

Chapter 3

Do Judgmental Factors Lead to a Good Decision on Investing in a Currency or Mislead the Financial Player? An Application in Turkey

Aykan Akincilar

Gazi University, Turkey & Celal Bayar University, Turkey

ABSTRACT

Since decision on making an investment in exchange rate is one of the main problems faced by financial players acting in markets around the world, it is extensively discussed in the literature. In this study, it is investigated whether judgmental factors affect the decision in behavioral environment or not, and, if such an effect exists, its impact is whether positive or negative. In order to achieve that purpose, multi-criteria decision making approach is integrated with time series analysis approach which leads to clearly question the existence and direction of such an impact if it exists. The proposed model is applied to the Turkish market, indicating that judgmental factors prevent the financial player from misleading which is caused by considering solely profitability criterion. Thus, it is demonstrated that judgmental factors have a positive impact on the decision regarding exchange rate selection problem. Ultimately, it is demonstrated that the proposed integrated model provides accurate and reliable results.

1. INTRODUCTION

Forecasting financial time series such as stock prices or exchange rates, is important to investors and governments (Leu et al. 2009). According to Panda and Narasimhan (2007), two main reasons are assumed why financial players should analyze exchange rate movements. First, financial players need to be sure about monetary policies in the country, of which matter can be made possible by understanding movement of exchange rates. The second reason is that exchange rate is a financial asset, and thus, is a

DOI: 10.4018/978-1-5225-0959-2.ch003

Do Judgmental Factors Lead to a Good Decision on Investing?

potentially valuable source of timely information about economic and financial conditions. Consequently, by understanding the movement of exchange rates better, the financial players are able to extract relevant information about such conditions in a country and so to forecast the future values of the exchange rates more accurately, which leads to gain profit more robustly.

In traditional forecasting and/or decision making processes, it is believed that considering judgmental factors mislead the analyzer since it causes non-objectiveness. Thus, objective forecasting techniques are employed to forecast the movement of exchange rates in a market. Since those techniques produce objective results, they are so popular and are considered of reliable methods. In that point, the question that whether profitability is the only one criterion while handling an investment problem should come to mind. Indeed, it is a very fair question. In author's opinion, in order to make an accurate decision in a particular market, judgmental factors should also be considered as entirely as possible. Because the current status of the market, political relations of the country with the others, some particular events like war, natural disasters, large-scale sport events have significant effect on the market. If a financial player can properly consider those factors, it is clear that the assets can be managed more efficiently. However, objective forecasting techniques have a significant weakness which is that judgmental factors affecting the market are hard to consider in those techniques.

On the other hand, multi-criteria decision making tools are the tools that have a great potential to assess –and even roughly forecast– the movement of exchange rates and so the market. Those tools are capable of making decisions analytically by incorporating different and conflicted criteria in a single model. The more qualified model a decision maker develops; the more accurate results is expected to be obtained. Maybe the most important disadvantage of those tools is that although they are analytical methods, significant personal and/or group influences may be occurred, which leads to subjectivity. As a result, those influences may mislead the decision maker when they are solely considered.

At the present time, many researchers biased to develop models which consider judgmental factors. So, many studies have already been conducted about such nature in literature. A study by Blair et al. (1987) may be among the first to demonstrate that expert judgments could be used in exchange rate forecasting. And then, based on that paper, Blair et al. (2002)'s work was published.

Ulengin and Ulengin (1994) also studied a similar approach in exchange rate forecasting with factual criteria, such as interpretations of central bank, related interest rates, and comparison options with other forecasting methods. Autoregressive integrated moving average (ARIMA), vectoral autoregressive (VAR), Bayesian VAR (BVAR), restricted VAR (RVAR) and the analytic hierarchy process (AHP) were compared as forecasting methods, with BVAR winning against the other methods. As a contribution to the debate of those factual criteria, Marinkovic (2014) investigated the effectiveness of official interventions by the National Bank of Serbia (NBS) in the RSD/EUR market, which is also adopted as a criterion in this chapter.

Following these pure method approaches, Ince and Trafalis (2006) proposed a hybrid model to eliminate the disadvantages of parametric and non-parametric methods. In the first step, ARIMA and VAR were used to obtain the number of inputs and, in the next step, artificial neural network (ANN) and support vector regression (SVR) were applied to gain the forecasts of the analyzing pars. According to performance criteria, namely mean square error (MSE) and mean absolute error (MAE), SVR provided the best outcomes. As a result, in comparing their model with pure methods, the authors claimed that a hybrid model could provide better forecasts.

18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/do-judgmental-factors-lead-to-a-good-decision-on-investing-in-a-currency-or-mislead-the-financial-player/170895

Related Content

OKR Methodology: Case Study in Sebrae Meier

Bruno Cortines Linares Fernandes and Jorge Varela Gomes (2023). *International Journal of Strategic Decision Sciences* (pp. 1-11).

www.irma-international.org/article/okr-methodology/318341

Interactive Data Visualization to Understand Data Better: Case Studies in Healthcare System

Zhecheng Zhu, Bee Hoon Heng and Kiok-Liang Teow (2017). *Decision Management: Concepts, Methodologies, Tools, and Applications* (pp. 27-36).

www.irma-international.org/chapter/interactive-data-visualization-to-understand-data-better/176746

A Hierarchical Fuzzy Portfolio Selection Process Considering Transaction Costs with a Hybrid Intelligent Algorithm

Masoud Rabbani and Seyyed Mostafa Bahadornia (2013). *International Journal of Strategic Decision Sciences* (pp. 90-108).

www.irma-international.org/article/a-hierarchical-fuzzy-portfolio-selection-process-considering-transaction-costs-with-a-hybrid-intelligent-algorithm/94663

An Improved Task Scheduling Mechanism Using Multi-Criteria Decision Making in Cloud Computing

Suwendu Chandan Nayak and Chitaranjan Tripathy (2021). *Research Anthology on Decision Support Systems and Decision Management in Healthcare, Business, and Engineering* (pp. 767-795).

www.irma-international.org/chapter/an-improved-task-scheduling-mechanism-using-multi-criteria-decision-making-in-cloud-computing/282615

A Novel Sequential Three-Way Decision With Rough Fuzzy Sets Based on Optimal Granularity Selection

Jie Yang and Shuai Li (2024). *Granular Computing and Big Data Advancements* (pp. 126-159).

www.irma-international.org/chapter/a-novel-sequential-three-way-decision-with-rough-fuzzy-sets-based-on-optimal-granularity-selection/353290