

# List of Charts, Tables and Figures

<b>I.</b>	<b>OVERVIEW</b>	
Chart I.1	FOMC Members' Median Policy Rate Forecasts and Market Expectations	1
Chart I.2	Weekly Capital Flows to EMEs	1
Chart I.3	Annual Loan Growth	2
Chart I.4	Credit Conditions	2
Chart I.5	Corporate Sector's FX Liabilities and Net FX Position	3
Chart I.6	Share of Corporate Sector's Financial Debt in GDP	3
Chart I.7	NPL Ratios	3
Chart I.8	NPL Balance and Components	3
Chart I.9	Quantiles of Banks by Total Liquidity Coverage Ratios	4
Chart I.10	Amounts of Currency Swap Transactions with Non-Residents	4
Chart I.11	External Debt Rollover Ratio and its Average Maturity	5
Chart I.12	Cost of Syndicated Loans with a Maturity of 367 days	5
Chart I.13	Asset and Equity Profitability	5
Chart I.14	CAR and Core Tier 1 CAR	5
<b>I.1.I</b>	<b>Box: Market-Oriented Steps</b>	
Table I.1.I.1	Measures and Regulations Addressing Markets	7
<b>II.</b>	<b>MACROECONOMIC OUTLOOK</b>	
<b>II.1</b>	<b>International Developments</b>	
Chart II.1.1	Economic Policy Uncertainty Indices	11
Chart II.1.2	Median Policy Rate Forecasts of FOMC Members and Market Expectations	11
Chart II.1.3	Sector-Based Indebtedness in EMEs	12
Chart II.1.4	Sector-Based FX Borrowing in EMEs	12
Chart II.1.5	Weekly Fund Flows to EMEs	12
Chart II.1.6	CDS Premiums in EMEs	12
Chart II.1.7	Exchange Rate Indices	13
Chart II.1.8	Stock Indices	13
Chart II.1.9	10-Year Treasury Bill Returns in Advanced Economies	13
Chart II.1.10	10-Year Treasury Bill Returns in EMEs	13
Chart II.1.11	Y-o-Y Growth Rates in Advanced Economies and EMEs	14
Chart II.1.12	Manufacturing Industry PMI	14
Chart II.1.13	Commodity Indices	14
<b>II.1.I</b>	<b>Box: Potential Financial Stability Implications of Financial Technology (FinTech) Developments</b>	
Table II.1.I.1	Main Technologies and Innovations Used in Financial Services	15
Chart II.1.I.1	FinTech Activities by Sectors	16
<b>II.2</b>	<b>Domestic Developments</b>	
Chart II.2.1	Contribution to Annual Growth from the Expenditure Side	20
Chart II.2.2	Industrial Production Index	20
Chart II.2.3	Labor Force	20
Chart II.2.4	Central Government Budget Balance	20
Chart II.2.5	Foreign Trade	21
Chart II.2.6	Current Account Deficit	21
Chart II.2.7	Financing Sources of Current Account Deficit	22
Chart II.2.8	Price Indices	22

Chart II.2.9	Interest Rates	22
Chart II.2.10	CDS Premium and Exchange Rate Volatility	22
<b>III.</b>	<b>NON-FINANCIAL SECTOR</b>	
<b>III.1</b>	<b>Household Developments</b>	
Chart III.1.1	Growth Rates of Households' Financial Assets and Liabilities, and Financial Leverage Ratio	24
Chart III.1.2	Growth in Loans and Deposits of Households	25
Chart III.1.3	Interest Rates on Consumer Loans and Savings Deposits	25
Table III.1.1	Households' Financial Assets	25
Chart III.1.4	Breakdown of Resident Households' Savings Deposits by TL and FX	26
Chart III.1.5	Change in Households' Deposits across Amounts	26
Chart III.1.6	Indices Regarding Consumer Confidence Index and Consumer Tendency Survey Questions	26
Chart III.1.7	Households' Gold Portfolio in the Banking System and Gold Prices	26
Chart III.1.8	Private Pension System	27
Chart III.1.9	Auto-Enrollment Pension System	27
Chart III.1.10	BIST All Index and Households' Equity Securities Portfolio	27
Table III.1.2	Household Financial Liabilities	28
Chart III.1.11	Consumer Loans Extended by Finance Companies Based on Type	28
Chart III.1.12	Average Retail Loan Maturity	28
Chart III.1.13	Contribution to Housing Sales Growth and Monthly Cost-Included Interest Rate for Housing Loans	29
Chart III.1.14	Change in PCC Balance	29
Chart III.1.15	Household Indebtedness Ratios of Selected EMEs	29
<b>III.1.I</b>	<b>Box: Maturity, Amount and Currency Preferences in FX Deposits</b>	
Chart III.1.I.1	Maturity Breakdown of FX Savings Deposits	30
Chart III.1.I.2	Maturity Breakdown of FX Commercial Deposits	30
Chart III.1.I.3	Maturity Breakdown of TL Savings Deposits	31
Chart III.1.I.4	Maturity Breakdown of TL Commercial Deposits	31
Chart III.1.I.5	Breakdown of FX Savings Deposits by Amount	31
Chart III.1.I.6	Breakdown of FX Commercial Deposits by Amount	31
Chart III.1.I.7	FX Savings Deposits (Billion Basket) and Currency Basket	32
Chart III.1.I.8	FX Commercial Deposits (Billion Basket) and Currency Basket	32
Chart III.1.I.9	Breakdown of Savings Deposits by Currency Type	32
Chart III.1.I.10	Breakdown of Commercial Deposits by Currency Type	32
<b>III.1.II</b>	<b>Box: A New Approach to Measuring Dollarization: Exchange Rate and Interest Rate-Adjusted Dollarization Index</b>	
Table III.1.II.1	Calculating the Dollarization Index	35
Chart III.1.II.1	Dollarization Indicators over Time	35
<b>III.2</b>	<b>Corporate Sector Developments</b>	
Chart III.2.1	Industrial Production, Capacity Utilization and Investment Tendency	37
Chart III.2.2	Capital Goods Production and Import Quantity Indices	37
Chart III.2.3	Imports and Domestic Market Orders	38
Chart III.2.4	Share of Corporate Sector's Financial Debt in GDP	38
Chart III.2.5	Corporate Sector Loan / GDP Ratio International Comparison	39
Chart III.2.6	Corporate Sector's FX Liabilities and Net FX Position	39
Chart III.2.7	Maturity Breakdown of FX-Indexed Loans	39
Chart III.2.8	Maturity Breakdown of Domestic TL and FX Loans	39

Chart III.2.9	Breakdown of Derivatives Transactions by Currency	40
Chart III.2.10	Breakdown of Derivatives Transactions by Type	40
Chart III.2.11	Loan Standards and Loan Demand	41
Chart III.2.12	Average TL Funding Costs of SMEs and Large Firms	41
Chart III.2.13	Sectoral Breakdown of Loans	42
Chart III.2.14	Sectoral Breakdown of (Flow) Loans Extended Since the Last Reporting Period	42
Chart III.2.15	Profitability Indicators of BIST Firms	42
Chart III.2.16	Deposit Developments of Domestic Firms	42
<b>III.2.I</b>	<b>Box: Alternative Financing Methods</b>	
Chart III.2.I.1	2018 Angel Investment and Venture Capital Investments	45
Chart III.2.I.2	Evolution of Angel Investment and Venture Capital Investments in Turkey	45
Chart III.2.I.3	Development of Angel Investment in Turkey	46
Chart III.2.I.4	Crowdfunding World and Turkey	46
<b>IV.</b>	<b>FINANCIAL SECTOR</b>	
<b>IV.1</b>	<b>Credit Developments and Credit Risk</b>	
Chart IV.1.1	Loan/GDP Ratio	49
Chart IV.1.2	Annual Loan Growth	49
Chart IV.1.3	Annual Growth of TL Corporate Loans by Firm Size	50
Chart IV.1.4	Annual Growth of FX Corporate Loans by Firm Size	50
Chart IV.1.5	Corporate Loan Rates and Spreads	50
Chart IV.1.6	Factors Contributing to Corporate Loan Demand-Financing Needs	51
Chart IV.1.7	Factors Contributing to Corporate Loan Supply	51
Chart IV.1.8	Annual Growth Rates of Retail Loans	51
Chart IV.1.9	Retail Loan Growth	51
Chart IV.1.10	Retail Loan Rates	52
Chart IV.1.11	Growth Rates of General Purpose Loans	52
Chart IV.1.12	NPL Ratios	53
Chart IV.1.13	NPL and NPL Components	53
Chart IV.1.14	International Comparison of NPL Ratio and Change	53
Chart IV.1.15	Corporate NPL Ratios	53
Chart IV.1.16	NPL Ratios in Retail Loans	54
Chart IV.1.17	General Purpose Loan Aging Analysis	54
<b>IV.1.I</b>	<b>Box: Leading Indicators for Corporate Credit Risk Assessment</b>	
Chart IV.1.I.1	Total Firm Riskiness and GDP Growth	55
Chart IV.1.I.2	Correlation between GDP Growth and Total Firm Riskiness	55
Chart IV.1.I.3	Number of Firms by Lag Periods of Certificate of Bankruptcy, Returned Checks and NPLs	56
Chart IV.1.I.4	Number of Firms by Lag Periods Between Returned Check and NPLs	57
<b>IV.2</b>	<b>Liquidity Risk</b>	
Chart IV.2.1	Quantiles of Banks by Total Liquidity Coverage Ratios	58
Chart IV.2.2	Quantiles of Banks by FX Liquidity Coverage Ratios	58
Chart IV.2.3	Ratio of Non-Deposit Funding to Foreign Funding Sources	59
Chart IV.2.4	Loan-to-Deposit Ratio	59
Chart IV.2.5	Loan / (Deposits + Other Stable Funds) Ratio	59
Chart IV.2.6	Amounts of TL Currency Swap Transactions	60
Chart IV.2.7	Maturity Brackets of TL Currency Swaps	60
Chart IV.2.8	Amount and Growth Rate of Banks' External Liabilities	61
Chart IV.2.9	Cost of Syndicated Loans with a Maturity of 367 days	61
Chart IV.2.10	External Debt Rollover Ratio and Its Average Maturity	61

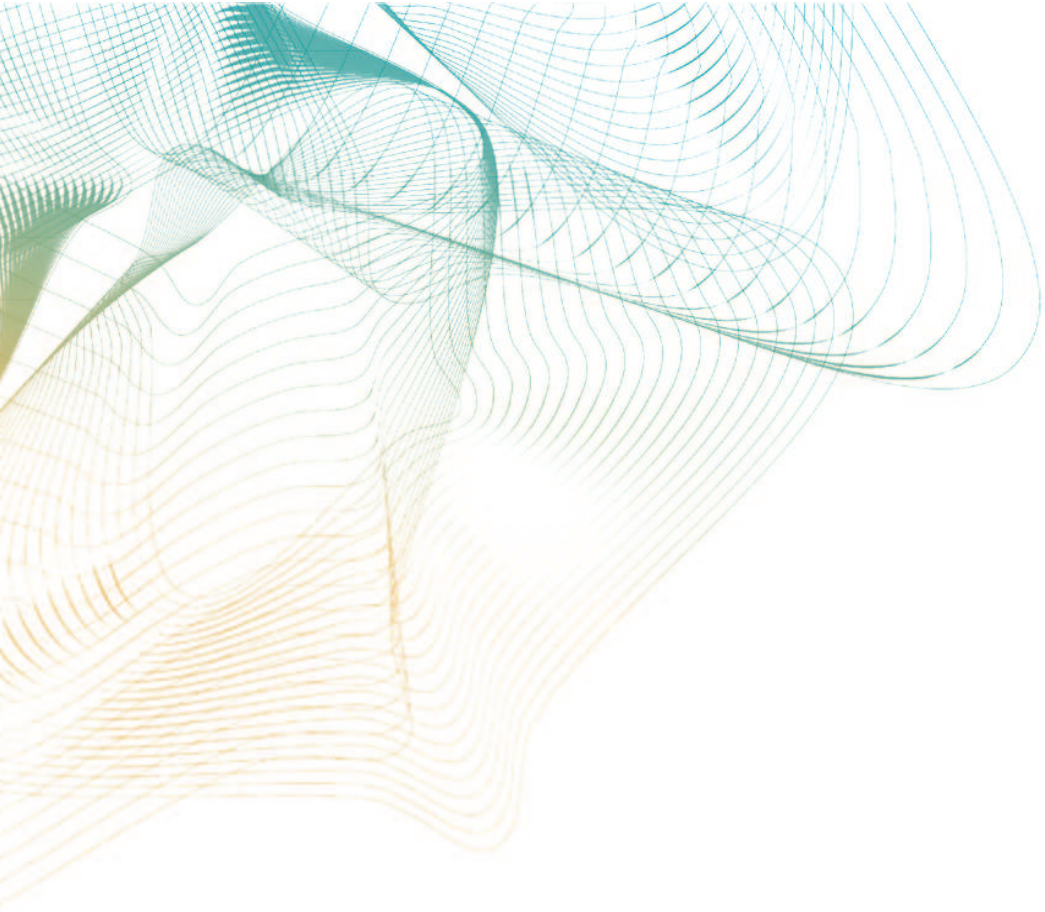
Chart IV.2.11	External Debt Rollover Ratio	61
Chart IV.2.12	FX Liquid Assets and FX External Liabilities Due Within 1 Year	62
Chart IV.2.13	ROM Reserves + FX Borrowing Facility and External FX Liabilities Due Within 1 Year	62
Chart IV.2.14	FX Issues Abroad	62
Chart IV.2.15	Domestic TL Bond Issues	62
<b>IV.2.I</b>	<b>Box: FX Swap Market Developments</b>	
Chart IV.2.I.1	FX Positions	63
Chart IV.2.I.2	FX Position/Legal Capital	63
Chart IV.2.I.3	Share of Non-Residents (NR) and Residents (R) in FX Swaps by Banks	64
Chart IV.2.I.4	Maturities across Swaps with Non-Residents	64
Chart IV.2.I.5	Spread between Overnight Offshore FX Swap Rate and WAFC	64
Chart IV.2.I.6	Spread between Overnight Offshore FX Swap Rate and WAFC	64
Chart IV.2.I.7	Net TL Short Swap Positions by Banks at Maturity	65
<b>IV.3</b>	<b>Interest Rate and Exchange Rate Risk</b>	
Chart IV.3.1	Interest Rate Risk Via Repricing Channel Measured with Economic Value Approach	67
Chart IV.3.2	Interest Rate Risk of Fixed Interest Rate Securities at Fair Value through other Comprehensive Income	67
Chart IV.3.3	Banking Sector's FX Open Position	68
Chart IV.3.4	Shares of Gross Positions of Off-Balance Sheet FX Transactions	68
<b>IV.4</b>	<b>Profitability and Capital Adequacy</b>	
Chart IV.4.1	Return on Assets and Equities	69
Chart IV.4.2	CAR and Core Tier 1 CAR	69
Chart IV.4.3	Annual Effect of Income Statement Items on ROA	69
Chart IV.4.4	Contribution to Changes in the Net Interest Income	69
Chart IV.4.5	Additional NPL Indicators	70
Chart IV.4.6	Currency Swap Transaction Costs and Interest Rates	70
Chart IV.4.7	Changes in Equity	71
Chart IV.4.8	Risks and Assets	71
Chart IV.4.9	CARs by Types of Banks	71
<b>V.</b>	<b>SPECIAL TOPICS</b>	
<b>V.1</b>	<b>Financial Inclusion in the World and in Turkey</b>	
Chart V.1.1	ATM Number/Population Ratio: Turkey and Country Groups Comparison	73
Chart V.1.2	Bank Account Ratio	73
Chart V.1.3	Ratio of Digital Remittance or Receipts in the Past Year	74
Chart V.1.4	Ratio of Digital Remittance or Receipts in the Past Year	74
Chart V.1.5	Reasons for Being Unbanked	75
Chart V.1.6	Female Labor Participation Rate - Number of Bank Accounts per Person	75
Chart V.1.7	Female Labor Participation Rate - Number of ATMs per Person	75
Chart V.1.8	Ratio of University Graduates - Number of Bank Accounts per Person	76
Chart V.1.9	Literacy Rate - Number of ATMs per Person	76
Chart V.1.10	Ratio of University Graduates - Usage of Online Banking	76
Chart V.1.11	GDP per Person-Number of Bank Account per Person	77
Chart V.1.12	Gini Coefficient-Number of Bank Account per Person	77
<b>V.2</b>	<b>Transition Matrices for Corporate Loans</b>	
Figure V.2.1	Transition Matrix	80
Table V.2.1	Turkish Banking Sector Transition Matrix	81
Chart V.2.1	Rates of Transition to NPLs	81
Chart V.2.2	Rates of Transition from NPLs to Performing Loans	81

Chart V.2.3	Corporate NPL Ratio and Implied Corporate NPL Ratio	82
<b>V.3</b>	<b>A Close Look at Closely Monitored Loans: Impact of the Turkish Financial Reporting Standards-9 (IFRS-9)</b>	
Chart V.3.1	Ratio of Closely Monitored Loans to Gross Loans on a Bank Basis	84
Chart V.3.2	Closely Monitored Loan Provision Rates on a Bank Basis	85
Chart V.3.3	Share of Overdue Closely Monitored Loans on a Bank Basis	86

## Abbreviations

<b>ABS</b>	Asset-Backed Securities
<b>AEPS</b>	Auto-Enrollment Pension System
<b>AER</b>	Adjusted for Exchange Rate
<b>AMC</b>	Asset Management Company
<b>BAT</b>	Banks Association of Turkey
<b>BCBS</b>	Basel Committee on Banking Supervision
<b>BIS</b>	Bank for International Settlements
<b>BIST</b>	Borsa Istanbul
<b>BLTS</b>	Bank Loans Tendency Survey
<b>BRSA</b>	Banking Regulation and Supervision Agency
<b>CAR</b>	Capital Adequacy Ratio
<b>CBRT</b>	Central Bank of the Republic of Turkey
<b>CCB</b>	Capital Conservation Buffer
<b>CDS</b>	Credit Default Swap
<b>CMB</b>	Capital Markets Board of Turkey
<b>EBAN</b>	European Business Angel Network
<b>EBITDA</b>	Earnings Before Interest, Taxes, Depreciation and Amortization
<b>ECB</b>	European Central Bank
<b>EMEs</b>	Emerging Market Economies
<b>EPFR</b>	Emerging Portfolio Fund Research
<b>EU</b>	European Union
<b>EURIBOR</b>	Euro Interbank Offered Rate
<b>Fed</b>	Federal Reserve System
<b>FOMC</b>	Federal Open Market Committee
<b>FSB</b>	Financial Stability Board
<b>FX</b>	Foreign Exchange
<b>FXIL</b>	Foreign Exchange-Indexed Loans
<b>FXNGP</b>	Foreign Exchange Net General Position
<b>GDP</b>	Gross Domestic Product
<b>GDDS</b>	Government Domestic Debt Securities
<b>G20</b>	Group of Twenty
<b>IFS</b>	International Financial Statistics
<b>IMF</b>	International Monetary Fund
<b>IPI</b>	Industrial Production Index

<b>IPI</b>	Individual Participation Investor
<b>KGF</b>	Credit Guarantee Fund
<b>LCR</b>	Liquidity Coverage Ratio
<b>LHA</b>	Left-hand Axis
<b>LIBOR</b>	London Interbank Offered Rate
<b>MCB</b>	Mortgage-Covered Bond
<b>MKK</b>	Central Securities Depository of Turkey
<b>NEP</b>	New Economy Program
<b>NPL</b>	Non-Performing Loan
<b>WAFR</b>	Weighted Average Funding Ratio
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>Q</b>	Quarter
<b>PCC</b>	Personal Credit Card
<b>PDP</b>	Public Disclosure Platform
<b>PMC</b>	Pension Monitoring Center
<b>PMI</b>	Purchasing Managers Index
<b>PPS</b>	Private Pension System
<b>ROM</b>	Reserve Options Mechanism
<b>RR</b>	Reserve Requirement
<b>RWA</b>	Risk-Weighted Assets
<b>SCT</b>	Special Consumption Tax
<b>SME</b>	Small and Medium-Sized Enterprises
<b>TFRS</b>	Turkish Financial Reporting Standards
<b>TOKI</b>	Housing Development Administration of Turkey
<b>TRY/TL</b>	Turkish Lira
<b>TURKSTAT</b>	Turkish Statistical Institute
<b>USA</b>	United States of America
<b>VCIF</b>	Venture Capital Investment Fund
<b>VCIT</b>	Venture Capital Investment Trust



CENTRAL BANK OF THE REPUBLIC OF TURKEY  
Head Office  
Hacı Bayram Mah., İstiklal Cd. No: 10 Ulus, 06050  
Ankara, Turkey  
[www.tcmb.gov.tr](http://www.tcmb.gov.tr)  
ISSN 1305-8576 (Online)