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Growing pains: The evolution of new stock index futures in emerging markets

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ABSTRACT

Analyzing the first seven years of trading in Turkish stock index futures (BIST 30) and contrasting that to the progress of Korean (KOSPI 200) and Taiwanese (TAIEX) markets, we find that BIST 30 initially experiences a persistent mispricing and speculative trading similar to KOSPI 200 but it also experiences the largest increase in hedge effectiveness, becoming hedger-dominated similar to TAIEX. Most significantly, we demonstrate that spot market short-sell quote volume is a good measure of short-sale constraints and a significant determinant of mispricing in BIST 30. A methodological contribution of this paper is a four-equation multivariate VAR framework to analyze the volatility impact of futures.

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1. Introduction

Following the recent financial crisis that primarily affected developed markets, investment in emerging equity markets has increased. In particular, stock index futures stood out as one of the most attractive securities for foreign investors by providing a convenient exposure to the local stock markets. However, the index futures in most emerging markets are relatively new compared to the ones in developed markets, and previous research on index futures in developed markets shows that the pricing efficiency and hedging benefits of index futures contracts are not as accurate during the early years of their trading.

McMillan and Ülkü (2009), investigating a recently introduced index futures contract in an emerging market, find that during the first 18 months of trading, BIST 30 Index futures trading at Borsa Istanbul (formerly ISE 30 index contract of Turkish Derivatives Exchange-TurkDEX)¹ were significantly mispriced and conclude that results “invite arbitrageurs” to trade this

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¹ In 2009, the stock market index in Turkey was referred to as the ISE 30, named after the Istanbul Stock Exchange, which was locally called IMKB. In 2013, the stock exchange has been renamed to Borsa Istanbul and the stock index futures accordingly renamed to BIST 30.