

The Environment We Operate In

2022 MACROECONOMIC OVERVIEW AND 2023 OUTLOOK

Tighter Global Conditions Amid Inflationary Pressures

Globally, 2022 was marked by efforts to contain inflationary pressures resulting from both lagged effects of expansionary policies supporting economic activity during the pandemic and also record high commodity prices further boosted by the Russian invasion in Ukraine. Alongside the challenges posed by post-COVID normalization policies, tighter financial conditions and geopolitical risks due to Russian-Ukrainian war led to a slow-down in the world economy. With these developments, the annual GDP growth slowed down to 2.1% in 2022 from 6.0% in 2021, while seasonally adjusted annual growth in the Euro Area in the last quarter of 2022 declined to 1.9%. On the inflation side, annual consumer inflation rose to 6.5% in the USA and 8.5% in the Euro Zone in 2022.

High course of global inflation maintained upward surprises and drove global central banks to tighten

monetary policies faster and more aggressively than expected, which has increased financial volatility and reinforced concerns over recession. US Federal Open Market Committee (the Fed) prioritized to bring down inflation and claimed that tight labor market conditions would help to achieve a soft landing. The Fed delivered rate hikes of 450bps since last year and took the funding rate up to 4.50-4.75% as February 2023, while keeping a hawkish stance in communication. Similarly, the European Central Bank (ECB) increased the refinancing rate to 3.0% from 0%, leaving the door open for further tightening.

According to our projections, we expect monetary policies to remain prudent and growth dynamics to weaken further amid high uncertainties rooting from risks on energy prices and continuing bottlenecks posed by the Russian-Ukrainian war. In this context, we expect the US economy to stagnate with 0.5% GDP growth rate in 2023. Eurozone will suffer more, particularly from high natural gas prices and face a short lived recession with

-0.1% GDP growth rate. Growth outlook in China, on the other hand, is considered to become a supportive factor in order to restart a recovery for the world economy, accelerating to 5% GDP growth in 2023 from 3.6% in 2022.

Looking ahead, the outlook would remain negative given the uncertainties on inflation, the need to extend a period of tight monetary stance, and accordingly the consequence of weaker growth rates. All of these factors present a major challenge for emerging economies as the increased risk premium might limit capital inflows. While the main risk is the global recession driven by interest rate hikes of central banks across the world as a response to inflation pressures, other downside risks on global activity include a further deterioration of the Russian-Ukrainian war which could lead to significant energy shortages in Europe and a hard-landing in Chinese economy.

GDP Growth Projections* (Annual Change)

	2021	2022	2023	2024
USA	5,9	1,9	0,5	1,8
Eurozone	5,3	3,2	-0,1	2,0
Spain	5,5	4,6	1,2	3,4
Latin America	6,7	3,4	0,5	1,6
Argentina	10,4	5,0	-0,5	-2,0
Brazil	4,6	2,4	0,3	2,0
Chile	11,7	2,3	-1,0	2,1
Colombia	10,7	8,0	0,7	1,8
Mexico	4,9	3,0	0,6	2,1
Peru	13,6	2,7	2,5	2,4
Türkiye	11,4	5,5	3,0	-1,5
China	8,1	3,6	5,0	5,0
World	6,3	3,3	2,3	3,3

* BBVA Research November 2022 projections.

TÜRKİYE: MAINTENANCE OF SOLID GROWTH ON SUPPORTIVE DOMESTIC POLICIES

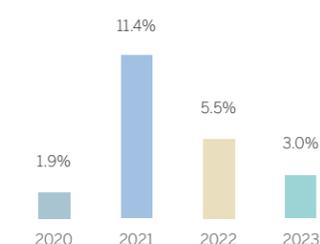
While global economy faces a slow-down, Türkiye has continued to prioritize expansionary policies in order to support growth and employment. These policies were accompanied by the ultra-loose monetary policy of the Central Bank of the Republic of Türkiye (CBRT), which brought the policy rate down to 9%. As a result, the Turkish economy has achieved to grow above its potential since the recovery from the pandemic, where private consumption and exports became the main drivers of growth. Even including the deceleration signaled

by the leading indicators of the last quarter of the year, 2022 GDP growth will likely get closer to 5.5%. Since external demand is expected to decelerate further on the back of tighter financial conditions, we expect domestic demand to continue to support growth on private consumption. On the other hand, considering that the cities affected by the earthquake in the Southeastern region of Turkey accounted for approximately 9% of the total GDP in 2021, we calculate that the macroeconomic impact could be much larger than the earthquakes we experienced before. Therefore, although we expect the expansion of credit facilities and additional expansionary fiscal policies to support the activity outlook in order to prevent the economic damage that is caused by the earthquake, we consider the risks on our 2023 growth forecast of 3% to be on the downside. Possible ease in credit conditions and further expansionary fiscal policies might boost economic activity in the first half of 2023, while some downward adjustments might happen after the elections, resulting in a full year growth rate of 3%.

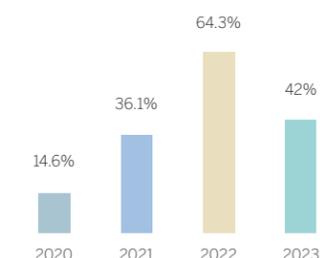
Inflationary pressures were pronounced throughout 2022 due to strong cost push factors, currency depreciation and solid aggregate demand. Although annual inflation start to benefit from favorable base effects as of November, commodity and energy prices expected to remain above pre-shock levels, deteriorated inflation expectations, high inertia and upward wage adjustments will pose

challenges for the inflation path in 2023. Since we envisage more counter-cyclical policies ahead of the elections to reverse the recent rapid deceleration in activity, we forecast inflation to remain above 40% throughout 2023 with a year-end level of 42%.

GDP Growth (Annual Change)



Consumer Inflation



Source: TurkStat, Garanti BBVA Research

On the monetary policy side, the CBRT restarted cutting rates and reduced the policy rate to 9% from 14% in consecutive four meetings from August to December in order to preserve the growth momentum in economic activity and the positive trend in employment due to increasing uncertainties and risks regarding global growth and demand.

Despite high levels of inflation, we expect the current policy framework to be maintained until the elections through macro-prudential measures and financial regulations. Hence, targeted credit policies and tools might continue to support economic activity in the very short term, which we expect to reverse in the second half of the year with the adjustment in economic policies.

External balance, on the other hand, posted a current account deficit of \$41.8bn in the first 11 months of the year, led by strong commodity prices and still solid import demand on the back of robust consumption and structurally continuing gold imports. Exports have also started to decelerate due to weakening global demand since the second half of 2022. Despite the ongoing strong course of tourism revenues, high levels of energy prices and the likelihood of a recession in main trade partners, along with the negative effects of the recent earthquake disaster might keep the risks on the downside on current account deficit. Accordingly, we forecast that current account deficit will reach near \$48bn (5.7% of GDP) by the end of 2022. The pressure on the deficit will continue in 2023, which we expect to be near \$35bn (4% of GDP) by year-end.

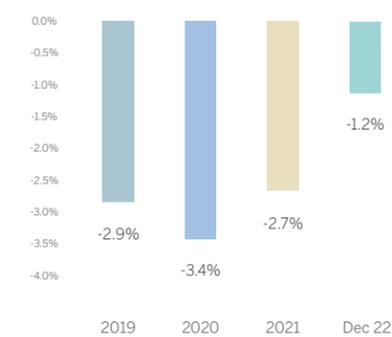
Central budget balance gave a deficit of 139 billion TL (1% relative to GDP) in 2022. Budget revenues have remained strong, backed by ongoing solid tax revenues (particularly corporate tax) and high inflation, while expenditures

also increased on top of FC-protected deposit compensation and expansionary fiscal policies but stayed under control. We consider that the budget deficit may exceed the Government's MTP target of 3.5%, if the activities of combating the economic effects of the earthquake affect the government's expenditures upwards. A level near the Government target of 3.5% GDP can be reached for 2023 budget deficit.

Current Account Balance (% GDP)



Central Budget Balance (%)



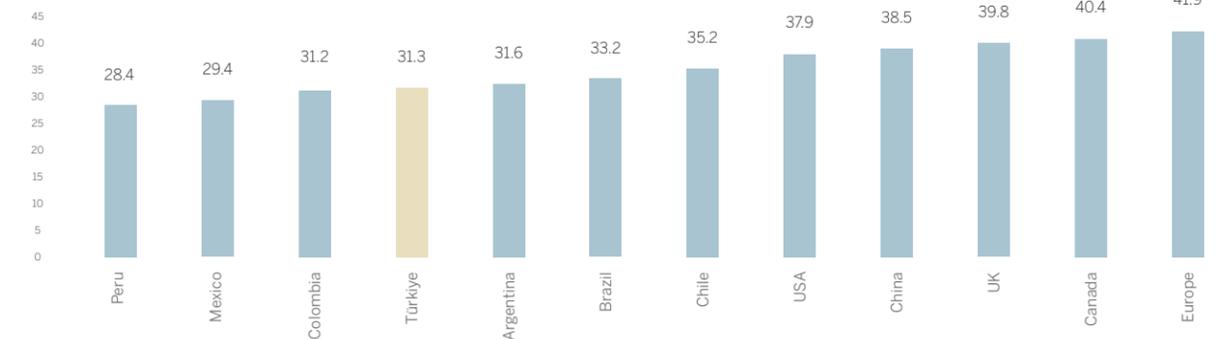
Source: CBRT, Ministry of Treasury and Finance

OPPORTUNITIES AND CHALLENGES OF THE TURKISH ECONOMY

Türkiye's advantageous geopolitical position and its growing and young population continue to act as the biggest strengths of the economy. Serving as a bridge in transportation particularly to Europe, Türkiye preserves its status as an important hub, especially after the changing routes of trade flows in the post-pandemic and geopolitical disputes era.

The demographic structure of the population and its sustained growth, i.e., ageing and shrinkage effects are slower than other countries, offers tremendous opportunities for the period ahead. According to Turkstat's Youth Statistics, youth population constituted 15.3% of the total population, which was higher than the 27 European Union (EU) average of 10.6% in 2021. In addition to that, Türkiye's age-dependency ratio (% of working-age population), which allows more flexibility in government expenditures on healthcare, social security, and education, has maintained its downward trend and declined to 48.9% in 2021 (vs. 56% in EU). While Türkiye's population was registered as 84.7 million in 2021, it is expected to reach 93.3 million by 2030 and 100.3 million by 2040. Last but not least, according to UN population statistics, the median age is calculated as 31.1 for 2022 (vs. 41.9 in Europe), which manifests a highly young population versus other countries.

Median Age (years)



Source: United Nations Demographic and Social Statistics

Therefore, promoting more women to participate in the labor force, reducing employment costs, increasing job creation in the formal sector and potential reforms in the education system in alignment with the digital era could contribute significantly to the potential growth of the Turkish economy.

Alongside the robust economic growth of the country over the last decade, achieving economic stability parallel to the structural transformation of the economy through reforms might pave the way to long-term sustainable growth. As a result of higher global integration through backward and forward linkages in global value chains, Türkiye's production is highly dependent on intermediate goods imports which reinforces concerns over structural current account deficit. Therefore, given the current challenges on broad-based deceleration in economic activity and increasing uncertainties on global outlook, it is critical for Türkiye to bolster capital inflows through accurate policies. On another note, striving to reposition

itself in the higher end of value chains will be significant in terms of achieving structural transformation of the current account balance. Reducing heavy dependency on oil and gas imports and improving energy efficiency would also prompt relief to current account deficit.

Much tighter global financial conditions and expected deceleration in economic activity in the EU together with envisaged loose domestic economic policies could pose upside risks on the exchange rate and other financial assets, intensifying internal and external vulnerabilities. Accordingly, inflation outlook might keep upward pressures as a result of the pressure on the exchange rate, still high global energy, food and agricultural commodity prices due to geopolitical risks, strong inertia and second round effects, which can generate a long lasting negative loop through expectations channel.

Potential further expansion of the budget deficit resulting from additional loose policies and side effects of the current

policies (particularly compensation for FC protected scheme) present new challenges to the fiscal discipline. Despite these challenges, government nominal debt stock to GDP ratio remains below 40%, which is also well below the EU Maastricht criteria of 60%.

Lastly, Russia's invasion in Ukraine which continues for more than 300 days bring some opportunities and risks to Türkiye's doorstep. Türkiye remains one of the countries that could mediate between Kyiv and Moscow. Ankara benefits from its close relations with Moscow to broker a deal on grain exports to the rest of the world from Ukraine and also attempted several talks between Russia and Ukraine on freezing the war. Türkiye, supporting Ukraine and keeping talks with Russia open, has increased its charm in the international arena. Nevertheless, Russia's remarks with regard to using nuclear arsenal in the wake of an attack to Russian soil, jeopardizes the regional security and triggers further uncertainties.

TURKISH BANKING SECTOR

Key facts, opportunities and challenges

The Turkish banking sector is strictly regulated and highly monitored by two powerful agencies; the Banking Regulation and Supervision Agency (BRSA) and the Central Bank of the Republic of Türkiye (CBRT).

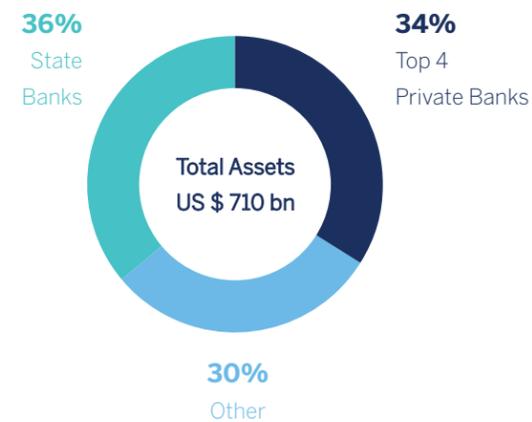
According to the BRSA sector data as of December 2022, there are 54 banks operating in Türkiye* (29 private commercial banks, 3 state-owned deposit banks, 16 development and

investment banks, 6 participation banks). The top seven banks, three of which are state-controlled, are holding 70% of the banking sector's total assets. The current fragmented structure presents future opportunities for mergers and acquisitions among the banks.

53% of Türkiye's population is younger than 35 years old is one of the key indicators of the growth dynamic of the Turkish banking sector. In addition, the statistical indicator of a 91% mobile connection rate¹ in Türkiye points out considerably higher penetration levels than World average. Young and digital

savvy population offers an opportunity for the sector to progress. Besides, unbanked population is still relatively high. In addition, while the ratio of household debt to GDP is 12.5% in Türkiye¹, it is 48.5% in the Emerging Markets¹. This indicates an environment where penetration is low and potential for banking activities is high compared to other Emerging Markets.

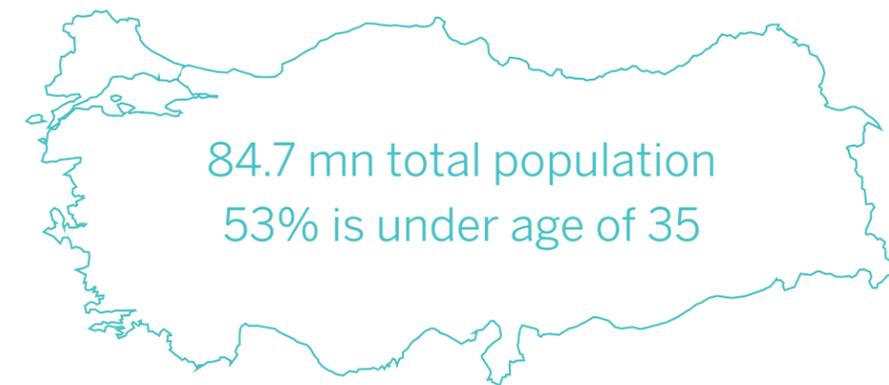
Total Assets Breakdown



	# of Banks	Share in Assets	Share in Loans	Share in Deposits
Top 4 Private Commercial Banks	4	34%	34%	34%
State Banks	3	36%	38%	40%
Other Private Commercial Banks	25	16%	14%	16%
Development & Inv. Banks	16	6%	7%	-
Participation Banks	6	8%	8%	11%

Total: 54

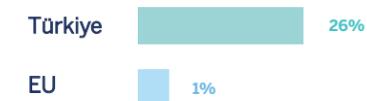
Note: Sector figures are based on bank-only BRSA monthly data as of December 2022. Banks owned by SDIF are not listed above



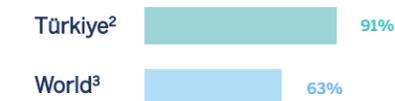
STILL UNDERPENETRATED BANKING SECTOR COMPARED TO EU

Unbanked Population

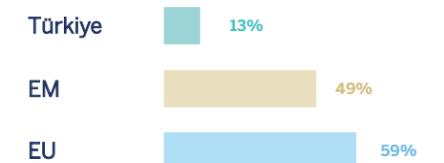
(ages +15)



Internet Penetration



Household Debt / GDP¹



¹ Bank of International Settlements, as of September 2022

² Datareportal, Digital 2022 on Turkey, as of February 2022

³ Statista, as of April 2022

* Based on having an account in a financial institution.

DEVELOPMENTS IN 2022

Lending growth maintained its strong growth pace in 2022 and remained above average inflation which suggest a positive real growth. Commercial banks' loan growth was 75% in 2022 vs. average inflation level of 72%. Growth was across the board. In consumer GPLs private banks' growth was higher than State Banks, whereas State Banks delivered a stronger growth in Mortgages and TL business banking loans.

Commercial banks continued to reduce their foreign currency loan exposures, which they have been reducing since 2017, this year as well. During this period, the compound annual growth rate in foreign currency loans in dollar terms was -11%.

The sector funds 16% of its assets from foreign currency external funding resources. As Turkish banks do not fund their long-term loans such as project finance loans or mortgages with short-

term deposits, they turn to long-term borrowings from international markets. While that indicates at the sector's sensitivity to external developments, the Turkish banking sector's dependence on external borrowing decreased from 2017 given the slumped demand for long-term FC loans and their redemption, and it will continue to do so.

Another driver behind the growth of the Turkish banking sector is the high liquidity and solid capital structure of

the banks. The Turkish banking sector is in compliance with Basel III guidelines. Banks' ST External dues was US \$62bn¹, whereas FC Liquidity stood at US\$ 91bn³ as of December.

The liraization of the economy and selective credit expansion were the primary focus of the CBRT's plan in 2022, with banks serving as the primary vehicle for ensuring the policy's success.

In the majority of the year, the liraization strategy was conducted through the foreign-currency protected deposit product. This product, allowed depositors to gain additional interest proportional to the depreciation of the Turkish lira (its details and structure can be found on page 50). Since this deposit structure incentivizes depositors to convert their foreign currency holdings into Turkish lira, banks have been instructed to expedite its implementation. Accordingly, the regulator introduced a set of conversion thresholds and obliged banks to accomplish them and if they were unable to do so, they were required to meet the mandatory requirements. These requirements became progressively stricter for lower conversion rates. Although, the requirements frequently changed throughout the year, the mandates in broad terms were parking additional foreign currency to the CBRT as a

reserve requirement, paying commission to the CBRT and purchasing long-term, fixed-rated Turkish lira government bond securities. Inevitably, complying with these were challenging for banks as banks dynamically have taken actions to manage the impacts of regulations on their balance sheet and P&L. The requirement to allocate government bond resulted in a significant rise in the securities' demand, which decreased the yield on these securities. Eventually, the banks' interest income declined due to their lower yield. Although negative effects of the regulatory mechanism cannot be ruled out, the expansion in banks' foreign-currency protected deposit base also brought benefits. Due to Turkey's high inflation, high policy rate history, the average maturity of time deposits vary between one to two months. Therefore, the pricing of deposits occurs much faster than the pricing of loans, resulting in a mismatch in duration. Since the maturity of foreign-currency protected deposits varies between three to twelve months, deposit maturities increased and resulted in drop in TL asset-liability duration mismatch. On top of that, interest rate cap on FX-deposit scheme helped banks to manage their deposits costs.

Towards the end of the year, additional regulations focusing more on banks' TL deposits weight put pressure on TL

deposit costs and competition to attract TL deposits has become more visible. Therefore, the lower deposit costs that banks enjoyed most of the year as a result of foreign-currency protected deposits eventually have started to rise, especially since the beginning of 4Q22.

According to the BRSA data, the total amount of foreign currency and Turkish lira deposits in the Turkish banking sector at the start of the year was \$228 billion and TL 1,731 billion, respectively. The year ended with \$195 billion and TL 4,323 billion, indicating a 14% decrease in foreign currency deposits and a 150% increase in Turkish lira deposits. Therefore, although the banks have met with significant challenges and had to adjust their strategy almost on a weekly basis, CBRT's strategy has ended with success. In the end of the year, CBRT had said that it would continue implementing policies to permanently increase the weight of TL in banks' balance sheets, to support the effectiveness of the monetary transmission mechanism. Therefore, it is expected that the challenging operating environment for Turkish banking sector will remain in 2023.

Following a credit boom in the first half of the year that contributed to currency depreciation and inflation, authorities implemented steps to

restrain growth and direct lending activity to specific areas. These areas are referred to as "loans that are subject to reserve requirements" and include loans extended to exporters and financial institutions, loans that support investment and corporate credit cards. "The loans that are not subject to reserve requirements" became heavily regulated and not complying with them results in requirements similar to the ones that govern liraization. In addition, the rate of commercial loans was capped by the CBRT's annual reference rate, announced on a monthly basis. If specified multiples of this rate had been exceeded by a bank, allocation of long-term, fixed-coupon Turkish lira government bond is required (For details please refer to page 51). As a result of these steps and the CBRT's rate-cutting cycle, which began in August and ended in November, commercial loan rates began to decline significantly. Therefore, corporate and commercial loan growth slowed down, especially among private banks; while SME-lending, consumer loans and credit card growth remained strong due to the high economic activity.

This year, the banking sector once again demonstrated its resilience by adjusting to an ever-changing regulatory framework and a challenging macroeconomic climate. However, during the year the profit that is generated

by the core activities of banking has gradually begun to slow down. It should be highlighted that CPI-indexed securities- that banks carry to hedge their balance sheet against inflation- have alleviated a sizeable portion of the burden and strengthened net interest margins and, consequently, profitability. Additionally, the current value of cost and

income items in previous periods created a significant difference as well, due to a high inflationary environment. As a result, when the inflation effect is taken into account, real profitability is not as strong as it seems.

 Details of the regulations can be found on page 51.

Below, is the summary of key regulations that are in place as of January 2023:

COMMISSION PAID TO CBRT

Weight of TL Deposits in Retail & Commercial deposits (separately)

3% commission on FC deposits

(in the financials, this commission is booked under «other interest expense» line

Starting from 23 December

If TL Deposits weight <50%

8% commission

If TL Deposits weight 50%-60%

3% commission

If TL Deposits weight >60%

0% commission on FC deposits will be paid to CBRT

³ Quick Liquidity Buffers: FC reserves Under ROM, swaps, money market placements, CBRT eligible unencumbered securities, cash, FC collateral deposit

LONG-TERM TL SECURITY ALLOCATION

1 Commercial + SME Loan Rate

ACR* x 1.4 > loan rate -> 20%...
ACR* x 1.8 > loan rate -> 90%...

... of the loan amount will be
allocated as LT TL security.

	*Annual Compound Rates (ACR)	Commercial Loan Rate Thresholds	
		20% Alloc.	90% Alloc.
January	10.31%	14.43%	18.56%
December	10.31%	14.43%	18.56%
November	12.19%	17.10%	21.94%
October	13.96%	19.54%	25.13%
September	15.34%	21.48%	27.61%
August	16.32%	22.85%	29.38%

* Announced on a monthly basis in the link below: <https://www.tcmb.gov.tr/wps/wcm/connect/tr/tcmb+tr/main+menu/istatistikler/bankacilik/verileri/uye+isyerlerine+uygulanacak+azami+komisyon+oranlari>

2 Weight of TL Deposits* in Retail & Commercial Deposits (seperately)

- If TL Deposits weight <50% in retail and commercial deposits, seperately **new base 10%** as of 24 February (as of December 2022: 5%) of FC deposits will be allocated as LT TL securities

- Starting from 24 February**

If TL Deposits weight <50%
10%+7%=17% of FC Deposits

If TL Deposits weight **50%-60%**
10%+2%=12% of FC Deposits

If TL Deposits weight **60%-70%**
10%-5%=5% of FC Deposits

If TL Deposits weight >70%
10%-7%=2% of FC Deposits will be allocated as LT TL Securities

3 Positive Monthly Change in FC Liquidity

Positive monthly change in CBRT's definition of FC Liquidity is also included in long-term, fixed-coupon, TL security allocation (with 12 month maintenance).

FC Liquidity = FC Deposits + FC Repos – (FC Loan + FC Reserve in CBRT)

* CBRT included derivatives and options in the calculation of the share of TL deposits. Accordingly, the share of TL will be calculated as:

$(TL\ Deposits - Derivative\ transactions\ that\ the\ customer\ receives\ FX\ in\ the\ maturity + TL\ Repos\ of\ customers) / (Total\ Deposits + Total\ Repos\ of\ customers\ (FX\ deposits\ and\ repos\ of\ non-residents\ are\ excluded))$.

DIGITAL TRANSFORMATION, OPEN BANKING AND FINTECHS

Digitalization gained a tremendous momentum and companies transformed their services and products to the digital channels to the extent possible. With BRSA's "Remote Authentication" regulation in 2021, which allows users to become a bank customer end-to-end digitally without the need for going to a branch, resulted in increase in customer base and further facilitated digital transformation.

Although increasing digitalization raised questions about banks' physical branch strategy, branches are still the main channel of building and deepening the relationship with the customers. Branches are not less important with the increasing digitalization, they will be providing value added services going forward. Within the increasing effect of digitalization, Branches' role and service model has been re-defining.

With the impact of digital transformation and the changes in regulation Open Banking processes gained momentum towards the end of the year and it will open a new era in the sector in 2023. Democratization of data is ensured through open banking. Customers who want to collect their financial data under a single roof will have the convenience of

viewing and managing their accounts in different bank accounts.

The Fintech ecosystem is important for the growth of the industry. Turkish banks' strong presence in digitalization put the sector in a leading position, yet, the opportunities to partner with innovative fintechs are growing.

It is the fact that, innovation often works best when banks and start-ups are able to collaborate. Both parties have different strengths:

- Big banks have a wealth of financial data, and with the deep understanding of their business, they have expertise to analyze this data and discover patterns.
- Fintech start-ups can deliver faster and one-purpose solutions for customers.

To realize the full potential of financial technology, both banks and Fintechs will need to partner up, providing their expertise to each other.