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TURKEY: MACRO-FINANCIAL SITUATION

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ABSTRACT

Developments in the Turkish economy in the second half of 2021 and early 2022 have been strongly influenced by the course of the COVID-19 pandemic and the implementation of an economic policy framework aimed at adjusting its external position through a weaker exchange rate. More recently, Turkey has also been affected by the Russian invasion of Ukraine, due to its exposure to those countries and to its heavy energy dependence. An extraordinarily loose monetary policy has supported the continued economic buoyancy, but it has also exacerbated some of Turkey's main pre-existing imbalances, leading to a sharp depreciation of the exchange rate and a very high inflation rate. All this has happened in a setting of large external financing needs, high levels of foreign-currency denominated debt in non-financial corporations – and, increasingly, in the public sector –, low foreign exchange reserves, and high dollarisation of bank deposits. An attempt was made to reverse the latter through the introduction of a strategy seeking to increase the weight of the Turkish lira in the economy. The banking sector remains relatively sound and its non-performing loan ratio has declined, although some of its other indicators, such as solvency ratios, have slightly worsened.

Keywords: Turkish economy, macroeconomic imbalances, current account balance, capital flows, monetary policy and inflation, Turkish lira, international reserves, bank lending.

JEL classification: F31, F32, F34.

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Introduction

Each year, the Banco de España identifies a list of countries outside the European Union (EU) and the European Economic Area, known as "third countries", that are considered material for the Spanish banking system, on the basis of the volume and regional distribution of its international credit exposures.¹ In accordance with the guidance² provided by the European Systemic Risk Board (ESRB), Turkey has been identified as a material country for the Spanish banking system³ owing to the BBVA Group's credit exposures to this country through the bank Garanti (in whose capital it holds a 49.85% stake). Garanti is Turkey's second largest private bank and the fifth largest if state-owned banks are included. As at 31 December 2021, Garanti's assets accounted for 8.5% of total BBVA Group assets, and its contribution to the BBVA Group's net profit (which amounts to €740 million) was 13.1%. In mid-November 2021, the BBVA Group launched an offer to buy the remaining 50.15% of Garanti, which was authorised by the supervisory authorities in late March 2022.

The Spanish and Turkish economies are also linked by major bilateral trade and financial flows. With regard to foreign trade, 1.5% of total Spanish exports went to Turkey (the 10th non-euro area country in terms of shares in such exports) in 2019,⁴ while the stock of foreign direct investment (FDI) in Turkey amounted to 1.1% of the total stock (the 12th among non-euro area countries). Turkey is also a material country for the banking systems of both the overall euro area and the European Union,⁵ and is likewise relevant in terms of trade. The flow of exports from the euro area to Turkey accounted for 1.3% of the total flow in 2019 (see Table 1).

¹ This identification exercise is based on the Banco de España's competence to set Countercyclical Capital Buffer rates for Spanish banking institutions according to their credit exposures to material third countries in response to certain financial stability risks. For further details on the operationalisation of the methodology for identification, see Box 3.2 of the Financial Stability Report, November 2017.

² Recommendation ESRB/2015/1 on recognising and setting countercyclical buffer rates for exposures to third countries, and Decision ESRB/2015/3 on the assessment of materiality of third countries for the Union's banking system in relation to the recognition and setting of countercyclical buffer rates.

³ The list of material third countries can be found at this link.

⁴ Data are shown for 2019 because the information for 2021 is not yet fully available and the 2020 data are significantly affected by the impact of the COVID-19 pandemic.

⁵ See Annex 1 of the ESRB report A Review of Macroprudential Policy in the EU in 2020, July 2021.

Table 1 EXPOSURE TO TURKEY OF SPAIN AND THE EURO AREA

	\$b	\$bn		% of GDP		% of total		Ranking	
	Euro area	Spain	Euro area	Spain	Euro area	Spain	Euro area	Spain	
Exports of goods	63.1	5.0	0.47	0.36	1.31	1.49	17	13	
Imports of goods	63.3	8.2	0.47	0.59	1.39	2.20	18	10	
Exports of services	11.2	1.2	0.08	0.08	0.62	0.76	32	25	
Imports of services	12.7	0.6	0.09	0.04	0.75	0.75	27	19	
International investment position FDI: assets	66.6	6.7	0.49	0.48	0.38	1.08	35	18	
International investment position FDI: liabilities	24.9	0.0	0.18	0.00	0.17	0.00	41	69	
International investment position portfolio investment: assets	18.2	0.4	0.14	0.03	0.13	0.05	43	35	
International investment position portfolio investment: liabilities	0.3	0.0	0.00	0.00	0.00	0.00	75	57	
Credit exposure to Turkey of banks reporting to the BIS (a)	112.2	62.9	0.88	5.05	1.01	3.30	22	9	
Turkish banks' claims on euro area and Spanish residents	6.4	0.0	0.05	0.00	0.07	0.00	20	24	
Turkish residents' debt owed to euro area and Spanish banks (b)	112.2	62.9	17.28	9.69	65.65	36.81	_	1	

SOURCES: IMF, OECD, Eurostat, BIS and national statistics.

a Relative to euro area and Spanish figures.

b Relative to Turkish figures.

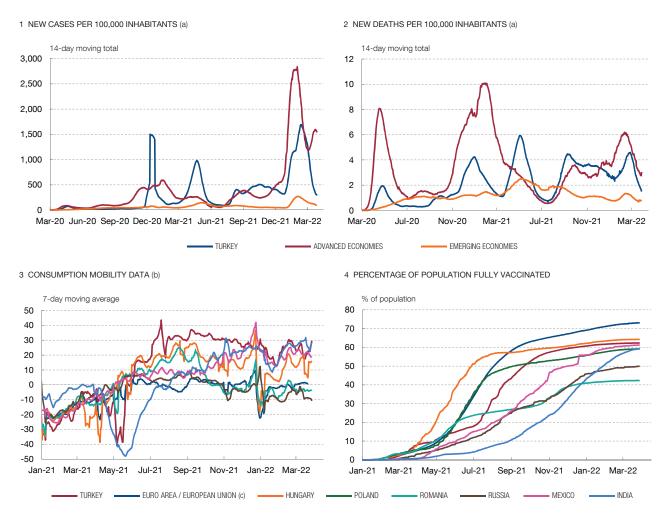
This note first analyses economic and financial developments in Turkey in the second half of 2021 and early 2022, which were shaped by the course of the COVID-19 pandemic and its management, and the implementation of an economic policy framework aimed at adjusting the current account balance through a weaker exchange rate. More recently, the Ukraine crisis has also been affecting the Turkish economy and its outlook. The note subsequently examines the economic policies implemented over this period and ends with a review of the state of the banking system.

Economic and financial developments

In the period analysed in this note, three issues have marked economic and financial developments in Turkey. The first is the unfolding of the pandemic. The quicker pace of vaccination (albeit uneven across regions) allowed mobility restrictions to be gradually lifted from June onwards, resulting in a pick-up in domestic demand and a

Chart 1 THE COVID-19 PANDEMIC IN TURKEY

The quicker pace of vaccination has prevented the sharp rise in case numbers during the wave that began in late 2021 from leading to an increase in mortality on a par with previous waves.



SOURCES: Johns Hopkins University, Google Mobility Report, Thomson Reuters and own calculations.

a Latest data: 28 March.

b Mobility data for activities associated with consumption. "Consumption" is the average of the "Retail and recreation" and "Grocery and

pharmacy" activities. The baseline value is calculated over the five-week period from 3 January to 6 February 2020. c Mobility data refer to the euro area. Vaccinated population data refer to the European Union.

gradual recovery in international tourism.⁶ The sharp resurgence in infection rates during the wave that began in late 2021 and still persists, alongside global developments, has not translated into an increase in mortality on a par with previous waves, probably because of the higher proportion of immunised people and the possible lower severity of the prevailing Omicron variant. Consequently, no new restrictions have been introduced⁷ (see Charts 1.1 to 1.4).

⁶ See the section on Turkey in OECD Economic Outlook, Volume 2021 Issue 2.

See Turkey Economic Monitor: Sailing Against the Tide, World Bank, February 2022. 7

Second, towards the end of 2021 the Turkish authorities adopted a new economic plan⁸ that sought to boost credit and incentivise exports and investment, thus attempting – according to such economic authorities – to turn the chronic current account deficit into a surplus, increase growth and employment, stabilise the lira and reduce inflation. To this end, as shown in the next section, the Central Bank of the Republic of Turkey (CBRT) cut its benchmark interest rate by 500 basis points (bp) between September and December.

Third, and more recently, the invasion of Ukraine by Russia at the end of February has significantly magnified uncertainty and risks for the Turkish economy. Apart from its shared maritime border with both countries and its very relevant geostrategic position as a NATO member, Turkey has close trade ties with both countries.⁹ Russia is the second largest source of goods imports, accounting for 10.7% of total imports in 2021, and Ukraine the twelfth, with 1.7%. Energy imports (around 40% of natural gas and 35% of oil are imported from Russia) and food imports (with both countries jointly accounting for 80% of wheat imports) are particularly noteworthy. In terms of goods exports, Russia is the tenth destination country, accounting for 2.6% of the total, and Ukraine the twentieth, with 1.3%. The two countries are also very important as regards tourism receipts, with 27% of tourists coming from either Russia or Ukraine in 2021.

Buoyed by the lifting of mobility restrictions and the easing of the monetary policy stance, the Turkish economy continued to grow at a robust pace during 2021 H2, at a quarter-on-quarter rate of 2.8% in Q3 and 1.5% in Q4 (see Table 2). Both domestic and external demand contributed to this growth (see Chart 2.1). In the year overall, GDP increased by 11%, almost double the International Monetary Fund's (IMF) projection¹⁰ for the emerging economies as a whole and the world total (see Chart 2.2). While a substantial moderation was already expected for 2022 (to 3.3%, according to the IMF), the effects of the war will weigh further down on growth. Although Turkey has not adhered to the sanctions imposed on Russia by other countries, trade flows both between Turkey and Russia and between Turkey and Ukraine are likely to be disrupted. This will be compounded by other indirect negative effects, such as even higher commodity prices in general and energy prices in particular (Turkey has a large energy trade deficit), lower global demand, a fall in economic agents' confidence and tighter financial conditions.

The continued high buoyancy of activity in the second half of 2021 entailed a deepening of some of the main pre-existing imbalances (see Charts 3.1 to 3.6). In

⁸ According to the Turkish authorities, this new framework aims to pave the way for a current account adjustment through a weaker exchange rate. This improvement in the current account balance would reduce depreciation pressures on the currency, and therefore on inflation. Additionally, lower interest rates would incentivise new investments, which would increase the economy's productive capacity. This in turn would help to reduce inflation.

⁹ See OECD Economic Outlook, Interim Report March 2022.

¹⁰ See World Economic Outlook Update, IMF, January 2022.

Table 2 MAIN ECONOMIC INDICATORS (a)

	2019	2020	2021	2021 Q1	2021 Q2	2021 Q3	2021 Q4
GDP	0.9	1.8	11.0	7.3	21.9	7.5	9.1
GDP (q-o-q)				2.2	1.7	2.8	1.5
Domestic demand	-2.1	4.1	10.9	6.2	14.6	0.6	4.9
Private consumption	1.5	3.2	15.1	6.9	23.3	9.1	21.4
Government consumption	4.1	2.2	2.1	-0.1	3.2	7.9	-1.9
Fixed capital investment	-12.4	7.2	6.4	12.4	20.8	-1.9	-0.8
Exports	4.4	-14.8	24.9	3.9	60.9	25.5	20.7
Imports	-5.2	7.6	2.0	-1.0	19.9	-8.9	2.6
Consumer prices	15.2	12.3	19.6	15.6	17.1	19.3	25.8
Core inflation	13.5	11.2	18.3	16.2	17.4	17.0	22.2
Retail sales (IBGE)	-0.5	3.1	16.5	10.1	29.1	15.4	13.6
Consumer confidence index (b)	79.7	81.0	79.0	84.8	79.7	79.1	72.3
Total credit	4.0	29.0	21.7	31.1	20.3	12.8	24.1
Industrial production	-0.6	2.2	16.5	11.1	40.2	9.0	11.5
Total employment	-2.2	-4.7	7.8	2.3	9.8	9.0	10.2
Unemployment rate (% of labour force)	13.7	13.1	12.1	13.0	12.5	11.8	11.3
Wages	18.3	6.8	39.2	16.9	53.8	42.9	45.5
Current account balance (% of GDP)	0.7	-4.9	-1.8	-4.8	-3.8	-2.3	-1.8
Trade balance (% of GDP)	-2.2	-5.3	-3.6	-4.8	-4.3	-3.6	-3.6
International reserves (\$bn)	144.9	127.7	156.7	132.3	141.7	164.2	156.7
Central government primary balance (% of GDP)	-0.6	-0.8	-0.2	0.5	1.0	1.2	-0.2
Central government total balance (% of GDP)	-2.9	-3.4	-2.7	-7.5	-5.5	-3.8	-3.6
Public sector gross debt (% of GDP)	30.8	35.9	38.1	36.3	34.6	34.0	38.1
Sovereign spread (bp)	467.4	574.2	487.6	454.8	483.9	478.3	532.5
Exchange rate against \$ (period average)	5.7	7.0	8.8	7.4	8.4	8.5	11.1
Exchange rate against € (period average)	6.4	8.0	10.4	8.9	10.1	10.1	12.6
Policy interest rate (1-week repo auction)	12.0	17.0	14.0	19.0	19.0	18.0	14.0

SOURCES: CBRT and Thomson Reuters.

a Year-on-year change, unless otherwise indicated.

b Levels.

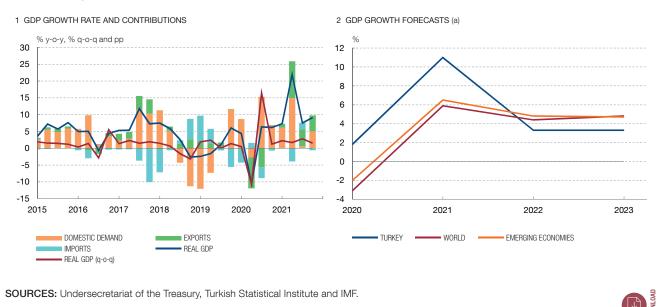
particular, the rapid and sharp easing of monetary policy in the final quarter of the year led to a significant depreciation of the Turkish currency which, in turn, contributed to pushing inflation to record highs. Thus, after the December policy interest rate cut, the Turkish lira reached 18 to the US dollar, losing over 50% of the value it had in September, before the first policy interest rate cut. Against this backdrop, the CBRT intervened several times in the foreign exchange market,¹¹ while announcing a new strategy¹² seeking to encourage the use of the lira rather than foreign currencies in the Turkish financial system (through the creation of new financial instruments,

¹¹ See CBRT press releases of 1, 3, 10, 13 and 17 December 2021.

¹² See Box 1.1 of the Inflation Report 2022-I, CBRT, January 2022.

Chart 2 ECONOMIC ACTIVITY

In the second half of 2021 the Turkish economy remained highly buoyant, growing well above the rest of the emerging and advanced economies. A significant moderation is expected in 2022.



a January 2022 IMF forecasts.

diversification of collateral and regulations regarding liquidity management practices), and thus achieve exchange rate stability. These measures included the creation of new foreign exchange-protected deposits¹³ that partially reversed the high dollarisation of deposits,¹⁴ which had rebounded sharply at end-2021 in tandem with the sharp depreciation of the lira. As a result of these measures, the lira partially recovered and remained stable at around 13.5 lira per US dollar until the outbreak of the war in Ukraine, depreciating somewhat thereafter.

The combination of global factors (such as the persistence of bottlenecks, increased transport costs and the notable surge in commodity prices) with various internal factors (such as the impact of the significant exchange rate depreciation, the upturn in inflation expectations and the 50% increase in the minimum wage in January 2022) led to a sharp increase in inflation, which reached 61.1% in March, the highest rate recorded in 20 years. The sharp rise in prices was very widespread across CPI items and has also affected the more stable inflation components.¹⁵

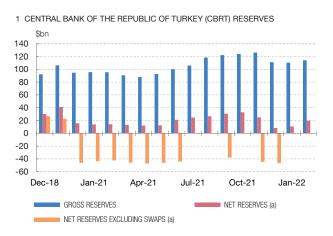
¹³ These deposits have a term of between 3 and 12 months, are geared towards households (later extended to firms) and are not subject to tax withholdings. Under a commitment to hold them for a certain period, they receive compensation for the spread between the exchange rate depreciation (from the deposit arrangement date to the withdrawal date) and the interest rate offered for the deposit. The exchange rate risk associated with this scheme is borne by the Treasury. See Box 2.1 of the *Inflation Report 2022-I*, CBRT, January 2022.

¹⁴ See Paula Sánchez Pastor (2021), "Turkey: macro-financial situation", Economic Notes, *Economic Bulletin* 4/2021, Banco de España.

¹⁵ See Inflation Report 2022-I, CBRT, January 2022.

Chart 3 IMBALANCES IN THE TURKISH ECONOMY

The continued strong momentum in the second half of 2021 and early 2022 entailed a deepening of some of the pre-existing imbalances.

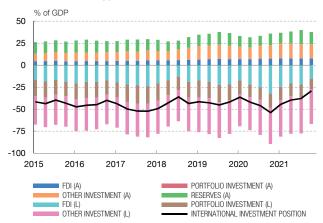


2 EXCHANGE RATE, INTEREST RATE AND INFLATION

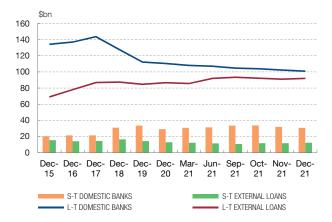


³ DOLLARISATION OF DEPOSITS % of total deposits 60 55 50 45 40 2019 2020 2021 2022 FOREIGN CURRENCY BANK DEPOSITS

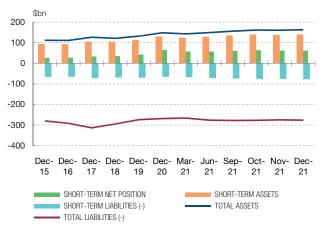
4 EXTERNAL POSITION (b)



5 NON FINANCIAL FIRMS' FOREIGN CURRENCY LIABILITIES BY MATURITY (c)



6 NON FINANCIAL FIRMS' FOREIGN CURRENCY ASSETS AND LIABILITIES



SOURCES: Thomson Reuters, CBRT, BRSA, Barclays and IMF.

- a Gross reserves = gold and foreign currency. Net reserves = gross reserves reserve requirements (gold and foreign currency) public sector foreign currency deposits. Net reserves excluding swaps = net reserves gold swaps foreign currency swaps. The information on net reserves and net reserves excluding swaps is from Barclays.
- **b** (A) = assets; (L) = liabilities.
- c Short-term external loans include long-term external loans falling due in the year. However, short-term domestic loans do not include long-term bank loans falling due in the year.



A positive aspect for the Turkish economy was the narrowing of the current account deficit in 2021 H2 to 1.9% of GDP (although it worsened again in January 2022 owing to the rise in energy prices). Tourism exports increased notably, benefiting from improved competitiveness, driven by the depreciation of the lira and the global lifting of restrictions on mobility. Goods exports also increased on account of Turkey having better prices than its competitors and of greater global demand, particularly from neighbouring EU countries. In response to the increase in transport costs and delivery times and the disruptions in global supply chains, these countries switched to sourcing part of their imports from countries in closer proximity and with preferential access, such as Turkey.¹⁶ As regards imports, although gold purchases declined substantially (one of the main reasons for the downturn in trade in 2020), the energy bill and expenditure on certain foodstuffs increased as a result of the rise in global commodity prices and the depreciation of the lira. Meanwhile, the negative net international investment position improved significantly over 2021 (-29% of GDP at end-2021, compared with -54% a year earlier), owing to a reduction in liabilities, particularly in direct investment, as a result of valuation effects and, to a lesser extent, an increase in assets, mainly from other investment, especially bank deposits in foreign currency (see Charts 3.3 and 3.4). As regards the foreign currencydenominated portion of debt in the non-financial private sector, although the sector's assets exceed its liabilities in the short term, the relative mismatch between institutions holding assets and those holding liabilities (for example, many construction companies have foreign currency debt but entirely Turkish liradenominated revenues), compounded by the sharp exchange rate depreciation and the larger volume of long-term foreign currency liabilities than of long-term foreign currency assets, entail a risk for Turkish banks, their main lenders (see Charts 3.5 and 3.6).

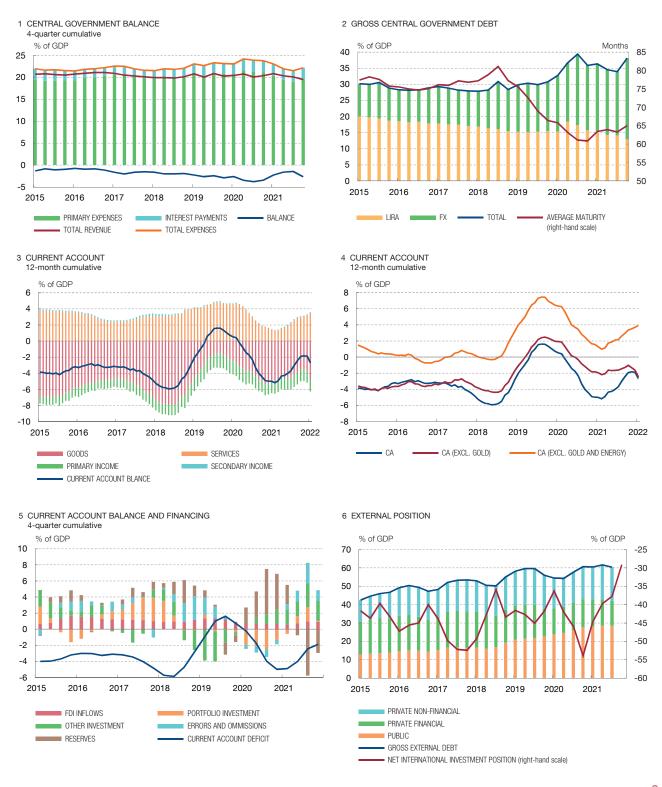
Economic policies

As for fiscal policy, the central government fiscal deficit declined in 2021 to 2.7% of GDP, from 3.4% in 2020, below the target of 3.5%. The improvement for the year as a whole was basically linked to the notable growth of the economy and to a sharp upturn in inflation, since certain essential expenditure items, such as employee compensation or social transfers, are adjusted to inflation with some delay, but the reflection in public revenues is more immediate. Nonetheless, the budget deficit experienced a strong downturn in 2021 Q4, particularly in December, owing to higher expenditure, mainly relating to current transfers, loans, and goods and services purchases (see Chart 4.1). Public debt rose to 38.1% of GDP, from 35.9% in 2020, influenced by the effect of the sharp depreciation of the lira, given the growing proportion of foreign currency-denominated debt (see Chart 4.2). Public finances in

¹⁶ See Box 2, "Sea Transport Reliability and its impact on Turkey's Exports", *Turkey Economic Monitor: Sailing Against the Tide*, World Bank, February 2022.

Chart 4 PUBLIC FINANCES AND BALANCE OF PAYMENTS

The bugdet deficit improved up to 2021 Q3, after which it worsened. The current account deficit narrowed until end-2021.



SOURCES: Thomsom Reuters, CBRT, Undersecretariat of the Treasury and Turkish Statistical Institute.

2022 are subject to numerous pressures, such as the 30% increase in public sector wages since January, the reduction in some taxes (such as VAT on basic foodstuffs) and electricity bill subsidies to address the sharp surge in prices, and the cost of financing the measures adopted to encourage the use of the lira (foreign exchange protected-deposits are contingent liabilities for the public sector, which assumes the exchange rate risk).

Turning to monetary policy, in contrast to the trend observed in other emerging market economies, the CBRT cut its benchmark interest rate four times between September and December by a cumulative total of 500 bp, to 14%. The combination of these cuts with high inflation brought the ex-post real interest rate to -47.1% in March 2022 (see Charts 5.1 and 5.2). The CBRT has justified its decision to hold the benchmark interest rate at 14%, despite the surge in inflation, on the grounds that the inflation hike is mainly due to factors outside its control (supply factors and, more recently, the conflict in Ukraine),¹⁷ noting that it expects to reach an inflation target of 5%.¹⁸ The CBRT's gross reserves increased up to November 2021 thanks to the new allocation of special drawing rights (SDRs) in August,¹⁹ the new liquidity swap line agreements,²⁰ the expansion of the rediscount credit facility to exporters²¹ and the increases in the reserve requirement ratios for foreign currency deposits.²² However, they narrowed again in December owing to the CBRT's successive interventions in the foreign currency market to defend the value of the lira, in a setting of substantial depreciation pressures (see Charts 5.3 and 5.4). Net reserves, i.e. after discounting commercial banks' deposits at the CBRT and the swaps with commercial and other central banks, remained negative (see Chart 3.1). With the aim of increasing its gross reserves, in January 2022 a new regulation was introduced requiring exporters to sell 25% of their foreign currency revenues to the CBRT.²³ The financial tensions were also reflected in higher sovereign risk premia and even in the downgrade of Turkey's sovereign debt rating by Fitch from BB- to B+ (see Charts 6.1 and 6.2).

The banking sector

Broadly speaking, the Turkish banking sector remained relatively healthy in 2021 H2 and early 2022, although with mixed indicator performance. Thus, lending to firms (and lending by state-owned banks to households) slowed during much of

¹⁷ See, for instance, CBRT press release of 17 March 2022.

¹⁸ See CBRT press release of 31 January 2022.

¹⁹ See 2021 General SDR Allocation, IMF.

²⁰ In June 2021, Turkey entered into a new liquidity swap line agreement with China, expanding the agreement it already had; in August it entered into one with South Korea and in January 2022 it entered into another one with the United Arab Emirates. Adding to the one it already had with Qatar, these agreements seek to facilitate bilateral trade in their respective local currencies and support financial stability.

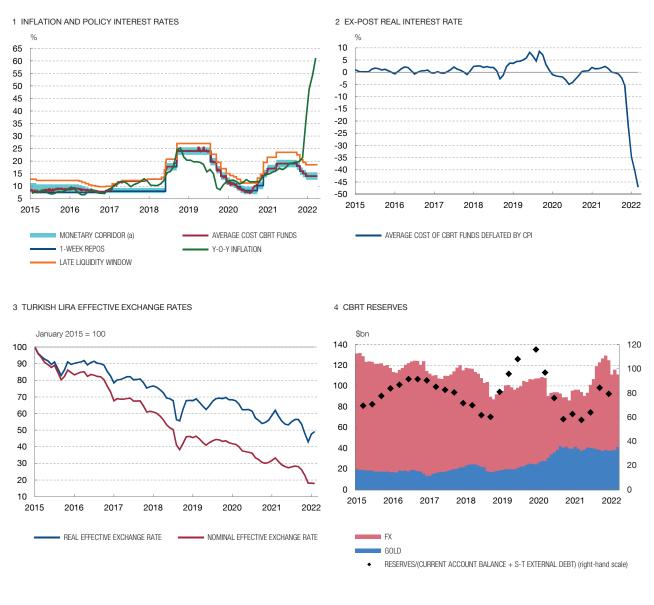
²¹ The limits for using the rediscount credit from Eximbank for loans to exporters were raised from \$20 billion to \$30 billion. See CBRT press release of 17 September 2021.

²² See CBRT press release of 15 September 2021.

²³ See Bloomberg news article of 3 January 2022.

Chart 5 MONETARY POLICY

Between September and December 2021, the Central Bank of the Republic of Turkey (CBRT) cut its benchmark interest rate by a cumulative total of 500 bp, triggering a strong depreciation of the lira and very high inflation. The ex-post real interest rate went into even more negative territory.



SOURCES: Thomson Reuters, CBRT and Turkish Statistical Institute.

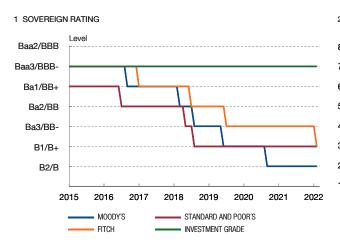
a Spread between overnight lending and overnight borrowing rates.

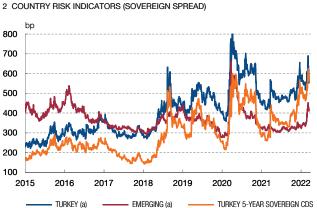
the year, while credit extended by private banks to households was much more

buoyant, underpinned by the vigour of internal demand and the lifting of restrictions on movement. However, at end-2021 the trend reversed, with interest rate cuts re-energising lending to firms and lending to households moderating, following the introduction of macroprudential measures limiting such lending (including the reduction of the maximum maturity for consumer credit exceeding

Chart 6 **FINANCIAL MARKETS**

Turkish financial indicators weakened following the benchmark policy rate cuts in late 2021.

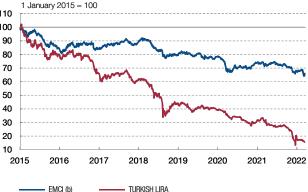




4 EXCHANGE RATES AGAINST US DOLLAR



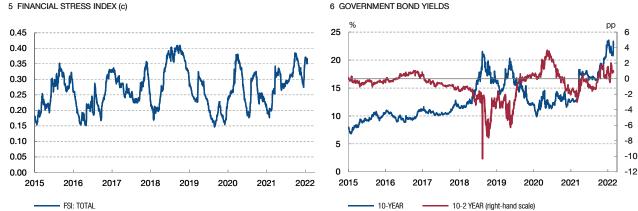
TURKEY



5 FINANCIAL STRESS INDEX (c)

MSCI EM EASTERN EUROPE

3 STOCK MARKET INDICES



SOURCE: Thomson Reuters.

a JPM EMBI Global Stripped Spread.

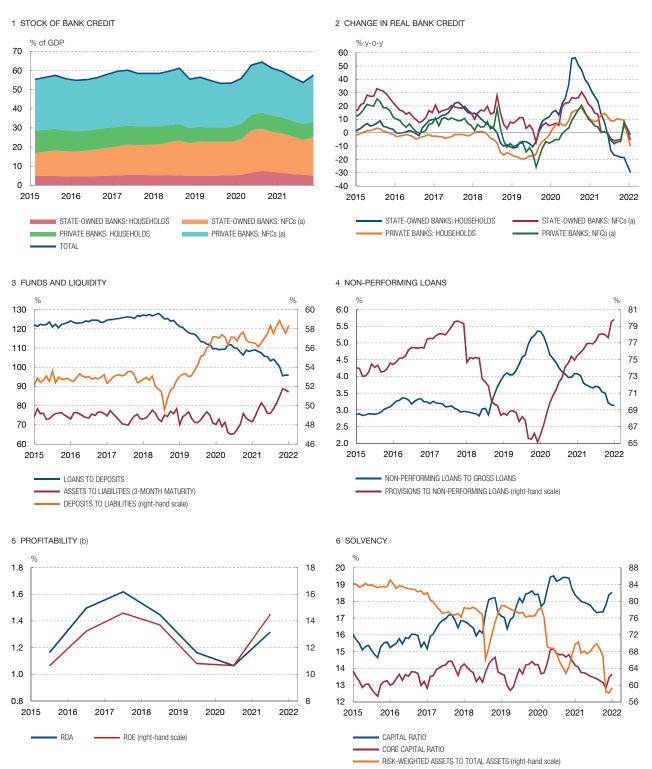
b JP Morgan emerging market economies aggregate exchange rate index.

c An FSI is a combination of daily financial market indicators for different segments that proxy the current state of uncertainty for a specific financial system. An increase in the FSI denotes heightened financial frictions. Values range from 0 (no stress) to 1 (maximum stress).



Chart 7 BANKING SECTOR

The banking system remains healthy, although some indicators have deteriorated somewhat in 2021 H2 and early 2022 and others have improved. Lending slowed substantially over the period, with the exception of credit extended by private banks to households.



SOURCES: Thomson Reuters, Undersecretariat of Treasury and Turkish Banking Regulation and Supervision Agency.

a NFCs: Non-financial corporations.

b Calculated as the annual cumulative profit divided by 12 months' average equity or assets.

50,000 lira).²⁴ Non-performing loans have remained in check and the NPL ratio even decreased, dropping to 3.1% in January 2022 (see Chart 7.4), thanks to strong economic growth and the continuation of the more relaxed classification regulations introduced in 2020 to address the crisis (until end-September 2021, with subsequent transitional periods). At a more disaggregated level, the volume of non-performing loans was higher in firms than in households, in SMEs than in large corporations and, within the household segment, in consumer lending.²⁵

The liquidity position of the banking sector remains strong (see Chart 7.3), and banks have been able to roll over their syndicated loans at even lower interest rates in the second half of the year and for amounts close to 100%, suggesting that they have ready access to international financing (see footnote 25). Additionally, foreign currency liquid assets have a high capacity to cover short-term debts also denominated in foreign currency. However, the following should be noted: (i) a substantial proportion of foreign currency indebtedness of non-financial corporations is to Turkish banks, (ii) these firms have become more vulnerable as a result of the strong depreciation of the lira, and (iii) the aforementioned mismatch, whereby firms with foreign currency liabilities are frequently not the same firms which hold foreign currency assets, persists. Profitability improved in 2021, with ROA²⁶ rising from 1.07% in December 2020 to 1.32% in December 2021 (See Chart 7.5).

Finally, although solvency decreased slightly up to October, it increased subsequently and remains above the regulatory limits, with the capital adequacy ratio (CAR) standing at 18.53% in January 2022 (see Chart 7.6). However, two things need to be taken into account when interpreting these figures. First, for the purpose of calculating risk-weighted assets, the measure that enables banks to use the 252-day moving average exchange rate for foreign-currency-denominated assets is still in place.²⁷ This provides temporary support, given the considerable depreciation of the lira (risk-weighted assets –which are in the CAR's denominator– are lower if the average exchange rate is used and, accordingly, the CAR is greater). Second, the CAR has dropped to 16.6% for state-owned banks and the idea of injecting capital in them is being considered, but for the purpose that they may continue to extend loans.²⁸

25.4.2022.

²⁴ See p. 49 of Turkey Economic Monitor: Sailing Against the Tide, World Bank, February 2022.

²⁵ See section IV of the Financial Stability Report, CBRT, November 2021.

²⁶ Ratio of total income to total assets, calculated as the annual cumulative profit divided by 12 months' average assets.

²⁷ See p. 52 of *Turkey Economic Monitor: Sailing Against the Tide*, World Bank, February 2022.

²⁸ See Bloomberg news article of 20 January 2022.