

# Chapter 11

## The Role of Central Bank in Competitive Environment: A Study for Interest Rate Corridor Systems

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### ABSTRACT

*This chapter evaluates the macroeconomic impact of the interest rate corridor policy implemented by the central bank in Turkey. In this context, firstly the general framework, types and application of interest rate corridor policy are explained. Then, the interest rate corridor policy implemented by the CBRT after the global crisis was examined in detail. In addition, domestic and foreign literature examining the macroeconomic effects of the interest rate corridor policy has been included. This chapter examines the macroeconomic impact of the interest rate corridor policy implemented in Turkey using data from the 2011-2018 period. In the study, Engle-Granger Cointegration Analysis and Toda-Yamamoto Causality Analysis were used as models. As a result of the study, it was concluded that interest rate corridor had an effect on economic growth, foreign direct investment, and exchange rate variables.*

### INTRODUCTION

Prior to the 2008 Global Crisis, many central banks had implemented conventional monetary policies aimed at price stability, using short-term interest rates as instruments through the transmission mechanism. The transmission mechanism is one of the most important factors in ensuring the macroeconomic stability of monetary policies. Because the transmission mechanism can affect the overall level of demand, GDP, employment and prices through monetary policy (Bain and Howells, 2009). The short-term interest rate, which is called the policy rate, refers to the interest rate that is generally applicable to overnight or weekly term transactions (Özatay, 2011a; Kalkavan and Ersin, 2019).

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However, in times of crisis, traditional monetary policy instruments focused on price stability are insufficient for central banks to achieve their targets (Smaghi, 2009). In this case, central banks are turning to traditional monetary policy instruments. The interest rate corridor policy is one of these policies. Corridor systems are a system developed to help ensure that interest rates in the money market move in close relation to the policy rate of central banks. Because this close relationship between the policy interest rate and the market interest rates is the basis of the transmission mechanism of the monetary policy. Since interest rates in the interest rate corridor system closely follow the policy interest rate, central banks can also create an effective policy signal (Revised Framework Monetary Operations, 2016).

In this study, the effectiveness of interest rate corridor policy has been examined. The general framework of the interest rate corridor policy, implementation, types, advantages and disadvantages are given. The second section provides information about the application of the interest rate corridor after the global crisis in Turkey.

In the third chapter, literature review related to interest rate corridor is made. In this context, domestic and foreign literature examining the macroeconomic effects of the interest rate corridor has been included.

Finally, theoretical information about Engle-Granger Cointegration Analysis and Toda-Yamamoto Causality Analysis are given. In addition, the data used in the model is explained. The results obtained by cointegration analysis and causality analysis are evaluated.

## **GENERAL INFORMATION ABOUT INTEREST RATE CORRIDOR SYSTEM**

Since the intraday transactions in the interbank market are uncertain, the reserve requirement of each bank at the end of the day is uncertain. For example, a bank with a surplus liquidity surplus may deposit deposits to the central bank in order to assess this surplus, while a bank with temporary liquidity shortage may benefit from the short-term credit facilities of the central bank (Whitesell, 2006).

In the corridor systems, a central bank provides two facilities, namely the possibility of lending to commercial banks provided that they pay a certain interest, and the possibility of deposit income in exchange for a deposit interest. While the central banks implement a corridor policy, the overnight market interest rate in the money market can be determined in close proximity to the targeted interest rate (Berentsen and Monnet, 2008).

In a classical corridor system, the policy rate of the central bank will be below the lending rate and above the deposit rate. Therefore, the lending rate constitutes an upper limit for short-term interest rates. (Revised Framework Monetary Operations, 2016). In corridor systems, there are two types of applications: interest rate corridor system and floor system. Below it will be given information about these systems.

### **Interest Rate Corridor System**

In the interest rate corridor system, the overnight borrowing rate applied by a central bank for short-term credit facilities constitutes a floor, while the lending rate applied in return for the evaluation of the excess liquidity creates a ceiling (Bernhardsen and Kloster, 2010). The interest rate at the middle of this area, which is called the interest rate corridor between the floor interest rate and the ceiling interest rate, constitutes the policy rate (Whitesell, 2006). If the policy rate is determined as the middle point of the interest rate corridor, it is called the symmetric interest corridor. If the policy rate is determined



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