Chapter 4
Macroeconomic Suprises and the Turkish Financial Market

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ABSTRACT

In the study, the authors investigate the impacts of macroeconomic news originating from Turkey, US, Euro Zone, and China on the Turkish financial market. They consider Purchasing Managers Indices and Gross Domestic Product growth rates as macroeconomic news. The study covers the period from May 4, 2015 to January 1, 2019, and six sectoral indices are included into the analysis. The findings show that impacts of macroeconomic surprises on abnormal returns are significant for all the sectors except Holdings and Investments and Insurance. The authors also provide evidence that the impacts of macroeconomic surprises on volatilities are significant for only Holdings and Investments and Technology.

INTRODUCTION

During the last few decades, scientific research studies concerning the impact of macroeconomic news on financial markets have increased significantly. Macroeconomic news provides information about economic strength and growth of a country for both economists and investors. Therefore, it is expected that this news

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will have an impact on both local and international markets. Many empirical studies also show that the macroeconomic news has an impact on financial markets, and they further provide evidence for the existence of this impact. In particular, after the increase in globalization, emerging markets may be affected not only by the local macroeconomic news but also by the macroeconomic news of developed foreign countries. The traditional approach is to consider the macroeconomic variables as external factors in Arbitrage Pricing Theory (APT) (Ross, 1976). In this context, the effects of the macroeconomic news such as money supply, consumer price index (CPI), producer price index (PPI), employment and unemployment rates, growth rates, industrialization, foreign market indexes, inflation, interest rates, exchange rates, and risk premiums, among other factors, have been investigated by various researchers. Examples include Fama (1981, 1990), Pearce and Roley (1983), Fama and French (1989), Schwert (1990a), Ferson and Harvey (1991), McQueen and Roley (1993), Rigobon and Sack (2002), Wongswan (2006), Kim and Nguyen (2008, 2009), and Albuquerque and Vega (2009). These studies mainly focus on the effect of the macroeconomic news on the first moment (i.e., the return). On the other hand, recent studies focus not only on the first moment but also on the second moment, namely the volatility. The first study which examines the impact of macroeconomic news on volatility is conducted by Ederington and Lee (1993). Following these studies, Kim et al. (2004), Wongswan (2006), Andersen et al. (2007), Hanousek et al. (2009), Nowak et al. (2011), Korkmaz et al. (2012), Yi et al. (2013), Huang (2018), and Wang and Yang (2018) investigate the impact of macroeconomic news on the financial markets within a larger framework.

In this study, the impact of macroeconomic news[1] on the Turkish stock market's returns and volatility is investigated empirically. For this purpose, the BIST100 index and six sectoral indices of financial and technology companies are considered. These sectoral indices include the BIST Banks, the BIST Information Technology, the BIST Real Estate Invest Trusts, the BIST Holdings & Investments, the BIST Insurance, and finally, the BIST Technology. A comprehensive analysis of the daily stock market data, which covers the period from May 04, 2015 to January 01, 2019, is performed. In the analysis, the domestic effect within Turkey and the foreign country effects of the US, the Euro-Zone, and China on the Turkish financial market are discussed. As macroeconomic indicators, the Purchasing Managers Indices (PMI) and Gross Domestic Products (GDP) growth rates are considered. The motivation behind selecting these indicators hinges on the fact that these indicators provide a realistic insight about the future economic conditions of a country. The PMI is calculated by using the data collected from industrial surveys and indicates the attitude of purchasing managers towards economic developments. On the other hand, the GDP growth rate is a periodic measure of economic growth which is announced once