



TURKEY

FINANCIAL SECTOR ASSESSMENT PROGRAM

FINANCIAL SYSTEM STABILITY ASSESSMENT

February 2017

This report on Financial System Stability Assessment on Turkey was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed in December 20, 2016.

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FINANCIAL SYSTEM STABILITY ASSESSMENT

December 20, 2016

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This report is based on the work of the Financial Sector Assessment Program (FSAP) missions that visited Turkey in April and June, 2016. More information on the FSAP may be found at

<http://imf.org/external/np/fsap/fssa.aspx>

- The team was led by Nigel Jenkinson, International Monetary Fund (IMF) and Mario Guadamillas, World Bank (WB) and included Jay Surti (IMF) and Anderson Silva (WB) as Deputy Mission Chiefs; Jefferson Alvares, Jana Bricco, Ryan Davis, Kelly Eckhold, Caio Ferreira, Gregorio Impavido, Richard Lalonde, Jonathan Pampolina, Narayan Suryakumar, and Nico Valckx (all IMF); as well as Laura Ard, Subika Farazi, Jose Antonio Gragnani, Michael Grist, Zamir Iqbal, Damodaran Krishnamurti, Harish Natarajan, and Kevin Mark Stephenson (all WB); and Geof Mortlock and Anand Sinha (IMF experts). The team met the Undersecretary of the Treasury (UoT), the Governor of the Central Bank of the Republic of Turkey (CBRT), the Chair of the Banking Regulation and Supervision Agency (BRSA), the Chair of the Capital Markets Board (CMB), the Chair of the Savings and Deposit Insurance Fund (SDIF), the Head of the Financial Crimes Investigation Board (MASAK), as well as their staff, and representatives of other official agencies, financial sector, and other stakeholders.
- FSAPs assess the stability of the financial system as a whole and not that of individual institutions. They are intended to help countries identify key sources of systemic risk in the financial sector, and implement policies to enhance its resilience to shocks and contagion. Certain categories of risk affecting financial institutions, such as operational or legal risk, or risk related to fraud, are not covered in FSAPs.
- Turkey is deemed by the Fund to have a systemically important financial sector and the stability assessment under this FSAP is part of bilateral surveillance under Article IV Consultation of the Fund's Articles of Agreement.
- This report was prepared by Nigel Jenkinson and Jay Surti with contributions from the FSAP team. It draws on several Technical Notes as well as Detailed Assessment Reports on compliance with the Basel Core Principles for Effective Banking Supervision (BCP), Insurance Core Principles (ICP), and Principles for Financial Market Infrastructure (PFMI).

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Glossary

ALM	Asset Liability Management
AML/CFT	Anti-Money Laundering and Combating Financing of Terrorism
ARA	Assessment of Reserve Adequacy
BAT	Banks Association of Turkey
BCP	Basel Core Principles for Effective Banking Supervision
BIST	Istanbul Stock Exchange
BL	Banking Law
BRSB	Banking Regulation and Supervision Board
CAMELS	Capital Adequacy, Asset Quality, Management, Earnings, Liquidity, Sensitivity to Market Risk
CAR	Capital Adequacy Ratio
CBRT	Central Bank of the Republic of Turkey
CCP	Central Counterparty
CFT	Combating Financing of Terrorism
CMB	Capital Markets Board
CMG	Crisis Management Group
CoM	Council of Ministers
CPMI-IOSCO	Principles for Financial Market Infrastructure
CRRE	CAMELS Rating and Risk Evaluation
CSD	Central Securities Depository
EFT	Electronic Fund Transfer
ELA	Emergency Liquidity Assistance
EM	Emerging Markets
ERM	Enterprise Risk Management
ESTS	Electronic Securities Transfer System
FATF	Financial Action Task Force
FMI	Financial Market Infrastructure
FSAP	Financial Sector Assessment Program
FSC	Financial Stability Committee
FX	Foreign Currency
GAR	General Assessment Report
ICAAP	Internal Capital Adequacy Assessment Process
ICP	Insurance Core Principles
ICR	Interest Coverage Ratio
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
LCR	Liquidity Coverage Ratio
MASAK	Financial Crimes Investigation Board
MKK	Central Registry Agency of Turkey
ML	Money Laundering
NFC	Nonfinancial Corporate

NIR	Net International Reserves
NPLs	Nonperforming Loans
NPS	National Payments System
NRA	National Risk Assessment
OTC	Over the Counter
PD	Probability of Default
PFMI	CPMI-IOSCO Principles for Financial Market Infrastructure
PPP	Public-Private Partnership
RAM	Risk Assessment Matrix
ROM	Reserve Options Mechanism
RPS	Retail Payment System
RWA	Risk Weighted Assets
SDIF	Savings Deposit Insurance Fund
SME	Small- and/or Medium-Sized Enterprise
SOE	State-Owned Enterprise
SRAG	Systemic Risk Assessment Group
SSS	Securities Settlement System
TF	Terrorism Financing
TEBC	Turkish Execution and Bankruptcy Code
TR	Trade Repository
Treasury	Undersecretariat of Treasury (also UoT)
TRY	Turkish Lira
UNSCR	United Nations Security Council Resolution
UoT	Undersecretariat of the Treasury
WB	World Bank

EXECUTIVE SUMMARY

The fundamental stability challenges confronting the Turkish financial system are to reduce dependence on external and foreign currency financing and to increase the maturity and diversity of funding instruments on which banks and firms depend. The long-standing shortfall of national savings to finance domestic investment, persistent elevated inflation, and bouts of exchange rate volatility have boosted reliance on foreign currency financing from international capital markets and have also incentivized households and firms to place their own savings in short-term deposits, as well as in foreign currency.

These deep-seated challenges underpin current heightened financial stability risks from several potential sources: tighter or more volatile global funding conditions, weaker euro area growth, geopolitical tensions, and loss of market confidence in domestic policies. Balance-sheet fragilities could amplify their impact. Increases in corporate leverage in recent years, particularly in foreign currency, mean that severe stress could significantly strain companies' debt servicing capacity. Banks, whose asset quality is already under pressure and whose returns appear to be below their cost of equity, would likely have to absorb significant financial spillover from corporate distress in such circumstances. While their capital buffers may still be sufficient to absorb likely losses from a severe economic shock provided it is of short duration, a protracted recession would generate large capital shortfalls over the medium term.

This combination of vulnerabilities underscores the importance of a strong financial system oversight and policy framework. In present circumstances, additional policy action to lower risks and to raise the resilience of the banking system and of nonfinancial firms is recommended, targeted in particular at lowering the vulnerabilities from banks' wholesale foreign exchange (FX) financing and from high corporate leverage in FX. Raising the level of official net FX reserves would also provide a stronger supporting buttress at the national level.

The oversight and management of systemic risks has been strengthened since the previous FSAP. The Financial Stability Committee (FSC) regularly brings together the heads of the financial regulatory agencies to exchange views on emerging systemic risks and policy responses, and member authorities have applied macroprudential tools actively in recent years with positive results. These arrangements have been bolstered by actions to further strengthen financial regulation and the supervisory processes for banks and other intermediaries.

The assessment nonetheless identified some important priorities for further improvement in the policy framework and in implementation. Further steps are recommended to: raise the effectiveness of financial supervision; enhance governance arrangements; strengthen systemic risk identification and the coordination of macroprudential policies; lower systemic liquidity risks; and address current gaps in crisis management arrangements.

Assessments against international standards spotlighted areas where further enhancements to the supervision of banks, insurance companies, and financial market infrastructures (FMIs) are recommended. Building on the strengthened regulatory framework for the banking sector, priorities to enhance supervisory processes include: further development and deepening of the risk assessment focus of banking inspections and follow up; and applying additional rigor to the

supervisory evaluation and enforcement of credit risk and corporate governance rules. Stronger governance, independence, and accountability would advance insurance supervision, which would be further reinforced by the closer integration of supervisory functions, and additional focus on corporate governance and internal controls within insurers. The National Payments System (NPS) is well developed, safe, and efficient, but authorities should address concentration of intraday liquidity at the end of the day, and institute a risk management framework for interdependencies among FMIs.

A stronger role for the FSC would support more coordinated and effective systemic risk oversight and management. Additional clarity on the roles and responsibilities of the FSC, the Council of Ministers (CoM), and of FSC member authorities would be helpful. Providing all member agencies an explicit objective for financial stability would buttress the FSC's work. Such a step would be reinforced by changes in procedures to support more integrated risk identification and to ensure ex ante assessment of alternative policy options to address them. Commitment by member agencies to consider and to respond to FSC recommendations in advance of taking policy decisions would promote more coordinated policy actions, also additional transparency and disclosure, including through publication of an FSC Annual Report, would foster credibility and accountability.

Deeper Turkish lira money and capital markets would help to lower systemic risks. In line with recommendations in the CBRT 'roadmap' for monetary policy, a more-secure backdrop for lira market development could be provided by focusing interest rate tools on inflation, by applying these tools more transparently and predictably, and by making liquidity more readily available at the key policy rate. Development of lira capital markets could also reduce vulnerabilities by alleviating mismatches of banks and corporates, and by lowering reliance on foreign currency. Measures to support the development of derivatives markets and improve issuance regulations, disclosure, and governance standards for capital market products would be helpful.

Work has already commenced to address identified weaknesses in crisis management planning and bank resolution powers and procedures. Completing the necessary improvements is a priority. The FSAP highlights several areas in which the legal framework and crisis management procedures may be strengthened to expand the set of resolution tools, support recovery and resolution planning, develop early warning and systemic impact assessments, and enhance the framework for Emergency Liquidity Assistance (ELA). Creation of a new crisis management working group reporting to the FSC (and underpinned by an inter-agency Memorandum of Understanding (MOU) at the FSC level) would promote greater coordination and provide additional impetus to the work. Development of cross-border coordination arrangements and capacity-building initiatives are also needed.

The FSAP recommendations were finalized on completion of the missions in June 2016. As outlined in the Article IV Consultation report, political and economic uncertainty in Turkey has increased following the failed coup attempt in July, raising the importance of a strong framework to protect financial stability. Maintaining adequate institutional capacity, sufficient staffing, and the independence of public agencies are key to implementing the FSAP recommendations to strengthen financial system oversight and the policy framework.

KEY RECOMMENDATIONS TO ENHANCE RESILIENCE¹

Recommendation	Timing
Banking Supervision	
Revise legislation to further strengthen BRSA independence (#21).	MT
Deepen and broaden the risk assessment nature of banking inspections and follow up (#22).	MT
Strengthen corporate governance rules and enforcement (#21).	MT
Evaluate and revise the definition of credit classifications and strengthen enforcement (#24).	ST
Insurance Supervision	
Improve independence, governance and accountability of supervisor; increase resources for internal control functions; integrate offsite, onsite and enforcement activities; develop risk-based, group supervision (#26).	ST/MT
Systemic Risk Oversight	
Strengthen macroprudential measures to lower foreign exchange risk in the economy (#35)	I
Strengthen FSC's governance and powers, provide explicit financial stability objective to all members, and limit CoM role (#31).	ST
Develop procedures for improved systemic risk assessment and coordination of macroprudential policies: agree to table policy proposals for ex ante FSC discussion and request formal responses to recommendations (#31).	ST/MT
Base choice of policy tools on integrated assessment of systemic risk and cost-benefit analysis of alternative options (#36).	ST
Strengthen transparency (including publishing an Annual Report) (#31).	ST
Managing Systemic Liquidity	
Orient liquidity provision towards a single key policy rate (#38).	I
Increase net reserves such that gross reserves are within the range of 100-150 percent of the Assessment of Reserves Adequacy (ARA) metric (#39).	MT
Improve ELA capacity; redefine CBRT FX lending facility as ELA and increase conditionality (#40).	ST
Financial Crisis Management	
Strengthen recovery and resolution planning and enhance resolution powers by: (i) Strengthening the Banking Law; (ii) Developing guidance (#43).	MT
Strengthen domestic and cross-border coordination arrangements (#45, #47).	ST
Anti-money Laundering/Combating Financing of Terrorism (AML/CFT)	
Determine reason for low money laundering (ML) conviction rates and plan to address them (#50).	MT
Introduce customer due diligence requirements for politically exposed persons (#50).	ST
Ensure compliance with requirements of the United Nations Security Council Resolution (UNSCRs), and strengthen border controls on currency transportation (#50).	MT

¹ Timing: I = immediate, ST = short-term (within one year); MT = medium-term (beyond one year). Additional recommendations are included in the Detailed Assessment Reports of Financial Supervision and the Technical Notes.

MACROFINANCIAL SETTING

1. **The Turkish economy has slowed following strong performance in 2015** (Figure 1).

Turkey has experienced serious domestic and external shocks which, together with increasing private indebtedness, have contributed to weaker business confidence, lower private investment demand and tourism revenues, and a tightening of credit standards. As a result, economic growth is projected to decline to 2.7 percent this year. In the medium-term economic growth is expected to increase gradually.

2. External vulnerabilities remain elevated. Notwithstanding a favorable external financing requirement in 2016, external imbalances remain significant, reflecting the persistent wedge between private domestic demand and structurally low savings. The current account deficit is projected to deteriorate to 4.5 percent of GDP in 2016, and, at 60 percent of GDP, the external debt burden is high, with gross annual financing needs over one quarter of GDP. FX reserves are low compared to external debt and the foreign currency refinancing needs of banks and nonfinancial corporates (NFC). Gross international reserves (GIR) are below the IMF ARA metric.

3. Risks to the outlook are tilted to the downside (Annex I). Downside risks emanate from the large annual external financing need, against the backdrop of low net international reserves (NIR), in an environment of heightened global and regional uncertainties. The growth outlook in key export markets remains tepid, and a negative shock thereto, given the lowering of the sovereign credit rating below investment grade, implies a potentially greater adverse impact on Turkey in global funding markets. These factors increase the risk of a large and protracted capital flow reversal given weaknesses in banks' and NFCs' balance-sheets. Heightened economic and political uncertainty after July have brought these risks into sharper relief.

ASSESSMENT OF VULNERABILITIES

A. **Vulnerabilities Affecting the Turkish Financial System**

Structural and cyclical factors combine to increase the vulnerability of the Turkish financial system to common adverse shocks. Structural factors include the high proportion of savings and debt held in foreign currency and at short maturities, the dependence on cross-border financing, and the convergence in major banks' business models. Cyclical factors include growing corporate leverage, an apparent underbelly of mid-sized companies below the largest firms, rising corporate-bank and (contingent) corporate-sovereign exposures, and deterioration in banks' asset quality at a time when returns are below the cost of equity.

Financial System Structure

4. Banks, at over 90 percent of the financial system by assets, are vital to financial stability in Turkey (Figure 2). Nonbank financial institutions are small by peer emerging market levels and capital market intermediation remains insignificant. The financial system, at 118 percent of 2015 GDP by assets, has been growing significantly faster than GDP since 2008. The banking system is of average size relative to peer emerging markets but the proportion of credit financed by nondeposit channels is larger (Figure 3, panels A—B). Concentration is not significant and market share is equally distributed among private domestic, foreign-owned, and state-owned banks. Acquisition-based entry by foreign banks in recent years has led to a substantial increase in their asset ownership share (Figure 3; panels C—D).

Banking Business Models, Risks, and Vulnerabilities

5. The business models of the 10 largest banks appear to have converged significantly over the last five years, increasing systemic exposure to adverse common shocks.

- **On the asset side, banks have substituted away from securities into lending with increasing foreign currency (FX) and NFC exposures** (Figure 4; panels A-C). High credit growth, averaging over 20 percent per year over the last five years, reflects higher rates of return on lending and the paucity of investible securities given the nascent state of domestic capital markets and declining sovereign debt issuance. Partly in response to macroprudential measures, credit growth has shifted from households towards corporate and small- and/or medium-sized enterprises (SMEs) since 2012 and this segment now constitutes over 75 percent of the loan book. Lending in FX has risen strongly although two-thirds of credit exposures remain in TRY.
- **Most funding is raised at very short maturities and more than half in FX** (Figure 4; panels D-F). Elevated inflation, exchange rate volatility and the absence of a term premium offered by banks, incentivize holding of savings (households) and reserves (NFCs) at short maturities and in FX. Deposits of over 12-month maturity are negligible and average maturity, at 2½ months for TRY and 3½ months for FX deposits, is very short. Rapid credit growth over the last five years has resulted in a significant increase in wholesale funding, by more than 10 percentage points, to over 40 percent of nonequity financing as of end-2015. This has also led to an increase in FX funding, with over 60 percent of wholesale financing being in FX compared to an FX share of just over 40 percent of the deposit base.
- **Systemic risk measures reveal elevated common vulnerability of banks to adverse shocks during episodes of global market disruption and periods of geopolitical uncertainty** (Figure 5). This reflects the convergence of business models on both sides of the balance-sheet which has raised the vulnerability to common shocks.

6. Large FX positions generated by banks' funding strategy are closed through derivatives transacted with foreign counterparties (*Figure 6; panels A-B*). Most balance-sheet hedging of FX exposures is achieved through plain vanilla cross-currency and interest rate swaps with international banks. Hence, while the short position on-balance-sheet, at 20 percent of regulatory capital, is large, hedging allows banks to reduce exposure to market (exchange rate) risk.

7. Liquidity risk management has become more challenging (*Figure 6; panels C-F*). High TRY loan (term and risk) premia have incentivized rising maturity transformation and increasing balance-sheet maturity mismatches as banks have moved out of government securities and into private credit. The corresponding growth in FX wholesale funding has increased exposure to refinancing risk. While banks have managed to increase the share of wholesale external funding in medium-term maturity buckets over the last five years, a significant proportion continues to be sourced at shorter maturities.²

8. Returns have declined significantly over the past five years and asset quality pressures appear to be rising (*Figure 7*). Reported asset quality has held steady over this period with nonperforming loans (NPL) standing at between 2½ and 3 percent of gross lending since end-2011. Returns have deteriorated due to a combination of rapid balance-sheet expansion and a reorientation of lending towards lower margin corporate lending and a policy induced squeeze on retail credit margins. Bank returns have been lower than estimated costs of equity consistently over the last five years and the gap has widened over time. Even as reported NPLs remained low, there has been a sharp increase in restructured credits held by banks, from around one percent to 3 percent of gross loans between 2011 and 2015, giving cause for concern. Moreover, reported estimates suggest a doubling in the applications for bankruptcy protection by firms since 2012 under Article 179 of the Turkish Execution and Bankruptcy Code (TEBC) and that the deterioration in bank asset quality is more severe than may be inferred from the headline level of NPLs alone.³ Recovery rates on problem loans may also be under pressure. A rising share of NPLs (34 percent by 2014) has been purchased by asset management companies with an average recovery rate quoted by banks of between 17-to-20 percent of outstanding value.

9. Banks' capital buffers remain high but have been falling over the medium term (*Figure 7C*). In part, this reflects falling returns and in part, the rapid balance-sheet expansion towards riskier loans and away from sovereign securities. Rising asset quality challenges represent, therefore, a material risk factor given that the estimated cost of equity demanded by investors is higher than bank returns, implying that it could be challenging for banks to raise capital if required.

² There may also be some overstatement in the reported share of medium-to-long term wholesale funding as an examination of remaining time to maturity of wholesale funding indicates that banks have nominally extended the maturity of syndicated loans by a few days to just beyond the critical threshold of 365 days.

³ For example, the Hurriyet Daily News reported on March 11, 2016 that bankruptcies have doubled since 2012 (from 484 in 2012 to over 1000 in 2015). It adds that 90 percent of companies that filed for bankruptcy suspension went bankrupt anyway. See <http://www.hurriyetdailynews.com/turkish-companies-using-bankruptcy-laws-to-postpone-debts.aspx?pageID=238&nID=96316&NewsCatID=345>

Corporate risks and vulnerabilities

10. The NFC sector is a key financial counterparty of Turkish banks. NFC liabilities have grown sharply since the global financial crisis from 30 percent of GDP in 2007 to over 60 percent in 2015 with a significant portion of borrowing being in FX (45 percent of financial debt). The lion's share of financial debt, at some 83 percent, is from Turkish banks. NFC FX assets, while substantial, are significantly lower than FX liabilities, covering less than 40 percent of FX liabilities. NFCs run a negative net FX position amounting to USD 188 billion as of March 2016, although their short-term FX position is closed.

11. The NFC sector faces a number of challenges, most significantly, the runaway growth in leverage, particularly in FX, the corresponding boost in interest expenses, falling earnings and an unsettled outlook (*Figure 8*). On the expense side, higher leverage and interest burdens have left firms more vulnerable to funding and FX shocks. Debt-to-equity ratios for publicly listed firms have doubled since 2007 to around 56 percent, rising more for mid-to-large sized than for the largest firms. This has been accompanied by a significant buildup in FX liabilities and a mounting interest burden. From a sample of 396 publicly listed companies including some of the largest enterprises in Turkey, interest expenses as a share of earnings has risen to 80 percent for the weakest quartile of firms. FX liabilities are also sizeable for the overall corporate sector, with a significant proportion residing in non-publicly listed firms. Gross FX liabilities for the overall sector stood at USD 300 billion in 2016Q1, with short-term liabilities at 27 percent of the total. On the earnings front, Turkish Lira (TRY) depreciation has failed to lift exporters' revenues due to weak external demand. Finally, a strengthening of the U.S. dollar and tightening of dollar funding markets, in advance of economic recovery in Europe, could add to pressures on profits (given that exporters tend to earn in euros whereas the bulk of their debt is denominated in U.S. dollars).

12. (Unlisted) SMEs have a similar risk profile. Leverage has risen sharply since 2009 including in FX while the SME sector's profitability has steadily deteriorated since 2011, diminishing resilience to shocks. Moreover, although FX leverage has increased, absence of information precludes an assessment of the extent to which these firms are hedged against exchange rate risk either through FX assets or income or through derivatives.

13. Weak profitability at state-owned enterprises (SOEs) and mounting FX debt linked to public-private partnership (PPP) projects point to growing contingent liabilities for the sovereign balance sheet. SOEs' profits have fallen sharply in recent years (return on assets at - 2 percent in 2014), resulting in heavy borrowing from banks. In addition, direct and indirect contingent fiscal liabilities linked to guarantees for PPP projects appear to be growing steadily and the important role played by public sector banks in funding these PPP projects appears to raise the extent of contingent liabilities even further.

14. Bankruptcies have been rising, the current market view of credit quality is dim, and the knock-on impact of NFC distress on banks is likely to be significant. Implied ratings for the publicly-listed firms also signal a weak starting position for the sector, with over 70 percent of firms analyzed in the NFC stress testing exercise rated either B or lower. Given that around 25 percent of

firms' liabilities are to other firms, there is a growing risk of a deterioration in credit quality cascading rapidly through the sector in the event of shocks.

Household sector finances

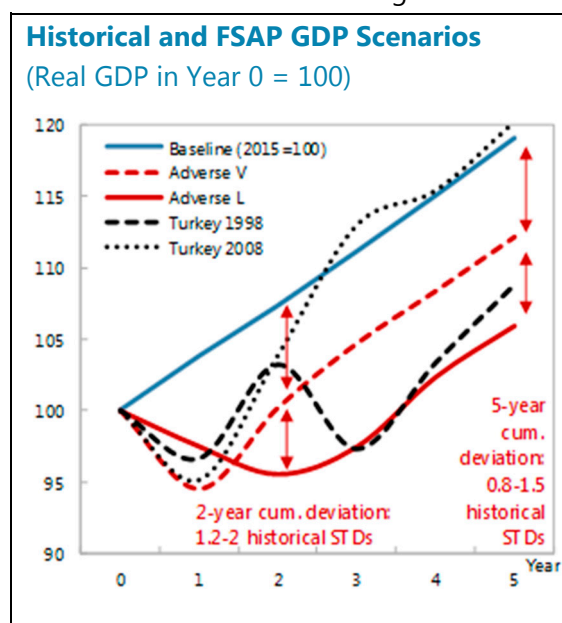
15. Household credit remains an important component of bank lending, although there are restrictions preventing lending to households in FX. While analysis indicates that there is some degree of exuberance in the housing market, household debt-to-GDP and financial net worth have held steady. Yet, debt-to-disposable income was rising until recently and loan losses on retail (mainly credit card) loans were higher by over 40 percent in 2015 relative to 2011. In this context, the authorities' recent decisions to ease macroprudential policies on household lending to support demand comes at a time when risks to financial stability are elevated.

B. Stress Tests of Banks and NFCs

Large existing capital buffers appear to render banks resilient in the face of a severe, adverse economic shock, provided it is of sufficiently short duration. But, a protracted recession would generate large capital shortfalls. Under these stress scenarios, liquidity risks may add significantly to pressure on solvency, which would push up capital needs even further. Under the stress scenarios, mid-to-large sized NFCs face significant difficulties in servicing their debt burdens because of higher interest expenses implied by rising cost of funds and TRY depreciation and a recession induced decrease in earnings.

Scenarios

16. The macrofinancial scenarios are guided by the country risk assessment of Turkey and analyze the performance of the banking and NFC sectors under a baseline and two adverse stress scenarios (Annex I and text chart). The **baseline scenario** assumes stable GDP growth of around 3½ percent with a zero output gap, high credit growth, FX depreciation, and persistently high current account deficits. An **adverse scenario** assumes a short period of sharp contraction in output with a corresponding loss of access to international capital markets of the order of severity experienced in 2008–09. It may result from a period of volatile global financial conditions with weaker than expected growth in the euro area, and would result in high inflation, capital outflows, increases in interest rates, and stronger FX depreciation, prompting moderate balance-sheet strains for banks and NFCs. A **severely adverse scenario** assumes a prolonged loss of market access by Turkey that may be triggered by a larger and more prolonged deterioration of the factors generating the adverse scenario. This would be associated with a deep recession, wherein GDP would suffer a



significantly larger cumulative and more persistent decline, capital outflows would be higher, and market and credit disruptions more severe and protracted than under the adverse scenario.

Resilience to Stress: Banks⁴

17. Reflecting their current, large capital buffers, a short period of severe stress appears unlikely to undercapitalize the banks, but under a deep and protracted recession, capital needs would be significant (*Figure 9*). In the adverse scenario, despite the large deterioration in capital in the first year, the average capital adequacy ratio (CAR) of the 10 largest banks would still be above the regulatory floor of 8 percent and the aggregate capital shortfall would be limited to under TRY 10 billion (one third of a percent of 2015 GDP). Thereafter, the rapid economic recovery pulls up all the undercapitalized banks' CARs to above the 8 percent threshold by the end of the second year. Under the severely adverse scenario, however, capital needs continue to grow over time and under full recognition of the economic impact of the scenario on credit risk in banks' portfolios, aggregate needs can range up to TRY 100 billion, equivalent to 3½ percent of GDP after four years. Notwithstanding the economic recovery assumed in the outer years of this scenario, half of the 10 largest banks remain undercapitalized at the end of five years.

18. In situations of severe or protracted stress, liquidity pressures and capital depletion could interact dynamically, putting banks and the system under substantially greater distress (*Figures 10 and 11*). Reflecting the potentially large negative cash-flow positions up to 12 months, severe liquidity stress of the order that may be expected in the adverse scenario could lower liquidity coverage capacity by half (TRY) or more (FX). In this scenario, such liquidity stress could lead banks to cut credit lines, amplifying pressures on NFCs and households. This could raise banks' NPLs and loan losses well beyond levels captured in the solvency stress tests and may result in capital needs up to 2 ½ to 3 ½ times higher (some one percent of 2015 GDP). In the severely adverse scenario, the uninterrupted growth in loan losses and capital shortfalls could, beyond a point, widen liquidity pressures even further, extending to (retail) deposits, with correspondingly higher knock-on impact on solvency.

Resilience to Stress: NFCs

19. NFCs look particularly vulnerable to interest rate and FX shocks in both stress scenarios and FSAP analyses reveals an underbelly of mid-size firms below the largest corporates (*Figure 12*). The median interest coverage ratio (ICR) for the sample of publicly-listed NFCs falls below the critical threshold of two or lower over the stress horizon, deeming the firms' debt at a higher risk of default.⁵ This sharp decline in debt servicing capacity reflects the weak initial financial position of firms and the relatively heavy interest burden they are already servicing. While the larger firms seem relatively resilient to both FX and interest rate shocks, the performance of second-tier firms (those between the top 50-100 largest firms by asset size) is noticeably weaker.

⁴ Banking stress tests for solvency and liquidity covered the 10 largest deposit taking banks (by assets) in Turkey, that together hold over 80 percent of banking assets.

⁵ For a discussion of the merits of using ICR as the basic risk metric for the risk analysis and stress testing of NFCs, including key thresholds of distress, see: IMF Global Financial Stability Report (April and October 2014) and IMF Working Paper WP 15/216.

Moreover, the higher stock-pile of FX assets of the largest firms make them less vulnerable to market stress than medium-sized firms, who have large negative FX positions.

POLICIES TO ENHANCE RESILIENCE

A. Regulatory and Supervisory Framework

20. Since the previous FSAP in 2011, the authorities have made significant efforts to further strengthen banking regulation and the supervisory process. Turkey has built a good foundation for banking supervision. The Banking Law (BL) provides a broadly appropriate supervision framework with clear responsibilities and necessary supervisory powers. The established methodology for banking supervision is comprehensive and grounded on extensive databases and on regulation largely in compliance with international standards. The BCP assessment highlights the strengthening of the framework.⁶ However, the assessment also emphasizes the need to reinforce implementation.

21. Several important elements of the framework potentially limit the BRSA's operational and organizational independence as well as its mandate. The BL establishes the BRSA's general independence and a clear mandate. However, legal parameters and other arrangements which can compromise independence remain in place, including issues within the BRSA board appointments process and the ability of the relevant minister to take action against the BRSA. Moreover, the BRSA's twin objectives of financial sector stability and financial sector development require prioritization to prevent potential conflict. Financial stability should be assigned the primary role.

22. Further enhancement of the supervisory process would raise the effectiveness of banking supervision. The Capital Adequacy, Asset Quality, Management, Earnings, Liquidity, Sensitivity to Market Risk (CAMELS) rating system has been redesigned to capture underlying risk at a more granular level; however, the process stops short of generating firm, forward-looking, and actionable results. It is essential that the BRSA forms well founded, qualitative conclusions about the condition, operations, and governance of banks which lead to proportionate supervisory responses and corrective actions. The current process is skewed towards validation of compliance processes and constrains active, more forceful supervisory judgments and decisions.

23. The risk management framework is centered in the Internal Capital Adequacy Assessment Process (ICAAP) process which needs further development. As the ICAAP was introduced relatively recently, banks are still developing their approaches and systems. The quality of banks' reports and the scrutiny by supervisors will need to develop further before the results can be more reliably and extensively used.

24. The framework for credit classification and provisioning requires strengthening, particularly in the areas of asset classification definitions and the supervisory credit review process. Regulatory asset classification definitions, particularly in the special mention and substandard categories, are loose and substantially overlapping. Examination conclusions focus

⁶ For details, see Annex II which provides the Report on Observance of Standards and Codes.

more on internal control issues rather than on the higher level implications results have for management acumen, the condition of the subject credit portfolio and the bank in general, as well as the effectiveness of risk management and governance.

25. The regulation and supervision of insurance has been significantly enhanced during the past five years. In particular, the efficiency of information reporting, insurer monitoring and supervision have increased, solvency ratios have been strengthened, and reserving and investment practices have been improved.

26. Notwithstanding this welcome progress, much work remains to close the gap between current practices and international standards.⁷ Options should be explored to improve the independence, governance and accountability of the insurance supervision authority, as well as to integrate offsite, onsite, and enforcement activities within a single supervisory organization. Completing the development of a risk-based approach and a group wide supervisory framework remain important priorities. The supervisory authorities are also encouraged to take action to strengthen corporate governance requirements, as well as to ensure that key internal control functions are established and have appropriate independence and resources.

27. The NPS in Turkey is well developed, safe and efficient. The assessment of the Electronic Fund Transfer (EFT) and Electronic Securities Transfer System (ESTS) systems against international best practices notes that the legal framework has been significantly enhanced in recent years and that institutional arrangements are clear and well organized.⁸ The authorities' scope and powers related to regulation, supervision and oversight of the NPS are adequate. However, some improvement opportunities are identified including additional focus on addressing risk management in a more integral way considering risks among FMIs, as well as exploring and implementing liquidity mechanisms to address the risks from the concentration of payments at the end of the day.

B. Oversight and Management of Systemic Risks

28. Turkey has made significant progress in developing a macroprudential policy framework in recent years. The FSC brings together the heads of the five agencies with financial sector oversight responsibilities, to support the identification and management of systemic risks. The FSC is primarily an oversight and discussion body, as operational responsibilities are retained by the member agencies.

⁷ For details, see Annex III which provides the Report on Observance of Standards and Codes.

⁸ For details, see Annex IV which provides the Report on Observance of Standards and Codes.

Box 1. Turkey: The FSC

The FSC is the body responsible for systemic risk oversight in Turkey. The FSC is a coordinating body and was established in 2011 by Decree Law 637.

The FSC is composed of all relevant agencies with responsibilities for financial sector oversight. The Minister in charge of the Undersecretariat of the Treasury, currently the Deputy Prime Minister (DPM), chairs the FSC. Its members include *ex officio* the Undersecretary of Treasury (Treasury), the Governor of the CBRT, the Chairman of the BRSA, the Chairman of the CMB, and the Chairman of Savings Deposit Insurance Fund (SDIF).

The FSC has primarily monitoring and coordination responsibilities. Its duties include: (i) to determine and monitor systemic risks that might spread to the entire financial system and identify necessary measures and policy proposals in order to mitigate them; (ii) to warn related institutions about systemic risks and follow the relevant practices regarding policy proposals; (iii) to evaluate systemic risk management plans prepared by the related institutions; (iv) to coordinate systemic risk management; (v) to collect all data and information within the context of its duties, and coordinate policies and implementations among the institutions; and (vi) to make decisions related to other subjects within the framework of the law.

The Treasury provides secretarial support to the FSC while all individual members provide analytical support. The FSC does not have a fixed meeting schedule and its agenda covers systemic risk as well as financial development issues with respect to their systemic risk dimensions. In general, the agenda consists of three main parts: (i) global and local financial developments and risks; (ii) follow up on previous FSC meetings' agenda and decisions; and (iii) the agenda of the day, proposed by its members. Attendance to the meetings is limited to its members' agencies. Only for special topics, can the FSC invite other Ministers and government executives.

The FSC can also establish ad-hoc working groups to carry out specific duties. The FSC relies on its own members for the provision of data and analytical support. The Systemic Risk Assessment Group (SRAG), established by a protocol signed by the FSC members in October 2012, and comprised of member institutions' deputies, aims at strengthening the analytical and decision making capacity of the FSC, as well as coordinating the analytical output of the members' agencies. Currently, key priorities for the SRAG are the development of additional risk assessment tools and the closure of data gaps.

29. Current arrangements have provided considerable benefits. These have supported information sharing across the FSC member agencies and improved the focus and attention on addressing systemic risks.

30. At the same time, there is scope to strengthen ex ante collective review and coordination of macroprudential policy approaches by FSC members. At present, member agencies often utilize the FSC as a platform for sharing information on their own assessment of risks and policy initiatives, with a view to improving decision making by other agencies, rather than as a forum to collect inputs and explore and evaluate options at the policy formulation stage before decisions are reached by the independent agencies. Consensus is needed to reach recommendations, and there is little transparency and information disclosure by the Committee. Limitations in ex ante policy coordination restrict the ability of the FSC to execute its mandate in a strategic manner.

31. Strengthening governance, powers and disclosure would increase the effectiveness of the FSC. Several steps may be envisaged. Although some would require changes in legal frameworks, many of the proposals could be implemented by agreement among the member agencies on internal processes and protocols. First, enhanced governance, including restricting the role of the CoM to crisis resolution decisions beyond the mandates of the member agencies, would strengthen the independence of FSC members and enhance the *ex-ante* policy-making role of the

FSC. The role of the committee could also be buttressed by providing all member agencies with an explicit mandate for the promotion of financial stability and thus to support the work of the FSC in their formal responsibilities and mission statements. Similarly, institutionalizing stronger operational arrangements, including agreeing a commitment among the members to table policy proposals for discussion by the committee at the formulation stage and including a formal mechanism for member agencies to follow up on its recommendations and provide a response to the committee on decisions subsequently taken, would enhance proactive policy making, while retaining individual agency responsibility. Strengthening the analytical support available to the FSC and SRAG through an integrated and enhanced Secretariat would also help the quality of the discussions and recommendations. Finally, a more structured communication strategy, including publishing periodical information such as an annual report to relevant stakeholders outlining FSC risk assessment, activities, and decisions, would strengthen public recognition of the FSC role, enhance accountability on how the committee is fulfilling its legal mandate, and also help the Turkish authorities collectively to demonstrate firm oversight and control of systemic risks. A published protocol or charter on the responsibilities and organizational practices of the FSC would also support this process.

32. There are notable improvements to the systemic risk assessment capability in Turkey since the last FSAP. The FSC (and the SRAG) promote a collaborative approach to systemic risk assessment by enabling each member to bring to the table their respective risk analyses as well as joint analysis. To strengthen the collective review, the SRAG has recently developed the first version of a heat map as a collaborative tool to support the assessment of systemic risks.

33. The FSC should build on this welcome progress to foster further improvements and support a more integrated and holistic assessment of systemic risks and their on-going monitoring. Additional steps could include (a) strengthening the mapping of appropriately chosen indicators to different potential sources of systemic risk, which is essential to provide a forward looking perspective (b) periodic integrated or joint stress testing (top down and bottom up) once or twice a year, (c) integration of stress testing outputs into systemic risk assessments, (d) monitoring and assessment of domestic systemically important financial institutions (D-SIFIs), financial market infrastructures, and risks beyond the regulatory perimeter, and (e) ex post assessment of the effectiveness of policy measures.⁹

34. The Turkish authorities have applied a wide range of macroprudential tools in the past five years. Policies have been implemented both to contain and mitigate the cyclical build-up of risks, as well as to strengthen the structural resilience and robustness of the Turkish financial system by correcting misaligned incentives and lowering systemic vulnerabilities.

35. Macroprudential policy has helped to contain systemic risk, but significant systemic vulnerabilities remain and further measures should be considered. In particular, the measures taken to contain the cyclical build-up of consumer credit risks in 2011 and 2013 contributed to the

⁹ A comprehensive picture of FX exposures on NFC balance-sheets is essential to assess risks to financial stability and it is recommended that the authorities assemble a database of such exposures for unlisted NFCs (including SMEs and SoEs) along the lines of their database on publicly listed companies.

subsequent slowdown in loan growth. Also, the policies applied to strengthen bank funding have supported the extension of maturities of non-core (wholesale) liabilities in FX, as well as providing banks with additional flexibility to manage short term FX liquidity pressures. However, as noted earlier, significant vulnerabilities remain, arising from high dependence on short term FX funding, both by banks and NFCs, and high leverage of NFCs, including in FX. Additional measures are recommended to lower foreign exchange risk in the economy. Policy options that may be considered include measures to decrease the spread between borrowing in lira and FX, restrictions on the structure of liabilities, and higher risk weights or provisioning on lending to NFCs in FX. Recent easing of macroprudential measures on the retail side is not clearly supported by systemic risk considerations.

36. The choice of the policy tools should be better informed by the (proposed) integrated assessment of systemic risk and by cost-benefit considerations of alternative options. Some of the policy tools deployed in the past combine both monetary policy and macroprudential objectives which raise questions of their appropriateness in achieving each policy goal. It also raises questions on whether monetary policy was used instead of macroprudential policy and vice versa. Macroprudential tools should target systemic risk and are not a substitute for macroeconomic policy adjustment. A systematic review of the costs and benefits of potential options by the FSC at the risk identification and policy formulation stage would help strengthen policy coordination and effectiveness.

C. Managing Systemic Liquidity

37. The CBRT's liquidity provision framework raises three key questions relevant to financial stability. First, to what extent does the CBRT's monetary policy implementation framework support the development of the domestic money and capital markets to push against the extensive reliance on FX funding? Secondly, how robust is the CBRT's capacity to manage the FX liquidity risks in the system? And thirdly, is the CBRT's ELA framework sufficiently robust to buffer the system in the event of a systemic crisis?

38. The CBRT could provide a more secure backdrop for the Lira markets to flourish by focusing interest rate tools on inflation, applying those tools more transparently and predictably, and making liquidity more readily available at its key policy rate. The CBRT could lower uncertainty and support short term money market liquidity by transparently targeting a single key policy rate and providing most of the liquidity the system requires at that rate, which would also encourage two-way markets. Focusing interest rate tools on inflation as opposed to macroprudential objectives would enhance the CBRT's credibility, encouraging investors to participate in the unsecured or longer term TRY markets that are lacking. Similarly, borrowers would be better incentivized to own TRY securities as collateral if CBRT haircuts on FX collateral were higher relative to Lira denominated securities. Most of these recommendations are consistent with the CBRT's reform plans announced in its 2015 "Roadmap".¹⁰

¹⁰ See

<http://www.tcmb.gov.tr/wps/wcm/connect/TCMB+EN/TCMB+EN/Main+Menu/Announcements/Press+Releases/2015/CBRTRoadMap2015>

39. The CBRT has limited capacity to manage FX liquidity pressures and needs to build it.

Net FX reserves are relatively low and need to be rebuilt such that CBRT FX reserves are within the standard ARA metric range. Moreover, much of the CBRT's gross reserves are funded by the reserve requirements of banks which may need access to those funds in the event of stress. Other significant contingent claims on the CBRT's reserves such as FX auctions, FX sales to the state energy company, and the large FX lending facility limit its flexibility to respond to a systemic crisis. Eliminating regular FX auctions and sales would increase flexibility while fostering FX market development and liquidity.¹¹ The Reserves Option Mechanism (ROM), which allows banks to substitute TRY required reserves with FX reserves and vice versa,¹² is an innovative tool which has proved useful in cushioning the impact of fluctuations in FX flows, although the facility has not been severely tested. The ROM may also have its limitations, especially if capital outflows are initially concentrated outside the banking system. As such the facility may not be a full substitute for CBRT net reserves.

40. The CBRT's ELA function should be enhanced. Although the ELA function is established and procedures are in place, the CBRT sees ELA as a remote event and does not perform regular tests of procedures. Some current operations such as the FX lending facility should be considered ELA and separated from standard operations. Removing the committed nature of the FX lending facility would give the CBRT additional flexibility in a crisis and would bolster incentives for banks to self-insure against FX liquidity risks. Horizon scanning processes for identifying potential ELA needs should be enhanced and regular tests of procedures undertaken. These processes should include other relevant agencies and could be coordinated by the FSC. An expanded range of ELA collateral should be introduced (including accepting bank loans) and prepositioned to facilitate its use. Given the significant financial risks of ELA, it is desirable that the CBRT has processes in place to obtain government indemnities.

D. Financial Safety Nets, Bank Resolution, and Crisis Management Arrangements

41. Turkey has a number of the elements in place for effective financial safety nets, recovery and resolution frameworks, and crisis management arrangements. There is a reasonably clear institutional framework for recovery and resolution, with specific tasks allocated to the supervisory agency, resolution authority, central bank and the Treasury, as well as structures to facilitate domestic coordination. The laws applicable to bank recovery and resolution also contain many essential provisions, including corrective action powers, triggers for entry into resolution and a broad range of resolution powers. However, the assessment also highlighted gaps in the framework and that there remains considerable scope for strengthening many elements of recovery and resolution policy and preparedness.

42. The deposit insurance arrangements in Turkey are well developed. SDIF has many of the powers required to make payouts to insured depositors and has developed systems and controls to achieve this in a relatively short period. The deposit insurance limit of TRY 100,000 per depositor per

¹¹ The CBRT has not offered to sell any FX via auction since 27 April 2016 but has not formally cancelled daily auctions.

¹² See IMF (2013) Selected Issues paper for Article IV consultation Turkey: IMF Country report 13/364.

bank provides full coverage to over 95 percent of natural person depositors. The deposit insurance fund is financed on an ex ante basis and as of June 2016 represented over six percent of insured deposits—relatively high by international standards. As recognized by the SDIF, there is a need to strengthen the purchase and assumption implementation arrangements and to develop the capacity to complete deposit insurance payments within, ultimately, a target period of 7 days.

43. As the authorities have recognized, there are still many shortcomings in the financial safety net arrangements, particularly having regard to the new international standards for recovery and resolution introduced after the global crisis. The authorities are currently initiating reforms to address a number of these, including proposals for strengthening the BL and developing policy in relation to recovery planning, resolvability assessments and resolution planning. These are welcome developments. Important priorities for inclusion in the legal reform highlighted in the assessment include: (i) equipping BRSA with effective recovery planning powers, empowering SDIF to undertake resolvability assessments and resolution planning, and empowering both agencies to require banks to undertake necessary changes to make plans implementable; (ii) introducing new resolutions tools for the SDIF, including powers for more comprehensive business transfer, for establishing and capitalizing bridge banks, and for implementing bail-in when judged appropriate; and (iii) facilitating international bank data sharing by SDIF. The amendments to the BL should also provide appropriate legal safeguards to support effective resolution, particularly as regards the ‘no creditor/shareholder worse off’ principle, and associated compensation provisions.

44. Legal changes should be accompanied by a strengthening of institutional arrangements for crisis management. Additional clarification of the objectives of each agency would be beneficial, ensuring that each supports effective crisis management and financial stability. There is also merit to reconsidering the roles of the BRSA and the SDIF in the process of entry into resolution. In line with international practice, BRSA should retain responsibility for determining whether the triggers for resolution have been breached, in consultation with SDIF. Following that determination, control of the bank should immediately pass to SDIF, with SDIF taking full responsibility for determining the form of resolution to be applied.

45. Coordination mechanisms among the agencies should also be enhanced. In particular, there would be considerable benefit from establishing a standing working group under the FSC, comprising all member agencies, which would be tasked to coordinate the development of crisis management strategies and options, including policies on recovery planning, resolvability assessments and resolution planning. Arrangements would also be buttressed by the development of a published FSC crisis management MOU setting out the objectives and principles of bank resolution, the responsibilities of each agency, and the processes for crisis management coordination.

46. The case for the establishment of a new systemic resolution funding mechanism should be considered. It is recommended that the authorities consider a range of resolution funding mechanisms, and the costs and benefits of each, as well as providing legal clarity on the application of the mechanism.

47. Cross-border recovery and resolution arrangements should also be bolstered. Currently, there are no crisis management MOUs in place between the SDIF and its foreign counterparts. SDIF is not involved in any CMGs and has not established CMGs for systemically important banks domiciled in Turkey. Given the importance of foreign banks in Turkey, it is suggested that the agencies establish crisis management MOUs with the foreign authorities (home and host) of systemic importance to Turkey and that they establish or seek involvement in CMGs where practicable.

E. AML/CFT

48. Turkey is confronted with significant money laundering/terrorism financing (ML/TF) risks, and has taken important steps to strengthen the AML/CFT regime. The country faces serious threats from illegal activities of criminal and terrorist organizations (e.g., Islamic State of Iraq and the Levant (ISIL)) as well as corruption. At the same time, ML convictions are low. Criminal organizations, foreign terrorist fighters, and separatists exploit the informal economy and vulnerabilities in the controls of transportation of currencies across borders.

49. In response, the authorities have adopted a multi-dimensional approach to combating ML/TF that underscores enhanced domestic cooperation. The legal framework was amended to more fully criminalize ML and establish mechanisms to freeze terrorist assets. A national risk assessment (NRA) is underway to better understand ML/TF risks, and is expected to be completed before Turkey's next mutual evaluation by the Financial Action Task Force (FATF) in 2019.

50. The authorities are encouraged to build on this progress and further strengthen implementation of the AML/CFT regime. The authorities should, as a priority, determine the reasons for the relatively low ML conviction rate, and develop strategies to address any shortcomings, including ensuring that the ML offense is in line with the international standard. Prompt completion of the NRA will assist in formulating risk-based responses to ML/TF threats and prioritizing resolution of vulnerabilities. The legal framework needs to be aligned with international standards, including customer due diligence requirements for politically exposed persons, criminalization of the financing of FTFs and the evidentiary standard for domestic designations. Controls over the cross-border transportation of currency should be enhanced (including by increasing fines and sanctions). The authorities also need to ensure that the freezing of assets of designated persons and organizations are conducted without delay.

BROADENING MARKETS AND SERVICES

A. Developing Turkish Capital Markets

51. Development of Turkey's capital markets could contribute significantly to alleviating duration mismatches of banks and corporates, lowering reliance on foreign currency and supporting growth. This is particularly important given the vulnerabilities associated with the short term nature of funding in lira and foreign currency, as well as the very high dependence on bank finance. The domestic market is developing but important challenges hamper longer-term financing. As part of the Financial Development module of the FSAP, the WB examined recent developments and policy options to develop and deepen capital markets.¹³ Policies to support the consolidation of an interest rate derivatives market and stimulate liquidity in government and corporate bond markets could facilitate hedging against interest rate fluctuations and enhance demand for capital market products. Improvements in issuance regulations, disclosure and governance standards could help strengthen and reinforce investor confidence. On the demand side, efforts to stimulate savings should continue and authorities could assess current limitations for more effective allocation of capital by different types of investors.

B. Promoting Financial Inclusion

52. Turkey compares favorably with its peers in terms of bank account penetration, supported by an innovative retail payments system that supports active use by payers and payees. Financial inclusion challenges relate to the gender gap, lack of savings, and limited access to finance in under-served regions. Islamic finance is an emerging and rapidly growing market and could serve as a catalyst for enhancing financial inclusion but issues related to the regulatory and governance frameworks, capacity, financial awareness, and literacy should be addressed.¹⁴ Further inclusion could be achieved by better targeting under-served segments, strengthening public/private sector coordination; enhancing the Monitoring and Evaluation framework; ensuring a level playing field between banks and nonbanks; and fine-tuning the design of payment mechanisms for government payments.

¹³ See the WB FSA.

¹⁴ See the WB FSA.

Table 2. Turkey: Financial Soundness Indicators, 2010–16
(In percent)

	2010	2011	2012	2013	2014	2015	2016Q1	2016Q2	2016Q3
Balance Sheet									
	Percent of GDP								
Total Assets	91.6	93.8	96.7	110.5	114.1	120.7	111.9	115.1	117.7
o/w Gross Loans	47.9	52.6	56.1	66.8	71.0	76.0	70.2	73.0	74.8
Liabilities	79.4	82.7	83.9	98.2	100.8	107.3	99.2	101.9	104.1
o/w Deposits	56.2	53.6	54.5	60.3	60.2	63.8	59.2	60.9	62.3
Shareholders' Equity	12.2	11.1	12.8	12.4	13.3	13.4	12.7	13.2	13.6
Off-Balance Sheet									
o/w Commitments	79.6	109.7	121.4	103.8	97.9	106.3	100.7	105.9	103.7
o/w Contingencies	14.9	16.8	17.0	21.3	21.9	23.5	21.4	22.6	23.1
Asset Quality									
	Percent								
NPLs / Gross Loans	3.7	2.7	2.9	2.8	2.9	3.1	3.3	3.3	3.3
Provisions / Gross NPLs	83.8	79.4	75.2	76.3	73.9	74.6	75.2	76.2	76.4
Credit Growth (YoY) ^{7/}	33.9	29.9	16.4	31.8	18.5	19.7	14.2	12.3	8.6
Profitability									
Total Int. Income / Int. Bearing Assets (av) ^{2/ 3/}	9.2	8.2	9.1	7.6	7.9	7.8	7.7	7.9	8.1
Cost / Income (Efficiency) ^{9/}	67.8	74.4	72.6	71.2	74.5	76.3	76.0	74.4	72.3
ROAA ^{2/ 8/}	2.5	1.7	1.8	1.6	1.3	1.2	1.2	1.3	1.5
ROAE ^{2/ 8/}	18.1	14.3	14.5	13.1	11.5	10.6	10.9	11.9	13.2
Funding and Liquidity									
Loan-to-Deposit ratio	85.2	98.2	102.9	110.7	117.9	119.2	118.6	119.7	120.1
Loan-to-Deposit ratio (TL)	88.5	105.4	113.1	126.7	133.2	141.6	142.0	140.2	133.0
Loan-to-Deposit ratio (FX)	77.4	84.1	82.0	83.8	91.9	89.0	87.3	90.8	99.8
Non-Core / Core Liabilities ^{4/}	33.9	44.9	43.7	52.0	55.2	56.4	55.6	55.2	55.1
Non-Core / Core Liabilities (TL) ^{4/}	23.3	28.5	26.4	29.0	29.7	31.8	32.6	31.9	30.8
Non-Core / Core Liabilities (FX) ^{4/}	66.8	87.2	90.8	103.4	112.9	101.4	97.7	100.1	106.7
Leverage Ratio ^{2/ 5/}	6.2	5.3	5.0	5.2	5.7	5.3	5.3	5.3	5.5
Liquid Assets / Assets ^{11/}	28.2	26.2	26.0	24.3	23.3	21.6	21.9	21.5	21.2
Assets / Liabilities (3 months, int. sensitive)	72.5	71.7	81.9	79.5	75.4	74.1	76.4	73.8	74.9
Capital Adequacy									
CAR	19.0	16.6	17.9	15.3	16.3	15.6	15.5	15.8	16.0
CT1R	17.0	14.9	15.1	13.0	13.9	13.2	13.3	13.5	13.7
RWA / Assets	72.0	78.4	80.2	84.3	83.4	83.4	83.1	83.2	82.8
FX Risk									
FX Assets / FX Liabilities (on-balance sheet) ^{5/}	93.0	92.4	94.3	90.9	90.7	91.4	92.5	94.1	97.6
NOP / Regulatory Capital	0.1	0.4	2.0	-0.6	-2.2	1.3	0.9	-0.5	0.1
NOP before hedging / Regulatory Capital	-15.8	-21.6	-14.1	-29.0	-28.5	-30.1	-26.0	-19.8	-7.7
Miscellaneous									
Nominal GDP (TL billion) ^{1/}	1098.8	1297.7	1416.8	1567.3	1748.2	1952.6	2152.4	2152.4	2152.4
Deposit Interest Rate (Percent) ^{10/}	7.9	10.6	7.6	8.0	9.5	11.0	11.0	10.1	10.0
Loan Interest Rate (Percent) ^{12/}	10.6	17.1	11.9	12.6	13.1	16.4	17.0	16.4	15.3
TL/US\$, EOP	1.5	1.9	1.8	2.1	2.3	2.9	2.8	2.9	3.0

Sources: IMF staff calculation based on Table 7 if not noted otherwise.

¹ WEO and estimated for current year.

² Current year data are annualized using 12 months rolling sums.

³ Net of NPL provisions.

⁴ Core liabilities include deposits and shareholders' equity.

⁵ Proxied by T1 Capital over last 2 months' average balance sheet assets and average off-balance sheets exposures (> 3 percent).

⁶ Including FX-indexed assets and liabilities.

⁷ Non-FX adjusted.

⁸ Net income as a share of last 12 months' average assets or equity.

⁹ Other non-interest income added to expenses when <0.

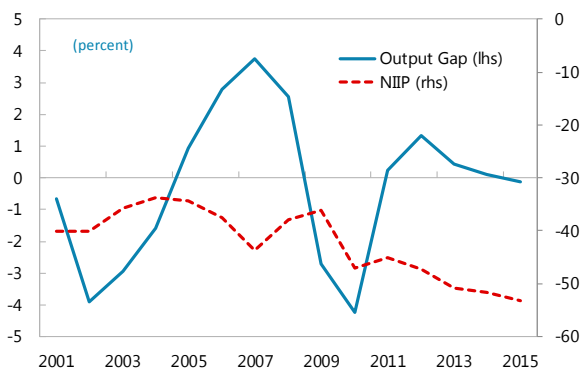
¹⁰ On TRY only, excluding sight and interbank.

¹¹ Liquid assets as reported by the BRSA in their liquidity position table.

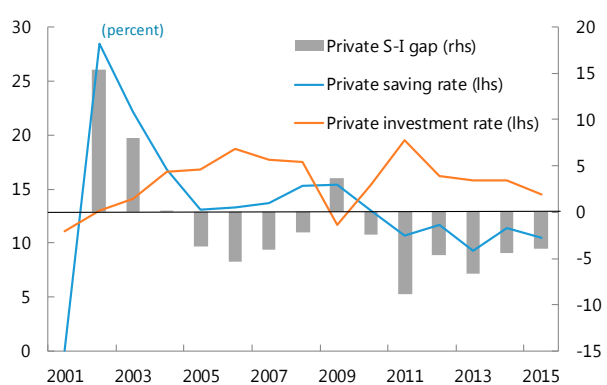
¹² Consumer Loans (Personal+Vehicles+Housing).

Figure 1. Turkey: The Macro Context

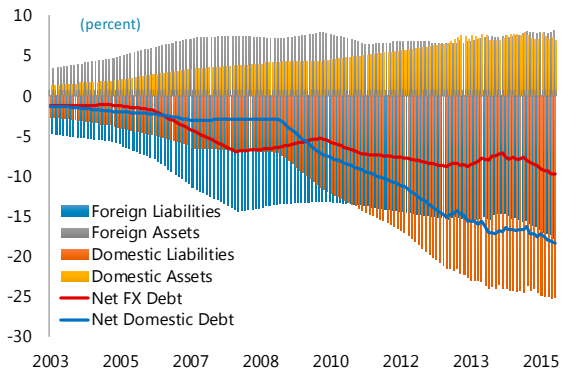
A. External imbalances are high despite output at potential



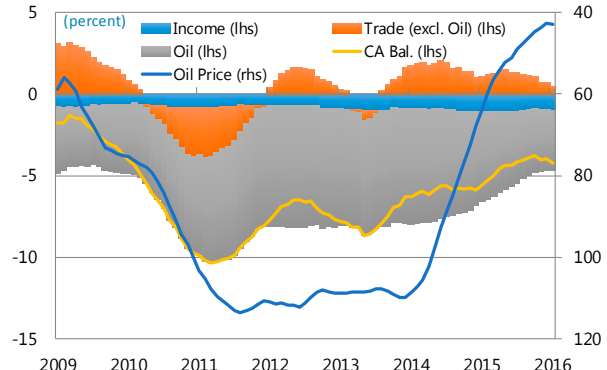
B. Reflecting a wedge between investment and savings



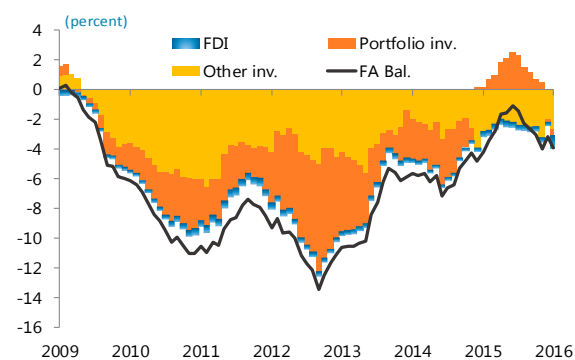
C. Financed in part by elevated and rising corporate FX debt



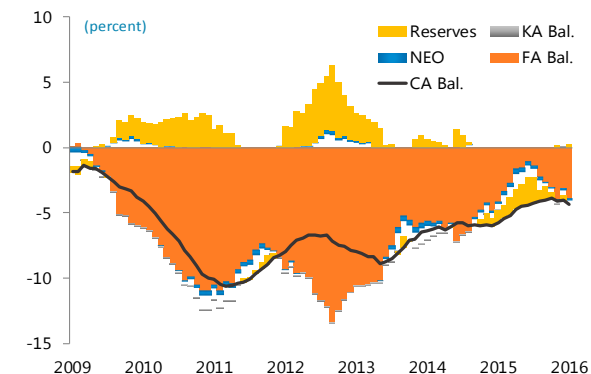
D. The current account is persistently in deficit



E. Recent portfolio flow reversals are cause for concern



F. As international reserves have been falling.

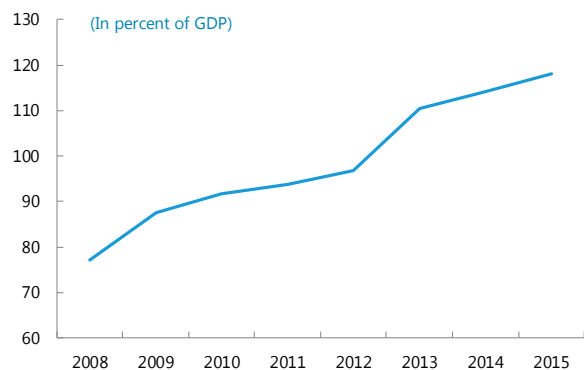


Sources: CBRT, Haver, and Fund staff estimates.

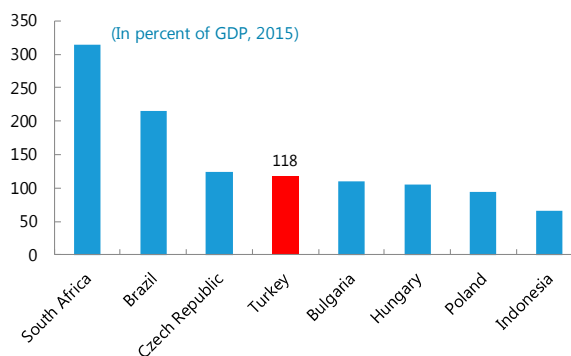
Notes: NIIP = net international investment position; S-I Gap = Investment (% of GDP) — Savings (% of GDP); CA Bal = current account balance; FDI = foreign direct investment; FA Bal = financial account balance; NEO = net errors and omissions; KA Bal = capital account balance; (A) Output gap in percent of potential GDP; NIIP in percent of GDP; (B) in percent of GDP for all series; (C) in percent of GDP; NFC FX net debt data before January 2014 is linearly interpolated; (D) in percent of GDP for all series, except oil which is 12 month average of Europe Brent spot price (fob) in U.S. dollars; current account is annualized with 12 month rolling sum; all series are non-seasonally adjusted; (E) non-seasonally adjusted data that is annualized with 12 months rolling sum; (F) non-seasonally adjusted data that is annualized as 12 months rolling sum; negative NEO and Reserves = financing.

Figure 2. Turkey: A Bank Dominated Financial Sector

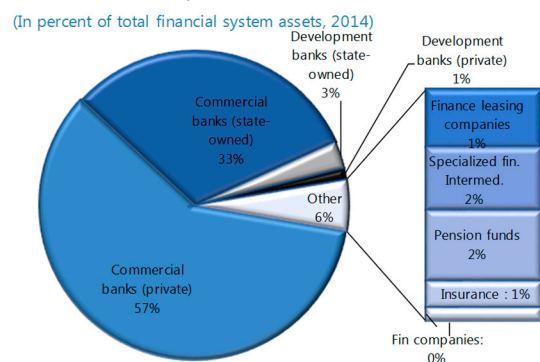
A. Turkey's financial sector has grown faster than GDP since the crisis



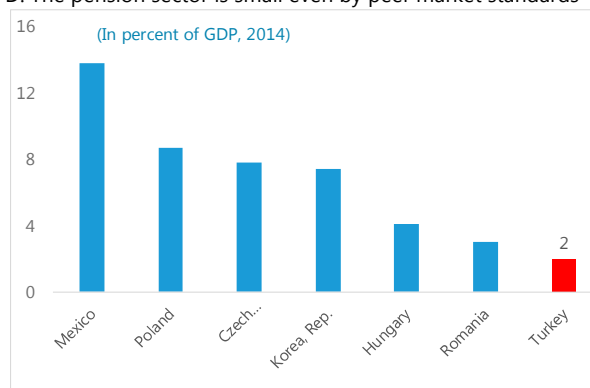
B. And is of average size relative to peer markets



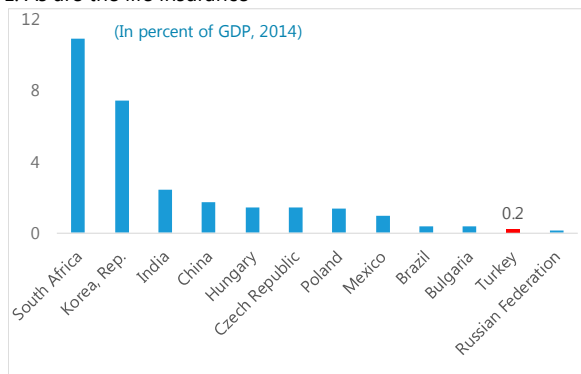
C. It is dominated by banks



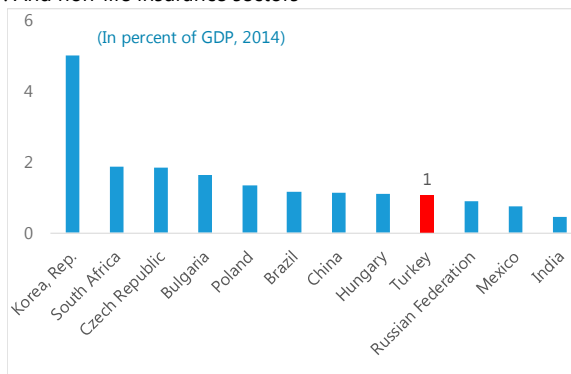
D. The pension sector is small even by peer market standards



E. As are the life insurance



F. And non-life insurance sectors

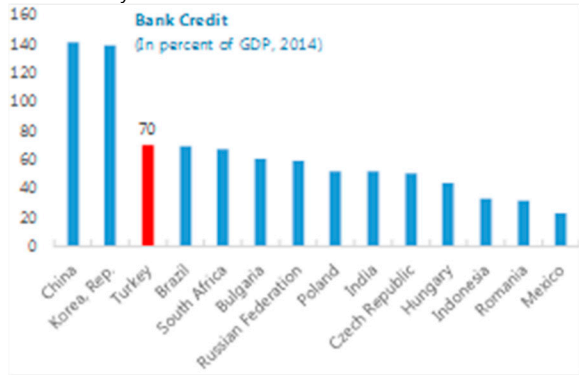


Sources: EDSS, WEO, IMF FSI Annex, and WB FiinStats.

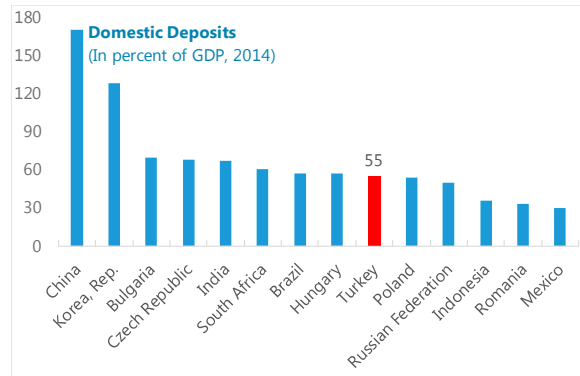
Notes: (A)-(B) Financial sector assets-to-GDP; (C) Assets-to-total financial sector assets; (D) Pension fund assets-to-GDP; (E) Life insurance premiums-to-GDP; (F) Non-life insurance premiums-to-GDP.

Figure 3. Turkey: Banking Sector Profile

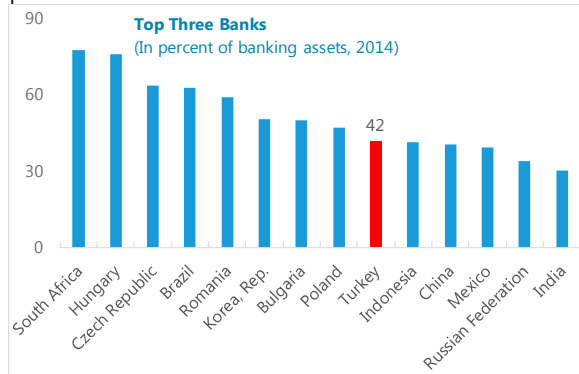
A. Turkey's banks are larger than peer average when measured by credit intermediated



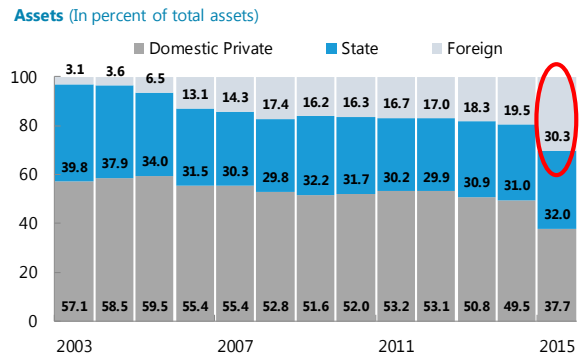
B. but of average size when measured by domestic deposits



C. Concentration in the banking industry is low relative to peers

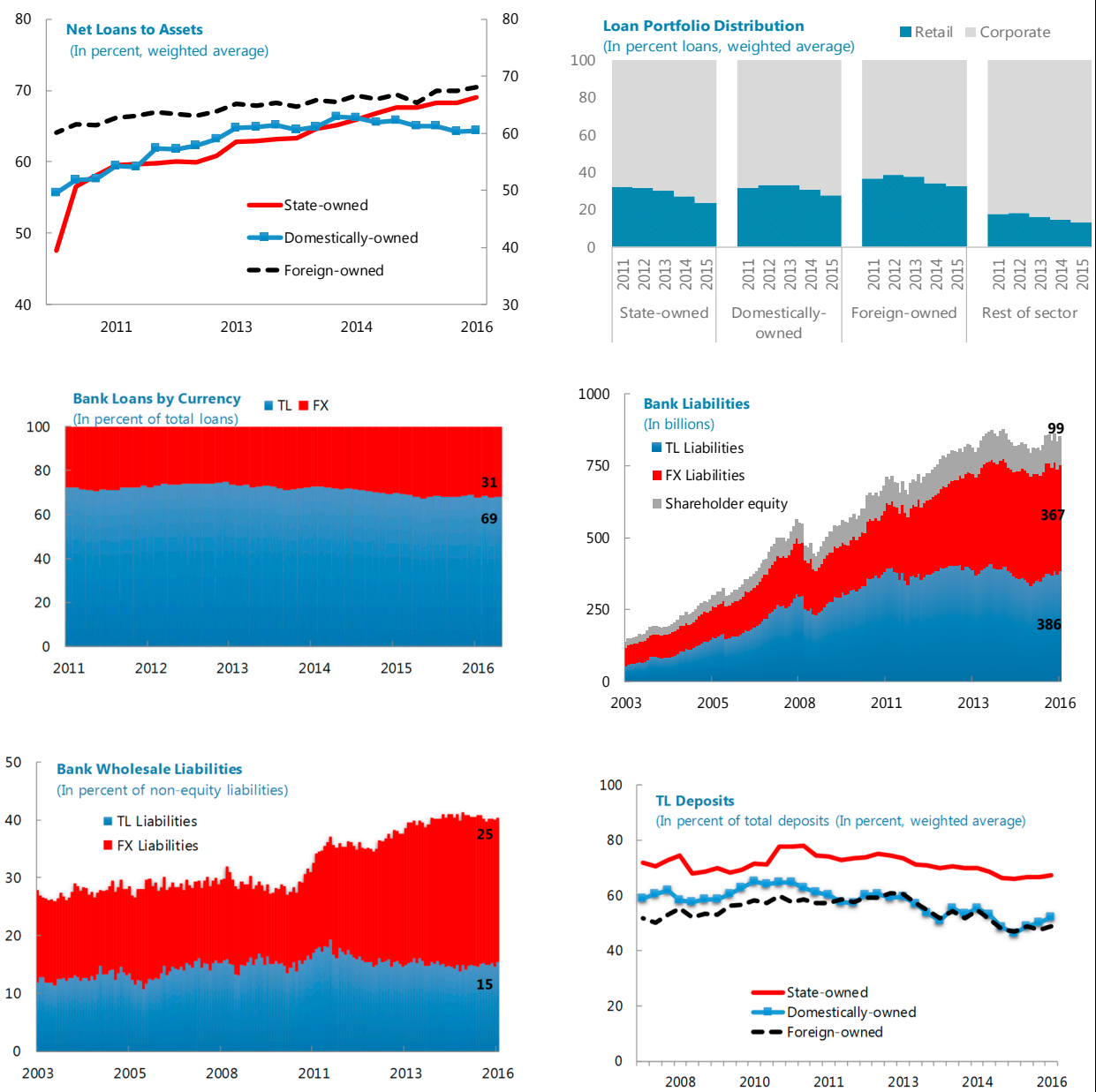


D. State-owned, foreign-owned and private domestic banks hold roughly the same quantity of banking assets



Sources: WB FiiStats and BBSA.

Figure 4. Turkey: Bank Business Model Convergence



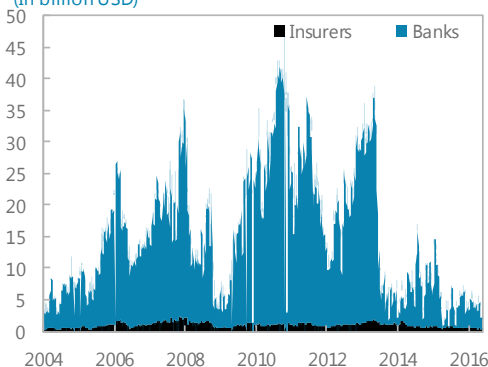
Sources: BRSA, The Bank Association of Turkey, and Fund staff estimates.

Figure 5. Turkey: Bank Measures of Systemic Risk and Spillover Networks

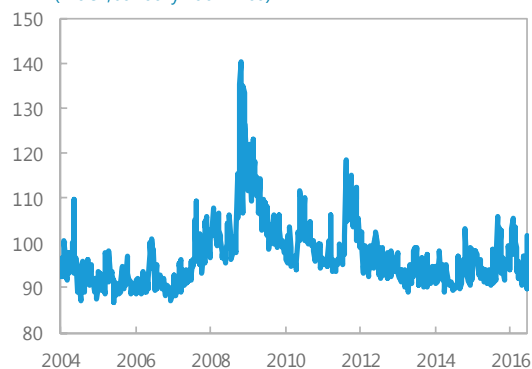
Market-based capital shortfalls are high in distress periods

and distress in one bank can spill over easily to others.

1. SRISK Capital Shortfall of Listed Banks and Insurers
(In billion USD)



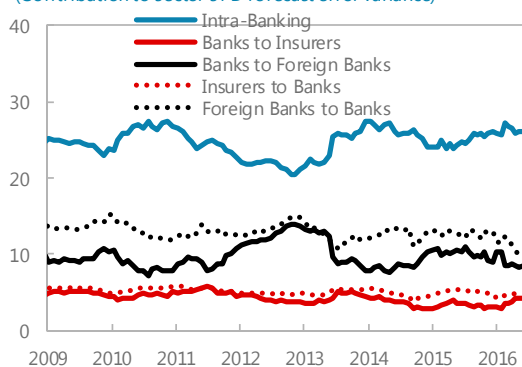
2. ΔCoVaR of Turkish Listed Banks
(Index, January 2002=100)



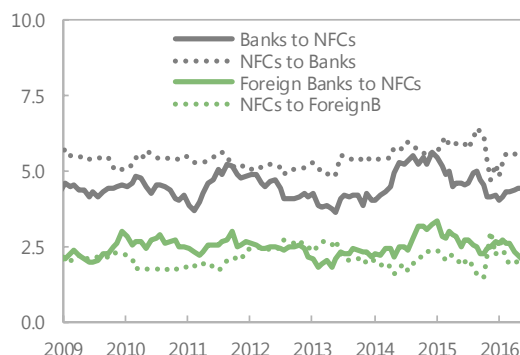
This is confirmed by high intra-banking sector spillovers...

likely reflecting commonalities in banks' business models.

3. Spillovers between Banks, Insurers and Foreign Banks
(Contribution to sector's PD forecast error variance)

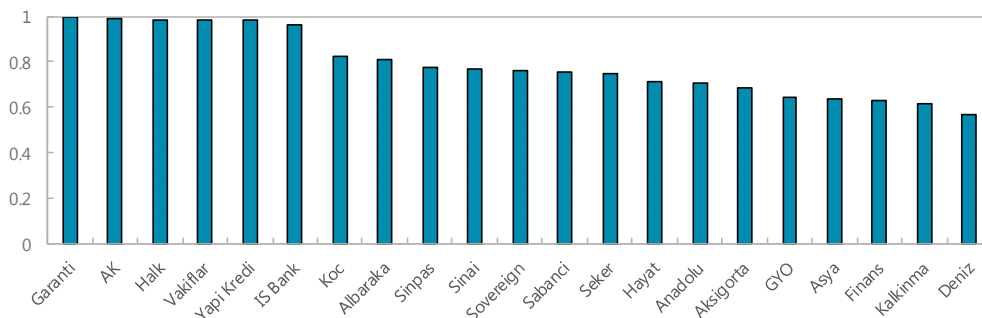


4. Spillovers between Banks and Non-Financial Corporates
(Contribution to sector's PD forecast error variance)



This results in centrality rankings, revealing which banks have the most significant spillover links with other entities.

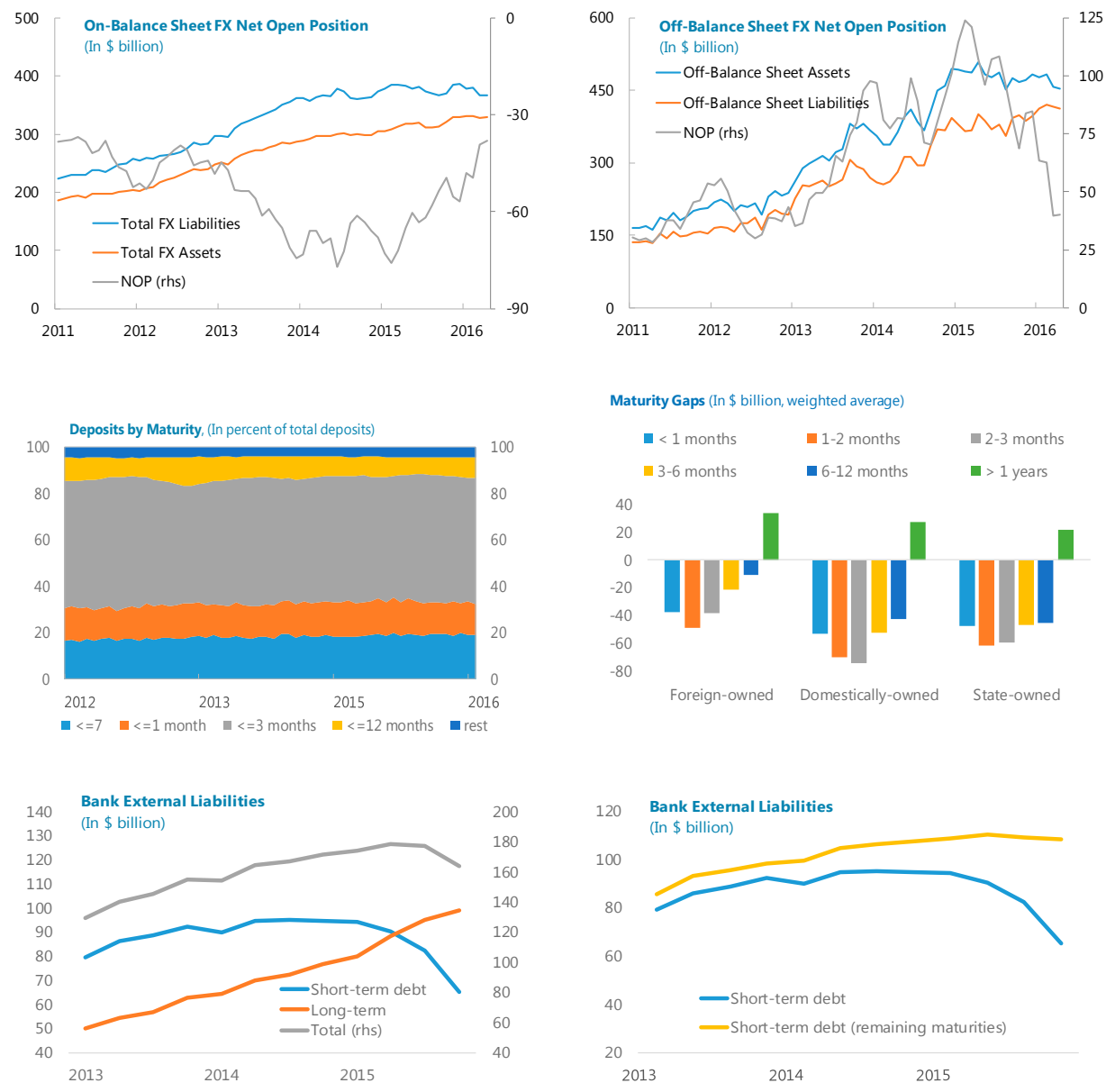
5. Spillover Centrality, Post 2011-Present



Source: New York University V-Lab, Bloomberg, L.P., Moody's KMV, and Staff Computations.

Note: SRISK is the capital shortfall measure from V-Lab and measures banks' market-based capital needs following a 40 percent drop in stock prices. CoVaR denotes conditional value at-risk, inferred from a set of 9 banks' stock prices. Spillover analysis is performed on firm's one-year default probabilities from Moody's. Eigenvector centrality is a proxy for systemic risk and indicates how much a firm contributes to, or receives spillovers from other firms.

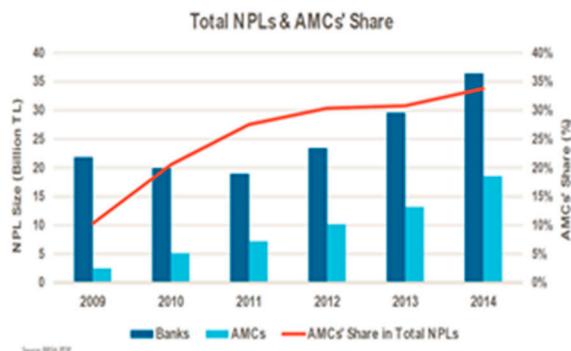
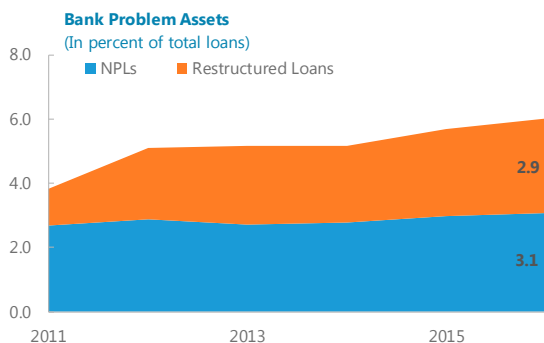
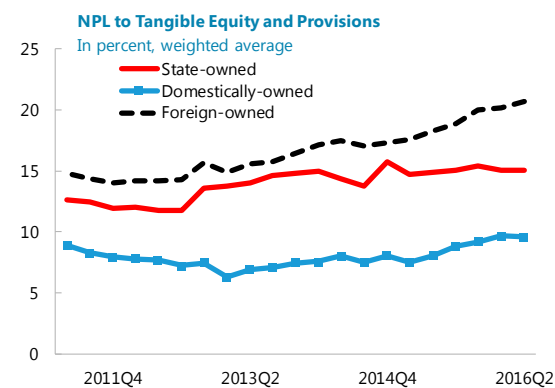
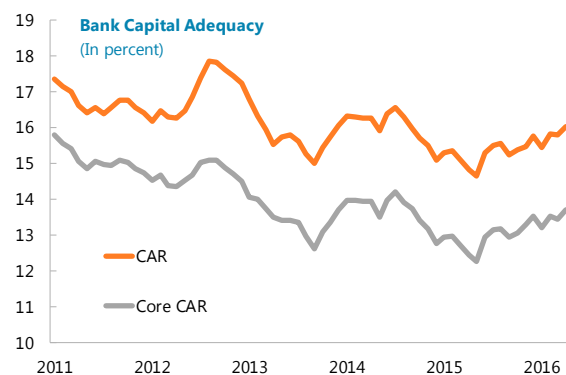
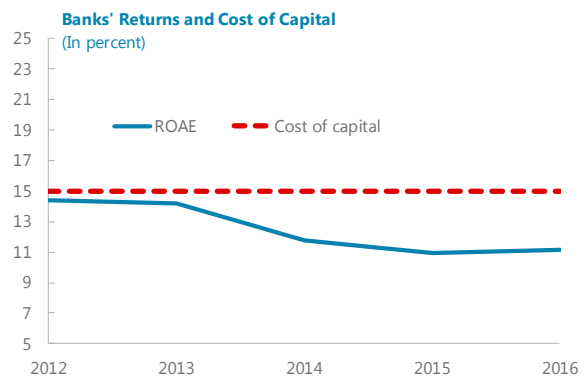
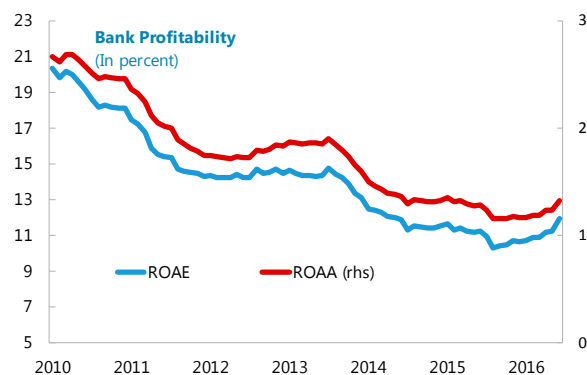
Figure 6. Turkey: Banks' FX and Liquidity Risks



Sources: CBRT, BBSA, and Fund staff estimates.

Notes: NOP = net open position; short-term liability = of (residual) maturity less than 12 months; medium-to-long term liability = of (residual) maturity greater than 12 months.

Figure 7. Turkey: Banks' Returns, Asset Quality, and Solvency

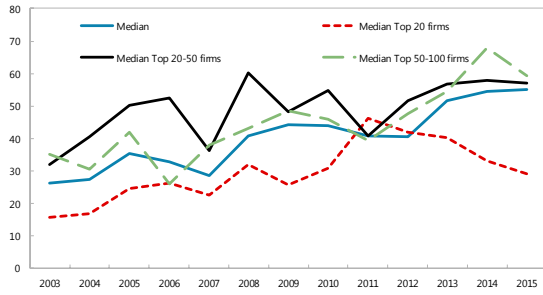


Sources: BRSA, The Banks Association of Turkey (BAT), PDP, and Fund staff estimates.

Notes: CAR = capital adequacy ratio; Core CAR = total core CAR; Hotels = hotels and restaurants; Finance = financial intermediation; Trade = wholesale and retail trade; Households = individual credit; NPL = non performing loans.

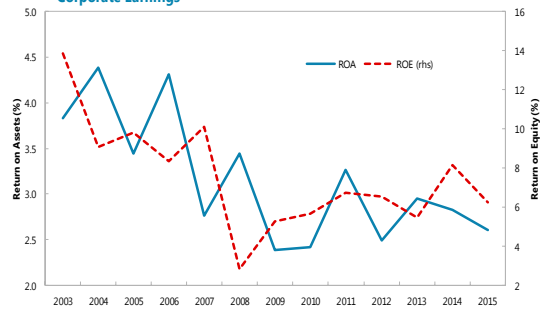
Figure 8. Turkey: Corporate Sector Risks and Vulnerabilities

Turkish Firms: Debt to Equity



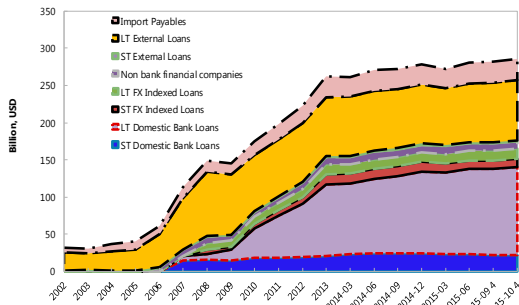
Source: IMF Staff Estimates and S&P Capital IQ.

Corporate Earnings



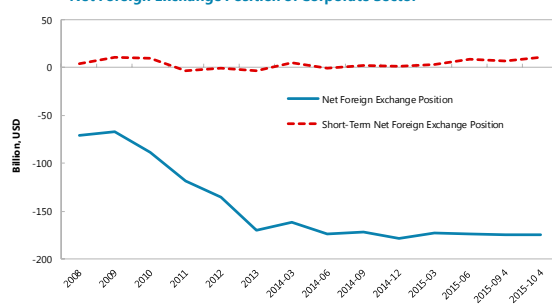
Source: S&P Capital IQ.

Corporate Sector FX Liabilities



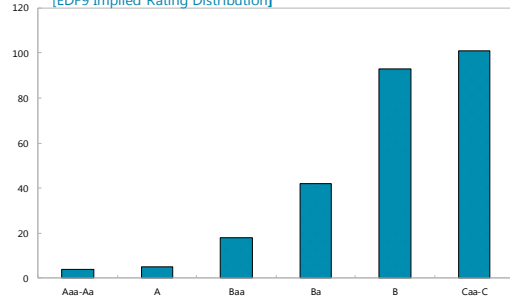
Source: CBRT.

Net Foreign Exchange Position of Corporate Sector



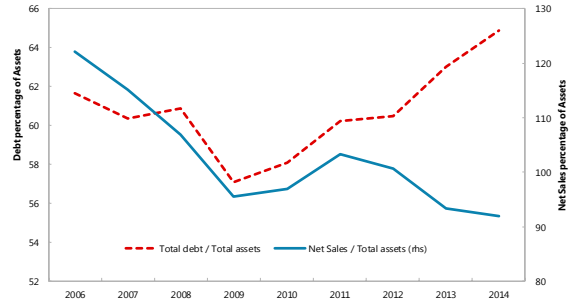
Source: CBRT.

**Nonfinancial Corporate Ratings
[EDF9 Implied Rating Distribution]**



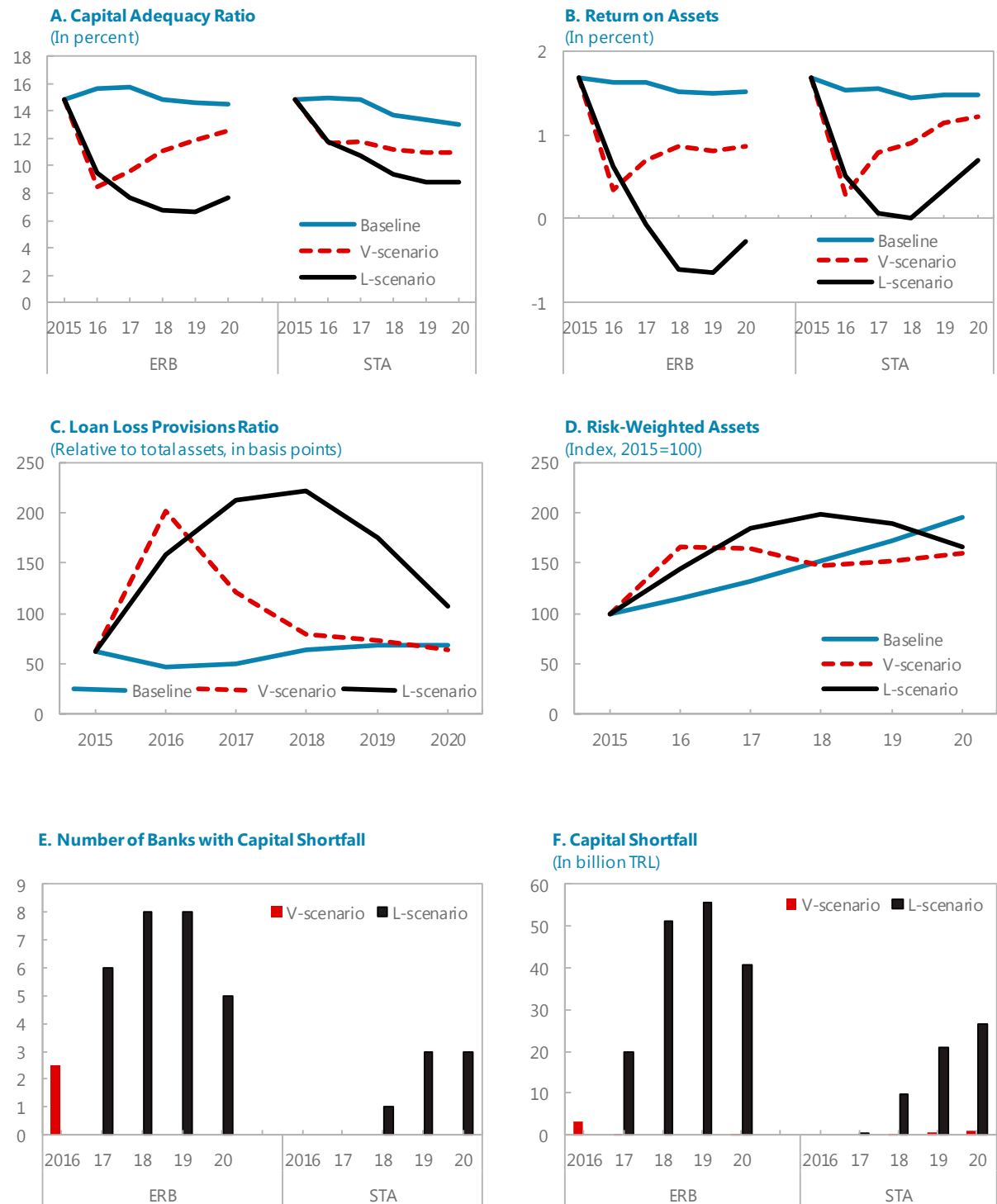
Source: Moody's.

SMEs Profitability and Leverage



Source: Turkish Treasury.

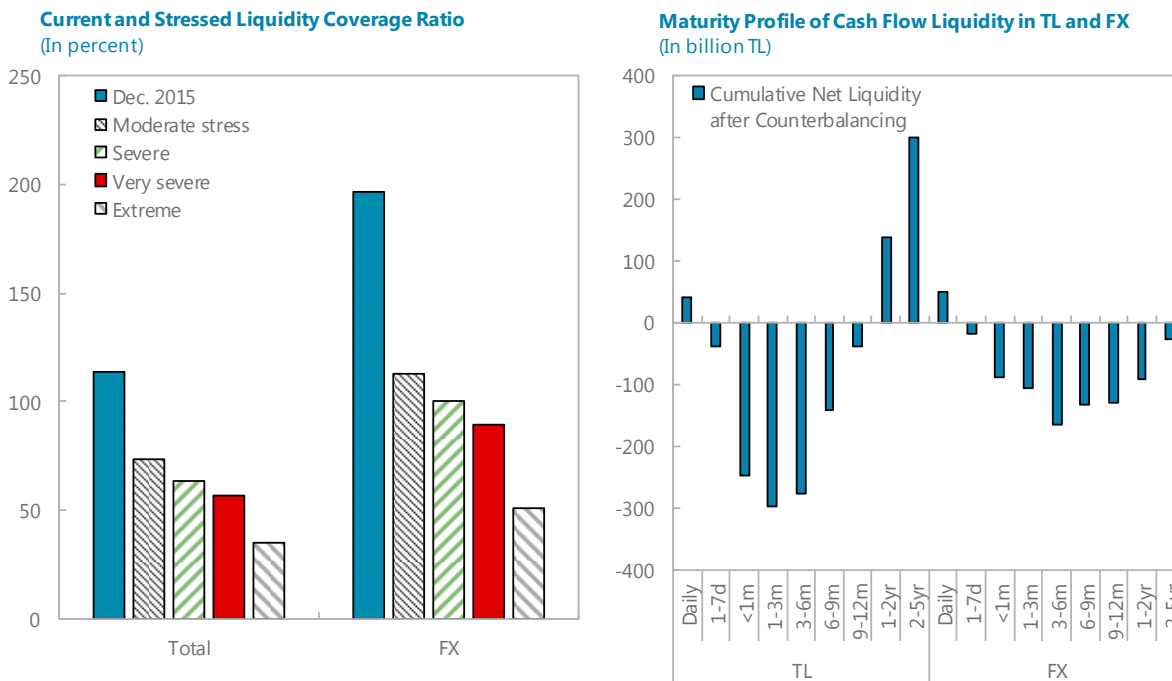
Figure 9. Turkey: Summary Results of Solvency Stress Tests of Major Banks



Source: BRSAsupervisory data, IMF Staff Computations

Note: Stress impact estimates show the median of the range of impact estimates under different methodologies and risk factor inputs. ERB = Economic Risk-Based Approach, STA = Standardized approach under Basel II capital regulation. V-scenario = Adverse Scenario. L-scenario = Severely Adverse Scenario.

Figure 10. Turkey: Results of the Liquidity Stress Tests of Major Banks



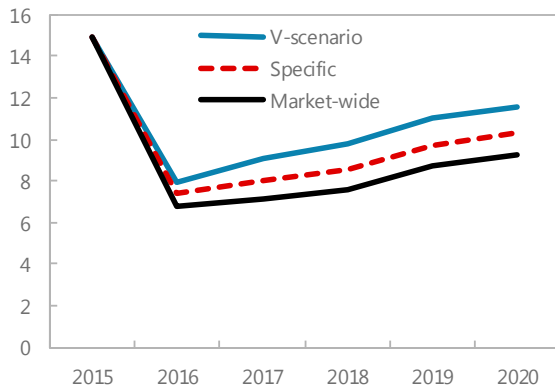
Source: BRSA and FSAP Calculations.

Note: Stressed liquidity coverage ratios are derived after imposing various levels of stress on cash outflows (Moderate stress: 10/20 percent on retail deposits for large/other banks, 10 percent on corporates; Severe stress: 10/30 percent on retail deposits for large/other banks, 15 percent on corporates; Very severe stress: 15/30 percent on retail deposits for large/other banks, 20 percent on corporates), discounting high quality liquid assets by 5 percent, and assuming zero inflows from the central bank or the interbank market. In the Extreme stress scenario, both outflows and inflows are stressed to a higher degree. In the right-hand figure, counterbalancing capacity refers to all assets that can be liquidated and used to counterbalance funding gaps.

Figure 11. Turkey: Funding Liquidity-Solvency Feedback in Solvency Stress Tests

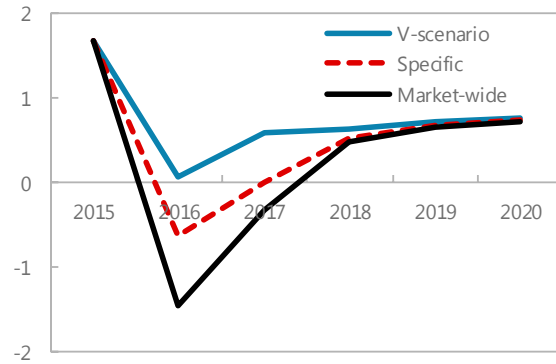
Liquidity stress can add to solvency pressure...

Impact Funding Shocks on CAR in V-scenario
(In percent)



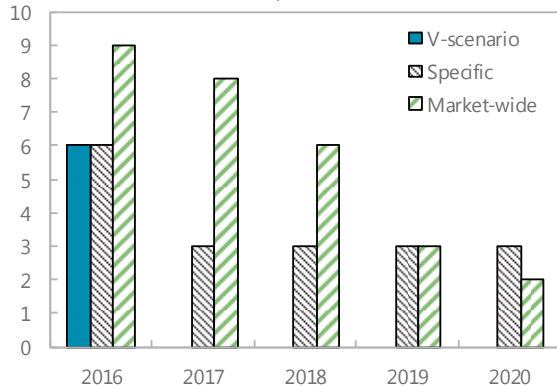
and adversely affects banks' profitability for some time.

Impact Funding Shocks on ROA in V-scenario
(In percent)



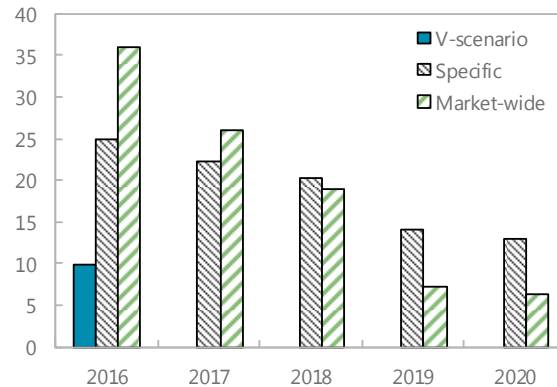
The impact is persistent...

Impact Funding Shocks on Bank Capital Needs
(Number of banks with capital shortfall)



and is significant relative to GDP in 2016

Impact Funding Shocks on Bank Capital Needs
(Recapitalization need, in billion TRL)

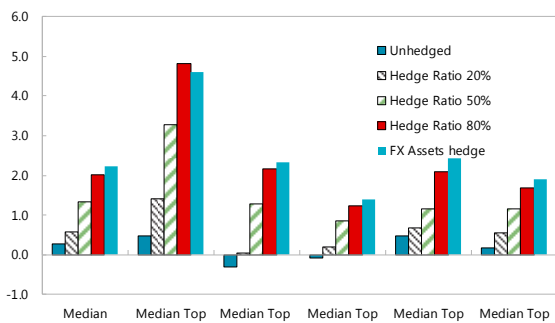


Source: FSAP calculations, based on BRSA supervisory banking data.

Note: Specific refers to funding shocks (interest rate shocks to liabilities) imposed on the three weakest banks in 2016, and spilling over to the three most connected banks, based on the results from the spillover analysis. Market-wide refers to a generalized funding shock affecting all banks in 2016 and 2017. Results shown are for the economic risk based approach to solvency stress testing.

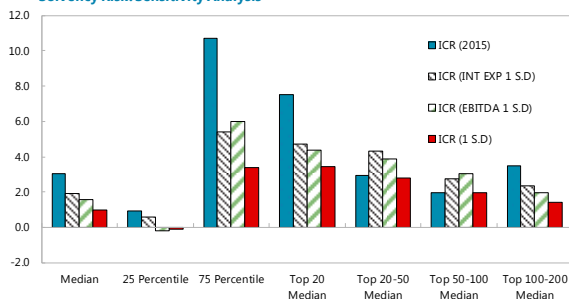
Figure 12. Turkey: Corporate Sector Stress Test Analysis

FX Sensitivity Analysis: Stressed ICR 2016



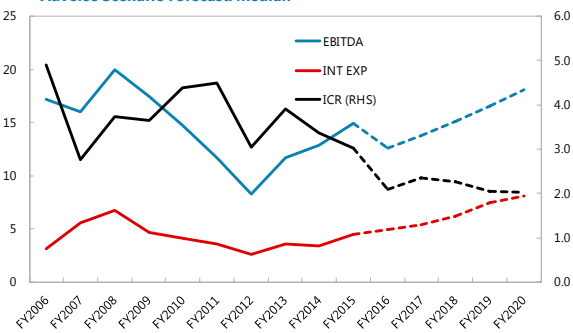
Source: IMF Staff Estimates and S&P Capital IQ.

Solvency Risk: Sensitivity Analysis



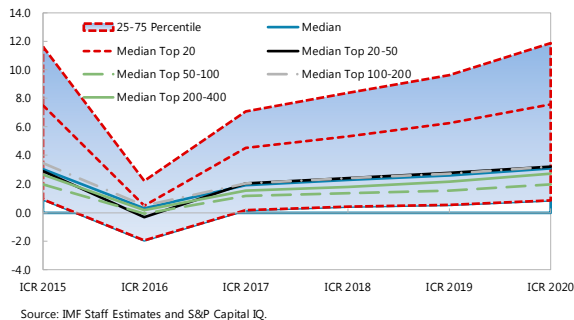
Source: IMF Staff Estimates and S&P Capital IQ.

Adverse Scenario Forecast: Median



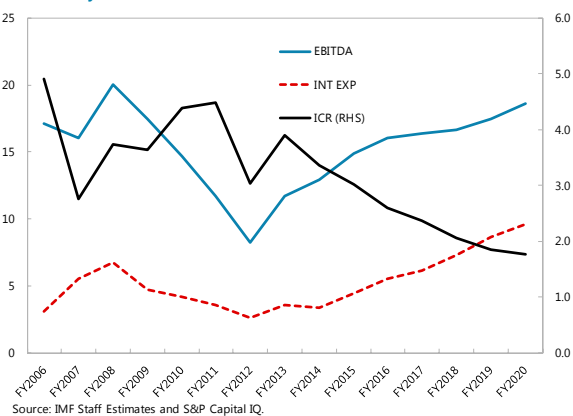
Source: IMF Staff Estimates and S&P Capital IQ.

FX Risk: Adverse Scenario ICR



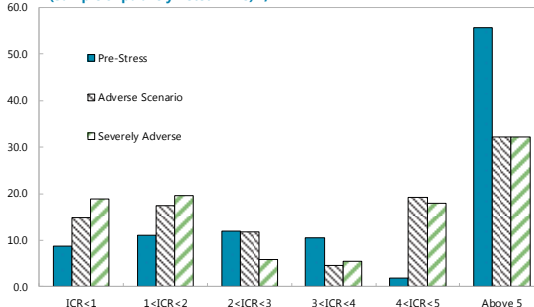
Source: IMF Staff Estimates and S&P Capital IQ.

Severely Adverse Forecast: Median



Source: IMF Staff Estimates and S&P Capital IQ.

Debt At Risk (Percent of Total Debt) (Sample of publicly-listed firms) 1/



Source: IMF Staff Estimates and S&P Capital IQ.

1. List of firms excludes conglomerates, firms with a FX functional currency and leasing firms.

Annex I. Risk Assessment Matrix (RAM)

	Source of Risks	Likelihood	Time Horizon	Impact	Policy Response
Global	<p>Economic fallout from political fragmentation:</p> <ul style="list-style-type: none"> • Rise in populism and nationalism in large economies could slow down or even reverse policy coordination and collaboration; international trade liberalization; financial, and labor flows; and lead to unsustainable policies, weighing on global growth and exacerbating financial market volatility. • Protracted uncertainty associated with negotiating post-Brexit arrangements could weigh on confidence and investment more than expected—most prominently in the UK and the rest of Europe with possible knock-on effects elsewhere. Increased barriers could also dampen the longer-run economic performance of affected countries more than expected. • Heightened risk of fragmentation/security dislocation in part of the Middle East, Africa, and Europe, leading to a sharp rise in migrant flows, with negative global spillovers. 	High	Short to Medium Term	Low	<ul style="list-style-type: none"> • Preemptively increase FX reserves through sterilized intervention. • Medium term: Improve competitiveness through structural reform. • Reduce energy dependence by developing additional domestic generation capacity.
		Medium	Short to Medium Term	Medium	
		High	Short Term	Medium	
	<p>Tighter or more volatile global financial conditions:</p> <ul style="list-style-type: none"> • Sharp rise in risk premia with flight to safety: Investors withdraw from specific risk asset classes as they reassess underlying economic and financial risks in large economies, or respond to unanticipated Fed tightening, and increases in U.S. term premia, with poor market liquidity amplifying volatility. Safe haven currencies—especially the US dollar—surge creates balance sheet strains for FX debtors. 	Medium	Short Term	High	<ul style="list-style-type: none"> • Preemptively strengthen bank and NFC balance-sheets through restrictions on the structure of liabilities and higher risk weights or provisioning on lending to NFCs in FX. • Tighten monetary policy • To the extent the NIR level allows, use FX reserves to smooth volatility in disorderly market conditions. • In case a recession ensues, consider loosening the fiscal stance.
	<p>Weaker-than-expected global growth:</p> <ul style="list-style-type: none"> • Significant China slowdown and its spillovers: Key near term risks are a loss of investor confidence, disorderly corporate defaults, a sharp fall in asset prices, and a quicker fading of the stimulus impact. Weak domestic demand further suppresses commodity prices, roils global financial markets, and reduces global growth (Likelihood: low in short-term, medium thereafter). • Significant slowdown in other large EMs/frontier economies. Turning of the credit cycle and fallout from excess household and corporate (FX) leverage as investors withdraw from EM corporate debt, generating disorderly deleveraging, with potential spillbacks to advanced economies. • Structurally weak growth in key advanced and emerging economies: Weak demand, low productivity growth, and persistently low inflation 	Low/ Medium	Short to Medium Term	Medium	<ul style="list-style-type: none"> • Preemptively strengthen bank and NFC balance-sheets through restrictions on the structure of liabilities and higher risk weights or provisioning on lending to NFCs in FX. • Medium term: Diversify export destinations, increase high value-added exports, and improve competitiveness, thus boosting exports.
		Medium	Short Term	Medium	
	High/ Medium	Medium Term	Medium		

Source of Risks		Likelihood	Time Horizon	Impact	Policy Response
	from a failure to fully address crisis legacies and undertake structural reforms, leading to lower medium-term path of potential growth (the Euro area, Japan, and the United States) and exacerbating legacy financial imbalances especially among banks (the Euro area) (high likelihood). Tighter financial conditions and insufficient reforms undermine medium-term growth in emerging markets (medium likelihood).				<ul style="list-style-type: none"> Structural reforms should be promptly implemented so to gain competitiveness. Medium term: Tighten fiscal policy to bring it back into line with the reduced growth potential.
Domestic	Loose domestic policies leading to: <ul style="list-style-type: none"> High inflation and a deteriorating fiscal position, eroding confidence and leading to re-dollarization. This could occur if the government tries to spur growth through demand management, rather than long-term structural reform. 	Medium	Short to Medium Term	High	<ul style="list-style-type: none"> Short-run: Tighten monetary policy and normalize the framework. Medium term: Tighten fiscal policy to bring it back into line with the medium-term program. Prioritize expenditure compression.
	Private debt overhang weigh on domestic demand <ul style="list-style-type: none"> The slowdown in private sector credit growth can further weighs on the real economy triggering a disorderly deleveraging cycle that results in a recession. 	Medium	Short to Medium Term	High	<ul style="list-style-type: none"> Preemptively strengthen bank and NFC balance-sheets through restrictions on the structure of liabilities and higher risk weights or provisioning on lending to NFCs in FX. Short-run: Some additional fiscal space could be used and monetary policy could assign a bigger weight on the output gap to the extent consistent with orderly FX market conditions. Medium term: Robust debt-restructuring framework needs to be put in place.
<p>¹ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. "Short term" and "medium term" are meant to indicate that the risk could materialize within 1 year and 3 years, respectively.</p>					

Annex II. Report on the Observance of Standards and Codes (ROSCs)—Summary Assessments of BCP

A. Introduction

1. This report summarizes the assessment of the current state of implementation of the BCPs in Turkey. The assessment has been completed as a part of a Financial Sector Assessment Program (FSAP) undertaken by the IMF and the WB during 2016. It reflects the regulatory and supervisory framework in place as of the date of the completion of the assessment in April 2016. It is not intended to represent an analysis of the state of the banking sector or the crisis management framework, which have been addressed in the broad exercise. The full Detailed Assessment Report, which also includes the overview of the institutional setting and market structure and the preconditions for effective banking supervision, is published separately.

2. The Assessment has been conducted in accordance with the revised BCP assessment methodology approved by the Basel Committee. The Turkey supervisory regime was assessed and rated against the Essential Criteria (EC). The methodology requires that the assessment be based on (i) the legal and other documentary evidence; (ii) the work of the supervisory authority; and (iii) its implementation in the banking sector. Full compliance requires that all these prerequisites are met. The guidelines allow that a country may fulfill the compliance criteria in a different manner from those suggested, as long as it can prove that the overriding objectives of each Core Principle (CP) are achieved. Conversely, countries may sometimes be required to fulfill more than the minimum standards, such as in the event of structural weaknesses in that country. The methodology also states that the assessment is to be made on the factual situation of the date when the assessment is completed. However, where applicable, the assessors made note of regulatory initiatives that have yet to be completed or implemented.

3. The conclusions are based on extensive discussions with staff members of the BRSA and a review of related regulation and internal supervisory documents. The mission reviewed the BCP self-assessment undertaken by BRSA preceding this assessment, and detailed responses to a questionnaire addressing supervisory issues. The mission also reviewed a number of laws governing banking supervision powers and activities, including the BL and a number of regulations and decisions addressing prudential standards and risk management requirements. Special attention was given to inspection reports. The mission also held meetings with senior officials of local banks, an external auditing firm and a credit rating agency. A representative from the Turkish Treasury was present at all meetings.

4. An assessment of compliance with the BCP is not, and is not intended to be, an exact science. Reaching conclusions require judgments by the assessment team. Banking systems differ from one country to another, as do domestic circumstances. Also, banking activities are changing rapidly around the world after the crisis and theories, policies and best practices are evolving rapidly. Nevertheless, by adhering to a common agreed methodology, the assessment should provide the Turkish authorities with an internationally consistent measure of quality of their banking supervision

relative to the 2012 revision of the Core Principles, which are internationally recognized as minimum standards.

5. The assessors appreciated the cooperation received from the BRSA. The team sincerely thanks the staff of the BRSA for their high professionalism, for the spirit of active cooperation and for making enormous efforts to attend the information requests of the team.

B. Main Findings

6. Since the Basel Core Principle assessment in 2011, the authorities have undertaken significant effort to further strengthen banking regulation and the supervisory process.

Progress has been made in developing the macroprudential policy framework and in particular, the Financial Stability Committee (FSC) was established to promote information sharing among the supervisory bodies and to coordinate policy measures. As well, the regulatory framework has been updated and the supervisory approach has been upgraded. The assessment highlights the significant strengthening of the regulatory framework and the revisions to the supervisory approach. However, the assessment also emphasizes the need for strengthening the implementation of the framework and the continued need for the BRSA to form well founded, qualitative conclusions about the operations of banks and how they oversee and manage their operations with corresponding, proportionate supervisory responses.

Responsibility, Objectives, Powers, Independence, Accountability (CPs 1–2)

7. Similar to the 2011 assessment, some important elements of the regulatory and supervisory framework persist and potentially limit the BRSA’s objectives and operational and organizational independence. The BL provides a broadly appropriate framework for regulating and supervising banks. The Law establishes the BRSA’s general independence and a clear mandate. However, the enumerated regulatory and supervisory objectives of financial sector stability and development require prioritization and could present potential conflicts when the BRSA carries out its mandate. As well, several outstanding issues continue to exist which can have the effect of compromising the independence so critical to the BRSA’s ability to carry out its duties in an independent and objective manner. These include: i) the appointments of the BRSA Chair and Board members are made by the CoM without any confirmation process by any other independent body, ii) the requirement that the supervisor shall consult the Ministry and the State Planning Organization before putting regulations into force; iii) the relevant minister may permit lawsuit(s) against Board members, iv) the related Ministry may file a lawsuit for the cancellation of the BRSA Board’s regulatory decisions; and v) the Prime Minister can remove members of the Board, if conditions in the BL are met, without publicly disclosing the reasons. Finally, in relation to resourcing, entry conditions to the BRSA are not attractive for the hiring of mid-career professionals and provide practical constraints in the event of a shortfall in experience levels.

Ownership, Licensing, and Structure (CPs 4–7)

8. The BL provides clear definitions of activities that are only permitted to be conducted by registered banks, including taking deposits from the public. Law and regulation, as well as current procedures, provide the BRSA with the needed authority to control and oversee significant bank ownership and controlling companies. The regulatory framework subjects major acquisitions and investments by banks and controlling companies to prior approval by the BRSA. The BRSA also has well established supervisory practices to limit and monitor risks arising from such activities. The licensing framework provided in law and regulation and the process followed by the BRSA provide a comprehensive framework through which to assess the adequacy of new registrations for banks, including foreign bank branches. However, the BRSA should consider explicitly requiring that banks' boards have, on a collective basis, sound knowledge of their banks' material activities and those they plan to pursue. The BRSA should likewise more explicitly determine whether relevant home supervisors practice global consolidated supervision on cross-border activities and consider more extensively the effectiveness of supervision in host countries.

Methods of Ongoing Supervision (CPs 8–10)

9. The BRSA has further enhanced its supervisory approach since the previous BCP assessment (2011). The methodology is comprehensive and documented in a number of manuals. It leverages substantial databases and has sufficient authority to require banks and controlling companies to periodically submit a broad range of information which is used in both the off and onsite processes. Among the changes made since 2011, the CAMELS rating system was redesigned to capture underlying risk on a more granular level and a number of qualitative and quantitative assessment criteria were added to the risk assessment and rating tool.

10. Nevertheless, practical implementation of the supervisory process demonstrates shortcomings that need to be addressed. The onsite supervisory process is focused on a series of processes that are carried out through the supervisory cycle for each bank with the ultimate result generating the CAMELS rating. However, as currently applied by the BRSA, the overall process is not enough to generate firm, forward-looking, and actionable conclusions. Special examinations are conducted in areas of higher concern and supervisory interest, but such inspections tend to focus heavily on compliance issues and do not identify and make clear if there is need for broader and more forceful supervisory action. Results of the ICAAP need to be more thoroughly analyzed and discussed with banks, and stress tests results should play a larger role in the assessment framework. As well, banks, particularly the systemically important financial institutions (SIFs), should be required to develop recovery plans and the BRSA should assess their resolvability. The BRSA should consider setting policies establishing at least one annual meeting between supervisors and the board of the bank.

11. Organizationally, the on-site and off-site functions are relevant and well developed. The different departments share findings, but their work seems to be conducted in parallel with little coordination or cross-departmental communication, and supervisors do not exchange views beyond written reports. The BRSA should develop a process through which to assess its internal effectiveness and address weaknesses that are identified. Increasing the rotation between on- and off- site supervisors could also help the integration of the areas.

Corrective and Sanctioning Powers of Supervisors (CP 11)

12. The BRSA has available an appropriate range of supervisory tools to use when, in the supervisor's judgment, a bank is not complying with the regulations or represents a risk for the financial sector. Nevertheless, in practice, the remedial and corrective actions provided for in the law are rarely used. The BRSA seems to rely more heavily on administrative fines whose scope of application is more clearly defined in the BL than on taking actions at an early stage to address unsafe and unsound practices that require supervisory judgment. The current process seems relatively skewed towards validation of compliance processes and thus constrains active supervisory judgments and decisions.

Cooperation, Consolidated, and Cross-Border Banking Supervision (CPs 3–12–13)

13. **The regulatory and reporting framework provides a broadly appropriate structure for monitoring and assessing risks to banks from nonbanking and foreign banking operations in banking groups.** However, given the current limitations of the CAMELS rating and ICAAP process, the BRSA should make further effort to monitor and manage risks arising from nonbanking and foreign activities or parent entities of a financial group. In this regard, the BRSA should deepen the analyses and strengthen its techniques, such as group-wide stress testing, to monitor and assess these risks. Authorities should further improve the recovery and resolution planning of large banking groups. Such planning should also consider scenarios where shocks originate from nonbanking entities or parent groups.

14. **Legal provisions as well as operational frameworks for cooperation and collaboration with domestic and foreign authorities are in place.** The BRSA has made vast efforts to improve home-host relationships during the last few years. Nevertheless, considering that some Turkish banks hold material operations abroad, it is important to improve the relationship even further. In particular, it is essential to develop a framework for cross-border crisis coordination with relevant host authorities and the development of resolution plans that pay special attention to cross border issues.

Corporate Governance (CP 14)

15. **The legal framework surrounding the corporate governance framework for banks is extensive, but very heavily focused on board responsibilities regarding internal systems (risk management, internal control, internal audit).** Supervisory validation of the manner in which such internal systems operate and overall governance is not well supported. This impacts the degree to which the BRSA can place confidence in the systems that inform the banks' boards and itself, as well as the systems' ability to generate early warning indicators of deterioration. There is no overall or cross-cutting assessment of corporate governance in a holistic manner which would, in part, leverage examination results and relevant offsite information as well as information generated from any enforcement actions. The BRSA should develop a more comprehensive corporate governance regulation that completes the elements of governance that already exist in guidelines and regulation.

16. **Neither the BL nor subsidiary legislation requires the board to act, on a collective basis, in an independent and objective manner and apart from the influence of third parties.**

As well, there is no requirement for the majority of the board to be composed of nonexecutive or independent members. The BL requires Board audit committees to have a minimum of two independent members which is considered too few in order to execute the duties assigned to it in a robust and effective manner. This is particularly so since the audit committee is considered an extension of the board and is assigned the task of internal systems oversight which includes risk management.

Prudential Requirements, Regulatory Framework, Accounting and Disclosure (CPs 15–29)

17. The BRSA has adopted the various components of Basel II, 2.5 and III according to the framework established by the Basel Committee. Capital is calculated on a consolidated and solo basis for all banks and the BRSA has the authority to impose additional capital requirements on individual banks, as deemed necessary. The BRSA has applied the three Basel ratios (common equity tier 1, tier 1 and total capital) as well as countercyclical capital requirements, systemically important bank capital add-ons and a “capital planning buffer” that provides a forward looking nature to the capital regulation. Going forward, as the BRSA gain experience with the ICAAP, it should consider simplifications to the framework to improve its enforceability and reduce banks compliance burden, particularly for non-systemically important banks.

18. The BRSA has reviewed and enhanced its regulatory framework since the 2011 BCP assessment, particularly in the various risk areas. The overarching framework for risk is embodied in the RICAAP.¹ Given that it is a relatively recent development, banks are still developing their approach and implementing important systems. The quality of banks reports and the scrutiny of the reports by supervisors will need to develop further before the results can be more reliably and more extensively used. As well, the overall risk management framework requires increased independence and development.

19. While the legal framework for credit risk is generally comprehensive, several issues exist which compromise its effectiveness and application. The framework design does not require ongoing, independent (from the business line) credit risk monitoring of large individual exposures or homogeneous portfolios and verification of the integrity of the process therein. Information generated by this line function is source data used by the risk management functions for audit committee and board reporting and is also likely the information also reported to the BRSA for monitoring and examination purposes.

20. The framework for credit classification and provisioning is generally adequate. However, credit classification definitions, particularly in the special mention and substandard categories are loose and substantially overlapping. The accuracy of asset classification by banks, and Therefore, the accuracy of provisioning and reporting to boards and the BRSA is called into question given the nature of reclassifications assigned by onsite examiners. Examination conclusions focus more on internal control issues rather than higher level implications for the condition and management of the credit portfolio and overall issues of governance.

¹ Regulation on Internal Systems and Internal Capital Adequacy Assessment Process of Banks.

21. The historical and statistical support for standard (general) and special mention loan categories is not substantiated by accumulated loss experience. It is not clear if appraised values, within a range, are being realized upon the sale of the properties or if provisioned amounts are adequately covering loss experience on classified loans. Clear parameters should be established for periodic valuation of underlying collateral on NPL exposures.

22. The legal framework addressing concentration risk and large exposures limits is generally in line with international standards. The definition of connected parties is comprehensive. The BRSA examines and monitors various exposures including, inter alia, large exposures, concentrations by sector, product, customer, and risk group.

23. BRSA guidance adequately captures country and transfer risk as well as other relevant risks. Banks are expected to establish country risk parameters as well as systems for monitoring exposures, including indirect foreign-exchange risk and indirect country risk. Country risk is evaluated through the CAMELS review process and via the risk matrix of the bank.

24. The BRSA has adopted comprehensive regulation and guidance through which to direct banks to identify, measure, and monitor their market risk and interest rate risk (in the banking book) exposures. This includes parameters for valuation, stress testing, and model use. However, specialist expertise is not deployed to evaluate the scenarios or calculation details of the stress testing exercises. The BRSA should use specialized expertise with which to evaluate scenarios and assumptions used for more complex stress testing as well as to review model validations during onsite examinations or, as an offsite exercise. As well, the BRSA should develop specialized examinations processes through which these risks may be more frequently and deeply assessed.

25. The BRSA has set up a comprehensive framework for liquidity regulation, monitoring, and assignment of bank responsibilities. Regulation is in some cases more rigorous than international benchmarks. A wide range of tools is in place for monitoring banks' liquidity positions and funding experience. As well, the BRSA underwent a Regulatory Consistency Assessment of its Basel III liquidity coverage ratio (LCR) regulations for which it received a "compliant" rating. The CBRT has taken a number of steps in recent years to support the strengthening of foreign currency funding. There appears to be an opportunity to strengthen liaison between the BRSA and the CBRT on the monitoring and management of foreign liquidity risk. Given the potential foreign exchange roll over risk residing in banks' positions, consideration could be given to increasing the ultimate target for the FX LCR from 80 percent to 100 percent to further strengthen the management of liquidity risk. Similar to observations made in the review of credit risk inspections, onsite reviews of liquidity risk should further extend analysis of the impact of liquidity operations on other areas of the balance sheet, growth trends, asset quality, and management processes to support conclusions.

26. The legal and regulatory framework for related parties is comprehensive. The offsite department receives and regularly monitors reporting from banks. The onsite review process for related parties is well structured; related party exposures and the controls and board processes therein are reviewed during the onsite processes. However, there is no explicit legal provision that requires *prior* approval of related party transactions by the bank's board. As well, no explicit provision requires approval (prior or post) of write-off of related party transactions. Related party

legislation addresses credit transactions with such parties but is silent on other, non-credit transactions. Legislation should be expanded to explicitly capture all transactions within the parameters of related party limits and requirements.

27. The legal framework and supervisory procedures for internal control and audit are comprehensive, both as articulated in the requirements for internal systems and separately as requirements specifically directed to the internal audit function. Targeted or specialized examinations of the internal audit process which also leverage other supervisory observations and inspection results, could enhance the validation of this important function. This would help to substantiate the degree of confidence the BRSA can place in audit outputs as early warning indicators of shifting risk.

28. Procedures surrounding financial reporting and external audit are well established. Accounting standards closely follow IFRS and provisioning standards are set to dovetail with the implementation of IFRS 9. Valuation procedures for financial assets are comprehensive. Parameters for banks' external audit process are well established. Banks are required to disclose their financial statements according to TFRS and TAS, the Turkish version of IFRS and IAS, on both a solo basis and consolidated basis. Disclosure requirements for nonfinancial information are adequate. BRSA regularly evaluates the timeliness and content of external audit / annual reports for compliance with regulatory parameters.

29. The AML law and related regulations form the framework to prevent the abuse of financial services. The framework includes customer due diligence (CDD) rules and procedures to report suspicious transactions, but these have shortcomings that need to be addressed. In particular, the CDD requirements should include a customer acceptance policy that identifies business relationships that the bank will not accept based on identified risks and enhanced due diligence on politically exposed persons. The framework should also require banks to report to the BRSA suspicious activities and incidents of fraud when such activities/incidents are material to the safety and soundness or reputation of the bank.

Table 1. Turkey: Summary Compliance with the Basel Core Principles

Core Principle	Comments
1. Responsibilities, objectives and powers	<p>The BL provides a broadly appropriate framework for regulating and supervising banks. It also provides clear responsibilities and adequate powers to the BRSA. However, the lack of appropriately defined hierarchy among the objectives of financial stability and development of the financial sector may cause potential conflicts and be harmful to the safety and soundness of banks. The assessors noted that some BRSA decisions (e.g., differentiations in loan loss provisions and loan restructuring rules) might be interpreted as rules that aim primarily to support financial development objectives. Such measures might affect the reputation of the supervisors and convey the message of forbearance. In order to be fully compliant with this principle the objective of development of the financial sector should be explicitly subordinated to financial stability in the BL</p>
2. Independence, accountability, resourcing and legal protection for supervisors	<p>The legal protection of the supervisor is broadly adequate. Nonetheless the institutional framework contains shortcomings that should be improved.</p> <p>The BL establishes the BRSA as an independent body but it contains provisions that might undermine independence in practice. There are several channels of interaction between the BRSA and the government that, considered together, may accommodate political influence: i) the appointments of the Chair and Board members are made by the CoM without any confirmation process by any other independent body; ii) before putting into force regulatory procedures the BRSA needs, by law, to consult the related Ministry; iii) the Prime Minister approves the removal of members of the Board, if conditions specified in the BL are met, without publishing the reasons; iv) the relevant minister may permit lawsuit against board members; and v) the BL allows the relevant ministry to file a lawsuit for the cancelation of the Board's regulatory decisions (art. 105). These possible channels of political influence over the Agency, particularly considering the large role played by state-owned banks in Turkey, might cause conflicts of interest that might undermine financial stability.</p> <p>There also seems to be room for improving the accountability framework. Despite the periodic briefings from the BRSA to the CoM, the assessors did not see evidence of a third party aiming to ensure that the powers delegated to the BRSA are exercised appropriately and that its operations are effective and in line with its mandate and objectives.</p> <p>Finally, in relation to resourcing, entry conditions to the BRSA are not attractive for the hiring of mid-career professionals and provide practical constraints in the event of a shortfall in experience levels.</p>
3. Cooperation and collaboration	<p>Legal provisions as well as operational frameworks for cooperation and collaboration with domestic and foreign authorities are in place. Protections on confidentiality appear appropriate. Regarding the lack of processes for recovery and resolution planning, the assessors do not see their absence as reflecting a lack of collaboration between authorities. See also CP9.</p>
4. Permissible activities	<p>The BL provides clear definitions of activities that are only permitted to be conducted by registered banks, including taking deposits from the public.</p>

Core Principle	Comments
5. Licensing criteria	Provisions in the laws and regulations related to licensing and the process followed by the BRSA provide a comprehensive framework to assess the adequacy of new registrations for banks, including foreign bank branches. The BRSA seems to have a broadly sound process to assess applications in practice. However, the BRSA needs to additionally: i) impose requirements and assess if the bank's board has a collectively sound knowledge of the material activities the bank intends to pursue; and ii) for cross-border banking operations, determine whether the home supervisor practices global consolidated supervision.
6. Transfer of significant ownership	The power given to the supervisor by laws and regulations as well as the current procedures provide broadly sound control and oversight regarding significant ownership of a bank and a controlling company.
7. Major acquisitions	The regulatory framework subjects major acquisitions and investments by banks and controlling companies to prior approval by the BRSA. The BRSA also has well established supervisory practices to limit and monitor risks arising from such activities. Going forward, supervisors should consider more extensively and formally the effectiveness of supervision in host countries.
8. Supervisory approach	<p>The BRSA has an established and comprehensive methodology to supervise banks. This methodology is documented in a number of manuals and leverages comprehensive databases and a broadly appropriate regulatory framework. Nevertheless, the practical implementation of the process is subject to shortcomings that needs to be addressed:</p> <ul style="list-style-type: none"> • The inspections need to develop a more profound and forward-looking risk assessment nature, producing a clear view of the risks faced by and posed by the bank. Current conclusions tend to focus mostly on compliance issues and do not identify and make clear if there is need for broader and more forceful supervisory action. Supervisors also need to derive and highlight the implications of the specific findings for the broader risk assessment of the bank. • The BRSA should not take excessive comfort from the fact that issues are analyzed during the ratings process. By its own nature, and as currently applied by the BRSA, the ratings process is not deep enough to generate firm and actionable conclusions. From time to time, the scope of special inspections needs to encompass issues that are currently addressed only during the ratings phase. • The BRSA needs to enhance the forward-looking components of its assessments. Results of the ICAAP need to be more thoroughly analyzed and discussed with banks. Stress tests results should play a larger role in the assessment framework. In addition, the ratings methodology could explicitly incorporate the expected trend for each component. • Banks, particularly the systemically important ones, should be required to develop recovery plans and the BRSA should assess their resolvability.
9. Supervisory techniques and tools	The BRSA employs an array of tools and techniques to carry out its supervisory responsibilities. On-site and off-site functions are relevant and well developed. The different departments also share their findings with each other, but their work seems to be conducted in parallel with little coordination. The departments do not seem to have joint projects and supervisors do not exchange views

Core Principle	Comments
	<p>beyond written reports. As required by EC1, it is important for the BRSA to develop policies and processes to assess the effectiveness and integration of on-site and off-site functions, and to address any weaknesses that are identified. Increasing the rotation between on- and off- site supervisors could also help the integration of the areas.</p> <p>Communication with banks could also be improved. The BRSA should consider setting policies establishing at least one annual meeting between supervisors and the board of the bank. The end of the CAMELS rating process, when the supervisor summarizes its opinion of the bank, might be an appropriate occasion to explain to the board the views and concerns of the BRSA. The assessors understand that this is frequently done, but not systematically with all banks. Additionally, other important analyses done by the BRSA, such as the stress testing exercises could also be more clearly discussed with banks.</p>
10. Supervisory reporting	<p>The regulatory framework requires banks and controlling companies to periodically submit a broad range of information. Regulatory and supervisory processes exist to ensure accuracy and comparability of submitted returns. Developed procedures for analyzing collected information and feeding into supervisory activities are in place.</p>
11. Corrective and sanctioning powers of supervisors	<p>The BRSA has available an appropriate range of supervisory tools to use when, in the supervisor's judgment, a bank is not complying with the regulations or represents a risk for the financial sector. Nevertheless, in practice, the remedial and corrective actions provided for in the law are rarely used at an early stage as a preventative measure. The BRSA seems to rely more heavily on administrative fines whose scope of application is more clearly defined in the BL than on taking actions at an early stage to address unsafe and unsound practices that require supervisory judgment.</p> <p>The assessors were presented evidence of BRSA actions requiring banks to make adjustments to practices and processes. Nevertheless, such action had a scope limited to specific issues such as the classification of particular loan operations. Evidence was not observed of supervisors addressing broader concerns about the risks posed and faced by banks from a deepening and expansion of the initial review, a point reinforced in the comments of banks.</p> <p>The supervisory review process within the BRSA also seems to play a role towards limiting the issues that supervisors raise with banks. Although reviews of supervisory reports are necessary, the current process seems relatively skewed towards validation of compliance processes and thus constrains active supervisory judgments and decisions. Consideration could also be given to integration of supervision and enforcement, particularly in terms of communication with financial institutions, which might support a more risk focused and less compliance based supervisory approach.</p>
12. Consolidated supervision	<p>The regulatory and reporting framework provides a broadly appropriate structure for monitoring and assessing risks to banks from nonbanking and foreign banking operations in banking groups. However, the current limitations of the CAMELS rating and ICAAP process, the BRSA should make further effort to monitor and manage risks arising from nonbanking and foreign activities or parent entities of a financial group. In this regard, the BRSA should deepen the</p>

Core Principle	Comments
	<p>analyses and strengthen its techniques, such as group-wide stress testing, to monitor and assess these risks. It is important to further improve the group-wide strategic view of the banking group operations and risks. Authorities should further improve the recovery and resolution planning of large banking groups particularly once the necessary power is given to the supervisor by the expected new legislation. Such planning should also consider scenarios where shocks originate from nonbanking entities or parent groups.</p>
13. Home-host relationships	<p>The BRSA has made vast efforts to improve home-host relationship during the last few years. Among several initiatives, the agency has started organizing colleges, signed a number of important MoUs, and removed obstacles that weakened the supervision of Turkish banks' operations in several countries. Nevertheless, considering that some Turkish banks hold material operations abroad, it is important to improve the relationship even further. In particular, it is essential to develop a framework for cross-border crisis coordination with relevant host authorities and the development of resolution plans that pay special attention to cross border issues.</p>
14. Corporate governance	<p>The legal framework surrounding the corporate governance framework for banks is extensive, but very heavily focused on board responsibilities regarding internal systems (risk management, internal control, internal audit). Examination processes General Assessment Report (GAR) and specialized examinations) have required steps to check board approvals, internal structures, and processes which reflect on the governance function. The BRSA approves board and senior management appointments. In this way, the BRSA reviews the appointments process of the bank.</p> <p>However, the results of special examinations and supervisory processes consistently stop short of drawing conclusions, in analytical, narrative form, on the implications the findings have for critical areas that are directly linked to the examined area. These critical areas reflect directly on the corporate governance effectiveness of the bank (such as management oversight of business areas, adequacy of risk management and internal audit's role in the subject areas, integrity of MIS that goes up to the board level, and ultimately, board oversight). As a result, supervisory observations are not easily collected in order to form a more cross-cutting, substantiated view on corporate governance and the adequacy of internal systems. Therefore, validation of the manner in which such internal systems and governance operates is not well supported. This impacts the degree to which the BRSA should place confidence in the systems that inform the board and itself, as well as the systems' ability to generate early warning indicators of deterioration.</p> <p>There is no requirement for the majority of the board to be composed of nonexecutive members which could result in, potentially, boards being composed of a majority of executive directors with only the 2 nonexecutives as currently required by the legal framework. However, practically speaking, 10 out of 53 banks are listed and must fall under the CMB Communique on governance which requires a majority of independent directors. Consideration should be given to upgrading legislation requiring the board to be composed of a majority of nonexecutive members, and ideally, with a certain minimum of independent</p>

Core Principle	Comments
	<p>individuals. (The definition of “independent” should be consistent with that used by the CMB in its Communiqué on Corporate Governance.)</p> <p>Audit committee membership should be expanded. While some bank boards in the system have populated this committee with more members, a minimum of two members is considered too few in order to execute the duties assigned to it in a robust and effective manner. This is particularly so since the audit committee is considered an extension of the board and is assigned the task of internal systems oversight which includes risk management. In addition, the chair of this committee, in some banks, is also the chairman of the board which does not reflect best practice and potentially represents a conflict of interest. This committee should be expanded and should be composed of all independent directors. As well, legislation directs that audit committees have oversight responsibility for internal systems which includes risk management. Under the current audit committee structures, proper oversight of both critical areas is difficult at best. Risk management oversight responsibility should be separated from the audit committee, particularly in the more complex institutions (it was noted that one bank, in fact, constituted a separate risk management committee).</p> <p>While three special examinations of governance elements have been conducted, there is a need to more regularly conduct cross-cutting assessments of corporate governance in a holistic manner which would, in part, leverage recent examination results and relevant offsite information as well as information generated from any enforcement actions. Consideration could be given to introducing such a review in order to enhance and better substantiate conclusions on the adequacy of a bank’s corporate governance.</p>
15. Risk management process	<p>The RICAAP forms a part of the core of the BRSA’s regulatory framework for risk management. Given that the ICAAP is a relatively recent requirement, banks are still developing their approach and implementing important systems. The BCP team’s review of supervisors’ working papers and discussion with banks indicated that banks as well as supervisors are, in fact, in a learning phase. The quality of banks reports and the scrutiny of the reports by supervisors will need to develop further before the results can be more reliably and more extensively used.</p> <p>Commensurate with their size and complexity of operations, banks should be specifically required to have qualified CROs with sufficient stature, position and authority within the organization to oversee risk management activities. The level of senior manager may not provide the necessary stature necessary to challenge high level risk decisions and processes.</p> <p>As well, while there are comprehensive requirements for the evaluation of new products, parameters should be expanded to explicitly address material modifications to existing products and major acquisitions. It should also direct banks to restrict such products or activities if they do not have the necessary controls, management, and resources to manage related risks.</p>
16. Capital adequacy	<p>The BRSA has adopted the various components of Basel II, 2.5 and III according to the framework established by the Basel Committee. Capital is calculated on a consolidated and solo basis for all banks and the BRSA has the authority to impose additional capital requirements on individual banks, as deemed</p>

Core Principle	Comments
	<p>necessary. The BRSA has applied the three Basel ratios (common equity tier 1, tier 1 and total capital) as well as countercyclical capital requirements, systemically important bank capital add-ons and a "capital planning buffer" that provides a forward looking nature to the capital regulation.</p>
17. Credit risk	<p>The legal framework for credit risk is generally comprehensive. It establishes the responsibility of the board in this area, requires a framework for the credit business of banks, as well as prescribes a properly controlled credit risk environment. However, several issues exist which compromise the effectiveness the framework and its application.</p> <p>As prescribed in regulation and organized in practice (verified through review of credit portfolio special examinations presented by the BRSA during the assessment) the credit risk management oversight (line management function) and credit risk management function and the organization therein create loopholes in independence and integrity of credit risk monitoring and reporting to bank boards and the BRSA:</p> <ul style="list-style-type: none"> • The framework design does not require ongoing, independent (from the business line) credit risk monitoring of large individual exposures or homogeneous portfolios. Important source data (e.g., identification of deteriorating credits, level of (accurately) classified assets, status of restructured credits, etc.) is generated by a line management function (credit monitoring) without independent verification that 1) management identification processes are accurate and timely, 2) that management, itself, is well informed of the risk and that it is running and is upholding board prescribed underwriting standards, and therefore, accurately conveying its business risk, and that 3) timely borrower intervention is activated. • This (unverified) information generated by the line function is source data used by the risk management functions for audit committee and board reporting and is also likely the information also reported to the BRSA for monitoring and examination purposes. <p>Although the internal audit function plays an important role in ensuring a strong control environment, the function itself is not designed to play an ongoing surveillance role such as the independent credit risk management unit. It cannot replace the need to have such a function within the bank(s).</p> <p>Highlighting the issues surrounding this organizational environment, examiners, through their inspection process, have identified important, clearly inaccurate classifications of credit that could easily indicate the existence of 1 and 2 above. However, the significance of these inaccurate classifications was not clear from the examination samples reviewed. Consistently, there was no indication of the size of the sample of reviewed credits, how significant the aggregate, inaccurately classified credit was to the total portfolio, and if such findings could be extrapolated to the entire portfolio.</p> <p>Credit classification definitions, particularly in the special mention and substandard categories are overlapping. Evidence demonstrates that both the examiners, but especially the bankers, fluidly move credits among these</p>

Core Principle	Comments
	<p>categories which compromises the picture of the bank's risk profile which accurate classification is intended to depict. As well, such movement and less rigorous classification impacts provisioning levels and ultimately, the accuracy of the bank's financial statement.</p> <p>The REPL (Regulation on the Procedures and Principles for the Evaluation of Loans and other Receivables and Provisions) explicitly allows restructuring of loss credit which is considering in many systems to be imprudent activity as such loans are, by definition, permanently impaired and considered "nonbankable" assets. In some systems, such credits are prohibited from being restructured. The draft REPL is silent on this issue but theoretically would allow this practice. This practice should be explicitly addressed (disallowed).</p> <p>The manner in which the examiners present and write up the credits that they review during the special examination does not clearly depict the nature and volume of other related exposures (in the given bank) which, if presented, would help put the overall borrower relationship in context.</p>
18. Problem assets, provisions, and reserves	<p>The framework for credit classification and provisioning is generally adequate. However, the accuracy of asset classification by banks, and therefore the integrity of reporting to boards and the BRSA is called into question given the nature of reclassifications assigned by onsite examiners and the lack of documentation therein. Loan write ups require more support and context as well as the need to present the nature of the collateral and provision impact. Examination conclusions focus more on internal control issues rather than higher level implications for the condition and management of the credit portfolio under examination.</p> <p>Given the lack of (documented) focus on the implications of important bank processes, the examination exercise missed the opportunity to identify very important linkages with and conclusions on:</p> <ul style="list-style-type: none"> • Management's understanding of their business and credit risk, ability to identify deterioration proactively – thereby allowing for early intervention. • Implications for internal systems (in particular, the function, role, and independence of credit risk management) – thereby validating the systems that the bank's board and the BRSA depends upon in order to effectively oversee the institution. As well, these systems are key to the exercise of risk based supervision by the BRSA. • Inputs to evaluate corporate governance of the bank. • Accuracy of information conveyed to the board and the BRSA <p>The historical and statistical support for standard (general) and special mention loan categories is not substantiated by accumulated loss experience. It is not clear if appraised values, within a range, are being realized upon the sale of the properties or if provisioned amounts are adequately covering loss experience on classified loans. Clear parameters should be established for periodic valuation of underlying collateral on NPL exposures.</p>

Core Principle	Comments
19. Concentration risk and large exposure limits	<p>The legal framework addressing concentration risk and large exposures limits is generally in line with international standards. The definition of connected parties is comprehensive. The BRSA examines and monitors various exposures including, inter alia, large exposures, concentrations by sector, product, customer, and risk group.</p>
20. Transactions with related parties	<p>The legal and regulatory framework for related parties is comprehensive. The offsite department receives and regularly monitors reporting from banks. The onsite review process for related parties is well structured; related party exposures and the controls and board processes therein are reviewed during the onsite processes.</p> <p>However, there is no explicit provision that requires <i>prior</i> approval of related party transactions by the bank's board. As well, no explicit provision requires approval (prior or post) of write-off of related party transactions.</p> <p>While Article 48 of the BL provides a comprehensive definition of "loan" and related party limitations address such, legislation does not include other non-crediting transactions within the limitations addressing related parties. Legislation should be expanded to explicitly capture all transactions, including loans, within the parameters of related party limits and requirements.</p> <p>The assessment team was informed that a draft revision of the BL is being prepared by the BRSA. Within this context, article 50 (a and b) may be revoked to allow board member borrowing from the bank. It will also address related party "transactions" as well. The assessment team cautions the BRSA on relaxing related party risk parameters. There are countries that continue to rigorously restrict extension of credit, as well as transactions with, related parties of the bank, including board members. This is an area which historically has proven consistently problematic in distressed bank situations. Therefore, the team advises caution in widening the scope for such exposures.</p>
21. Country and transfer risks	<p>BRSA guidance adequately captures country and transfer risk as well as other relevant risks. Banks are expected to establish country risk parameters as well as systems for monitoring exposures, including indirect foreign-exchange risk and indirect country risk. Country risk is evaluated through the CAMELS review process and via the risk matrix of the bank.</p>
22. Market risk	<p>The BRSA has adopted comprehensive regulation and guidance through which to direct banks to identify, measure, and monitor their market risk exposures. This includes parameters for valuation, stress testing, and model use. For examination purposes, these elements are largely addressed through the CAMELS rating/GAR methodology review process, and on an overall basis, during the ICAAP review.</p> <p>Of note, currently, specialist expertise is not deployed to evaluate the scenarios or calculation details of the stress testing exercises. Examiners review the models used to measure market risk. However, they also depend substantially on the banks' model validation process. To deepen the work and enhance the forward looking aspect, the BRSA could consider deploying trained specialists to assess stress test approaches and mathematical integrity and to leverage resulting advice/input on specialized exams. As well, enhanced examiner expertise in the</p>

Core Principle	Comments
	area of model evaluation could provide added assurance to the BRSA on the integrity of bank models used.
23. Interest rate risk in the banking book	<p>BRSA supervision of interest rate risk is addressed through several activities. It is reviewed as a part of the overall ICAAP review process and captured as an input in the stress testing conducted therein. As well, the supervisor covers elements of interest rate risk through the GAR process, which is conducted onsite but not to the depth of what a special examination would require. However, specialized examinations of this area are not yet conducted.</p> <p>The BRSA should develop specialized examination procedures for interest rate risk where it identifies increasing or high risk areas. The BRSA should use specialized expertise with which to evaluate scenarios and assumptions used for more complex stress testing as well as to review model validations during onsite examinations or, as an offsite exercise.</p>
24. Liquidity risk	<p>The BRSA has set up a comprehensive framework for liquidity regulation, monitoring, and assignment of bank responsibilities. Regulation is in some cases more rigorous than international benchmarks. A wide range of tools is in place for monitoring banks' liquidity positions and funding experience. The CAMELS review/GAR methodology addresses liquidity, and specialized examinations are conducted when a change in trends or strategy is detected. As well, the BRSA underwent a Regulatory Consistency Assessment of its Basel III LCR regulations for which it received a "compliant" rating.</p> <p>However, review of onsite documents indicated that conclusions regarding liquidity, funding stability, and management processes stopped short of considering other areas of the balance sheet, growth trends, asset quality, and management processes, etc. to support conclusions. Such issues are critical to the overall review process and should be captured and clearly conveyed in examination documents to support supervisory observations. This is particularly important given that some banks may have tight liquidity positions including relatively high loan to deposit ratios.</p> <p>The central bank has taken a number of steps in recent years to support the strengthening of foreign currency funding. There appears to be an opportunity to strengthen liaison between the BRSA and the CBRT on the monitoring and management of foreign liquidity risk. Given the potential foreign exchange roll over risk residing in banks' positions, consideration could be given to increasing the ultimate target for the FX LCR from 80 percent to 100 percent to further strengthen the management of liquidity risk.</p>
25. Operational risk	Oversight of operational risk is anchored in RICAAP and further expanded in the GORM which comprehensively addresses relevant aspects of this risk. The supervisory process explicitly addresses this risk through the evaluation of the ICAAP process and reports submitted by banks as well as through the GAR process and as a part of Management and Information Systems (MIS) evaluation and controls during specialized examinations.
26. Internal control and audit	The legal framework is comprehensive in this area, both as it is articulated in the requirements for internal systems and separately as requirements specifically directed to the internal audit function. Review of the internal audit process is an important part of the onsite (GAR) process covered each supervisory cycle.

Core Principle	Comments
	<p>However, targeted or specialized examinations of the internal audit process, leveraging the GAR results as well as specialized examination results as partial inputs, could enhance the validation of this important function. Such validation by the BRSA is important in order for it to maintain or increase the degree of confidence (and therefore, dependence) it can place in audit outputs as early warning indicators of shifting risk.</p>
27. Financial reporting and external audit	<p>Procedures surrounding financial reporting and external audit are well established. Accounting standards closely follow IFRS and provisioning standards are set to dovetail with the implementation of IFRS 9. Valuation procedures for financial assets are comprehensive. BRSA conducts review of valuation procedures and of valuation models as a part of the onsite examination process. Parameters for banks' external audit process are well established.</p>
28. Disclosure and transparency	<p>Banks are required to disclose their financial statements according to TFRS and TAS, the Turkish version of IFRS and IAS, on both a solo basis and consolidated basis. Disclosure requirements for nonfinancial information are adequate. BRSA regularly evaluates the timeliness and content of external audit/annual reports for compliance with regulatory parameters and Pillar III disclosures.</p>
29. Abuse of financial services	<p>The scope of the assessment of this principle was limited to the applicable regulation and the BRSA activities. It did not include MASAK coordinated inspections and other activities.</p> <p>The AML law and related regulations form the framework to prevent the abuse of financial services. The framework includes customer due diligence (CDD) rules and procedures to report suspicious transactions but have shortcomings that need to be addressed. In particular, the CDD requirements should include a customer acceptance policy that identifies business relationships that the bank will not accept based on identified risks and enhanced due diligence on politically exposed persons. The framework should also require banks to report to the BRSA suspicious activities and incidents of fraud when such activities/incidents are material to the safety and soundness or reputation of the bank.</p>

C. Recommended Actions

Table 2. Turkey: Recommended Actions to Improve Compliance with the BCP and the Effectiveness of Regulatory and Supervisory Frameworks	
Reference Principle	Recommended Actions
Principle 1	Subordinate the objective of development of the financial sector to the objective of financial stability in the BL.
Principle 2	<p>Review the legislation to limit the cases that require the Minister's involvement with BRSA activities.</p> <p>Improve the accountability framework to enhance the scrutiny of the activities of the agency in relation to its objectives.</p> <p>Create alternative arrangements that facilitate the possibility of hiring experienced experts when needed.</p>
Principle 5	Impose requirements and assess if the bank's board has a collective sound knowledge of the material activities the bank intends to pursue. Determine whether the home supervisor practices global consolidated supervision, for cross-border banking operations.
Principle 8	<p>Develop a more profound risk assessment nature for the inspections. Produce a clear view on the risks faced by and posed by the bank. Derive implications of the specific findings for the broader risk assessment of the bank.</p> <p>Incorporate within the scope of special inspections issues that are currently addressed only during the ratings phase.</p> <p>Enhance the forward-looking components of the assessments: results of the ICAAP need to be more thoroughly analyzed and discussed with banks; stress tests results should play a larger role in the assessment framework and; the ratings methodology could explicitly incorporate the expected trend for each component.</p> <p>Require banks to develop recovery plans.</p> <p>Assess the resolvability of the banks.</p>
Principle 9	<p>Develop policies and processes to assess the effectiveness and integration of on-site and off-site functions, and address any weaknesses that are identified. Consider the case for integrating the supervisory and enforcement functions.</p> <p>Improve communication with banks. The BRSA should consider setting policies establishing at least one annual meeting between supervisors and the board of the bank. Important analyses done by the BRSA, such as the stress testing exercises could also be more clearly discussed with banks.</p>
Principle 11	Incorporate the results of forward looking tools more heavily in the BRSA decision making process and act at an early stage to restore weak banks and

Reference Principle	Recommended Actions
	correct unsound practices, even if formal prudential ratios have not been breached.
Principle 12	<p>Make further efforts to monitor and manage risks arising from nonbanking and from foreign activities or parent entities of a financial group. Deepen the analyses and strengthen BRSA techniques, such as group-wide stress testing, to monitor and assess these risks.</p> <p>Improve the recovery and resolution planning of large banking groups particularly once the necessary power is given to the supervisor by the expected new legislation. Consider scenarios where shocks originate from nonbanking entities or parent groups in such planning.</p>
Principle 13	Develop a framework for cross-border crisis coordination with relevant host authorities and the development of resolution plans that pay special attention to cross border issues.
Principle 14	<p>Develop a more comprehensive corporate governance regulation (and/or introduce changes to primary law) that completes the elements of governance that already exist in guidelines and regulation. Utilize this type of instrument as a focal point for supervisory corporate governance reviews in the future.</p> <p>Expand the qualifications of the collective board by requiring the majority to be composed of independent directors. Provide a comprehensive definition of independent.</p> <p>Expand the minimum number of (independent) directors on the audit committee.</p> <p>As bank activities warrant, separate risk management responsibilities from the audit committee and require that banks establish risk management committees.</p> <p>Enhance examination conclusions in special reviews by extending conclusions to comment upon the integrity and independent of relevant internal systems, the quality of management oversight and capacity, MIS and board reporting, etc.</p> <p>Develop a cross-cutting, more holistic assessment methodology for corporate governance which would, in part, leverage GAR and special examination results and relevant offsite information as well as information generated from any enforcement actions. Introduce such a review in order to enhance and better substantiate conclusions on the adequacy of a bank's corporate governance.</p>
Principle 15	<p>See Principle 8 recommendation on further strengthening the ICAAP process.</p> <p>Require banks, commensurate with their size and activities, to have qualified CROs with sufficient stature, position and authority within the organization to oversee risk management activities, as the current level of senior manager as head of risk management (as enumerated in law) may not provide the stature necessary to challenge high level risk decisions and processes.</p>

Reference Principle	Recommended Actions
Principle 17	<p>Evaluate and revise the relevant legislative and practical aspects of banks' credit risk monitoring and risk management organizational arrangements. Address the independence and integrity of the internal credit risk rating process and the need for independent verification of line management ratings and actions and the functions' ability to generate early warning information. Evaluate the implications of the current structure on the integrity and accuracy of monitoring and reporting to bank boards and the BRSA.</p> <p>Evaluate and revise the definition of credit classifications, particularly the special mention and substandard categories, making them more concise and clear cut, thereby enhancing their application by bankers and BRSA.</p> <p>Enumerate the BRSA's position on rebooking of charged off credit in the REPL.</p>
Principle 18	<p>Upgrade written conclusions and write ups of credits classified during the examination process in order to more clearly substantiate the context of the classified credits and implications of findings on other areas, including management oversight and capacity, risk management process and accuracy, and ultimately corporate governance and financial statement accuracy.</p> <p>Present additional relevant information in examiner loan write ups to further substantiate the overall credit relationship, the creditworthiness of the borrower and its impact on the overall credit exposure, and further support for the credit re-classification.</p> <p>Substantiate findings in credit areas where no re-classifications were determined necessary by the examiner(s).</p> <p>Develop historical and statistical support for required provisioning levels, documenting whether amounts are adequately covering loss experience on standard, special mention, and classified loans.</p> <p>Develop clear parameters for periodic valuation of underlying collateral on NPL exposures.</p>
Principle 20	<p>Enumerate explicit legal provisions that require <i>*prior*</i> approval of related party transactions by the bank's board as well as board approval of related party exposures that are written off the bank's books.</p> <p>Expand the requirements surrounding related parties to capture all transactions with related parties, not just loans.</p> <p>Exercise caution on relaxing related party risk parameters and possible revocation of parameters surrounding board member borrowings.</p>
Principle 22	<p>Deploy trained specialists to assess banks' stress test approaches and the mathematical integrity therein and to leverage resulting advice/input on specialized exams.</p> <p>Enhance examiner expertise in the area of model evaluation to provide added assurance to the BRSA on the integrity of models used by banks.</p>

Reference Principle	Recommended Actions
Principle 23	<p>Develop specialized examination procedures for interest rate risk in the banking book.</p> <p>Deploy specialized expertise with which to evaluate scenarios and assumptions used for more complex stress testing as well as to review model validations during onsite examinations or, as an offsite exercise</p>
Principle 24	<p>Expand written analysis during liquidity/funding risk examinations to capture the impact of and relation to of other areas of the balance sheet, growth trends, asset quality, and management processes, etc. to support higher level conclusions.</p> <p>Strengthen liaison between the BRSA and the CBRT on the monitoring and management of foreign liquidity risk. Consider increasing the ultimate target for the FX LCR from 80 percent to 100 percent to further strengthen the management of liquidity risk.</p>
Principle 29	<p>Include in the CDD framework a customer acceptance policy that identifies business relationships that the bank will not accept based on identified risks and enhanced due diligence on politically exposed persons.</p> <p>Require banks to report to the BRSA suspicious activities and incidents of fraud when such activities/incidents are material to the safety and soundness or reputation of the bank.</p>

D. Authorities' Response to the Assessment

30. The BRSA of Turkey would like to thank the IMF, the WB, and the FSAP mission team for their BCP assessment work. It must be noted that the whole FSAP mission brought forward essential value added to the effectiveness of the supervisory process. BRSA intends to fully utilize the assessment outcome as an opportunity to further improve and strengthen Turkey's banking regulation and supervision. BRSA will take into account and carefully consider recommendations drafted by the FSAP mission team both within the scope of the actions that BRSA has already started to take and for future arrangements towards increasing compliance with the BCP for effective banking supervision. In fact, BRSA has already started on some of the mission team's recommendations and plans to work on the remaining recommendations under an appropriate timetable.

31. It must be noted that since the assessments conducted in 2006 and 2011, the bar of the standards has been raised by BCBS (the BCP methodology was revised in 2012). This assessment, consequently, is not appropriate for comparison with either previous assessments or other countries' assessments.

32. BRSA has prepared a list of action points towards increasing compliance with the BCP for effective banking supervision. BRSA also would like to express additional arguments for some of the CPs in order to bring greater balance to the FSAP mission team's assessment.

Responsibilities, Objectives and Powers; Independence and Accountability (Principle 1–2):

33. Although there is no explicit statement in the BL regarding financial safety and soundness is being the primary objective, it is implied in BRSA's regulatory and supervisory functions. All regulations and sub-regulations as well as supervisory manuals issued stress the financial safety and soundness objective of BRSA. Nevertheless, BRSA will review the current objectives and consider subordinating the objective of development of the financial sector to the objective of financial stability in BL.

34. Regarding the limiting of the related ministry's involvement with BRSA's activities, there is an ongoing process of drafting an amendment to BL that proposes the revocation of article 105 which enables related ministry to file a lawsuit to revoke BRSA's regulatory decisions.

35. BRSA will review its alternatives regarding the transparent scrutiny of its activities in relation to its objectives and responsibilities without hindering its independence and autonomy.

Supervisory Approach, Techniques and Tools (Principle 8–9):

36. BRSA would like to note that within the current framework of supervision, all risks that banks are exposed to as well as the financial safety and soundness of banks are adequately supervised and BRSA has a well understanding of both individual banks and banking industry as a whole. However, BRSA agrees with the assessment that supervision products

need to have explicit and clear narratives about supervisory view on the risks faced by banks. In this respect, BRSA has already developed actions and started to revise its supervisory manuals and processes as part of an established ongoing improvement framework.

37. BRSA will enhance forward-looking components of its supervisory framework by incorporating an expected trend element for each CAMELS component and risk type within its ratings and risk assessment methodology. Furthermore, BRSA is planning to fully incorporate the results of ICAAP and stress tests to its supervisory framework and to increase the depth of the current analysis conducted on stress test and ICAAP results.

38. In 2013, BRSA and SDIF have jointly established a working group to conduct a self-assessment of current resolution procedures with respect to the Financial Stability Board (FSB) Key Attributes. Based on the recommendations of this working group, a draft legislation has been prepared to align the national framework with the above mentioned international standards. Currently, joint task group established by BRSA and the SDIF has been reviewing the technical details to finalize the mentioned draft, which includes the principles of recovery planning and resolvability assessment. BRSA will continue its efforts to decrease the gaps in its regulatory and supervisory framework regarding recovery planning and resolvability assessments.

39. In the organization of BRSA, on-site and off-site examination functions are organized under different departments. Nevertheless, there are both formal and informal communication channels between on-site and off-site functions in order to ensure effective supervision of banks. Periodic bank-specific surveillance reports and sector-wide reports are sent to on-site examiner, and off-site function is notified about the on-site supervision findings continuously. Enforcement departments, which are responsible for formal correspondence of supervisory findings, are also organized separate from on-site and off-site functions to serve as a mean for internal review and evaluation of examination products. All of the supervisory findings stated in reports are communicated to bank without exception formally by enforcement departments.

40. BRSA will review its alternatives in order to further improve coordination and integration among its on-site, off-site examination and enforcement functions.

41. On-site examiners are in constant dialogue with banks management during the regular examinations. In addition to entry and exit meetings held with senior management and audit committee members, on-site examiners hold several meetings with banks managers and directors, when needed. Furthermore, BRSA management also hold meetings with bank managers and directors (especially the audit committee members) when there is an issue to discuss, although there are no periodic meetings held with the whole board of directors. On the other hand, if there are serious issues regarding bank and the actions stated in article 68, 69, and 70 are required, the instructions are directed to BOD of the bank. In order to further improve the communication with banks, BRSA will consider establishing periodic meetings between supervisors and the board of the bank.

Corporate Governance (Principle 14)

42. The Turkish banking legislation is based on one-tier structure where the members of the board who do not have any management responsibilities are nonexecutive members. In practice except the general manager (CEO) who is a natural member of the board, the members generally do not have management responsibilities in the bank. In order to ensure the existence of nonexecutive members in the boards the BL has imposed banks to have minimum 2 nonexecutive board members while in practice the majority of domestic systemically important banks do have more than 2 independent members in the board. This regulation is in line with the paragraph 47 of “Guideline on Corporate Governance Principles of Banks,” issued by the Basel Committee on Banking Supervision in July 2015, stating that board of the bank should be comprised of a sufficient number of independent directors”. Furthermore, current executives (except general manager) of banks cannot be elected as board members according to BRSB resolution.

43. Besides, RICAAP Article 6 defines the nonexecutive members in a way that is very similar to the definition of independence given in the CMB Communiqués. Therefore, the nonexecutives are expected to be objective and independent from the influence of other parties according to this sub-regulation.

44. CMB’s Communiqué on Corporate Governance (CMB’s Communiqué), which is applicable to publicly traded companies including banks, requires that (i) majority of board of directors should consist of nonexecutive directors, (ii) there should be independent directors who are able to perform their tasks without any influence from the third parties, (iii) the number of independent board members should correspond to at least one thirds of the total number of members. Also, CMB’s Communiqué elaborates the required qualifications of the independent board members, which are very similar to the ones mentioned for nonexecutive members given in RICAAP.

45. Since 10 deposit banks in Turkish Banking Industry are publicly traded (six of them are large scale banks), they are subject to CMB’s Communiqué. As a result, a publicly traded bank with five members of the board of directors is required to have at least three independent directors.

46. According to CMB’s Communiqué, these banks are required to include the Corporate Governance Principles Compliance Report as a separate section in their annual reports. These reports should involve explanations about the proper adoption of the CMB corporate governance principles (as articulated in the Communiqué) and the conflicts of interest resulting from not wholly adopting these principles. Furthermore, in these reports, banks are required to disclose the structure of their board of directors, with reference to the number of nonexecutive as well as the number of independent directors.

47. According to the above mentioned corporate governance compliance reports, number of board members of the large scaled publicly traded banks range between 9 and 14. Five of these banks have two members and one of them has five members in their audit committee. In addition to the independent members, who are also nonexecutive and members of the audit committee, publicly traded banks have additional independent members in order to meet the

requirements of the CMB's Communiqué. In that context, five of the large scaled publicly traded banks have three and one of them has five independent members. All of these banks have the nonexecutive directors corresponding to the majority of the total number of members, the number of nonexecutive directors ranging between 5 and 10. In all cases, the chairman of the board of directors is nonexecutive.

48. With regard to the independency and objectivity of the board, principle 3 of the RCGP requires the board of directors to be able to make independent evaluations about the operations of the bank.

In that context, the board of directors should make objective recommendations and should consist of a sufficient number and composition of members providing the basis for a decision making process free of any influence from other parties and free of conflicts of interest.

49. Furthermore, BRSA has communicated its expectations to banks regarding corporate governance principles through RICAAP, RCGB² and the best practice guidelines issued recently.

50. Nevertheless, for following the recommendations of FSAP mission team, BRSA will review its current regulatory framework for Corporate Governance and will consider expanding the qualifications of the collective board, reviewing its definition of “nonexecutive/independent member,” expanding the minimum number of directors on the audit committee and explicitly requiring banks to establish risk committees.

51. Currently, governance structures of banks are examined in detail within the scope of Special Inspections conducted for Organization, Management and Strategy. In fact, in 2014 and 2015 three Special Examinations were conducted in three banks and those examinations focused on corporate governance issues. Besides, effectiveness and efficiency of corporate governance structure is also assessed during CAMELS Rating and Risk Evaluation (CRRE) process based on a number of criteria under the component of “Management.” This assessment mainly focuses on effectiveness of board oversight, capabilities of board of directors, board meetings, implementation of policies and procedures approved by board, treatment of exceptions to limits or policies and procedures, contents of Board MIS. The conclusions from this assessment affect the Management component rating and the final rating of the bank.

52. Furthermore, during Special Inspections conducted in other areas like loan portfolio or liquidity, if examiners identify an issue that may be an indicator for a serious weakness in corporate governance structure of bank, it is most certainly included in report in writing and it is communicated to the bank immediately before the examination is finalized.

² Regulation on the Corporate Governance Principles of Banks.

53. In order to further improve its supervisory framework for corporate governance, BRSA will enhance its examination procedures for corporate governance issues in order to incorporate clear narratives on implications of supervisory findings over integrity of internal systems, quality of management oversight and capacity, MIS. BRSA will also consider conducting holistic assessment for corporate governance in an appropriate time frame.

Credit Risk, Problem Assets, Provisions and Reserves (Principle 17–18)

54. In Turkey, organization of Credit Risk Management in banks, which is governed by RICAAP and the Guideline on Credit Management of Banks (GCM), has four key parts: active board and senior management oversight over credit function, adequate loan policies and procedures, adequate credit risk measurement, monitoring and MIS, adequate internal control and internal audit functions over loan activities.

55. Risk Management Unit within internal systems and credit monitoring departments are parts of the credit risk management framework together with credit operations (back office), financial control, internal control and internal audit functions, etc.

56. According to GCM, loan activities of banks should be organized in a way that enables functional segregation of duties and prevents any conflict of interest. In practice, in line with the principles stated in GCM, loan activities of banks are organized under three main functions generally: marketing, underwriting and monitoring, which are all line management functions. GCM requires banks to establish these three functions separately without causing any conflict of interest.

57. Banks are required to have information systems that enable credit monitoring department to conduct those functions on the basis of customer, group, and portfolio. According to GCM Principle 7, banks' information systems related to credit monitoring are required to be based on reliable data and should be validated periodically.

58. Besides to credit monitoring departments, internal audit is also an important function in credit risk management framework. According to GCM, loan activities of banks are reviewed regularly by internal systems units. Accuracy and reliability of reports submitted to the board of directors and the audit committee is also reviewed by internal audit units according to RICAAP article 21.

59. According to REPL, banks are required to review their loan portfolio in terms of classification at least quarterly and they are required to document those review for the largest 200 loans (or the ones above TRY 250.000). The loan review documentation for the largest 200 loans is usually prepared by internal audit. Besides, internal audit units conduct loan review within the scope of regular audit activities.

60. The adequacy of banks' credit risk management is assessed regularly by on-site examinations both in Special Inspections and CRRE process. Loan activities are frequently subjected to Special Inspections. In fact, in 2014 and 2015, 70 Special Inspections were conducted in 27 banks. During Special Inspections, both size of the credit risk and the adequacy of the credit risk management are assessed. If any weakness is identified during these special inspections, the issues

are communicated to banks both during the inspections and the formal correspondence stage. Furthermore, the conclusions from special inspections are fed into CRRE process in which the final rating of the bank is assigned.

61. Therefore, banks in Turkey have generally well established credit risk monitoring structures and these structures are adequately supervised by BRSA. Nevertheless, following the recommendations drafted by FSAP mission team, BRSA will review regulatory and practical aspects of credit risk monitoring and risk management organizational arrangements in order to further improve the independence, effectiveness and efficiency of the credit risk management organizations in banks. Also, BRSA is planning to increase the standardization in examiner loan write-up so that they include all relevant information needed to further substantiate the overall credit relationship, the creditworthiness of the borrower and its impact on the overall credit exposure, and to incorporate clear narratives in loan review reports regarding implications of findings on other areas such as management oversight and capacity, risk management process and corporate governance.

62. Furthermore, BRSA will consider reviewing current definition of credit classifications in order to make them more concise and clear cut.

63. To conclude, BRSA has recently issued an extensive number of best practice guidelines and made numerous changes in regulations in order to increase compliance level of its regulatory framework to international best practices. Although there is a natural time gap between regulations and implementations, BRSA has committed itself to increasing compliance level of its regulatory and supervisory framework and will take the remaining recommendations of FSAP mission in the Report into consideration for future arrangements towards increasing compliance with the BCP for effective banking supervision.

Annex III. Report on the Observance of Standards and Codes (ROSCs)—Summary Assessments of ICP

A. Introduction and Scope

1. **This assessment provides an update on significant regulatory and supervisory developments in the insurance sector of Turkey since 2011.** The assessment was conducted by Charles Michael Grist, Senior Financial Sector Specialist, Finance and Markets Global Practice, the WB Group, from April 5 - April 24, 2016. The last formal assessment of the Turkish insurance sector was conducted in June 2011 against the ICPs issued by the International Association of Insurance Supervisors (IAIS) in 2003.
2. **The current assessment is benchmarked against the ICPs issued by the IAIS in October, 2011, including revisions authorized up until December, 2015.** The assessment was undertaken as part of the Financial Sector Assessment Program (FSAP) conducted by the IMF and WB. The ICPs apply to all insurers, whether private or government controlled. Specific principles apply to the supervision of intermediaries. The institutional arrangements for financial sector regulation and supervision are outlined in Section C.

B. Information and Methodology Used for Assessment

3. **The level of observance for each ICP reflects the assessment against its standards.** Each ICP is rated in terms of the level of observance as follows:
 - a) **Observed:** where all the standards are observed except for those that are considered not applicable. For a standard to be considered observed, the supervisor must have the legal authority to perform its tasks and exercise this authority to a satisfactory level.
 - b) **Largely observed:** where only minor shortcomings exist, which do not raise any concerns about the authorities' ability to achieve full observance.
 - c) **Partly observed:** where, despite progress, the shortcomings are sufficient to raise doubts about the authorities' ability to achieve observance.
 - d) **Not observed:** where no substantive progress toward observance has been achieved.
4. **The assessment is based solely on the laws, regulations, and other supervisory practices in place at the time of the assessment in April, 2016.** Technical discussions with, and briefings by, officials from the Turkish authorities have also enriched discussions of this report as did discussions with some industry participants. The assessor did not meet with any consumer groups. Discussions with industry participants were conducted in the presence of UoT officials.
5. **The assessor is grateful to the authorities for the cooperation and thoughtful logistical arrangements, particularly the helpful coordination of various meetings with industry participants.** The assessor is also grateful for the valuable inputs and insightful views received from

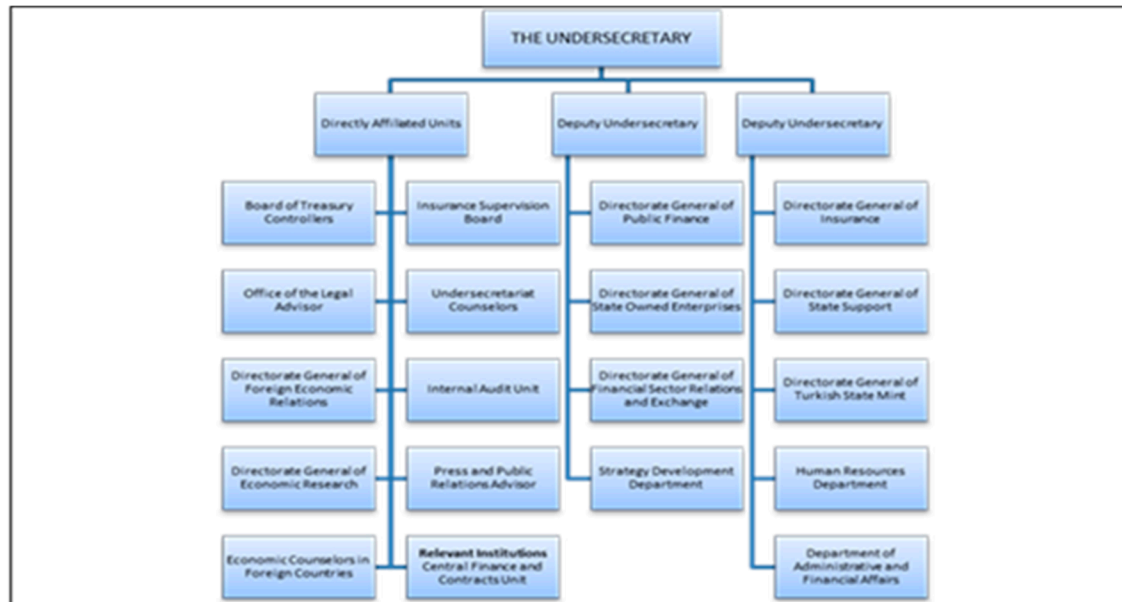
insurers, professional associations, and other industry participants received during the course of this assessment.

C. Institutional Framework and Arrangements:

6. Financial sector regulation in Turkey is dependent on several authorities. Each major component of the financial sector, with the exception of private pensions, is overseen by a separate agency or department of government with its own sector specific legislation. These authorities operate with considerable autonomy but powers and responsibilities overlap in some areas, particularly regarding regulation of financial groups and financial/industrial conglomerates that dominate Turkey's financial markets. Excluding insurance and pensions, the major regulatory authorities are the CBRT, the BRSA, and the CMB.

7. Regulation and supervision of insurance and pensions is vested in the Undersecretary of the Treasury and is divided between two departments. The General Directorate of Insurance (GDI) is responsible for development and drafting of legislation and regulations, for off-site supervision, and certain intervention and enforcement activities. Supervision, particularly on-site supervision, is the responsibility of the Insurance Supervision Board (ISB). Both organizations use offsite information received from a common information systems platform to support their work.

Table 1. Turkey: GDI Organogram



8. Taken together, the GDI and the ISB have 172 employees. 66 of these are employed by the ISB while 106 are employed with the GDI. The majority of ISB staff are located in Istanbul but the head office is in Ankara. GDI staff are all located in Ankara. In general, when ISB identifies a serious problematic situation in a particular institution through off-site monitoring, onsite

supervision or related activities, it will report its findings to GDI, which will then assume responsibility for dealing with the troubled institution.

9. In addition to the GDI and the ISB, under the Insurance Law 5684, Turkey has established an Insurance Agencies Executive Committee. The committee's responsibilities include establishing professional rules for insurance agents, training activities and disciplinary activities over agent misconduct. It has a small staff of less than ten people.

10. The major pieces of legislation regulating the insurance sector, in addition to the requirements of the Commercial Code and the Code of Obligations, include the following:

- The Insurance Law No. 5684 of 2007 and related regulations
- The Road Traffic Act No. 2918 and regulations which regulate motor third party liability insurance
- The Catastrophe Insurance Law No. 6305
- Law No. 5363, the Agriculture Insurance Law
- Civil Aviation Act No. 2920

11. All authorized insurance, reinsurance and pensions companies are required to become members of the Association of Insurance, Reinsurance, and Pension Companies of Turkey (TSB). While the TSB has no direct power over insurance companies, it engages in a number of advocacy and intermediation functions on behalf of its members. The TSB is actively involved in the development of new legislation as an industry intermediary. It also engages in research, education, and literacy improvement activities, compiles statistics on the industry and manages the Assurance Account which is described below.

12. Turkey has no general policyholder compensation scheme in the event of insurer insolvency but the Assurance Account has been established to pay certain compulsory insurance claims (e.g., those related to motor insurance and other compulsory third party liability insurances) including those related to the failure of a compulsory insurance provider. The account is funded from fees on the regulated industry. The claims on the fund must be related to:

- personal injuries to a person where the insured cannot be identified,
- personal injuries caused by parties who do not have the required insurance coverage at the date the risk has occurred,
- personal injuries and damages to property for which the insurer is obliged to pay but is unable due to withdrawal of license or bankruptcy,
- personal injuries where the vehicle involved is stolen or involved in violent crime, and
- payments within Turkey made by the Turkish Motor Insurers' Bureau relating to foreign insureds under the Green Card Insurance Program (see below).

D. Preconditions for Effective Insurance Supervision

Sound and Sustainable Macroeconomic and Financial Sector Policies:

13. Turkey was ranked 45th in global competitiveness by the World Economic Forum (WEF).¹ Some of the positive factors discussed in the assessment included quality of overall infrastructure, health and primary education, goods market efficiency, and market size. The top three problematic factors indicated by the forum were inefficient government bureaucracy, policy instability, and a lack of workforce education.

14. With a Gross Domestic Product (GDP) of USD 720 billion, Turkey was the world's 17th largest economy in 2015. From 2001 until 2008, it experienced strong economic growth, averaging real GDP growth of close to 6 percent per annum. Global economic conditions and tighter fiscal policy caused GDP to contract in 2009, but the economy rebounded strongly and real growth rates of 9.2 percent and 8.8 percent were experienced in 2011 and 2012, respectively. Since 2012 growth has moderated. After growing 4.2 percent in 2013, the economy slowed to 2.9 percent in 2014. Real growth in 2015 is expected to have been in the 4 percent range which is high relative to most EU countries and other countries in the region.

15. Turkey's economy is increasingly driven by its industry and service sectors, although its traditional agriculture sector still accounts for about 25 percent of employment. The country has a relatively young population and per capita income has grown markedly during the last 10 years, currently exceeding USD 10,600 per person.

16. Although it is not a member of the European Union (EU), Turkey is moving towards harmonization of laws with EU laws. In insurance, the regulatory and supervisory authorities are looking at harmonizing major prudential requirements with the EU's Solvency II requirements.

Turkish Legal System:

17. Turkey's system of laws is well developed but the court system is not easily accessible to individual insurance consumers. Court costs and legal fees are high relative to the incomes of many consumers and a judgement from the courts can take several years to obtain. In the past, there was a low level of claims consciousness and a reluctance to take legal action by many consumers in Turkey. However, insurers indicate that, more recently, there has been an increase in litigiousness of consumers. Nevertheless, relatively few insurance claims cases make it to the courts.

18. Although there is no financial sector ombudsman in Turkey, an Insurance Arbitration Commission (IAC) was established by Article 30 of the Insurance Law No 5684 in 2007. The IAC settles contract disputes arising between policyholders or people benefiting from the insurance contract on the one hand and the insurer on the other. It is voluntary for insurance companies to join the scheme, but for the compulsory insurance products all insurance companies can be

¹ Source: The Global Competitiveness Report 2014–2015.

engaged in the arbitration process even if they are not a member. The IAC deals with disputes associated with all types of insurance products without value limitation. The cases are entrusted to an expert, duly registered with and approved by the IAC, who examines the circumstances of the case and reaches a decision that is binding on both parties for cases up to TRY 5,000. Disputes of TRY 5,000 and above may be appealed (once) within the IAC system within ten days of decision notification. Awards of TRY 40,000 may also be appealed to the courts system.

19. More generally, arbitration is provided for under Articles 516 to 536 of the Code of Civil Procedure. Standard policy conditions often contain an arbitration provision which, in the event of a dispute between the insurance company and the insured, may be used to determine quantum. The parties to the dispute try to agree on an arbitrator but, if they cannot agree, each appoints its own arbitrator and they in turn nominate a third. The decision of the arbitrator(s) is binding on both parties.

20. In 2012, Law No 6325, the Law on Mediation in Civil Disputes, came into force. The law is intended to provide for mediation services for resolution of private law disputes, including those involving insurance contracts. The law is intended to help harmonize Turkish laws with EU legislation (EU Directive 2008/52/EC) but the concept of mediation is new in Turkey and relatively unproven in the area of insurance.

Accounting, Auditing and Actuarial Standards:

21. Turkish Financial Reporting Standards are essentially International Financial Reporting Standards (IFRS) for insurance, reinsurance and pensions companies. Independent auditors for insurance companies must be licensed with the Public Oversight, Accounting and Auditing Standards Authority. Licensing requirements appear to be rigorous and require auditors to have training in insurance business, IFRS, international auditing standards, corporate governance, risk management and internal controls. Independent Auditors must use actuaries to review the technical accounts and reserves of companies. Insurers can contract with the same audit firm for up to seven years but audit staff may only work on the audits of a single company for a maximum of five years.

22. Turkey has a growing actuarial community. There are approximately 127 actuaries currently licensed with the UoT and there is also a well-established actuarial professional association.

E. Main Findings

23. The insurance industry in Turkey is a small but growing part of the economy. In 2015, the sector comprised less than 3 percent of all financial services sector assets. From 2006 until 2015, however, gross premiums written grew at an average annual rate of approximately 22 percent (7.4 percent at constant prices), substantially above nominal GDP growth during the same period. Nevertheless, insurance penetration remains below that seen in many countries in the region and very low compared to countries with similar per capita incomes in other parts of the world.

24. During the last five years, the Government of Turkey has made a significant effort to improve regulation and supervision of insurance and to improve adherence to international

standards. The efficiency of information reporting, insurer monitoring and supervision has greatly increased. Solvency tests have been strengthened. Reserving and investment practices have been improved. Improvements have been made in international cooperation and information exchange, AML/CFT requirements have improved, management of fraud and market conduct requirements have improved as have licensing requirements for insurance brokers and agents.

25. Major regulatory and supervisory challenges remain, however, if Turkey is to increase confidence in the sector and benefit from its continued growth. Many challenges relate to the need to keep pace with an industry that is intensely competitive and has many participants engaged in a struggle to maintain or acquire market share. Some challenges are within the authority of the UoT to address while others will require changes in laws and regulations. They include the following.

26. The primary objectives of the supervisory authority should be clarified. At present, there are two major objectives in the primary insurance law. The role of policyholder protection for the supervisory authority needs to be clarified as the principal objective of insurance supervision.

27. In addition, the supervisory authority does not meet international standards for operational independence. Although some progress has been made over the last few years to improve the efficiency of insurance supervision, further work is required to meet international standards regarding independence, governance, and accountability. Under the existing supervisory model, these challenges will likely be difficult to achieve and therefore alternative program delivery models with increased independence should be considered (such as an independent supervisory authority covering both securities and insurance).

28. In spite of licensing, changes in control, portfolio transfers and suitability requirements that are generally in line with international standards, controlling beneficiaries of insurance companies need to be better mapped. It is not clear that the UoT is aware of the ultimate controlling beneficiaries for all insurers. They should be identified and required to meet ongoing suitability requirements.

29. The supervisory authority should develop and enforce higher and more specific requirements for insurer corporate governance and internal controls. At a minimum, more specific standards should be developed and implemented regarding the composition of insurer Boards and the duty of individual Board Directors. In addition, the role and requirements for risk management and internal control functions should be expanded. These are necessary to help ensure that inappropriate risk taking does not take place and to help build the foundation needed to support more risk based supervisory systems.

30. In conjunction with strengthening governance and internal control requirements, more specific Enterprise Risk Management (ERM) requirements should be developed and implemented (e.g., Own Risk Solvency Assessment (ORSA) requirements, and ERM process) on an individual entity and group basis. Institutional governance would also benefit from requiring actuaries to opine on the adequacy of premium pricing policies and external auditors to opine on the adequacy of the insurer's risk management and internal control systems.

- 31. In regard to supervisory review and reporting, the Insurance Monitoring System (IMS) and the Company Risk Assessment Methodology and Framework (SEUS) are significant achievements, however, the efficiency and timeliness of conducting monitoring and supervision through two disparate UoT departments is an ongoing concern.** Consideration should be given to integrating offsite, onsite, and enforcement activities within a single supervisory organization. In addition, development of a more fulsome and risk based approach to Conduct of Business supervision including a broader range of supervisory practices (e.g., market analysis, offsite and onsite monitoring and thematic review) should be considered.
- 32. In regard to supervisory preemptive action and enforcement, consideration should be given vesting decision making authority with the insurance supervisor rather than the Minister.** In addition, consideration should be given to development of a formal “ladder of intervention” commensurate with this change.
- 33. As part of its plans to move towards Solvency II, the authorities should introduce a risk based capital measure which includes a greater range of risks.** It should also strengthen reserving practices in line with international standards, particularly the inclusion of a Margin Over Current Estimate (MOCE) and cash flow discounting. In addition, the authorities should establish a clear solvency control level as part of the capital regime below which an insurer will not be allowed to operate.
- 34. While consumer protection has improved in many respects, ongoing oversight of insurance intermediaries should be improved.** Consideration should be given to expanding representation on the Insurance Agents Executive Committee to include insurer, intermediary and lay member representation, broadening its mandate to cover all intermediaries, and increasing its enforcement powers and resources to discipline intermediaries. In addition, fair treatment of consumers could be enhanced by establishing strong, clear rules for intermediaries regarding compensation disclosure and conflict of interest vis a vis insurance consumers. Moreover, insurer Boards should specifically be required to approve policies relating to fair treatment of consumers and to receive regular reports on their implementation (particularly with respect to complaint handling).
- 35. The authorities should continue to develop their framework for group-wide supervision.** In addition, work to develop a macroprudential framework and crisis management and contingency plans (within the supervisory organization and in larger institutions) should also be initiated.
- 36. Sequencing and implementation of these recommendations should be considered within the context of a multi-year regulatory and supervisory transition plan for the sector (e.g., three to five years).** Such a plan should include regular and appropriate consultation with the industry and should be focused at increasing the efficiency of supervision without inordinately increasing administrative burden and cost. Delivery of such a plan should help to increase consumer confidence and trust in the sector and help lay a strong foundation for its future.

37. Table 2 summarizes the observance of the ICPs.

Table 2. Turkey: Summary of Observance with the ICPs	
Insurance Core Principle	Overall Comments
1. Objectives, Powers and Responsibilities of the Supervisor	While the authority responsible for insurance supervision (UoT) is clearly defined in primary legislation, the objectives of insurance supervision are not fully consistent with two standards. ICP 1.2 requires that the objectives be clearly set out in primary legislation (rather than regulations) and ICP 1.3 requires that the principal objectives promote the maintenance of a fair, safe and stable insurance sector for the benefit and protection of consumers".
2. Supervisor	<p>There is no clear separation of insurance supervision activities from the many other roles carried out by the UoT.</p> <p>In addition, major decisions relating to intervention rest with the Minister rather than the supervisory authority. The human resource and budget functions are also ultimately under the control of the Government rather than the insurance supervisors.</p> <p>Moreover, the appointment and dismissal of the head of the supervisor does not meet the requirements of ICP 2. These factors have serious implications for the independence, governance and accountability of the insurance supervisory function.</p>
3. Information Exchange and Confidentiality Requirements	The supervisor has the necessary legislative authority and demonstrates the ICP standards in its supervisory practice.
4. Licensing	While the legislative requirements are sufficient to meet the requirements of the ICP, The UoT does not have information on the natural person controlling beneficiary for all licensed insurers (see ICP 6). This weakness impacts on the integrity of the licensing process.
5. Suitability of Persons	<p>The regulatory requirements should be strengthened to ensure that insurers report when officers or directors no longer meet the suitability criteria established in the legislation to UoT.</p> <p>In addition, consideration should be given to developing more specific competency requirements for people in control functions (e.g., risk management) after requirements for these functions are established.</p> <p>Finally, the UoT should ensure that all natural person controlling beneficiaries of insurance companies meet suitability requirements (see ICP 6).</p>

Insurance Core Principle	Overall Comments
6. Changes in Control and Portfolio Transfers	<p>The controlling beneficiary of all licensed insurers is not presently identified.</p> <p>Also ICP 6.10 requires that portfolio transfers be subject to approval by the Supervisor not the Minister. The supervisor must satisfy itself that the interests of the policy holders of both the transferee and the transferor will be protected.</p> <p>At present, the power to approve is a permissive power. The Minister may approve or not approve a transfer. There is no obligation that an approval be in the best interests of policy holders.</p>
7. Corporate Governance	<p>Corporate governance requirements for insurers should be strengthened and made more legally enforceable.</p>
8. Risk Management and Internal Controls	<p>The ICP requires insurers to have four effective internal control functions: compliance, actuarial, risk management, and internal audit. At present, there is only a requirement for an internal audit and designated internal control staff.</p> <p>Actuaries should be required to opine on the adequacy of premium pricing policies.</p> <p>External auditors should be required to opine on the adequacy of the insurer's risk management and internal control systems.</p>
9. Supervisory Review and Reporting	<p>The UoT has made significant progress in developing its monitoring and supervisory framework for insurers.</p> <p>While the development of IMS and SEUS are significant achievements, the efficiency and timeliness of monitoring and supervision through two disparate departments is an ongoing concern.</p>
10. Preventative and Corrective Measures	<p>The ICP requires the authority to take timely preventive and corrective actions be vested with the supervisor and not the Minister.</p> <p>In addition, consideration should be given to amending the Regulation on the Measurement and Assessment of Capital Adequacy to empower the supervisor to set the timeframe for insurers to improve their capital position. The existing legislated timeframes for insurers who fall below 100 percent (one year) and 70 percent (1.5 years) to meet required capital levels appear to be excessive. While UoT has power to require insurers to comply within a shorter time frame, the current timeframes set in the regulation set an expectation in industry that deficiencies in capital adequacy do not need to be remedied quickly.</p>
11. Enforcement	<p>The ICP requires the authority to take enforcement action be vested with the supervisor and not the Minister.</p>

Insurance Core Principle	Overall Comments
12. Winding-up and Exit from the Market	The legislation does not specify a point at which it is no longer permissible for an insurer to continue its business. In addition, the authority to act is vested with the Minister rather than the supervisory authority.
13. Reinsurance and Other Forms of Risk Transfer	There do not appear to be rules for prompt documentation of reinsurance transactions though UoT monitors the practice through on-site examinations. There are no rules or approval requirements for Alternative Risk Transfer arrangements.
14. Valuation	The current standards do not provide for the inclusion of MOCE or for discounting of cash flows. A more sophisticated approach to earthquake/catastrophic reserving should be considered.
15. Investment	There should be more specific requirements established to ensure the appropriate use of derivatives (e.g., only for hedging purposes); and the legislation should be amended to establish a stronger duty of care for directors to act prudently and in the interests of policyholders (e.g., a “prudent person” definition for investment purposes).
16. Enterprise Risk Management for Solvency Purposes	In conjunction with strengthening governance and internal control requirements, more specific ERM requirements should be developed and implemented (e.g., ORSA, and ERM process) on an individual entity and group basis.
17. Capital Adequacy	<p>The current solvency approach is a standardized approach but not a total balance sheet approach. The Solvency I formula does not consider interdependence between assets, liabilities, regulatory capital requirements, and capital resources for determining the solvency requirements. The risk based formula recognizes a greater range of risks but not all the major risks that are likely to affect the value of assets and liabilities (e.g., operational risk).</p> <p>The solvency control levels set a limit above which the supervisor does not intervene but do not clearly establish a minimum floor below which an insurer is regarded to be unviable. Should the solvency control level fall below the minimum, the Minister has a range of options he/she may use to “remediate” the insurer rather than liquidate it should he or she choose to do so.</p> <p>As a result, and in combination with the existing solvency control levels, it is not clear that the existing regulatory capital requirements are calibrated so that in adversity an insurer’s obligations to policy holders will be fully met. This weakness is compounded by the observation that the current solvency control levels provide a very generous amount of time for insurers to correct solvency</p>

Insurance Core Principle	Overall Comments
	<p>deficiencies. This, in combination with the fact that it is the Minister, rather than the supervisor, who has the power to take stronger actions to strengthen the financial structure of the company, including the decision to liquidate it (see ICP 10), suggests that the intervention process could be too slow to protect the interests of policy holders.</p>
18. Intermediaries	<p>The level of ongoing supervision related to agents' conduct appears to be inadequate.</p> <p>There is no requirement to disclose to customers the basis on which agents are remunerated by insurers or other potential conflicts.</p> <p>The Code of Conduct for intermediaries, while a significant step forward, includes few specific conduct rules or examples of inappropriate conduct.</p>
19. Conduct of Business	<p>Conflict of interest/disclosure of compensation requirements for agents and intermediaries should be strengthened.</p> <p>Board approval and reporting is not specifically required for insurer's policies related to fair treatment of consumers.</p> <p>There is no specific requirement that the complaint handling function of insurers be separate from the area of the organization that is subject of the complaint.</p>
20. Public Disclosure	<p>Some items described in the ICP, such as capital adequacy (solvency ratio), investment objectives and policies and ERM/ALM, are not required to be disclosed.</p> <p>More information on governance and internal controls should be considered.</p> <p>Consideration should be given to expanding information requirements to include company information on market conduct policies and risks (e.g., information on management of complaints).</p>
21. Countering Fraud in Insurance	<p>Significant progress has been made since the last assessment in this area particularly with the establishment of the Fraud Bureau and data base.</p>
22. AML and CFT	<p>While the UoT is not the AML /CFT authority, UoT staff are knowledgeable about AML/CFT issues and conduct on-sites on AML/CFT internal control systems.</p> <p>In addition, the AML/CFT authority leverages knowledge of UoT staff in carrying out its AML/CFT responsibilities.</p>
23. Group-wide Supervision	<p>The ICP contemplates a supervisory framework for insurance groups that sets out the preconditions for group-wide supervision, group-wide regulatory</p>

Insurance Core Principle	Overall Comments
	requirements and group-wide supervisory review and reporting. This does not currently exist in Turkey though many of the powers and processes for carrying out group wide work currently exist. The UoT is aware of this and is working to develop its framework.
24. Macroprudential Surveillance and Insurance Supervision	The UoT identifies, monitors and analyses extensive market, financial, and insurer data but does not yet have a formal macro-prudential framework that feeds into its day to day supervisory programs or supervisory priority setting.
25. Supervisory Cooperation and Coordination	Establishment of a group wide supervisory framework in the future would strengthen this rating.
26. Cross-border Cooperation and Coordination on Crisis Management	There is no plan/procedure manual for crisis management; and There is currently no requirement for insurers to establish contingency plans and procedures for use in a going and gone concern situation.

38. Table 3 lists the suggested steps for improvement of the level of observance. Some of these actions reflect actions that are already in progress but yet to be fully operational.

Table 3. Turkey: Recommendations to Improve Observance of ICPs	
Insurance Core Principle	Recommendations
1. Objectives, Powers and Responsibilities of the Supervisor	<p>It is recommended that the primary insurance legislation be amended at the next opportunity to clarify that the <u>principal</u> objective of supervision is the maintenance of a fair, safe and stable insurance sector for the benefit and protection of policyholders.</p> <p>This recommendation is similar to recommendations made in previous assessments.</p>
2. Supervisor	<p>It is recommended that the authorities explore options to improve the independence, governance and accountability of the insurance supervision authority. These might include:</p> <ul style="list-style-type: none"> • Establishing a standalone regulatory agency for insurance and pensions supervision; • Attaching insurance and pensions supervision (including GDI and ISB) to either the BRSA or the CMB; • Developing a “twin peaks” model, with cross sector regulatory responsibility divided along prudential and market conduct lines rather than traditional business lines. <p>This recommendation is similar to recommendations made in previous assessments.</p>

Insurance Core Principle	Recommendations
3. Information Exchange and Confidentiality Requirements	No recommendation.
4. Licensing	No recommendation.
5. Suitability of Persons	<p>It is recommended that:</p> <ul style="list-style-type: none"> • The regulatory requirements be strengthened to ensure that insurers report when officers or directors no longer meet the suitability criteria established in the legislation to UoT. • Consideration be given to developing more specific competency requirements for people in control functions (e.g., risk management) after requirements for these functions are established. • The UoT ensure that all natural person controlling beneficiaries of insurance companies meet suitability requirements.
6. Changes in Control and Portfolio Transfers	<p>It is recommended that:</p> <ul style="list-style-type: none"> • UoT develop and maintain a list of natural person controlling beneficiaries of insurance entities operating in Turkey. • The legislation be amended so that portfolio transfers are subject to the approval of the insurance supervisor rather than the Minister.
7. Corporate Governance	<p>Corporate governance requirements for insurers should be strengthened and made more legally enforceable. UoT may wish to consider development of a new corporate governance and internal controls regulation consisting of a mix of mandatory and voluntary (apply or explain) requirements as has been done in other jurisdictions recently (e.g., South Africa).</p>
8. Risk Management and Internal Controls	<p>It is recommended that the authorities require insurers to establish all four internal control functions required by the ICP and ensure that they have appropriate independence and resources.</p> <p>It is recommended that actuaries be required to opine on the adequacy of premium pricing and external auditors be required to opine on the adequacy of the insurer's risk management and internal control systems.</p>
9. Supervisory Review and Reporting	<p>It is recommended that:</p> <ul style="list-style-type: none"> • Consideration be given to integrating offsite, onsite and enforcement activities within a single supervisory organization. • Consideration be given to developing a more fulsome and risk based approach to Conduct of Business supervision including a broader range of tools (e.g., market analysis, offsite and onsite monitoring and thematic review).

Insurance Core Principle	Recommendations
	<ul style="list-style-type: none"> • UoT continue work to develop a group wide supervisory framework.
10. Corrective and Preventative Action	<p>It is recommended that:</p> <ul style="list-style-type: none"> • The authority takes timely preventive and corrective actions be vested in the Insurance Supervisor. This would increase independence, transparency and accountability of the Supervisory authority (see ICP2) and avoid the possibility of undue political influence. • Consideration be given to amending the Regulation on the Measurement and Assessment of Capital Adequacy to empower the Supervisor to set the timeframe for insurers to improve their capital position. • While UoT has power to require insurers to comply within a shorter time frame, the current timeframes set in the regulation set an expectation that deficiencies in capital adequacy do not need to be remedied quickly. • Development of a formal “ladder of intervention” commensurate with this change would also be of benefit.
11. Enforcement	<p>It is recommended that the law be amended to establish the supervisory authority as the decision maker for major enforcement decisions. This would help increase independence, transparency and accountability of the supervisory authority (see ICP2).</p>
12. Winding-up and Exit from the Market	<p>It is recommended that:</p> <ul style="list-style-type: none"> • The insurance legislation be amended to ensure the supervisory authority rather than the Minister has the authority to wind-up an insurer. • The legislation clearly establishes a point at which it is no longer permissible for an insurer to continue its business. This could perhaps be tied to a risk based solvency requirement for insurers.
13. Reinsurance and Other Forms of Risk Transfer	<p>It is recommended that:</p> <ul style="list-style-type: none"> • The legislation be amended at the next opportunity to require explicitly that insurers promptly document all reinsurance transactions. • While alternative risk transfer is not prevalent in the market, UoT consider developing specific requirements to ensure appropriate use of such arrangements as the market develops (e.g., requirement for prior UoT approval).
14. Valuation	<p>It is recommended that:</p> <ul style="list-style-type: none"> • As part of its plans to move towards Solvency II, the reserving requirements be revised to provide explicit MOCE,

Insurance Core Principle	Recommendations
	discounting of cash flows and more sophisticated approaches to earthquake reserving be considered.
15. Investment	<p>It is recommended that:</p> <ul style="list-style-type: none"> • Consideration be given to developing more specific requirements regarding the use of derivatives (e.g., only for hedging purposes); and • The legislation be amended to establish a stronger duty of care for directors to act prudently and in the interests of policyholders (e.g., a “prudent person” definition for investment purposes) with respect to investment decisions.
16. Enterprise Risk Management for Solvency Purposes	<p>It is recommended that:</p> <ul style="list-style-type: none"> • In conjunction with strengthening governance and internal control requirements, the authorities begin to engage the industry in dialogue about the need for an ERM framework; and • Gradually expand the internal control and risk management system requirements to include ORSA, risk tolerance statements, interconnected risk management, AML and capital plans and feedback loops for individual entity and insurance groups.
17. Capital Adequacy	<p>It is recommended that:</p> <ul style="list-style-type: none"> • The authorities continue their intended transition towards Solvency II Pillar One capital requirements as part of a broader strategy for Solvency II implementation. • The authorities establish a clear solvency control level as part of the capital requirements below which an insurer will not be allowed to operate.
18. Intermediaries	<p>It is recommended that:</p> <ul style="list-style-type: none"> • Consideration be given to expanding representation on the Insurance Agents Executive Committee to include insurer, intermediary and lay member representation, broadening the mandate to cover all intermediaries and increasing its enforcement powers and resources to discipline intermediaries. • Consideration be given to developing a more fulsome and rule based Code of Conduct for intermediaries.
19. Conduct of Business	<p>It is recommended that the authorities:</p> <ul style="list-style-type: none"> • Establish strong clear rules for intermediaries regarding compensation disclosure and conflict of interest vis a vis insurance consumers. • specifically mandate that specific Board approval be required for policies relating to fair treatment of consumers

Insurance Core Principle	Recommendations
	<p>and that the board receive regular reporting on adherence to these policies especially regarding complaint handling.</p> <ul style="list-style-type: none"> • A requirement be established to ensure insurer complaint handling functions are operationally separate from program that is subject to the complaint.
20. Public Disclosure	<p>It is recommended that:</p> <ul style="list-style-type: none"> • Disclosure requirements be expanded to provide more information on governance, capital adequacy, investment objectives and policies and ERM/ALM. • Consideration be given to expanding information requirements to include company information on market conduct policies and risks (e.g., information on handling and disposition of complaints).
21. Countering Fraud in Insurance	No recommendation
22. AML and CFT	No recommendation
23. Group-wide Supervision	<p>It is recommended that the authorities:</p> <ul style="list-style-type: none"> • Enhance their efforts to supervise insurance groups by developing a more detailed monitoring and supervision framework; and • Allow the group wide supervisor (in most cases the BRSA) rather than the committee of supervisory authorities to determine the scope and entities subject to supervision in Turkey.
24. Macroprudential Surveillance and Insurance Supervision	It is recommended that the UoT develop a systematic macroprudential framework for integration into its general supervisory program for insurance.
25. Supervisory Cooperation and Coordination	No recommendation.
26. Cross-border Cooperation and Coordination on Crisis Management	<p>It is recommended that:</p> <ul style="list-style-type: none"> • The UoT develop an internal procedures manual or contingency plan for a financial crisis. • The UoT require insurers (particularly large insurers with cross-border or cross sectoral linkages) to establish contingency plans and procedures based on their specific risk profile for use in a going and gone-concern situations.

F. Authorities' Response to the Assessment

39. The Undersecretariat would like to thank the FSAP team for their efforts and valuable input throughout the assessment. The comments and recommendations are valuable to us to further improve our regulatory and supervisory competency.

40. We are committed to continuous improvement and we are pleased to see that our efforts in the areas regarding ICPs 2, 3, 13, 21, 22 and 25 have been reflected in the report. However, we strongly believe that we meet the criteria of observance for ICPs 8, 9, 12, 14, 19, 20 and 24. These ICPs were graded as "Observed" in the 2011 assessment and progress has been made in almost all of these ICPs since then. We would appreciate further discussion on these areas and clarification on the evaluation criteria in the future assessments. We will also continue to refine our regulatory and supervisory framework and to increase our compliance with ICPs in the upcoming period taking into consideration the comments of the assessors.

Annex IV. Report on the Observance of Standards and Codes (ROSCs)—Summary Assessments of CPMI-IOSCO PFMI

A. Institutional Structure and FMIs in Turkey

1. The CBRT, the CMB and the BRSA are the authorities with responsibility for specific elements of the NPS. The CBRT, is the central bank and has regulatory and oversight responsibility for payment and securities settlement systems (SSS). The CMB has responsibility for safe and efficient functioning of the capital markets and is responsible for the Central Securities Depositories (CSDs), CCPs and Trade Repositories (TRs). The BRSA as part of its banking supervision responsibility is responsible for regulation of payment instruments and also regulation and supervision of nonbank e-money and payment institutions.

2. The CBRT owns and operates an integrated payment and SSS comprising two payment systems – EFT¹ and RPS², functioning in Real Time Gross Settlement (RTGS) mode; and ESTS³ - a CSD-cum- SSS for government securities and CBRT bills. The EFT is an RTGS system for inter-bank transfers and is fully integrated with the ESTS. The RPS handles the customer initiated transactions in RTGS mode. The ESTS is the CSD for government debt securities and the CBRT bills. It also functions as an SSS for the primary and over the counter (OTC) secondary market operations on these securities, settling in DVP mode using Model 1; the ESTS also supports the use of these securities as collaterals for the CBRT liquidity facilities. The CBRT is the system owner and operator, the operative and administrative responsibility lies with the CBRT's Payment Systems Operation Division of the Payment Systems Department (PSD) and the technical responsibility with the Analytical IT Development Division (Information Technology Department). Any bank operating in accordance with the Banking Law can, with CBRT's approval, become a direct participant in the EFT, RPS and ESTS. There are a total of 54 participants. With the exception of the Merkezi Kayit Kurulusu (MKK) all other participants are banks.

3. The Takasbank functions as the SSS for the secondary market transactions and repos on government securities on the Borsa Istanbul (BIST); SSS for equities and corporate bonds traded in the BIST; and, as CCP for the derivatives traded on the BIST. The Takasbank also operates a Securities Lending and Borrowing (SLB) platform and acts as CCP at this platform as well; money market platform for banks and other institutional investors as participants; and a collateralized cash credit facility for banks and other institutional investors. The Takasbank is also the Legal Entity Identifier Operating Unit (LOU) for Turkey.

¹ Electronic Funds Transfer System (Interbank Turkish Lira Transfer System).

² Retail Payment System (Customers' Turkish Lira Transfer System).

³ Electronic Securities Transfer and Settlement System.

4. The (MKK)⁴ functions as the CSD for equities and corporate bonds traded in the BIST. Government securities held by brokers and individual and institutional investors are also monitored on the MKK system. The MKK holds securities in the name of the beneficial owner. There is a link between the MKK and ESTS to record movement of Government securities from banks to investors and vice versa. The MKK has an account at the ESTS to reflect the consolidated holding of Government securities in the MKK by investors. The MKK has also recently received a license from the CMB to function as a TR for derivatives reporting.

B. Assessment Methodology

5. The EFT system and the Electronic Securities Transfer System (ESTS), were assessed against the CPMI-IOSCO PFMI; in addition, the observance of the responsibilities of authorities with respect to the PFMIs were also assessed. The assessment took into account the integrated nature of the EFT and ESTS and their interlinkages with the other FMIs in Turkey: Takasbank and MKK. These two systems are part of an integrated system and share the operating rules, governance arrangements, risk management framework, access criteria and system interfaces and message formats. These two systems have been assessed separately, but common details are presented only in the assessment of the EFT system and this is referenced in the ESTS assessment. The recommendations table presents an integrated set of recommendations.

6. The information used in the assessment included all relevant laws, rules and procedures governing the systems, material available on these FMIs in the public domain and from the CBRT and the CMB. In addition, extensive discussions were held with the regulators and overseers—CBRT and CMB, the other FMIs—Takasbank and MKK; and commercial banks. In addition, the mission team was provided with:

- Self-assessment of the EFT system against the PFMIs.
- Self-assessment of the ESTS against the PFMIs.
- Self-assessment of the CBRT and CMB on their responsibilities for FMIs against the PFMIs.
- Excerpts of the daily, monthly, quarterly and annual reports produced by the CBRT related to the EFT, ESTS and the RPS.
- Excerpts of the documents related to the internal policies and procedures and deliberations of relevant working groups and committees.

7. The assessment used the methodology presented in the CPMI-IOSCO publication – “Assessment Methodology and Disclosure Framework for PFMIs (December, 2012)” and takes into account the considerations related to the FMIs operated by central banks, outlined in the CPMI publication “Application of PFMIs for central bank operated FMIs” (August 2015).

⁴ Central Registry Agency of Turkey.

C. Assessment Findings and Recommendations

8. The EFT system broadly observes the risk management framework, liquidity risk management, default management and operational risk management principles; and, partly observes the tiered participation principle. The rest are observed or not applicable. The CBRT has a departmental level risk management framework and accordingly the Payment Systems Department (PSD) has developed a risk management framework for the CBRT payment and settlement systems. As the risk management framework is very recent, it has not been subject to internal audit, but as a policy the PSD risk management framework would be in the scope of internal audit department of the CBRT. The risk management framework by design is internally focused and does not explicitly take into account risks arising from external sources, linkages with other FMIs; and the risks posed by the CBRT payment and settlement systems to other FMIs. The participants of the EFT system are exposed to liquidity risk as there is a distinct pattern of concentration of transactions closer to the end of the day. The CBRT has developed a default risk management framework but this has not been tested comprehensively. The CBRT has developed a comprehensive operational risk management framework, however the business continuity procedures do not fully take into account operational risks arising from other FMIs and similarly the risks posed to other FMIs. The rules and procedures of the CBRT payment and settlement systems do not acknowledge tiered participation arrangements, however in reality there are some tiered participation arrangements.

9. The ESTS system broadly observes the risk management framework, liquidity, default management and operational risk principles; and, the rest are observed or not applicable. The observations related to risk management framework, liquidity risk, default management and operational risk management are same as that for the EFT system. In the area of legal risk, there is an ambiguity in the rules and procedures of the CBRT payment and settlement systems and the overall legal framework, related to the sub-account structure of Takasbank for participants of money markets and the Government securities secondary market. This creates a situation of potentially inadequate legal certainty for the protection of the securities holdings of the sub-account holders

10. The responsibilities A and B are broadly observed while the other three are observed. The CBRT and the CMB are the two overseers of FMIs in Turkey and there is a clear articulation of the scope of each of these authorities. The regulatory and oversight framework for TRs, which are in the purview of the CMB, is in the process of development. The CMB has not established dedicated organization arrangements and allocated dedicated resources for its oversight activities.

General organization (Principles 1–3)

11. The legal basis for the EFT and ESTS, are the CBRT law, the Payment Systems Law (PSL) and specific regulations pertaining to operations and oversight. The CBRT as the operator has developed detailed operating rules – the Payment Systems Operating Rules (PSOR). The

participants are required to sign a participation contract which binds them to the PSOR. The participation contract and the PSOR have a sound legal basis. All material legal aspects are adequately covered in the PSL and the CBRT law. All participants of the EFT system are subject to Turkish laws and regulations; and all operations are also performed in Turkey.

12. The legal certainty for the arrangements with respect to the collateralized liquidity support relating to securities held in International CSDs (ICSDs), should be ascertained. The usage of liquidity support against securities held in the ICSDs are very limited and the securities pledged as collateral are held in the name of CBRT, hence it is not an immediate issue of concern. However, as a good measure it would be important to review the legal certainty for these arrangements.

13. There appears to be some ambiguity on the legal basis for the protection of participant securities holdings which are transferred by participants to the account of Takasbank in ESTS. Banks and individual and institutional investors participating in the Government securities secondary market at the BIST or in the inter-bank money market operated by the Takasbank, transfer securities to the account of Takasbank (in ESTS) for their securities transactions and also to be used as collateral. The specific provisions related to collateral in the PSL and Capital Markets Law (CML) are applicable, which protects the securities pledged as collateral, however the protection for securities holdings in the sub-accounts from any insolvency of Takasbank is not clear. The PSOR does not clearly recognize holding of government securities sub-accounts by a participant [Takasbank in this case]. The CML and other provisions related to CSDs do not specifically apply to this arrangement, as the ESTS is outside the scope of the CML. However, articles in CML pertaining to segregation of assets of investors in investor firms (article 46) appears to be applicable to Takasbank. Investor firms as defined in article 3(v) of the CML and investment services as defined in article 37 (g) encompass the activities of Takasbank as a SSS.

14. The objectives and policies of the CBRT regarding Payment and Securities Settlement Systems place a high priority on stability, safety and efficiency. The CBRT has documented governance arrangements for the institution as a whole that define clear and direct lines of responsibility and accountability. The same governance framework has been applied for the EFT system and ESTS as well, as a core responsibility of the PSD. There is a risk management framework for the CBRT operated payment systems. There is an existing process of auditing departmental risk management framework, however the PSD's risk management framework has not been audited yet. Mechanisms exist for involving stakeholders in decision-making process, and the CBRT effectively communicates with the stakeholders through different channels.

15. The PSD has developed a risk management framework based on the ISO 30001 framework. The risk management framework covers the specific risks outlined in the PFMI. The framework is reviewed annually and is also subject to audit by the CBRT audit committee. The PSOR

provides adequate powers to the CBRT to ensure conformance to the operating and security procedures outlined in the PSOR. The PSD has mechanisms in place for measuring and monitoring specific aspects of liquidity risk and operational reliability of the EFT system.

16. The risk management framework is however internally focused and does not explicitly take into account the dependencies on other FMIs and also internal systems of the CBRT. In particular, the operations of the EFT system have a heavy dependence on the money markets operated by Takasbank and the CBRT markets department, given their role in providing liquidity to participants. The Markets Department is the decision maker on the provision of the CBRT liquidity support facilities and also has its own systems and processes. This risk, however, is to an extent mitigated as the Takasbank and other FMIs are subject to the oversight of the CBRT and the Markets department also has its own risk management framework and co-ordination framework is in place.

Credit and liquidity risk management (Principles 4–7)

17. The credit risk in the EFT and ESTS stems from the CBRT liquidity support operations to the participants. The liquidity support operations are not integrated into the EFT system and as such are handled by the markets department. The credit risk is considered as part of the EFT risk management framework, but the full treatment of the credit risk from liquidity support operations is in the domain of the markets department. The markets department's credit risk management framework includes instituting overall borrowing limits, requiring all credit facilities to be collateralized with good quality securities, and applying haircuts. The collaterals are re-valued daily and the CBRT has the rights to ask for additional collateral when there is an adverse movement.

18. The collateral management system and processes are external to the EFT and ESTS and are managed by the CBRT markets department. The extension of liquidity support is considered a monetary policy instrument. The choice of securities, haircut rates, valuation practices and operational arrangements are an integral part of the CBRT monetary policy operations framework. The CBRT maintains a list of eligible securities and their haircut rates. The haircut rates depend on the types and maturity of securities. The eligible securities are TRY government bonds, central bank bills, lease certificates issued by ALCTT (Asset leasing company of the Turkish Treasury), foreign bonds and notes, International Islamic Liquidity Management (IILM) issuances and foreign exchange deposits and foreign exchange banknote deposits.

19. The CBRT as the operator of the EFT system and ESTS, by itself is not constrained in TRY liquidity. However, the participants could face liquidity shortages. The participants have access to liquidity support from the CBRT and the inter-bank money markets. These liquidity options are collateralized and in the case of the intraday and overnight CBRT liquidity support there is an overall borrowing limit for the participant. However, liquidity support is available without any limit within the framework of LOLR. There is no explicit stress testing mechanism in place, however there is an ongoing review of the policy framework relating to the CBRT intraday liquidity support. There is however no set time-period for this. The transaction pattern in the EFT system shows existence of substantial liquidity risk. The CBRT has studied this and is currently evaluating suitable options.

Settlement (Principles 8–10)

20. The EFT functions as a RTGS system with final settlement through the day and settles in central bank money. Settlement finality is protected in the PSL and clearly articulated in the PSOR and as such has a sound legal basis.

21. In ESTS, securities are dematerialised and processed in book entry form. Although it was possible to rematerialize and physically deliver the securities previously, as of November 2012 physical printing of government debt securities has been terminated. With the redemption of latest printed securities, there have been no printed government debt securities since July 2013. Since government debt securities are only in dematerialised form, there is no risk associated with the storage and delivery of physical instruments.

CSD and exchange-of-value settlement systems (Principles 11, 12)

22. The ESTS functions as a CSD-cum-SSS for Government securities and central bank bills. The ESTS system settles the securities transactions in DVP mode using model 1. The funds leg is settled at the EFT system. The CBRT, in the capacity as the agent of the Prime Ministry Undersecretariat of Treasury, carries out the dematerialised issue, custody and redemption of government securities, which are issued by the Prime Ministry Undersecretariat of Treasury, by the CBRT, and by other public institutions. Since the CBRT is the CSD for the securities in ESTS, there is neither custody risk stemming from the insolvency of the CSD nor the risk of the participants' securities being sequestered due to the other activities of the system operator. In ESTS, the securities owned by the participants' customers are segregated from the participants' own holdings and kept in a special securities account of the MKK. MKK keeps these securities by customer details in its system, enabling customers to track their holdings. All the operations by the CBRT in ESTS require dual approval, are logged and, if needed, can be tracked. During the end of day operations of ESTS, participants are notified about their securities account holdings and their daily operations for reconciliation purposes. All the securities held in the ESTS are in dematerialized book entry form, there are no physical securities.

Default management (Principles 13, 14)

23. The CBRT Payment Systems Department (PSD) has developed a default management procedure recently covering all the payment and SSS operated by the CBRT. The default procedure is consistent with the provisions in the PSOR and derives its legal basis from the PSL. Given that the procedure was adopted very recently, it has not been tested in its entirety. The participants in the system are all banks, except the MKK. Banks are supervised by the BRSA and the MKK by the CMB. These authorities have the sole right related to insolvency or bankruptcy of these participants. There are existing co-ordination and information sharing arrangements between the CBRT, BRSA and the CMB. Hence there is high degree of certainty that the CBRT will have adequate notice to execute its default management process. Nevertheless, any delays in executing the default management process, could escalate the risks in the system.

General business and operational risk management (Principles 15–17)

24. The EFT and ESTS are central bank operated FMIs, as such, aspects related to liquid assets, wind down plans and viable plan for raising additional capital are not applicable. The pricing policy for the EFT system aims for a full investment and operational expenses recovery. The pricing structure is clear and communicated to the participants. The fees are recovered on a monthly basis and the corresponding information is available to participants. The costs of the EFT system are covered under the general budget of the CBRT and subject to the standard audit process.

25. The CBRT Payment and Securities Settlement Systems have a comprehensive operational risk management Framework spanning people, process and systems. The risk management framework is reviewed once a year. Industry best practices for IT risk management framework – ISO 27001 and ITIL for IT services management, have been used. There are adequate processes and procedures in place to address people aspects and the IT systems and processes have been developed using industry standards and best practices. There are periodic IT security reviews and there are dedicated organizational arrangements in place for monitoring and managing the IT security aspects. The IT infrastructure is built in a way that there is no single point of failure and there is full-fledged backup site which works on a load sharing basis with the main site. In addition, there is an application package developed using a completely different hardware and software platform to cover the risk of a simultaneous impact on both the infrastructures, which is a possibility in particular with cyber risk incidents.

26. There is a well-laid out Business Continuity Plan (BCP) plan with an organized governance arrangement to monitor and review its execution. However, the BCP scenarios are focussed on the infrastructure of the CBRT payment and SSS. Scenarios, either arising within the CBRT payment and SSS, within the CBRT or externally, which can cause a widespread impact have not been included. The participants are included in the BCP tests and there are plans underway to include complex scenarios to fully cover business continuity risks arising from and posed to other FMIs and participants– in particular Takasbank and MKK.

27. The PSOR covers operational risk management in articles 17-20, however there is no explicit mandate on this and there is no structured process to measure ongoing compliance with these aspects. However, the CBRT recently surveyed the participants to assess their BCP plans and cyber resilience. All the participants reported having BCPs, but there were some gaps in terms of the quality of the BCP and cyber resilience readiness of some participants. The CBRT is already addressing this as part of its revised business continuity guide.

Access (Principles 18–20)

28. Criteria and requirements for participation are clearly stated in the PSOR and are disclosed to related parties. Only banks and the MKK, which is a special participant of ESTS for the implementation of safekeeping of the securities in the name of customers, are accepted as participants in the CBRT payment and SSS. Only banks are participants in the EFT system. The policy decision on only allowing access to banks has been taken based on considerations of liquidity risk management. The CBRT does not allow access to specific components of the CBRT payment and

SSS, all participants have access to the EFT, RPS and ESTS system. The MKK is the only exception. The CBRT monitors compliance to operational aspects of the participation criteria and is guided by the BRSA for the continued qualification of the participant to function as a bank. Suspension and orderly exit rules are stated in the PSOR and disclosed to participants.

29. The PSOR acknowledges and regulates only the direct participants in the CBRT payment and SSS and there is no definition or rules set for indirect participation; however, the EFT system in practice does have tiered arrangements. Entities that are not eligible for participation can perform operations through the participants, but are treated as customers of participants, rather than indirect participants. One bank and one entity carrying out electronic payment services, are accessing the EFT system through other banks. Other market intermediaries and nonbank financial entities also access the services of the EFT and also likely other elements of the CBRT payment and SSS. The usage of TETS⁵ by brokers and other market intermediaries is also an example of a tiered participation arrangement for the EFT system. The ESTS system however by design does not have tiered participation. The CBRT has developed capability to track the details of the initiator, recipient and purpose of transactions, based on specialized fields in the message formats. These tools can be used to develop a comprehensive monitoring framework for tiered participation arrangements.

30. The ESTS and the MKK system have an issuer CSD-investor CSD link. The risk management framework however does not explicitly acknowledge this arrangement as a link. However, the MKK is overseen by the CBRT for its SSS functions and hence also has a full integrated view of the risks arising from the ESTS-MKK link.

Efficiency (Principles 21, 22)

31. Message exchange of the CBRT Payment and Securities Settlement System is managed via secure services using industry standard technologies and using XML based proprietary message formats. It is possible to easily convert XML messages used in the CBRT payment and SSS into other message formats. The PIS used to interface with the CBRT payment and SSS offers adequate tools to allow STP mode.

32. The process for secondary market transactions on Government securities varies based on the nature of counterparty, creating inefficiencies for the participants. The processes related to settlement of the securities and funds leg vary based on whether the counterparty of a transaction for a bank is another bank, a custodian, individual investor or other institutional investor. Addressing this will require some changes in ESTS and introducing new interfaces between the MKK, ESTS and Takasbank.

⁵ Takasbank Electronic Funds Transfer System.

Transparency (Principles 23, 24)

33. Rules and procedures for the CBRT Payment and Settlement Systems are defined clearly and shared with participants. System descriptions, system rules, general structure and workflows, summary statistics and pricing policy are disclosed to the public through the CBRT web page and the CBRT Payment Systems User Group web site. Pricing tariff is defined yearly based on pricing policy and disclosed to participants and to the public at least one month before its entry into force. The CBRT is committed to publish the details of the assessment of the EFT system and ESTS in line with the requirements of this principle.

D. Recommendations for EFT system and ESTS⁶

Table 1. Turkey: List of Prioritized Recommendations for the EFT System and ESTS				
Principle	Issues of Concern and Other Gaps or Shortcomings	Recommended Action	Relevant Parties	Comments and Priority
1	Conflict of law with respect to collateral holdings in ICSDs	The CBRT could consider seeking an external legal opinion on the enforceability of the PSOR, all contractual arrangements and also with respect to the certainty of legal basis with respect to the securities held in the ICSDs.	CBRT	Low
1	Protection of securities holdings in Takasbank.	The CBRT should review the legal and regulatory framework for the protection of customer assets held by Takasbank and implement specific amendments if any gaps are identified.	CBRT, CMB	High
2	Lack of explicit performance indicators for system as a whole.	The CBRT could consider including specific indicators related to efficiency and effectiveness of the EFT system and satisfaction levels of the participants, as use these to measure the performance of the EFT system.	CBRT	Medium

⁶ The priority designation also includes reference to time-frame. High priority recommendations are recommended to be implemented in the short-term; medium priority in the medium term and low priority in the medium to long term.

3	Risk management framework is internally focused.	The CBRT should include its dependencies on other FMIs and also the internal dependencies for the EFT system in the risk management framework for the EFT system.	CBRT	High
4	The credit risk management framework is not fully integrated into the CBRT payment and securities settlement system credit risk management.	The credit risk management framework of the Markets department of the CBRT should be more fully integrated in to the risk management framework of the EFT system.	CBRT	Medium
7	Gaps in liquidity risk management.	<p>The risk management framework of the EFT system could consider daily and periodic analysis of the liquidity risk jointly by the PSD and Markets departments of the CBRT. There could be additional indicators like estimate of participants available both from the CBRT and also the inter-bank money markets. This could build on the framework being established by the BRSA on liquidity risk.</p> <p>The CBRT could consider encouraging earlier settlements in the inter-bank money markets to allow for more liquidity to flow into the EFT system earlier. Regulating and structuring money markets other than the CBRT money market is not the responsibility of the CBRT.</p> <p>The CBRT as part of the ongoing review of its current policy on liquidity risk, analyze options to make intra-day liquidity support by the CBRT more attractive to the participants and implement suitable options.</p> <p>The CBRT could evaluate if pricing policies could incentivize earlier settlement</p>	CBRT	High

		perhaps as part of overall throughput guidelines.		
13	Default management	<p>The CBRT should conduct periodic testing of the default management procedure as a whole and include the participants also in this exercise. This could be integrated with the BCP or conducted as a standalone exercise at least once a year.</p> <p>As part of the publication of the disclosure framework or separately the CBRT should publically disclose key elements of the default and operations rules of the EFT and ESTS system.</p>	CBRT	Low
17	Gaps in Business Continuity Plans	<p>The CBRT could build on the specific provisions in the PSOR to include explicit mandates with respect to operational risk management for its participants and have a mechanism to assess compliance to those on an ongoing basis.</p> <p>The CBRT could consider including more stringent operational risk management measures for the participants with a large share of transactions, based on the monthly network analysis being carried out.</p> <p>The CBRT could also consider incorporating a more structured assessment of the operational risks it can pose to other FMIs and the risks it could be exposed from them. This assessment could become the basis for the more detailed and complex scenarios being proposed for</p>	CBRT	High

		inclusion in the revised business continuity plans.		
19	No monitoring of Tiered participation	The CBRT should consider instituting mechanisms to collect information, about the nonbank financial companies that access the services of the EFT through participants. Information like the terms of the service between the participant and the nonbank financial entity, the typical transaction volume and value, and any credit extension and liquidity facilities offered. The CBRT should then assess any risks arising from these tiered arrangements.	CBRT	Medium
21	Lack of efficiency in Government securities secondary Market	Currently the process varies by counterpart. Addressing this will require some changes in ESTS and introducing new interfaces between the MKK, ESTS and Takasbank.	CBRT	Medium
23	Operating rules and procedures are not publically disclosed	The CBRT as part of the publication of the disclosure framework or separately should include details of the key elements of the operating rules and procedures.	CBRT	Medium

Responsibilities: Key Findings and Follow up

34. The CBRT law, the PSL and the CML clearly layout the specific payment and market infrastructures that are subject to regulation, supervision and oversight of the authorities. These laws put together, assign the responsibility for regulating, supervising and overseeing payment systems and SSS with the CBRT; and CCPs, CSDs and TRs with the CML. The authorities have further publically announced their adoption of the CPMI-IOSCO PFMIIs. The CMB has specifically stated that the PFMIIs would be applicable for the MKK and Takasbank. The CBRT in its public statement on its objectives for payment and SSS has articulated that it will apply the PFMIIs to all the payment and SSS under its oversight. The CBRT has further issued a regulation which articulates its powers to regulate and oversee the payment and SSS. The CMB has issued specific regulations/communiques for the CSDs and CCPs, however it has not yet issued regulations for TRs. The powers of the CMB with respect over TRs is however clear and derives from the CML. Also, while the CMB has licensed the MKK as a TR, it has not yet commenced operations, and the CMB as part

of its approval to MKK to commence operations as a TR intended to issue a regulation/communique to fully articulate its regulatory and oversight actions and powers related to TRs.

35. The CBRT and the CMB have the relevant powers to obtain information and induce change to carry out their oversight activities. These powers have been explicitly articulated in secondary regulations with respect to the payment systems and SSS, by the CBRT. The CMB has articulated its powers with respect to the CCPs and SSS. However, its powers with respect to the TRs have not been explicitly articulated yet. At this point, however there are no TRs in Turkey. The CMB has licensed the MKK to function as a TR. However, prior to its becoming operational, the CMB intends to issue specific regulations.

36. The CBRT and the CMB have adequate resources and qualified staff to carry out their oversight and regulatory responsibilities with respect to the FMIs in their oversight. The CBRT has specific designated staff for carrying out the oversight activities. The CMB's oversight activities are housed in a department which also includes regulation and supervision of brokers and also the BIST. The CMB has, however, not allocated dedicated resources for the oversight of FMIs under its purview.

37. The CBRT and the CMB have articulated their policies with respect to FMIs through a policy statement published on their respective websites. The policy statement is consistent with the respect legal powers and regulations issued by these authorities. The CBRT and the CMB have issued policy statements articulating their adoption of the PFMI. In the case of the CBRT it has required all the payment and SSS in its purview to adopt the PFMI and has already completed the self-assessment against the PFMI for the FMIs operated by it. The CBRT in addition has asked the Takasbank and the MKK to complete self-assessments as SSS. The CMB has asked the Takasbank and the MKK to complete self-assessments as CCP and CSD respectively. The legal and regulatory measures governing the functioning of the CBRT and the CMB allow data sharing amongst them and with other related authorities, in particular the BRSA which regulates the Takasbank as a banking institution. The FSC provides the structured mechanism for sharing, analyzing and resolving any issues related to the financial sector that may impact financial stability. This mechanism is also used for FMI related discussions. There are also other ad-hoc mechanisms in place to share and seek information and collaborate on an as needed basis.

Table 2. Turkey: List of Prioritized Recommendations for Responsibilities				
Responsibility	Issues of Concern and Other Gaps or Shortcomings	Recommended Action	Relevant Parties	Comments and Priority
A	Lack of regulatory framework for TRs	The CMB should ensure that it issues a regulation/communicate on TRs, before it accords approval to the MKK to commence its operations as a TR.	CMB	Medium
B	Oversight resources	The CMB could consider assigning specific responsibilities to staff with respect to the FMIs in its scope. The CMB should issue the regulations related to TRs ahead of MKK commencing its operations.	CMB	Medium

E. Authorities Response to the Assessment

38. The CMB and the CBRT strongly support the Financial Sector Assessment Program (FSAP) performed by the IMF and the WB and believe in its contributions to the efforts for enhancing the soundness of financial market infrastructures in member countries.

39. The assessment's results gave relevant authorities an external opinion on the condition of the FMIs in Turkey and helped them to understand the issues that require attention in this area.

40. The CBRT is pleased that the FSAP team's assessment of the CBRT's payment and SSS and the relevant authorities broadly indicates compliance with the principles and Responsibilities mentioned in PFMI and in general, the CBRT agrees with the findings and assessments of the FSAP team and appreciates the recommendations for further improvement of the CBRT's payment and SSS.

41. On the other hand, the Turkish authorities welcome the opportunity to mention the following comments:

CBRT's Official Comments on Assessment of Observance of the PFMI for CBRT's Payment and Securities Settlement Systems

Principle 3 (Framework for the Comprehensive Management of Risks)

42. **The Risk Management Framework (RMF) of the CBRT Payment Systems was referring to the interlinked FMIs.**

43. **By considering the FSAP recommendation, the Risk Management Framework (RMF) has been reviewed and modified to explicitly emphasize that all risks related with systems' participants and the ones arising from or to linkages and interdependencies including the interlinked FMIs and third-party service providers are considered while the risks are mitigated.** The revised RMF is being used in its 2016 application.

Principle 7 (Liquidity Risks)

44. **As stated in the FSAP report, "the CBRT itself is not exposed to any liquidity risk as the operator of the EFT System."**

45. **However, despite the fact that the PFMI itself highlights the liquidity risk of the FMI operator rather than that for the participants, and that all the key questions of the Assessment Methodology are related to the liquidity risk of FMI operator and there is no specific key question on the liquidity risk for the participants, the recommendations and the assessment regarding the Principle 7 focus on the liquidity risk for the participants.** Hence, the CBRT believes that the current assessment and rating does not reflect the compliance level of the EFT System with respect to Principle 7.

Principle 13 (Participant Default Rules and Procedures)

46. **Although the Default Management Procedure for the Participants of the CBRT Payment Systems has not been tested as a whole together with the participants yet, the facilities used in the procedure were tested together with the participants.** The CBRT has planned a test for the procedure in its yearly test plan, but does not deem necessary to include all the participants in the test.

Principle 17 (Operational Risk)

47. **Currently, the provisions of the Emergency Guide of the CBRT Payment Systems support the PSOR provisions related to the operational risk.** The Business Continuity Application Plan of the PSD (BCAP) has recently been developed in line with the CBRT's institutional business continuity study and will replace the existing documents. A part of the BCAP, the Participant Guideline, which is soon to be finalized upon the feedback of the participants, includes provisions to meet the recommendation on including specific mandates with respect to business continuity management for its participants and having a mechanism to access compliance.

48. **The CBRT has already identified the critical participants of the Systems through a network analysis based on sink-rank model. The CBRT has started to work more closely with these participants and plans to apply more stringent operational risk management measures**

for them. In this regard, a working group on operational risk was also founded at the BATs with the participation of systemically important participants and the CBRT.

49. Moreover, the CBRT has already been working on the issues related to the recommendations to incorporate more structural assessment of operational risk for other FMIs and to include more complex scenarios in the revised continuity plan as a result of this assessment. As stated in the response to the assessment of the Principle 3, the revised RMF explicitly considers the risks related to the interlinked FMIs, and based on this consideration two FMIs, which are also participants of the CBRT Payment Systems, have been identified as critical participants.

Principle 19 (Tiered Participant Arrangements)

50. The financial sector of Turkey is mainly composed of banks and all banks except a very small one are direct participants of the CBRT Payment Systems. Nevertheless, for the fulfillment of the PFMI's recommendations on tiered participation, the CBRT has instituted a mechanism by using its power in PSOR in order to assess the risks arising from the tiered arrangements. To this end, the CBRT has started to collect and analyze the relevant information from the System's participants about their nonbank financial customers through periodical questionnaires.

CMB's Official Comments on Assessment of Observance of the Responsibilities of Relevant Authorities for FMIs

51. The CMB would like to extend its sincerest thanks to FSAP team for carrying out the assessment of observance of the CPMI-IOSCO principles for financial market infrastructures. The detailed assessment of responsibilities of CMB has served a great opportunity to CMB to detect the areas which need improvement.

52. The CMB is committed to follow PFMI's for the FMIs under its responsibility and has the goal to work towards implementing the FSAP's recommendations.

53. On the other hand, the CMB also wishes to underline some issues regarding FSAP's recommendations to serve a better understanding of CMB's road map and some practical issues.

54. Under Authorities Responsibility A, the assessment refers to lack of regulatory framework for TRs and recommends the CMB should ensure that it issues a regulation/communique on TRs, before it accords approval to the MKK to commence its operations as a TR.

55. The Implementing Regulation on Procedures Concerning TR's Activities and The Communiqué on Reporting Obligations to TRs have been drafted and sent to related authorities and professional associations for consultation or proposal in March 2016. Trade reporting requirements and MKK's operational conditions are regulated through these regulations. The draft regulations are planned to be revised based on the proposals received and finalized in the

second half of 2016. After adoption of the regulations, related parties will be given time for adaptation. First reporting of transactions are expected to take place as of 2017.

56. The recommendation under the Authorities Responsibility B requires CMB to consider assigning specific responsibilities to staff with respect to the FMIs in its scope.

57. Before being merged with Intermediary Activities Department as a result of an organizational re-structuring process, formerly Market Oversight and Regulation Department of CMB used to be exclusively responsible for central clearing and central depository institutions as well as exchanges. After merger, the Intermediary Activities Department is responsible for FMIs as well as investment firms and investment services. Thus, employees of this department are working on both fields as a result of their job definitions.

58. The Turkish authorities look forward to continuing the dialogue with the FSAP team to work to improve the FMIs in Turkey.

Annex V. Previous FSAP Recommendations

The table below presents the follow-up actions to key recommendations of the 2011 FSAP.¹

Recommendations	Progress
Overall financial sector oversight	
Consider further prudential action to ensure strong capital positions and stability of funding.	The BRSA has adopted the various components of Basel II, 2.5 and III according to the framework established by the Basel Committee.
Ensure data are available to assess the risk from unhedged corporate net short FX positions and take corrective action as necessary.	Partly implemented
Consider further measures to address the risk of worsening lending standards in the consumer and SME segments.	Partly implemented
Develop an approach to risk identification that combines the monitoring of key indicators with qualitative information. Better leverage the expert resources of the BRSA and CBRT by jointly developing databases and modeling frameworks for financial stability analysis.	Partly implemented
Macro-prudential policy framework	
Ensure appropriate communication and accountability of the FSC and strengthen its powers through primary legislation.	Partly implemented
Consider separating macroprudential policy and crisis management arrangements and ensuring a leading role of the CBRT in systemic risk monitoring and prevention.	Partly implemented
Micro-prudential regulation and supervision banking	
Review and revise key aspects of the supervisory and regulatory framework to bring it fully into line with the Basel framework, especially as regards the supervision of key risks and the definition of capital.	Implemented
Implement consolidated banking supervision and enhance the coverage of risks emanating from non- banking entities in the group.	Partly implemented
Revise the Banking Law to enhance the operational and organizational autonomy of the BRSA for banking supervision.	Not implemented
Micro-prudential regulation and supervision-insurance	
Reform the current insurance regulation and supervision processes by making them more transparent, consultative, and accountable to the industry.	Partly implemented
Improve the "early warning" system for the required solvency margin.	Implemented
Transfer the responsibilities for insurance regulation and supervision to an independent integrated insurance supervisory body.	Not implemented
¹ See the FSB Peer Review for Turkey 2015 for additional information provided by the Turkish authorities, and the Detailed Assessment Reports and Technical Notes for additional details.	

Recommendations	Progress
AML/CFT regime	
Adopt a new Law on CFT to address the deficiencies identified by the FATF.	Implemented
Strengthen and integrate the institutional supervisory framework for AML/CFT to include participation of sector supervisors within the monitoring, selection, planning and coordination of AML/CFT activities.	Implemented
Establish a definition for Politically Exposed Persons (PEP) and requirements for reporting entities in line with the FATF standard.	Not implemented

Annex VI. Banking Stress Testing Matrix

Domain		Assumptions		
		Bottom-Up by Banks	Top-Down by Authorities	Top-down by FSAP Team
BANKING SECTOR: SOLVENCY RISK				
1. Institutional Perimeter	Institutions included	<ul style="list-style-type: none"> 10 largest banks: Isbank, Ziraat Bankasi, Turkiye Garanti, Akbank, Yapi Ve Kredi, Turkiye Vakiflar, Turkiye Halk, Denizbank, Finansbank, Turk Ekonomi. 		<ul style="list-style-type: none"> 10 banks or more, depending on data availability. Sector-wide indices.
	Market share	<ul style="list-style-type: none"> 80 percent of total banking sector assets. 		<ul style="list-style-type: none"> 80 percent of total banking sector assets.
	Data and baseline date	<ul style="list-style-type: none"> Banks own data. Audited financial statements as at end-2015. Consolidated banking group or solo, if minor share. 		<ul style="list-style-type: none"> Supervisory and public data (SNL, Bankscope), 2005-2015. Consolidated banking group or solo, as available/if minor importance.
2. Channels of Risk Propagation	Methodology	<ul style="list-style-type: none"> Banks' internal models. Common assumptions. 		<ul style="list-style-type: none"> Balance-sheet regulatory approach as in Schmieler and others (2011).
	Satellite Models for Macro-Financial linkages		<ul style="list-style-type: none"> CBRT and BRSA satellite models may be used in TD ST. 	<ul style="list-style-type: none"> Models for credit losses, credit and deposit growth. Models to integrate solvency-funding interactions. Feedback from financial stress to real economy, second-round effects from funding modeling.
	Stress test horizon	<ul style="list-style-type: none"> 5 years. 		<ul style="list-style-type: none"> 5 years.

Domain		Assumptions		
		Bottom-Up by Banks	Top-Down by Authorities	Top-down by FSAP Team
3. Tail shocks	Scenario analysis	<ul style="list-style-type: none"> • Macro scenarios include baseline, adverse and severely adverse for both TD and BU to analyze impact on banking book and trading book, as well as for liquidity stresses (below). • Macro-financial variables include GDP growth/output gap, inflation, 10y government bond yield, official policy interest rate, unemployment, government debt/GDP, credit growth, current account/GDP, property prices, asset prices, TRY/USD, real effective exchange rate, real GDP growth for key trading partners and regions, oil prices and commodity prices. • The adverse scenario assumes GDP growth to fall to -5.5 percent in the first year, recovering afterwards and converging in 2019 to long-run growth of 3.5 percent. The first year shock corresponds to a 10 percent left tail of the historical distribution (or the 5 percent left tail, when excluding the 1999/2001 Russia crisis/Turkey's sudden stop). The cumulative loss in GDP over five years is equivalent to 0.8 standard deviations of the historical 5-year GDP growth volatility. • The severely adverse scenario assumes two years of negative growth (-2.5 and -2 percent) and a subsequent year with below-par growth of 2 percent. The three year cumulative -2.5 percent growth corresponds to the 1 percent left tail of the historical distribution, or a 1 in 100-year event. Additional shocks for the BU STs are calibrated to be consistent with the period around the 2008/2009 global financial crisis. The cumulative loss in GDP over five years is equivalent to 1.5 standard deviations of the historical 5-year GDP growth volatility. • The BU STs require banks to assess risks in the trading book using their outstanding portfolio positions as of end-2015. Banks should report their largest 10-day loss and associated capital requirement using expected shortfall as the risk measure at a confidence level of 97.5 percent (a 1 in 40-year event). 		
	Sensitivity analysis	Scenarios are designed to capture multi-factor shocks in the BU ST—which imply issues such as failure of large borrowers, shocks to interest rates affecting adjustable-rate mortgages, widening of TRY-Libor spreads and substantial stock price declines—and therefore no additional sensitivity shocks are requested from banks.		

Domain		Assumptions		
		Bottom-Up by Banks	Top-Down by Authorities	Top-down by FSAP Team
4. Risks and Buffers	Risks/factors assessed (How each element is derived, assumptions.)	<ul style="list-style-type: none"> • Credit losses, profitability, funding costs, market risk, counterparty risk, exchange rate, taxes. 		<ul style="list-style-type: none"> • Credit losses, profitability, funding costs, market risk, fixed income holdings of banks/sovereigns, counterparty risk, exchange rate, taxes.
	Behavioral adjustments	<ul style="list-style-type: none"> • Balance sheet growth will depend on rules specified by FSAP team; relative balance sheet shares to remain constant under all scenarios. • Dividend payout will depend on banks' buffers, in line with a rule specified by FSAP team. 	<ul style="list-style-type: none"> • Balance sheet growth assumptions, dividend payout, tax rates mutually agreed with FSAP team. 	<ul style="list-style-type: none"> • Balance sheet growth assumptions derived from out-of-sample forecasting based on statistical relations with macro-financial factors.
5. Regulatory and Market-Based Standards and Parameters	Calibration of risk parameters	<ul style="list-style-type: none"> • Banks may use internal models to estimate probability of default (PDs), loss given default (LGDs) and stressed risk weighted assets (RWA) calculations; alternatively constrained by balance sheet growth assumptions and constant portfolio shares. 	<ul style="list-style-type: none"> • PDs, LGDs for economic capital based approach are commonly agreed with FSAP team based on a joint modeling approach. 	<ul style="list-style-type: none"> • Regulatory RWAs calculated from Basel-II standardized formulas; actual RWAs.
	Regulatory/Accounting and Market-Based Standards	<ul style="list-style-type: none"> • Hurdle rate: Basel II schedule. • Capital metrics: Basel II. • Common equity Tier 1, Tier 1 capital. 		<ul style="list-style-type: none"> • (Hurdle rate: Basel II schedule, local regulatory requirements, market-based). • Capital metrics: Basel II. • Common equity Tier 1, Tier 1 capital.

Domain		Assumptions		
		Bottom-Up by Banks	Top-Down by Authorities	Top-down by FSAP Team
		<ul style="list-style-type: none"> RWAs: risk-weights change according to internal models. 		<ul style="list-style-type: none"> RWAs: risk-weights change according to projections based on satellite models.
6. Reporting Format for Results	Output presentation	<ul style="list-style-type: none"> Capital shortfall, by bank (anonymized), system wide. Dispersion of capital ratios: min, avg, max; percentage of assets that fail. Share in whole system by assets that failed the hurdle rate. 		<ul style="list-style-type: none"> Capital shortfall, by bank (anonymized), system wide. Dispersion of capital ratios: min, avg, max; percentage of assets that fail. Share in whole system by assets that failed the hurdle rate.
BANKING SECTOR: LIQUIDITY RISK				
1. Institutional Perimeter	Institutions included	<ul style="list-style-type: none"> 10 largest banks included in TD Solvency ST. 		
	Market share	<ul style="list-style-type: none"> 80 percent of total sector assets. 		
	Data and baseline date	<ul style="list-style-type: none"> Bank proprietary data. Positions end-2015 (and sensitivity analysis on previous years). Consolidated banking group. 		
2. Channels of Risk Propagation	Methodology	<ul style="list-style-type: none"> LCR per currency and consolidated across all currencies. Cash-flow-based using maturity buckets: banks/BRSA will report all on- and off-balance sheet in- and outflows in given time bands. Stress funding conditions will impose haircuts on inflows. 		
3. Risks and Buffers	Risks	<ul style="list-style-type: none"> Funding liquidity shocks. Market liquidity shocks. 		
	Buffers	<ul style="list-style-type: none"> Counterbalancing capacity (bank-specific). Central bank facilities (provision of liquidity, under regular liquidity facilities and ROM). 		

Domain		Assumptions		
		Bottom-Up by Banks	Top-Down by Authorities	Top-down by FSAP Team
4. Tail shocks	Size of the shock	<ul style="list-style-type: none"> • LCR: adjustment factors specified in BCBS (2013), consistent with stressed funding conditions. • Cash-flow based analysis: haircuts ranging from 50 to 100 percent, depending on asset classes. 		
5. Regulatory and Market-Based Standards and Parameters	Regulatory standards	<ul style="list-style-type: none"> • Basel III ratios: LCR. 		
6. Reporting Format for Results	Output presentation	<ul style="list-style-type: none"> • For LCR: bank-specific and sector-wide stressed LCRs, by currency and overall, by type of bank (small/large). • Liquidity gap by currency and aggregated, by time band, by type of bank (large/small). 		

Annex VII. Corporate Stress Testing Matrix

Domain	Corporate Sector: Interest rate Risk/FX Risk/Credit or default Risk	
1. Institutional Parameters	Institutions included	<ul style="list-style-type: none"> • 390+ publicly-listed companies
	Market share	<ul style="list-style-type: none"> • All publicly-listed firms, with assets totaling TRY 900 billion and equivalent to 21 percent of total corporate universe
	Data and baseline date	<ul style="list-style-type: none"> • End-2015 financial statements (where available)
2. Test parameters	Methodology	<ul style="list-style-type: none"> • (See relevant sections below)
	Stress test horizon	<ul style="list-style-type: none"> • 5-year horizon (2016-2020)
3. Tail shocks	Scenario analysis	<ul style="list-style-type: none"> • Baseline scenario • Adverse scenario • Severely adverse scenario
	Sensitivity analysis	<ul style="list-style-type: none"> • +/- 1 standard deviation shock in inputs (from baseline)
4. Risks and Buffers	Risks/factors assessed	<ul style="list-style-type: none"> • Interest risk, FX risk, Credit risk/Debt-at-Risk
	Buffers/Mitigating factors	<ul style="list-style-type: none"> • Exports/revenues, FX assets, Hedging (derivatives)
5. Risk variables	Calibration of risk parameters	<ul style="list-style-type: none"> • Interest rates: Parallel shifts of yield curve • FX: Depreciation of TRY • Credit: Debt-at-Risk • Sensitivity analyses: +/- 1 standard deviation of inputs
6. Reporting Format for Results	Output presentation	<ul style="list-style-type: none"> • Impact on solvency (ICR) ratios • Debt-at-Risk measure • Contribution of individual shocks • Sectoral breakdown