# Box 2.1

Factors Affecting Deposit Dollarization

Deposit dollarization can be expressed as an increase in the weight of foreign currency (FX) in residents' savings. The emergence of a pronounced trend towards FX deposits in the preferences of savers weakens the monetary policy transmission mechanism and can threaten price stability and financial stability by exerting pressure on the exchange rate. This box discusses the rigidity of residents' FX deposit preferences and factors that prevent reverse currency substitution, despite recent capital inflows through direct portfolio investments and swap transactions.

Deposit dollarization is closely related to deposit rates and exchange rate expectations, which are among the fundamental elements of monetary transmission. Analyzes show that deposits are a stable funding source for banks, and this causes rigidity in deposit rates (Driscoll, 2013; Drechsler et al, 2017). On the other hand, when both TL and FX deposits are an option for investors, relative returns become important in investment preferences. In order to examine the possible effect on deposit preferences, a relative return series has been created, which includes the TL deposit return, FX deposit return, and exchange rate expectations. According to this analysis, which is based on the covered interest rate parity condition (CIP), the return on TL deposits with a maturity of three months has been compared with the return on US dollar deposits to be obtained in TL at maturity, protected by a foreign exchange forward sale contract. This approach has allowed us to examine the relative return of an investor who preferred TL deposits against the risk of depreciation, and found that the relative return spread is significant in explaining the dollarization trend.

Chart 1: Monthly Average Return Spread (FX-TL) **and Share of FX Deposits in Total Deposits** (%)
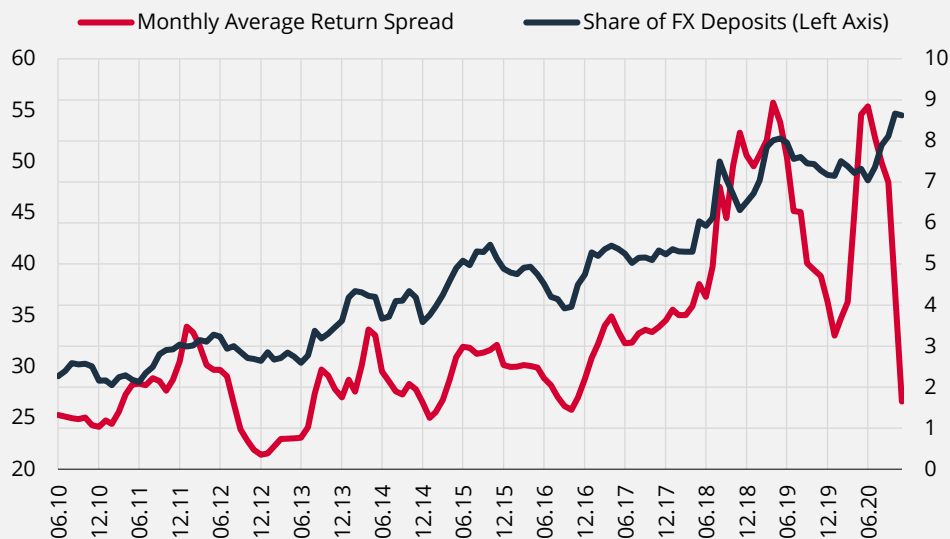
Sources: Authors' calculations, BRSA, CBRT.

Chart 1 shows that the monthly average TL return spread between two different investment preferences and the dollarization trend are closely related. The dollarization trend accelerated in the post-2018 period when the return spread increased significantly in favor of FX depositors. For this reason, it seems that expectations of depreciation in the TL play an important role in TL deposit preferences. A vector autoregression (VAR) model has been established to include other factors affecting the dollarization trend in the analysis. Through the impulse-response functions, it is possible to compare the effects of the determinants of the change in FX deposits in terms of size and permanence.

VAR Model

Although the factors affecting the savings preferences of residents differ between legal and real persons, some variables come to the fore in academic studies and international organizations' reports. While such studies place inflation expectations and exchange rate expectations as leading factors, they also list the real return on local currency deposits. However, it is difficult to determine the explanatory power of a single variable due to the fact that these financial variables are not independent of each other. In this context, variables prominent in international literature and practices are modeled within the VAR framework and the effect of shocks to each variable on FX deposits is observed through impulse-response functions. Setting different VAR models for legal and real persons helps obtain more reliable results.

Chart 2 shows the variance decomposition results of VAR equations modeled for legal and real persons. The expectation of depreciation in the TL has been found to be significant in explaining the FX deposit preferences of both legal and real persons. The decrease in the loan-deposit spread has been found to be a factor that increases deposit dollarization for both groups. However, the FX deposit interest rate, which is included in the relative return account and is affected by financial conditions, has not been found significant on its own. Considering the distinction between legal and real persons, the legal person VAR model is affected by the commercial loan-deposit spread, imports, exports, and FX-denominated liabilities, while the consumer loan-deposit spread is found to be an important explanatory factor for real persons. In addition, while legal persons' FX deposits are affected more by inflation expectations, real persons' FX deposits are more sensitive to actual inflation. The results show that the FX-denominated commercial transactions play an important role in legal persons' FX deposit account size, while depreciation in the TL and inflation expectations are the main determinants of FX savings tendency of real persons.

Chart 2: Components of the Variation in Total FX Deposits (%)

Sources: Authors' calculations, Bloomberg, CBRT, Turkstat.

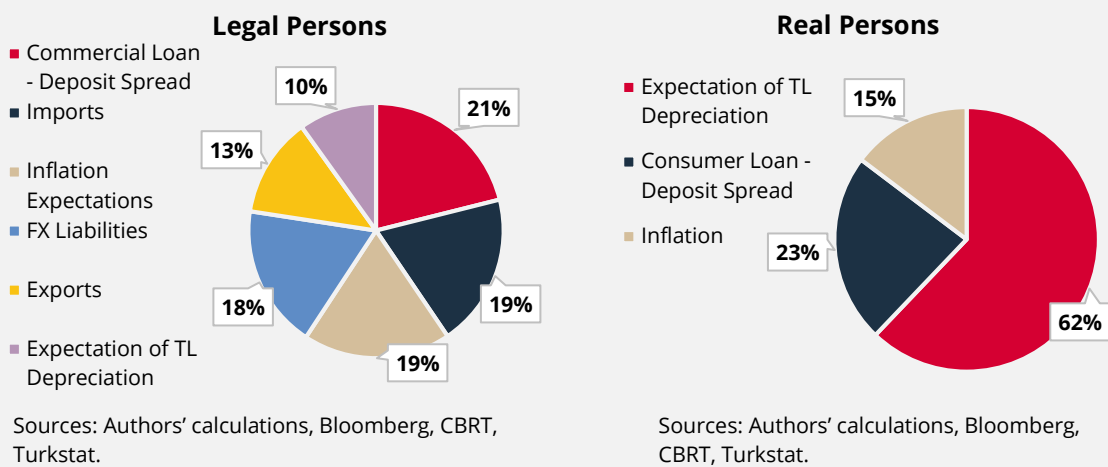Sources: Authors' calculations, Bloomberg, CBRT, Turkstat.

Chart 3 reflects the impulse-response functions obtained from the VAR models presented above. The charts showing the response of changes in real persons' FX deposits to the relevant variables also include international gold prices used as an exogenous variable. When the impulse-response functions are examined, the expectation of depreciation in the TL stands out compared to other factors. Another factor that has a large impact is the loan-deposit spread, which is considered to constitute credit conditions. When this spread, which is interpreted as an indicator of monetary and financial conditions in general and more specifically as the ease of access to loans by residents, is smaller, it has an increasing effect on FX deposits. By contrast, an increase in this spread is considered to limit the conversion of loans to deposits by making it difficult to access loans. One standard deviation shock to inflation does not have a significant effect in the first month, but increases FX deposits consistently for approximately 12 months. In this respect, the cumulative effect of inflation realizations may be larger than all other factors. Finally, global gold prices have also been included in the model due to the precious metal accounts that have recently gained a significant share in FX deposits of real persons, andsuch global prices are found to be significant in affecting total FX deposits, albeit to a limited extent.

Chart 3: Effect of 1 Standard Deviation Shock to Model Variables on the Change in Real Persons' FX Deposits
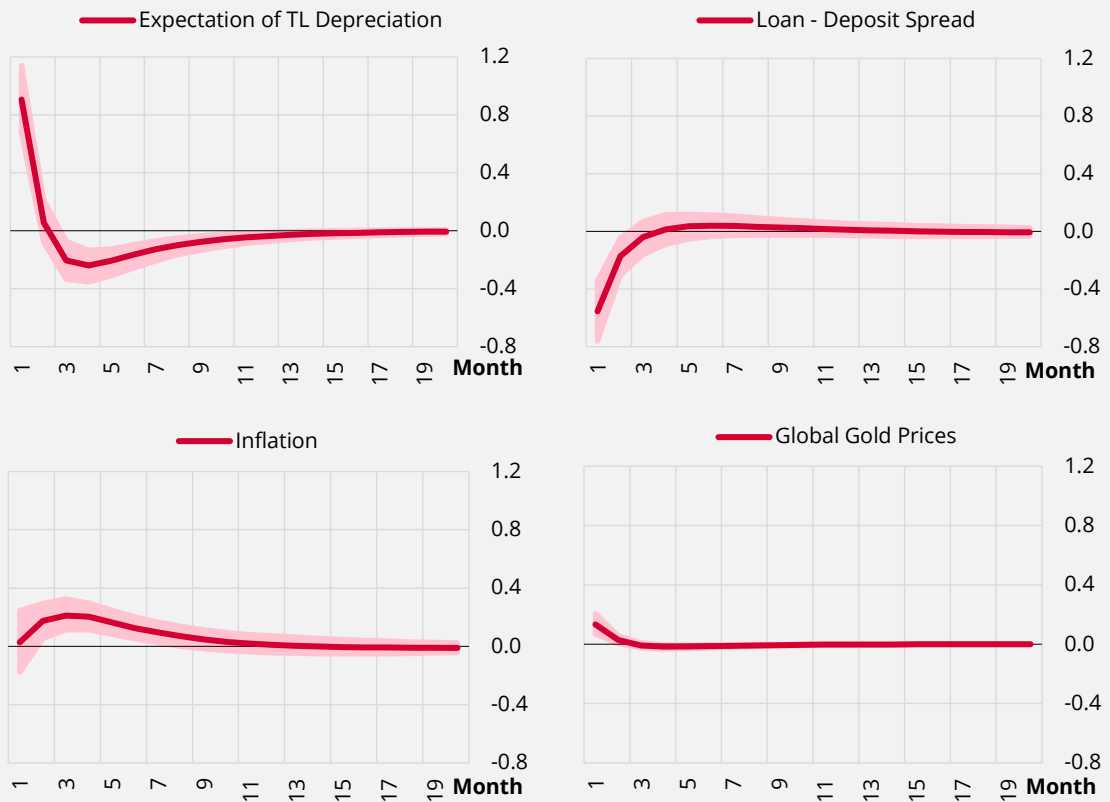
The findings contain important information about the rigidity of the dollarization trend despite the recent appreciation of the Turkish lira and the tightening credit conditions. Inflation increased significantly in November and December due to the deterioration in inflation expectations and the cumulative exchange rate effect. Effects of the monetary policy tightening on inflation are expected to be observed with a lag. In this respect, inflation, which has been on the rise in recent months, continues to be the main driver of the dollarization trend, and also limits the dollarization-lowering effect of the exchange rate and credit conditions due to its cumulative effects.

Reversal of the upward trend in FX deposits will be possible through a combination of the main determinants summarized above. Despite the improvement in other factors, inflation and inflation expectations support the dollarization trend. In this respect, decisively maintaining the tight stance in monetary policy and restoring the disinflation process will play a key role in reverse dollarization. All in all, maintaining a tight monetary policy focused on price stability is critical for all factors – inflation, inflation expectations and exchange rate expectations in particular – that affect the preference for FX deposits.

References

Driscoll, John C., and Judson, Ruth A. (2013). Sticky Deposit Rates. Finance and Economics Discussion Series Working Paper No. 2013-80, Board of Governors of the Federal Reserve System.

Drechsler, I., Savov, A., and Schnabl, P. (2017). The Deposits Channel of Monetary Policy. *The Quarterly Journal of Economics*. 132 (4), 1819–1876.