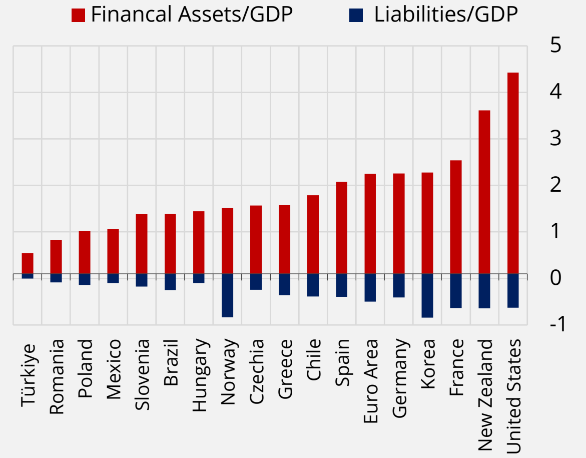
Box 2.5

Valuation Effect on Household Assets

Households can invest their savings in different instruments, such as deposits, stocks, gold, and housing. The total size of these assets varies with households' buying/selling transactions as well as the valuation effect on their existing assets. Valuation is mainly driven by the exchange rate movements for foreign currency/gold assets and the market price movements for assets such as stocks, securities and housing. The appreciation in the value of household assets may have an effect on the economic growth and inflation by influencing domestic demand through the consumption channel.[1] This study analyzes the appreciation in the value of financial and non-financial assets (such as physical gold and rental housing) held by households.

According to Financial Accounts statistics, the ratio of households' financial assets and liabilities to GDP is quite low in Türkiye compared to the selected OECD countries (Chart 1). This is mainly due to households' traditional tendency for non-financial assets, such as physical gold and housing in Türkiye. As of the third quarter of 2024, households' stock of financial assets was USD 505 billion, the value of rental housing[2] was USD 701 billion and the estimated value of physical gold savings[3] was USD 311 billion (Table 1). The higher share of non-financial instruments in households' investments may stand out as a factor delaying the impact of monetary policy on households' propensity to consume.

Chart 1: Household Financial Assets and Liabilities, Country Comparison* (GDP)



Source: CBRT, OECD, TURKSTAT.
* Other country data is as of 2024Q2.

Table 1: Household Assets (USD Billion)

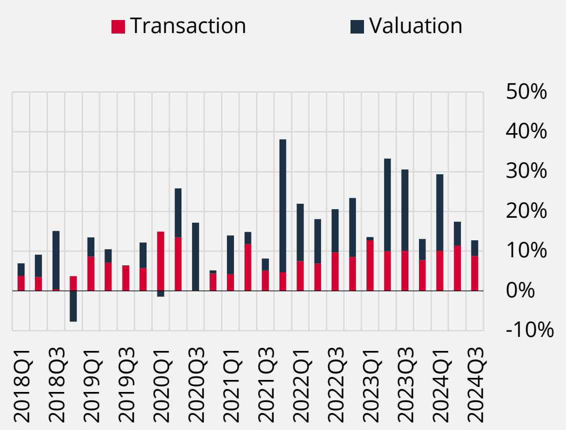
	2024Q3
Financial Assets	505
Physical Gold	311
Rental Housing Stock	701

Source: CBRT.

[1] Ando, A. and Modigliani, F. (1963). The “Life Cycle” Hypothesis of Saving Aggregate Implications and Tests. The American Economic Review, 53(1), 55-84.
[2] The number of rental houses by province was calculated by using the number of households from TURKSTAT-Family Statistics and the tenant rate data from TURKSTAT- Survey on Building and Dwelling Characteristics by Province. The value of the number of rental properties by province was calculated by using the median unit housing prices by province from the CBRT-Housing Price Index data. In the calculations, it is assumed that the dwellings are 100 square meters. By summing the province-based values, the total value of rental housing for Türkiye as a whole was determined by quarters.
[3] The physical gold stock held by households is calculated using the method described in “Box 4.2. Calculation of Türkiye's Gold Stock” of the 2012-IV Inflation Report. Accordingly, the physical gold stock in the relevant quarter is calculated by adding the amount of gold production and gold imports in the relevant quarter to the previous quarter's gold stock figure and subtracting gold exports. Data from the Ministry of Energy and Natural Resources are used for gold production, while TURKSTAT-Foreign Trade Statistics are used for gold import and export figures. In the series starting from 1985, the 1984 gold stock is assumed to be zero.

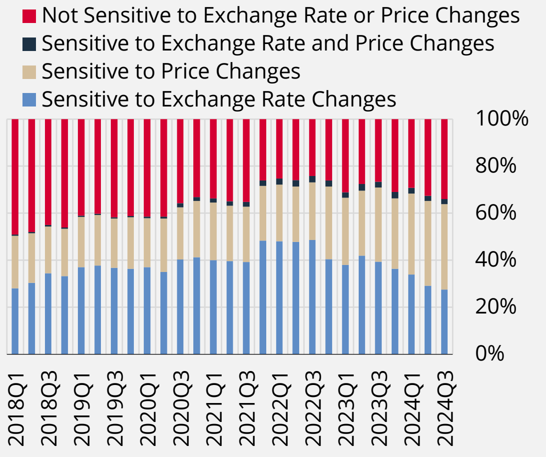
Chart 2a shows nominal change in households' financial assets in terms of transactions and valuation as a share of quarterly GDP. Chart 2b shows the composition of households' financial assets[4] and the change in the composition over time under four sub-categories depending on their sensitivity to price and exchange rate changes. As expected, items which are sensitive to exchange rate changes stand out in periods of high depreciation in the Turkish lira, while financial assets sensitive to price movements stand out in periods of intense price movements in the stock market. In the last quarter of 2021, the valuation-driven increase in financial assets reached 33.4% of quarterly GDP. The valuation effect remained high in the following period and started to lose momentum in the second quarter of 2024.

Chart 2a: Quarterly Change in Household Financial Assets* (Quarterly GDP)



Source: CBRT, TURKSTAT.
* The change in value of exchange rate protected deposit and participation accounts is included in the valuation calculation.

Chart 2b: Composition of Financial Assets (Share)



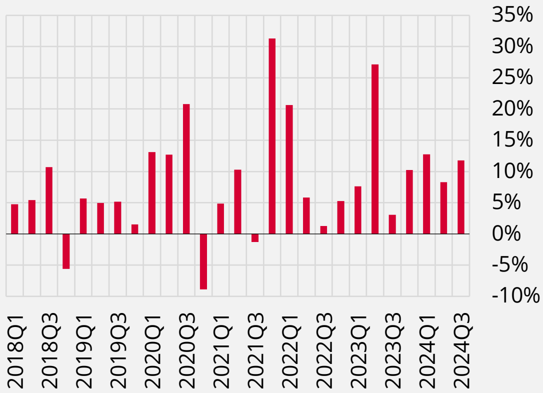
Source: CBRT.

The household financial asset figures in the Financial Account statistics are compiled from the counterpart-sector data and therefore excludes physical gold and rental housing. In this study, the valuation effect on physical gold and rental housing assets, which are observed to have a significant share in household assets, are included in the analysis.[5] The ratio of the valuation effect in physical gold assets to quarterly GDP is presented in Chart 3, while the share of the valuation effect in rental housing is presented in Chart 4. Accordingly, the ratio of the valuation effect in gold to quarterly GDP reached its highest value of 31% in the fourth quarter of 2021, as was the case for financial assets. In the following periods, there was a continuous positive appreciation in gold, while the second quarter of 2023, when the Turkish lira depreciated sharply, saw a second jump in the appreciation of gold. Unlike currency-indexed financial assets, the appreciation effect in physical gold assets was also high in the second and third quarters of 2024 due to the rise in international prices.

An analysis of the ratio of the change in the value of rental housing to quarterly GDP reveals that the valuation effect, which was below 10% in the pre-pandemic period, increased rapidly in the post-pandemic period and reached 70% in the first quarter of 2022. By 2024, the increase in value weakened and converged to the pre-2021 period (Chart 4).

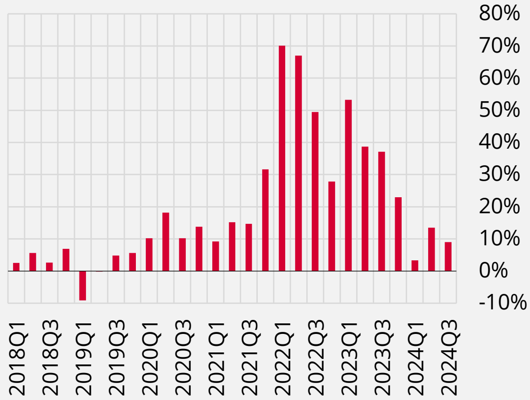
[4] Items that are not sensitive to exchange rate and price changes consist of TL-denominated currency and TL deposits excluding exchange rate protected deposit and participation accounts, TL-denominated loans and other receivables. Items sensitive to exchange rate changes include FX-denominated currency and deposits, FX-hedged deposits including FX-protected deposit and participation accounts, derivative assets and FX-denominated loans. Items sensitive to price changes include equities and mutual funds, TL-denominated debt securities and insurance technical reserves; items sensitive to exchange rate and price changes include FX-denominated debt securities.
[5] The quarterly price changes in the rental housing stock are taken as the valuation effect by assuming other variables constant. The valuation of physical gold stock in ounces is calculated by subtracting the net transaction from the quarterly change between the two stock values.

Chart 3: Valuation Effect of Physical Gold (Quarterly GDP)



Source: CBRT, TURKSTAT.

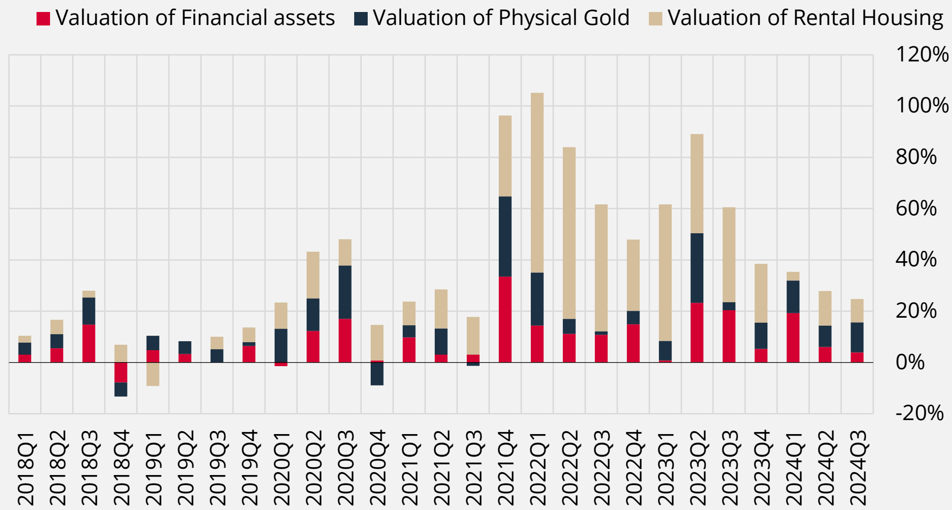
Chart 4: Valuation Effect of Rental Housing (Quarterly GDP)



Source: CBRT, TURKSTAT.

The analysis reveals that starting from the fourth quarter of 2021, the ratio of the appreciation in assets to GDP has been considerably higher compared to previous periods, and the price increase in physical gold and rental housing outpaced the appreciation in financial instruments in the period analyzed. The quarterly ratio of asset appreciation to GDP reached its highest level with 105% in the first quarter of 2022, while the appreciation in the value of rental housing dominated the appreciation in household assets in this period. As a result of the recent stabilization in exchange rates, gold and house prices, individuals' valuation-driven asset growth has lost momentum and started to converge to pre-2021 rates (Chart 5).

Chart 5: Valuation Effects in Household Assets (Quarterly GDP)



Source: CBRT, TURKSTAT.

In sum, physical gold and rental housing have a higher share in household assets than financial assets in Türkiye, and the significant increase observed in the stock value of these assets between 2021 and 2024 were due to exchange rate and price movements. On an item-by-item basis, the highest increase in the value of household assets in the period analyzed came from rental housing, followed by physical gold. Financial assets, on the other hand, provided a positive but relatively lower level of appreciation in this period. The aggregate appreciation in the stock value of household assets is considered to have been effective in the delayed realization of the slowdown driven by the tightening in demand by increasing expenditures through the asset effect channel, i.e. in the resilience of demand. Nevertheless, the weakening in the asset appreciation effect that started in the second quarter of 2024 is expected to accelerate the disinflation process by increasing the effectiveness of monetary policy.