35%. Finally, the trade deficit has been growing for quite some time, so it has a negative impact at, say, minus 60%.

The final step in the scenario approach is to combine the weights with the degree of positive impact for each factor and for all of the factors combined. Exhibit 1 shows how this is done using the weights determined above and the estimated degrees of positive impact in the example.

The total weighted average subjective probability of the degree of impact of the three factors combined is 73%. This can be interpreted to mean that the expected level of consumer spending, which has a very strong degree of positive impact at 90%—combined with a weaker level of expected business investment, a degree of positive impact of only 35%—produces a pretty strong combined degree of positive impact by these two factors on the expected performance of the economy. The degree of impact from net exports, while very negative at minus 60%, does not affect the economy much because of its low weight in the calculation. Nonetheless, it does subtract 3% in degree of impact from the expected performance in the economy.

We will see how this works using actual numbers and scenarios in the section below entitled "Where Is the Economy Headed Now?"

FINDING THE INPUTS

Finding good economic input data for your analysis is important. This section will give you a few of suggestions on where to find good data.

First, you will get a good idea of what's going on just by following the news in your daily newspapers and television news programs. I find *The Wall Street Journal* to be particularly helpful with its easy-to-read and organized format.

One of the best sources for economic data is the Federal Reserve. The Federal Reserve Bank of St. Louis publishes the *FRED* economic database (http://research.stlouisfed.org/fred/) and the Federal Reserve Bank of Philadelphia publishes the *Survey of Professional Forecasters* (http://www.phil.frb.org/econ/spf/index.html). The *Survey of Professional Forecasters* is one of the best sources available to get a consensus economic forecast from a well-respected group of professional economic forecasters. The Federal Reserve also has links to other useful economic websites. Best of all, there is little or no charge to obtain or use most of the data the Federal Reserve publishes.

While following the daily news reports and getting economic data from the Federal Reserve and other sources is a good idea, it's easy to become bogged down in too much detail. That's where this simplified economic forecasting model really shines. Now, when you see a report on a particular economic variable, you can determine the category under which it fits: consumer spending, business investment, or net exports. This helps you organize and keep track of all of the periodic reports on various economic variables.

WHERE IS THE ECONOMY HEADED NOW?

Overview

At the time of this writing, there is a great deal of uncertainty over tensions in the Middle East, particularly the possibility of a war with Iraq. The uncertainty is probably having its greatest dampening effect on business investment.

But it is not just a war with Iraq that has everyone worried. Adding to the current level of anxiety are problems with North Korea and the ongoing threat of terrorism here and abroad.

The economy has been receiving plenty of monetary stimulus and may get a further boost from proposed fiscal policy moves. Federal Reserve chairman Alan Greenspan, commenting during congressional testimony in early February, maintains that the economy doesn't need new fiscal stimulus at the present time and is likely to recover once the Iraq situation is resolved.

So, let's take a look at each of the three factors to see if we can make some sense of what is going on and likely to happen.

Consumer Spending

Despite all of the uncertainty over world events and the pockets of weakness in the U.S. economy, consumer spending has held up pretty well.

Two consumer goods that people have been buying throughout the economic slowdown, and which have been an important support for the economy, are automobiles and homes. This is somewhat surprising, given the weak job and income growth. Nonetheless, auto and home sales have been strong and are expected to remain so.

Interest rates, which remain at historically low levels, have helped spur the sales of housing and autos, as well as other consumer durables. They have been an important support in the currently weak economic environment. Looking ahead over the next few months, interest rates are expected to remain at current levels. Some tightening by the Fed may occur later in the year if the economy begins to rebound.

Unemployment, which remained above 5½% all of last year, will probably creep up a bit further to the 6% level later this year. But forecasted wage growth in the 3½% range should be enough to keep consumers spending.

All in all, consumers should continue to spend—and this is vitally important to the economy as consumers account for about two-thirds of U.S. economic activity.

Based on our analysis, the estimated degree of positive impact from consumer spending is 70%.

Business Investment

Business investment probably has been the hardest hit by the uncertainty over tensions in the Middle East. Given the level of uncertainty, businesses have been reluctant to make commitments for expansion and capital investment. A quick resolution to the Iraq situation will be necessary to restore confidence and get businesses investing again.

EXHIBIT 2

Weighted Average Subjective Probability of the Degree of Positive Impact on the Economy—2003 to 2004 Forecast

FACTOR	Factor Weight	Degree of Positive Impact	Weighted Average Subjective Probability
Consumption	78%	70%	55%
Business Investment	17%	60%	10%
Net Exports	5%	-65%	-3%
Total	100%	n/a	62%

Currently, high oil prices are hurting businesses and consumers alike. Quick resolution of the Iraq situation also would set the stage for lower oil prices. This would be a big boost to business and the economy and also would help to encourage business investment.

Corporate profits have not been as strong as many economists had expected. In addition to delaying business investment, this is likely to result in a slower rate of job creation and building of inventory levels. As of January, factories were operating at only 75.7% of capacity. Going forward, high expected productivity growth should help corporate profits.

Despite the currently slow conditions, businesses should be major contributors to the anticipated economic recovery—particularly if the Iraq situation is resolved quickly.

Based on our analysis, the estimated degree of positive impact from business investment is 60%.

Net Exports

We can't expect much help to come from the rest of the world. Most of our major trading partners are in worse economic shape than we are.

This has caused our exports to decline, while encouraging other countries to increase their sales of products and services to the United States. The U.S. trade deficit grew to a record $44.24 billion in December. It was $435.22 billion for the entire year of 2002, a record high and a 21.5% increase over 2001. The 2002 trade deficit represents a record 4.2% of gross domestic product.

Based on our analysis, the estimated degree of negative impact from net exports is 65%.

Weighted Average Subjective Probability of the Degree of Positive Impact on the Economy—2003 to 2004 Forecast

As shown in Exhibit 2, the weighted average subjective probability of the degree of positive impact from the three factors in the current economic environment is 62%. Consumer spending and business investment, which weigh in at 70% and 60% respectively, together produce a relatively healthy combined degree of positive impact of 65%. But net exports, reflecting the dismal conditions in the rest of the world, subtract 3% from the equation.

A 62% degree of positive impact is not high, but it is enough to give us confidence that we are probably not headed for a recession. It indicates that we are likely to be continuing in a period of slow recovery for the remainder of 2003 with even stronger conditions possible in 2004.

CONCLUSION

I have used this simple model for economic forecasting since I read Mr. Wessel's article in *The Wall Street Journal* in July 2001. Much has happened in the world since then. But what has impressed me about this simple approach is how well it has worked in helping me understand and assess how all of the world's events have impacted the U.S. economy.

Before closing, there are three additional benefits that I would like to highlight about the use of this model.

- First, the model can provide a useful check on what others are forecasting for the economy. When you read that professional economists are forecasting GDP growth of a certain percentage or that interest rates are expected to be at some level, you now will be in a much better position to evaluate their forecasts.
- Second, focusing on the most important variables in the economy will help you organize and make sense of what you read daily in the press about the economy and ultimately to filter out some of the noise in the data.
- And finally, just by going through an analysis like this in such an organized fashion, you will become pretty familiar with the major variables that are driving economic performance. This will make you far better informed about the economy than most other people are.