



GATEWAY INSIGHTS

5 The Effectiveness of Modelling

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A recent book release "Imperfect Knowledge Economics- Exchange Rates and Risk" by Roman Frydman an economist at New York University, Michael Goldberg of the University of New Hampshire and Edmund Phelps, sets out an alternative approach to modelling and prediction, that whilst written for economic forecasters, also has relevance to the approach taken by many investment managers.

"The forecaster is like an entrepreneur" says Roman Frydman. "He uses quantitative methods, but he also studies history, and relies on intuition and judgment. He is not a scientist". According to Frydman, this fact has been lost on contemporary economists who continue to pursue the perfect economic forecast despite abundant evidence that it does not and cannot exist.

Frydman, Goldberg and Phelps set out an alternative approach to prediction. This approach has the forecaster recognizing that his model will inevitably be less than perfect. Frydman et al (2007) argue that economic forecasting models should be based on qualitative regularities in the way that market participants respond to new information – that is, patterns of behaviour that are observable and somewhat predictable.

The use of the approach in foreign exchange markets is explored in the book. Persistently economists have found currency markets very difficult to predict. All models based on rational expectations have proved no more useful than tossing a coin. Only over long periods – two to four years – has there been any evidence of exchange rate predictability. However using Frydman et al's approach, where it is assumed that knowledge and learning are imperfect, results are significantly better, although this is yet to be thoroughly tested over longer periods and a range of markets.

The approach of Frydman, Goldberg and Phelps does not generate sharp predictions but uses qualitative information to provide a broad sense of the state of play which a forecaster can usefully combine with experience, intuition and other factors to make a decision.

Recently, Frydman et al have used this approach to investigate the performance of rating agencies in the sub-prime markets. They have argued that ratings agencies used only mathematical models to assess the quality of asset backed CDO's because the instruments were so new, whereas they have had more success in the Corporate Bond market because a combination of the mathematical modeling and the judgement of their in-house specialists is more effective in forecasting default probabilities.

There is nothing new in economics about the idea that people must make decisions based on imperfect knowledge. John Maynard Keynes observed that "human decisions affecting the future, whether personal or political or economic, cannot depend on strict mathematical expectation, since the basis for making such calculations does not exist". What is new is that Frydman, Goldberg and Phelps argue that qualitative factors be incorporated into forecasting models. This is a concept that many fund managers might find useful to explore.