VOLATILITY OF THE TURKISH LIRA AFTER THE GLOBAL FINANCIAL CRISIS

Hatice Kerra Geldi, Yeditepe University

Introduction

The end of the Bretton Woods System characterized a turning point for the international monetary system as countries started to use the floating exchange rate system. Since then, exchange rate, measuring the price of domestic currency in terms of foreign currency, has become not only an indicator of competitiveness of a country's goods and services vis-à-vis the rest of the world but also become one of the important determinants of sustainable internal and external balances of the economy. As its role in the international financial system has been more prominent, this has resulted in the growing literature about the effects of exchange rates, be it nominal or real, on the national economies. Together, the literature has also started to focus on the volatility of real or nominal exchange rates. While the exchange rate volatility is time-to-time variations in exchange rate and used as a measure of the risk of the unexpected changes in the exchange rates, the fundamental economic variables like the interest rates (both domestic and foreign), price levels (the level of inflation) and the balance of payments are the possible sources for the volatility in exchange rates. However, variations in the exchange rates are not only resulting from the sole economic factors. The sociopolitical and geopolitical conditions in the given country or in the dominant actors of the global economy (like the recent political developments in the United States) are also non-economic reasons for the exchange rate fluctuations.

Moreover, the International Monetary Fund (IMF)-led liberalization policies on financial and trade accounts in most of the developing countries increased the pace of the globalization process. The main idea for these policies was to enhance the growth and stability by increasing national savings and enabling efficiency in these countries. This had been coupled with the technological developments that facilitated the movement of billions of currencies to be transferred from one country to another in a few seconds, so easing the currency speculation and spillover. In return, increasing global integration caused exchange

rate volatility to increase especially for the developing countries. Thus, on the contrary to its main goal, for some of the developing countries liberalization policies resulted in speculative capital movements and instability in their economies. The first incidence of the vulnerability in the global economy was the sequence of currency crises that started by Mexican peso crisis of 1994–95 and continued by the Asian crisis of 1997–98, the Brazilian real crisis of 1999, the Turkish lira crisis of 2001[1], and the Argentine peso crisis of 2001–02[2]. For these countries, negative effects on the real and financial economy were accompanied by the increased volatility and significant depreciation in their currencies. However, these crises were not limited to their country of origin and had a contagious effect on other geographic areas.

The recent example of the relationship between the global integration and increasing exchange rate volatility has been the Great Recession of the late 2000s, including time path of the recession in the U.S. lasting from 2007 to 2009 and the repercussions of this slowdown in the global scale in 2009. The origin of this recession was the 2008 Global Financial Crisis that started as the subprime mortgage crisis in which the U.S. housing market collapsed. This was followed by the bankruptcy of insolvent banks and financial institutions such as investment banks, consumer credit firms, and insurance companies, etc. Then it spread over to the other regions, starting with Europe. Underlying factors behind this global crisis were (Gerber, 2014):

i) Financial innovation that introduced new and innovative financial instruments;

ii) Global financial integration that involved international capital mobility and flexible exchange rates;

iii) Financial deregulation that enabled lots of risky transactions and

iv) Large global savings imbalances that resulted in the flow of money from the current account surplus giving countries such as China to the deficit giving countries like the United States, Spain and United Kingdom.

In return, to alleviate the global slowdown (recession), the Federal Reserve Bank (FED) and the other leading central banks such as the European Central Bank, the Bank of England and the Bank of Japan started to implement "Quantitative Easing" (QE) program. FED decreased the key interest rate to approximately zero in order to stimulate liquidity and delivered emergency loans for the insolvent

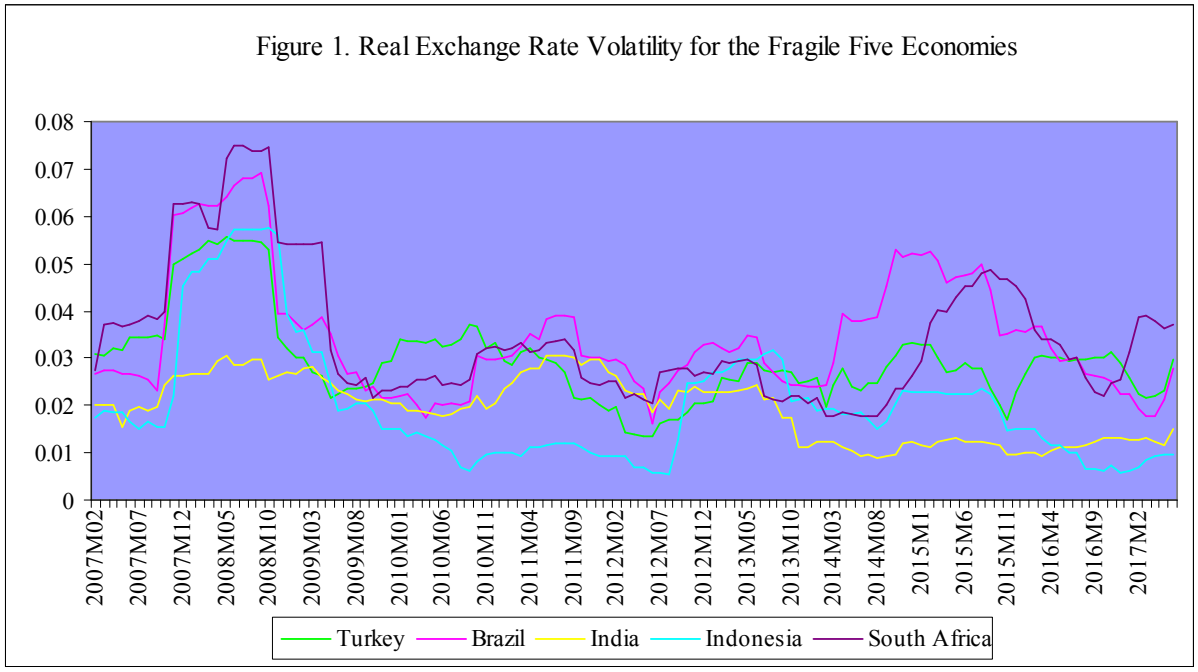
[1] Turkish capital account and financial liberalization program had been started in 1980 and completed in 1989. However, together with the political conditions, this program and its extension, disinflation program of 1999, resulted in instability for the Turkish economy and created the base for the November 2000 and February 2001 crises.
[2] After these crises, IMF's one-size-fits-all policies were highly debated.

financial institutions. The announcement of the Federal Reserve in May 2013 that it would end the QE program by the end of 2014 and the following interest rate increases in the U.S. made currencies of the financially vulnerable economies lose their value against the U.S. dollar. To this end, the new term, the "Fragile Five"[3], including Brazil, India, Indonesia, South Africa and Turkey[4], is coined. These countries are heavily dependent on foreign capital due to their significant trade deficits and high levels of dollar-denominated foreign debts (both private and public). As strong dollar (appreciation of dollar) and interest rate increases have resulted in capital outflows to the U.S., these countries are negatively affected and become more vulnerable to the changes in the global economy.

Exchange Rates in Figures

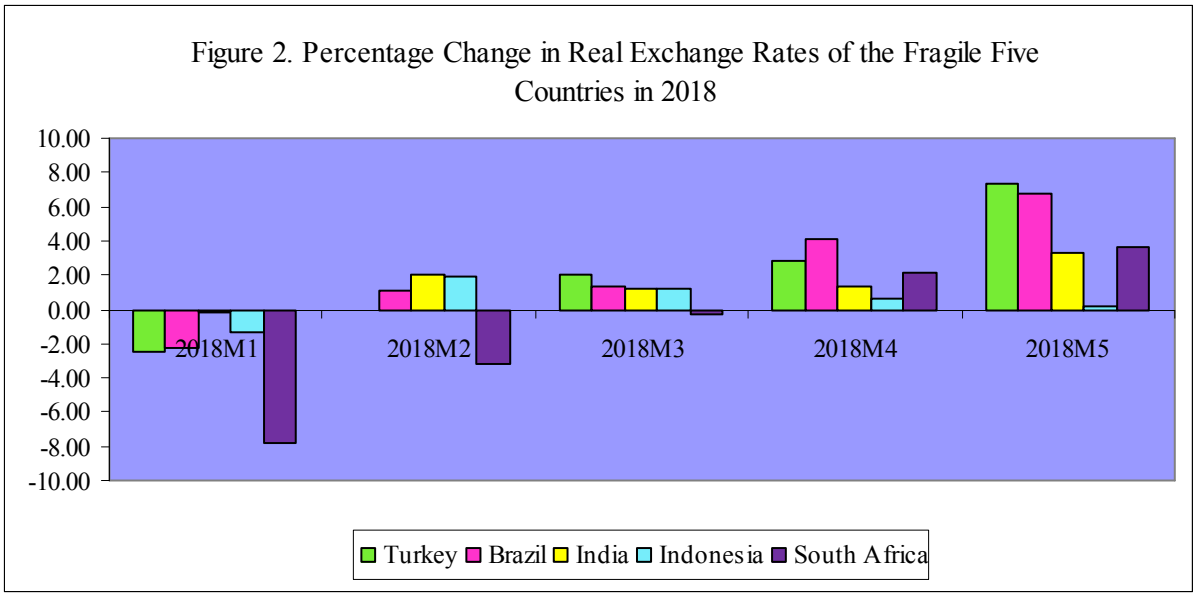
Figure 1 studies the real exchange rate volatility for these fragile economies[5]. For all of the countries, there is significant real exchange rate volatility between the years 2007-2016. The Indian rupee and the Indonesian rupiah have shown relatively fewer fluctuations after 2016. As a result of their internal economic developments and political stability, these countries need relatively low external financing and their exchange rates are relatively less volatile recently. On the other hand, Figure 1 shows that especially for the three remaining members of the Fragile Five group, namely Turkey, Brazil and South Africa, there is significant volatility in their national currencies. Although it is not volatile as the Brazilian real or the South African rand, volatility of the Turkish lira continues to be an important issue for the Turkish economy.

[3] The term first coined by Morgan Stanley in 2013. Later, S&P Global suggested the new fragile five countries as Turkey, Argentina, Pakistan, Egypt and Qatar in 2017. However, both classifications have been criticized by Goldman Sachs as being a misnomer (Bartenstein, 2017).
[4] These countries are also in the group of Emerging Market Economies.
[5] The nominal exchange rate values (domestic currency per dollar) and consumer price index (CPI) values are retrieved from the International Monetary Fund (IMF) International Financial Statistics (IFS) database and used to calculate real exchange rates. Twelve-month moving standard deviation of the natural logarithm of real exchange rates is calculated as a measure for the real exchange rate volatility.



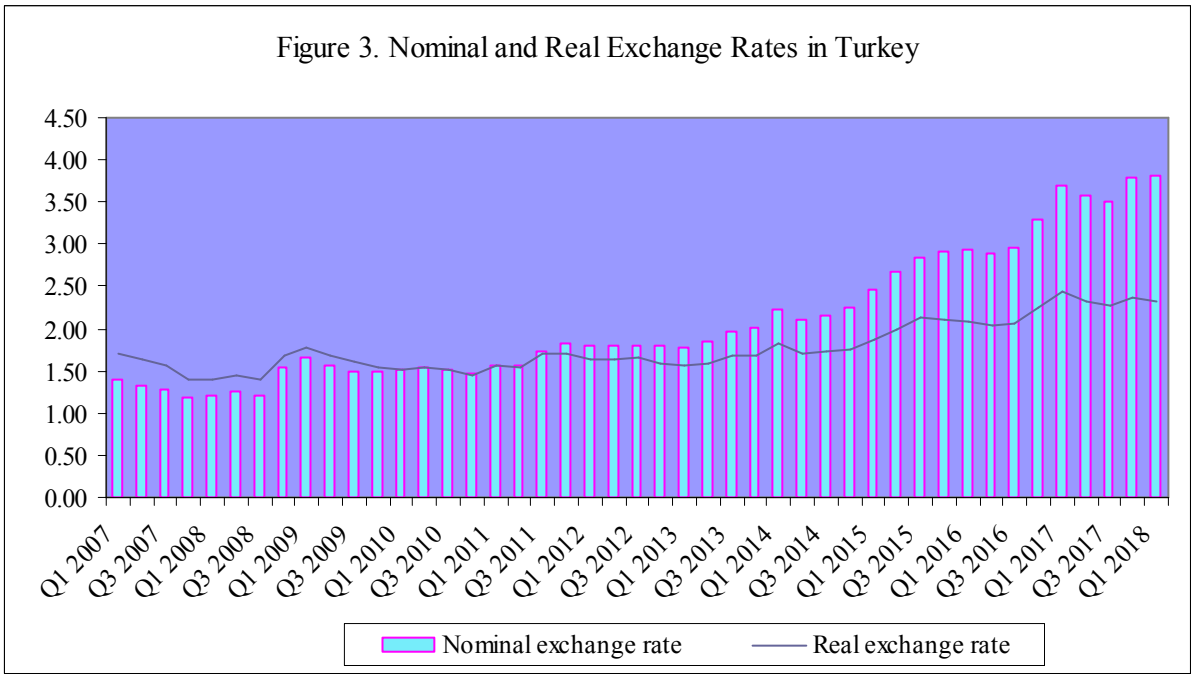
Data Source: IMF International Financial Statistics

Figure 2, on the other hand, shows monthly data for the percentage changes (relative to the previous month) in the real exchange rates of the Fragile Five countries in the year 2018. Data indicate that Turkish lira has been depreciating with the increasing rate since February 2018. As political uncertainties make financial markets more volatile, aside from the global factors, June 24, 2018 elections can be stated as the main reason for this significant fluctuation in the price of the Turkish lira. One month before elections, May 2018, percentage increase so the amount of depreciation in lira per dollar rate is the 7.3 percent, that is the highest level relative to percentage changes in other countries' exchange rates.



Data Source: IMF International Financial Statistics

Furthermore, Figure 3 specifically studies the nominal and real exchange rates in Turkey[6]. It can be observed that especially after the third quarter of 2010 the gap between these rates has started to increase. This is mainly the result of the increasing price level differential between the U.S. and Turkish economies. However, trends in both of the rates imply a depreciation of the Turkish lira after 2010.



Data Source: IMF International Financial Statistics

[6] Turkey has "independent floating" exchange rate regime since 2001.

When the annual data is studied, it is seen that the Turkish lira had a significant depreciation in 2009 (19.1 percent increase in the nominal exchange rate and 11.7 percent increase in the real exchange rate), following the Global Financial Crisis. After the year 2010 that had a minor appreciation of nominal rate with 3 percent, Turkey continued to experience high percentage increases in its exchange rate. Following the announcement of the end of the QE policy of the FED and associated increases in the U.S. interest rates, the Turkish lira depreciated significantly, so letting Turkey one of the fragile countries that are affected from the U.S. monetary policies. Particularly, the years 2015 and 2017 were the years of outstanding depreciation of the Turkish lira, with 24.3 and 20.8 percent increases in the nominal exchange rate, respectively. Moreover, recent statistics for the year 2018 indicate that there will be more than 20 percent increase in the nominal exchange rate, indicating another strong depreciation for the Turkish lira.

On the Effects of Exchange Rate Volatility

Exchange rate volatility has become one of the main determinants of economies due to its possible effect on trade, employment, output level and also on investment decisions. Although the level and direction of the effects of exchange rate volatility have ambiguous results both on the theoretical ground and empirical ground, the level of financial development of the selected countries generally affects the probable outcome. As it is the case for most of the developed countries, the existence of well-developed financial (or forward) market enables hedging for firms to avoid any exchange rate risk and reduces the possible adverse effects of fluctuation in exchange rates. On the other hand, in the case of developing countries and emerging market economies, the existence of shallow financial markets[7] has been proposed as the main reason for the negative effect of exchange rate volatility on the national economy (Vianne & de Vries, 1992; Doroodian, 1999; Wei, 1999; Mundell, 2000 and Aghion et al., 2009).

When the effect of exchange rate volatility on trade is studied, its direct effect would be through uncertainty and adjustment costs, its indirect effect would be through its effect on the composition of output and investment and on government policy (Côté, 1994). Studies related to the effects of exchange rate volatility on exports in Turkey (Özbay, 1999 and Vergil, 2002) or group of countries including Turkey (Doğanlar, 2002; Rey, 2006 and Vieira and MacDonald, 2016) confirm the negative relationship between exchange rate uncertainty and trade.

[7] Thin financial markets of the developing countries result in more expensive hedging against exchange rate variations when it is compared with the developed country case.

On the other hand, in the case of developing countries, exchange rate volatility will have a direct negative effect on economic growth by resulting economic and financial instability and an indirect effect through its negative effect on the main determinants of output growth, namely trade, investment, and employment. For example, exchange rate uncertainty results in postponement of investments (Servén, 1998 and Belke and Gros, 2001) and has a negative effect on employment growth (Belke and Setzer, 2003). For the Turkish case, Demir (2010) finds also a negative effect of exchange rate volatility on employment growth in 691 firms that covered 26 percent of total value-added in manufacturing. On the other hand, Schnabl (2008) states that exchange rate stability is associated with more growth and finds a negative effect of exchange rate volatility on economic growth in 41 countries, including Turkey. Vieira et al. (2013) also find strong evidence of a negative relationship between real effective exchange rate volatility and long-run growth for a set of 82 advanced and emerging economies including Turkey.

Conclusion

The Turkish lira has shown significant volatility against the dollar as its financial market is affected considerably by both internal and global developments. On the U.S. side, the neomercantilist stance of the Trump's administration together with the Federal Reserve's gradual interest rate increases have resulted in money flow from the rest of the world to the U.S., thus appreciating dollar and depreciating the emerging market currencies (Bouoiyour and Selmi, 2018). Furthermore, developments in the European Union and the slowdown of the Chinese economy have affected investors' decisions for most of the emerging economies, including Turkey, and increased the fragility of these countries. On the other hand, aside from its economic conditions, Turkish internal political developments like the recent presidential elections and tensions with the border countries (geopolitical risks) disrupt the normal working of the financial markets and make the Turkish lira to be more volatile.

Why exchange rate volatility must be an important issue for the Turkish economy? First of all, Turkey has a chronic current account deficit problem. As the related studies also confirm, exchange rate volatility would have a negative effect on trade, thus exacerbating the current account problem. Secondly, when the negative effect of exchange rate volatility on employment is considered, it would result in increase in the already high unemployment rate in Turkey.

What is the policy prescription? On the monetary side, in order to have a less volatile exchange rate, the Central Bank should ensure low inflation rates, try to preserve its accountability and credibility, and stabilize nominal interest rates at low levels (Orlowski, 2004). Moreover, as the vagueness in fiscal

discipline is also one of the causes of exchange rate volatility, the coordination of both fiscal and monetary policies is necessary in order to decrease the volatility in the Turkish lira and to prevent any possible adverse effect of these fluctuations on the main macroeconomic variables.

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