FORECASTING: Reducing uncertainty

The financial world expects economic forecasters to keep them safe. While economic forecasting will never be an exact science, it is useful for decision makers, analysts and ordinary people to better understand the world in which we live. But what about those variables that forecasters fail to spot? **Jaco Leuvennink** talked to two experts.

It's about human behaviour

The economic future deals with tomorrow's human behaviour – such as decisions, actions, plans, expectations, motivations and preferences. None of these are easy to quantify, and despite ongoing research and an abundance of literature on the business cycle, forecasting a boom or recession will always be a bit like an opinion poll.

Therefore, economists use assumptions which frustrate business people and investors who want certainty as foundation for their plans and strategies. Economists never agree, and when forced to make a prediction they are wrong more often than not. Apparently, former American president Ronald Reagan once said that there should be a Trivial Pursuit game for economists, with 100 questions and 3 000 answers.

But, says Prof Eon Smit, professor in Business Forecasting, Derivative Instruments and Decision Analysis at USB, one of the key lessons that he learnt from more than 20 years as adjudicator of the Afrikaans newspaper *Sake24*'s Economist of the Year Competition, is that most participating economists over time contribute to the reduction of uncertainty and hence to improved management of business and the economy in general.

> '… the greater the uncertainty and turbulence, the greater the demand for certainty'

Prof Smit says the format of the Economist of the Year Competition is unique in so far as it tries to pool the collective wisdom and insights of the most prominent economic forecasters in the country into an overall consensus forecast of the key economic variables – 12 in all. Some variables relate to economic growth while others relate to exchange rates, the current account balance, metal and gold prices and a bouquet of interest rates. A first set of forecasts is usually produced in February and then revised monthly until year-end. The winner is the forecaster who could anticipate best over the longest time horizon.

There is no one-size-fits-all approach

"We do not know which forecasting tools participants use, but these can range from formal econometric models with numbers or equations which describe all the key variables and linkages in the economy to simple qualitative judgements made on 'the back of cigarette boxes'. There is no evidence that one approach, forecaster, company or organisation consistently produces superior forecasts.

"Some individuals have won the coveted award more than once, but it is still impossible to predict the best forecaster in a particular year. Hence, the consensus forecast is a very attractive mechanism to learn from the combined expertise. The consensus forecast comes with a standard deviation which provides the end-user with a measure of the dispersion in the values between forecasters. Within a particular year these deviations typically contract as the final moment of truth approaches," says Prof Smit.

He finds no reason to believe that forecasters today are more accurate than two decades ago. "The world is still full of surprises, and forecasts are critically dependent on a whole set of assumptions, which can go awry. The value of a forecaster cannot be judged by a single error or once-off success but only over time by the extent to which he or she had contributed to reducing the uncertainty to save the decision-maker's face."

Covering a range of outcomes

Prof André Roux, economist, USB professor in Management Economics and director of the Institute for Futures Research at Stellenbosch University, acknowledges that, strictly speaking, economists cannot predict the future. "What we could and should be trying is to make forecasts which cover a range of possible outcomes. But economists are expected to make predictions – statements about a specific outcome or event which has not yet been observed.

"For better or for worse, numbers and statistics are the barometers that tell us what the economy is doing, and what it intends doing. These indicators provide the backdrop that will ultimately affect corporate earnings, interest rates, inflation and the exchange rate. Governments, businesses and consumers need macroeconomic forecasts to devise appropriate strategies. And the greater the uncertainty and turbulence, the greater the demand for certainty and preciseness in forecasts. Nobody wants to hear about the great uncertainties that will determine how the economy will look a year from now. Instead, they want numbers, preferably with decimal points, and precise timelines!"

People often accuse economists of being the bearers of bad news. Politicians do not like being told that their schemes will not work, that they cannot have their cake and eat it too, that there is no free lunch. Is this perhaps a factor in the apparent lack of success to predict recessions? Or why budgets are not based on shrinking economies, although recessions do happen and can have a devastating effect on deficits?

A survey of economists in December 2007 showed them as a group believing the American economy would grow by 2.2% in 2008. It actually started to contract in 2007. The same happened in 1929 when the Harvard Economic Society declared that the possibility of a depression was "outside the range of probability". Oops!

Prof Roux says assumptions used in forecasts and economic models mean only one possible realisation of the future is considered while significant changes within the forecast period are neglected. "The main reason for poor predicting is not poor economics or poor modelling; it is the unpredictability of changes in the content of the human mind."

The power of unexpected variables

Prof Roux says: "We can, with a fair degree of accuracy, model the domestic effects of a particular type of behaviour and say with confidence that a tax, subsidy or tariffs are inefficient; or that an increase in demand will result in rising prices in the short run. But we can't know for sure what other variables may enter the picture or how they will affect the model."

Prof Roux likes Oxford University Prof David Hendry's analogy from rocket science to illustrate the point: "A rocket launched to the moon is forecasted to reach its destination at a precise time and point, and usually does. But if it is hit by a meteor and knocked off course, or destroyed, the forecast is systematically and horribly wrong. This is surely not indicative of poor engineering or a bad forecasting model, and certainly does not invalidate Newtonian gravitation theory. In a similar vein, the failure of economists to predict the 2008/09 crash was a result of the unanticipated strength of responses by households, businesses and governments to global imbalances."

Understanding expectations

Prof Smit says the Economist of the Year competition forecasts published over the years have frequently been consulted by governmental institutions and business practitioners. The data has also served as foundation for a number of academic studies, some relating to forecasting accuracy, but others in a more fundamental way have been trying to understand how expectations about the future are formed and how they are adjusted as new information becomes available.

But after more than 20 years analysing forecasts Prof Smit says the words of the late professor Attie de Vries still ring true: "In the forecasting business you should never allow a temporary measure of success to go to your head – your downfall is just around the corner". a

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FORECASTING AND THE RAND

A striking example of the perils of economic forecasting is the extreme volatility of the value of the rand, which, according to Prof André Roux, is probably of greater concern than the current weakness or absolute level at any given moment. "The exchange rate of the rand depends mostly on net financial inflows, and on South Africa being a deficit country – i.e. a country living beyond its means with more spending than production, more imports than exports, more state expenditure than tax income and more investment than savings. So, we desperately need foreign inflows (investment) and thus are unduly susceptible to the vagaries of international sentiment."

But a myriad of variables influence sentiment, which makes predicting the exchange rate perilous. Disappointing growth, labour disputes, high labour costs, rising inflation, the above-mentioned deficits and external factors, infrastructural backlogs and policy uncertainty contribute to a weak rand.

Prof Roux says companies (importers) can take forward cover against a weaker rand, but the rand could strengthen again when faith in the return on investments and "treatment" of investments returns. He warns against seeing the weaker rand as a means to enhance our international competitiveness (exports) because it may mean ignoring and failing to rectify fundamental problems.