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REPUBLIC OF TAJIKISTAN

FINANCIAL SYSTEM STABILITY ASSESSMENT

February 2016

This paper on the Republic of Tajikistan was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed on May 15, 2015.

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FINANCIAL SYSTEM STABILITY ASSESSMENT

May 15, 2015

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Prepared By
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This report is based on the work of the Financial Sector Assessment Program (FSAP) Update mission that visited Tajikistan during January 27–February 9, 2015. The FSAP findings were discussed with the authorities during the staff visit on April 1–4, 2015. The mission assessed financial sector risks and vulnerabilities, the regulatory and supervisory framework, crisis management and safety nets, governance arrangements, access to finance, and insurance sector developments.

- The FSAP team was led by David Grigorian (IMF) and Martin Melecky (World Bank) and comprised of Hong Wang (Deputy Head), Suchitra Kumarapathy, Maxym Kryshko (all IMF); Jan Nolte, Maria Teresa Chimienti, Fredesvinda Fatima Montes, Adolfo Rouillon, Andrej Popovic, Raquel Letelier, and Peter Wrede (all World Bank); and Andras Fekete Gyor and Jan Willem van der Vossen (external experts). The mission met with the Ministry of Finance, National Bank of Tajikistan, Deposit Insurance Fund, State Insurance Supervisory Service, commercial banks, and insurance companies.

- 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.

- Banks are dealing with the effects of the slowdown of the Russian economy, a key source of Tajikistan's massive remittances' flows, and asset quality is on a decline. Prompt actions are needed to address the gaps in regulatory and supervisory regimes; develop an effective bank resolution mechanism; strengthen crisis management and safety nets capabilities; and improve data reporting.

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Glossary

AML/CTF	Anti-money Laundering and Combating the Financing of Terrorism
AIB	Agroinvestbank
BSD	Banking Supervision Department
CAMEL	Capital, Assets, Management, Earnings, Liquidity
CAR	Capital Adequacy Ratio
CCA	Caucasus and Central Asia
DIF	Deposit Insurance Fund
FATF	Financial Action Task Force
FIU	Financial Intelligence Unit
FSAP	Financial Sector Assessment Program
FSC	Financial Stability Committee
FSD	Financial Stability Department
GoT	Government of Tajikistan
ICAAP	Internal Capital Adequacy Assessment Process
ICPs	Insurance Core Principles
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IT	Information Technology
KYC	Know Your Customer
LBA	Law on Banking Activity
LNBT	Law on the National Bank of Tajikistan
MCO	Micro-credit Organization
MDO	Micro-credit Deposit Organization
MFI	Micro-finance Institution
MoF	Ministry of Finance
MPD	Monetary Policy Department
NBT	National Bank of Tajikistan
NPL	Nonperforming Loan
PCA	Prompt Corrective Action
ROA	Return on Assets
ROE	Return on Equity
SISS	State Insurance Supervisory Service
SMRA	State Material Reserve Agency
SOE	State Owned Enterprise
UBPR	Universal Bank Performance Report
US$	U.S. Dollar

EXECUTIVE SUMMARY

Tajikistan's economy is entering a downturn and the banking sector is showing substantial weaknesses. In particular, the economy and the financial sector are facing the downside risks and negative spillovers from: (i) a protracted period of negative growth in Russia, coupled with a possible slowdown of growth in China; (ii) commodity (especially cotton and aluminum) price shocks; and (iii) delays in structural reforms, particularly in banks and state-owned enterprises. System-wide nonperforming loans grew substantially in 2014 and capital buffers are likely to be overstated due to misclassification and underprovisioning of bad loans. Credit quality is poor, owing to inadequate credit assessment methodologies and insufficient credit information, but also to directed and related-party lending in the past, which have heightened moral hazard.

Macroeconomic stress testing and single-factor sensitivity analyses confirm the presence of significant vulnerabilities in the banking sector. One large bank is already insolvent and another one fails to meet the prudential requirements. Under an adverse scenario the system-wide capital shortfall could be around 5 percent of GDP. Banks are particularly sensitive to credit risk and market (exchange rate) risk, including via indirect credit risk from lending in foreign currency to unhedged borrowers.

Regulation has been improved in line with recommendations of the 2007 FSAP, but supervision and enforcement are lagging. Further strengthening of the reporting and oversight framework is needed, along with enforcement of corporate governance rules to minimize abuse by vested interests.

The widespread solvency problems in the financial sector must be addressed head-on and the authorities should be prepared to cope with the worst. Reinforcing the independence of the central bank will be critical for maintaining stability and developing the financial sector. Similarly, setting up a coordination body that brings together key policy makers for financial stability and contingency planning is vital. The current framework for Prompt Corrective Action should be strengthened, to ensure that the supervisor is accountable for and has the necessary powers to take timely action. Similarly, the legal framework for resolution of problem banks should equip the authorities with the necessary powers and tools, and the deposit insurance system needs to be enhanced, including by raising the coverage limit, extending coverage to micro and small enterprises, and modernizing payout procedures.

As the current Banking Sector Development Strategy is ending, policy makers should develop a comprehensive strategy aimed at achieving greater financial stability, efficiency, and inclusion. The following measures would provide a useful basis for this process (Table 1).

Table 1. Tajikistan: FSAP Update Main Recommendations

Recommendations (Implementing Authority)	Priority	Timeframe
Financial Stability and Macroprudential Surveillance		
Establish a Financial Stability Department with the mandate to develop policies to manage systemic risk and foster financial stability (NBT).	High	Near term
Establish a Financial Stability Committee as the advisory body on financial stability and crisis preparedness issues (NBT).	High	Near term
Introduce additional macroprudential instruments to manage the conjunctural and cross-sectional systemic risk in the financial sector (NBT).	Medium	Medium term
Bank resolution, Crisis Management, and Safety Nets		
Bring the bank resolution framework in line with global good practice; make NBT the resolution authority/liquidator for banks (NBT).	High	Immediate
Resolve AIB in accordance with global good practice (NBT and MOF).	High	Immediate
Amend the laws to allow a satisfactory functioning of PCA and develop more specific NBT internal guidance for supervisory intervention (NBT).	Medium	Near term
Strengthen the capacity of DIF to fulfill its mandate, simplify the funding and payout procedures, and reassess the coverage level (DIF).	Medium	Near term
Financial Sector Oversight		
Conduct thematic inspection (cross-sectional audit) of banks on credit risk management to benchmark under-provisioning and capital shortfalls, and take enforcement actions to restore the soundness of problem banks (NBT).	High	Immediate
Enforce appropriate loan classification and provisioning; incentivize banks to end evergreening, use all legal means to enforce loan contracts, and restructure NPLs; write-off non-collectible debts; require banks to prepare ICAAPs and increase capital as needed (NBT).	High	Near term
Enhance the system of monitoring the foreign exchange (including indirect) exposures of banks, their concentration risk, exposures to large deposits, quality of credit by sector, and market risk (NBT).	Medium	Near term
Increase the number of supervisory staff and expand their skill mix with IT, risk management, and modeling expertise (NBT).	Medium	Medium term
Insurance Oversight and Development		
Create an independent and adequately resourced insurance supervisor with a mandate for regulation and market development, and abolish the state monopoly in provision of insurance products (SISS).	High	Medium term

MACROECONOMIC ENVIRONMENT AND FINANCIAL SECTOR OVERVIEW

A. Macroeconomic Background and Outlook

1. Tajikistan's economy is small and vulnerable to shocks. It relies heavily on imports (65 percent of GDP) and its exports (19 percent of GDP) are narrowly based and largely commodity-driven (aluminum, cotton, and gold). Most of its fuel and a large share of food are imported. Tajikistan depends heavily on exports of labor and the resulting remittance income (equivalent to about 50 percent of GDP in 2013), earned mainly by migrant workers in Russia. The vulnerabilities are exacerbated by a poor business climate; Tajikistan stands last among the seven Caucasus and Central Asia (CCA) countries in terms of the ease of doing business (Figure 1).

2. GDP growth has been on a declining trend. Economic growth was 6¾ percent in 2014, supported primarily by the rapid expansion of construction (25 percent). Remittances fell by 8½ percent in 2014 and are estimated to drop by 35 percent in 2015. This will have an adverse impact on the services sector and growth. While rapidly growing economic ties with China may help underpin the outlook, the fallout from the adverse external environment—most notably, in Russia—and the slow pace of structural reforms will weigh heavily on growth in 2015 and beyond.

3. Inflation rebounded from recent lows and is projected to rise further. The increase in the CPI remained moderate at 3 percent and 7 percent during the last two years, owing to a relatively stable exchange rate and favorable international food and fuel prices. However, recent electricity tariff increases, ongoing rapid credit growth, and a pass-through from exchange rate depreciation (see below) are expected to push inflation into double digits in 2015.

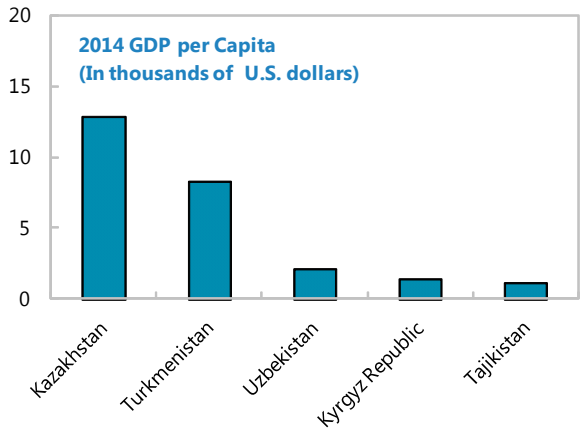
4. Monetary policy has been largely accommodative. Base and broad money grew at 13¼ percent and 7 percent, respectively, in y-o-y terms through December 2014, but private credit growth surged by 31½ percent during the same period. Although direct National Bank of Tajikistan (NBT) liquidity lending to banks has been limited, the placement of government deposits with commercial banks has supported the liquidity of several large banks (including those in violation of prudential norms) and fueled already high credit growth. The policy rate—the NBT's refinance rate—remained negative in real terms until recently. Continued losses and negative capital at the NBT could compromise its ability to conduct sound monetary policy.

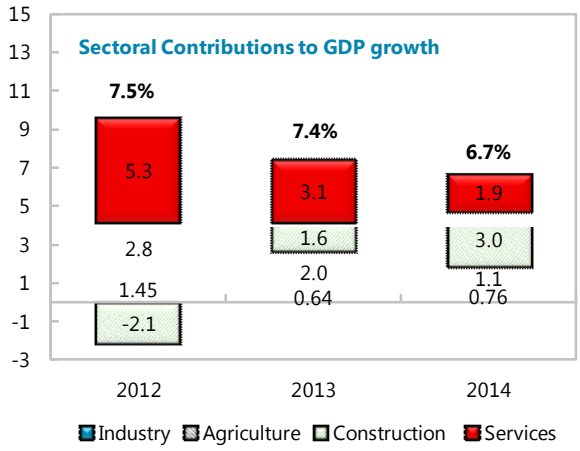
5. The external position continues to deteriorate, putting pressure on the somoni (SM) and eroding already low external buffers (Figure 2). Although the official exchange rate depreciated by about 23 percent against the US dollar since December 2013, ahead of Kazakhstan and Kyrgyz Republic (with roughly 17 percent depreciation), this felt short of the devaluation of the Russian ruble (37 percent) for the same period. A relatively strong somoni (which supported high import growth) together with falling remittances and depressed exports (largely of cotton and aluminum) sharply eroded the external current account balance. Absent compensating inflows on the capital account side, the authorities intervened heavily in the foreign exchange market, causing

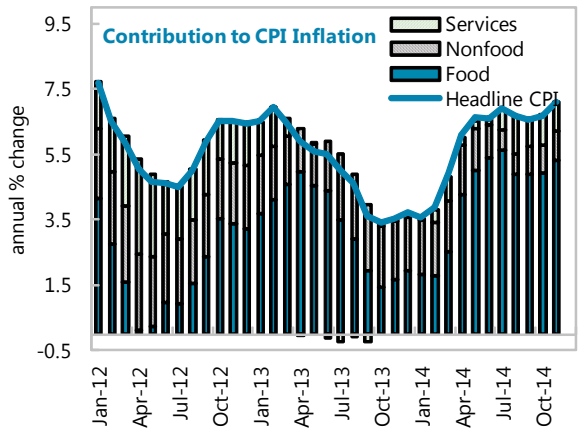
international reserves to fall to one month of imports by end-2014. Inadequate reserves coverage in an environment of high dollarization constrains the effectiveness of systemic liquidity management by the NBT.

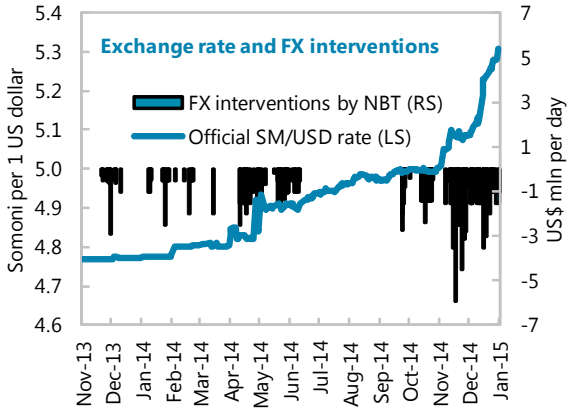
6. The fiscal stance remains consistent with debt sustainability but faces risks. Preliminary fiscal data for 2014 show a surplus (excluding the foreign-financed public investment program). However, the construction of the Rogun Hydropower Project (HPP) may stress debt and external sustainability. In addition, the fiscal position may be adversely affected by possible costs of bank recapitalization as well as by external debt service-related budgetary outlays on behalf of two loss-making state-owned enterprises (SOEs).

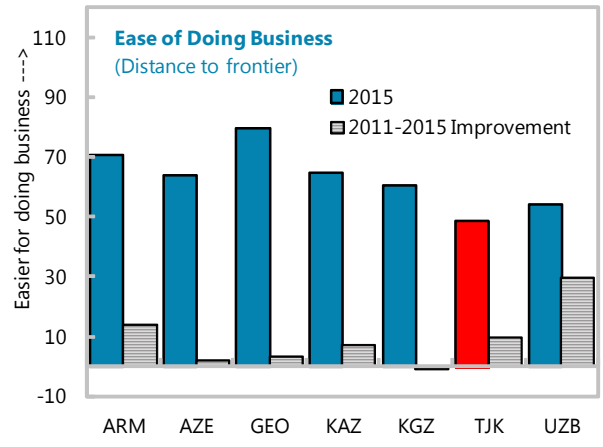
Figure 1. Tajikistan: Macroeconomic Developments

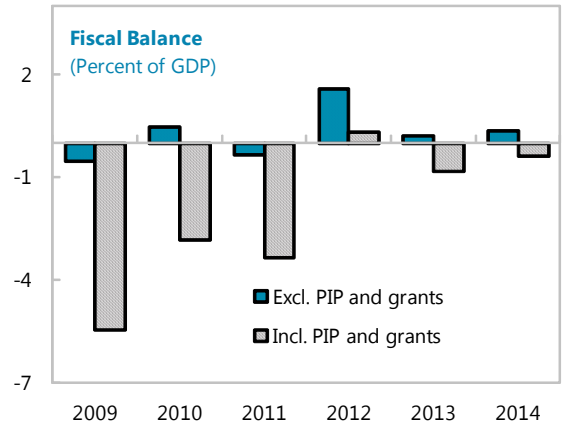






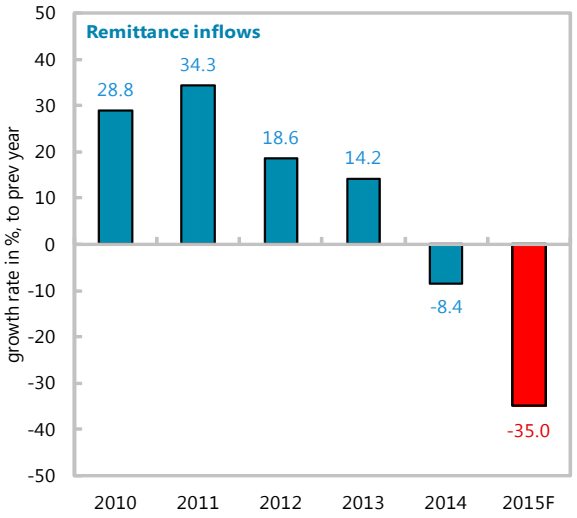


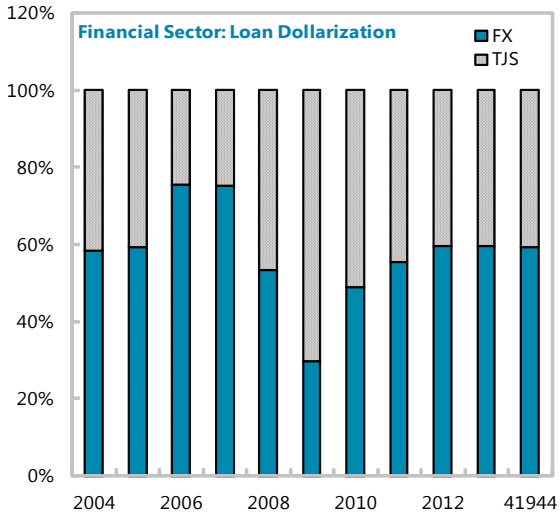


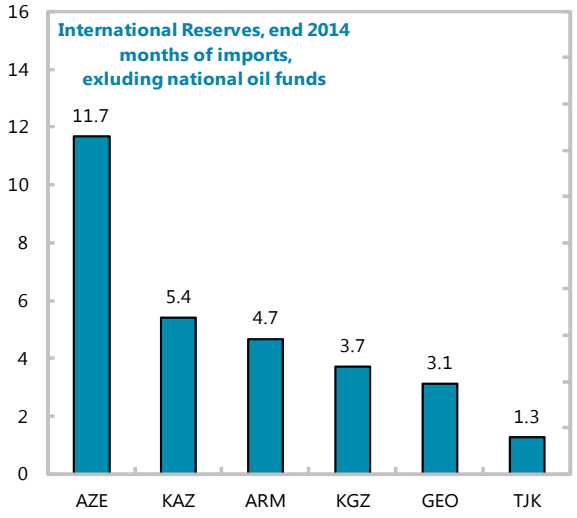


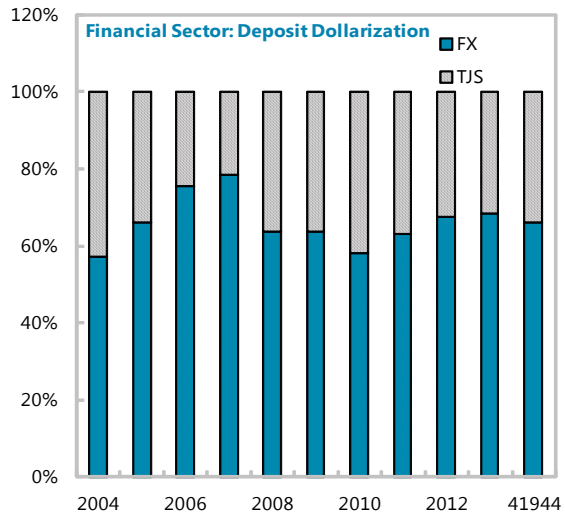
Sources: NBT; WEO; World Bank Doing Business (2015); and IMF staff calculations.

Figure 2. Tajikistan: Macroeconomic Vulnerabilities









Sources: NBT; WEO; and IMF staff calculations.

B. Financial Sector Structure

7. The financial sector is dominated by banks, which account for 84 percent of total financial sector assets (Table 2). Microfinance institutions (MFIs) account for most of the remainder. There is a small insurance sector and practically no capital markets activity or advisory services industry. There are 12 leasing companies, but data on their operations are not available. Recently, a license was issued for the second (private) credit bureau.

Table 2. Tajikistan: Financial System Structure, 2012–14

	September 2012			September 2013			September 2014		
	Number	Assets mln SM	Percent of total	Number	Assets mln SM	Percent of total	Number	Assets mln SM	Percent of total
Commercial Banks	16	8,884	87.3	16	10,663	84.2	17	13,310	84.4
Fully state-owned banks	1	1,245	12.2	1	1,586	12.5	1	1,812	11.5
banks with majority foreign participation	7	910	8.9	7	1,043	8.2	7	1,345	8.5
Microfinance Instituitions (MFIs)	124	1,146	11.3	118	1,803	14.2	121	2,265	14.4
Micro-credit Deposit Organizations (MDOs)	34	492	4.8	37	1,499	11.8	41	1,912	12.1
Micro-loan Organizations (MLOs)	44	547	5.4	42	155	1.2	42	192	1.2
Micro-loan Funds (MLFs)	46	108	1.1	39	148	1.2	38	160	1.0
Non-Banking Credit Organizations	1	1	0.0						
Insurance Companies	26	142	1.4	16	204	1.6	17	197	1.3
Leasing Companies [1/]	7			12			12		
TOTAL	174	10,174	100	162	12,670	100	167	15,772	100
(in percent of GDP)		28.1			31.3			34.6	

Sources: NBT; and World Bankstaff estimates.
Notes: 1/ Data on leasing companies is not available.

Commercial banks

8. The banking sector remains small compared to other CCA countries and is concentrated. It reports assets of less than 30 percent and loans of 15 percent of GDP, and consists of 17 commercial banks, including one fully state-owned, one majority state-owned, and seven majority foreign-owned institutions. The six largest banks account for 81 percent of total bank assets, and majority foreign-owned banks account for 10½ percent. One large bank is insolvent and another fails to meet all prudential requirements, jointly accounting for 41 percent of total bank assets.

9. Nonperforming loans (NPLs) have grown rapidly, especially in large banks. The NPL ratio for the six largest banks stood at 28¼ percent, compared with the industry average of 25 percent as of December 2014.[1] However, the official numbers mask major weaknesses in some

[1] A large share of the increase in NPLs was due to Orionbank (with loans to Tajik Aluminum Company, Barki Tajik, and other SOEs), and AIB (with loans to State Material Reserve agency and connected companies).

banks. They are under-provisioned, with specific provisions accounting only for 42¾ percent of NPLs,[2] which results in an overstatement of banks' capital positions.

10. While some progress had been made on AIB restructuring, further postponing the final decision is likely to result in a higher fiscal cost. The authorities believe that the recent appointment of a new Chairman will expedite the collection of NPLs and position the bank well for new lending. However, this may delay the needed resolution and restructuring of the bank. Therefore, the authorities should pursue the restructuring of the AIB without delay, consistent with best practices of bank resolution, as also outlined in the joint IMF-WB May 2014 TA report on AIB resolutions options, to reduce system-wide moral hazard and jumpstart lending by the bank. Given the systemic nature of AIB, the preferred options would be recapitalization with conditions or a bridge bank (Box 1).

Box 1. Options for Resolving Agroinvestbank

AIB is a troubled bank with negative regulatory capital, classified by the NBT as systemically important. The delay in its resolution negatively affects market discipline in the overall system, imposes costs on the real economy, feeds moral hazard of other troubled banks, and could have other adverse spillovers to the rest of the banking system.

There are three options:

(1) Recapitalization with conditions: This would involve writing down existing shareholders, restricting dividends, injection of government capital, and eventually re-privatizing the bank to reputable investors. This would not require legal changes, but would carry fiscal costs of 1¾–2½ percent of GDP. The risk of this approach is that—absent strong safeguards—the AIB's business model would remain unchanged, the legacy loan portfolio would weigh heavily on its financial performance going forward, exposing the public to the need for a further bail-out.

(2) Bridge bank resolution based on a revised legal framework for bank resolution: This would entail placing the bank under a temporary administration, until the legal framework is amended to allow for stronger resolution tools that would allow the transfer of insured deposits and "good" assets to a bridge bank, and the liquidation of "bad" assets and remaining liabilities by a "bad" bank. This approach would have a lesser fiscal cost, assuming some bailing in of creditors and large depositors, and would leave the new "good" bank with a healthier balance sheet and therefore more likely to be viable.

(3) Bank liquidation under the current framework: This would entail withdrawing the AIB's license, initiating a court-led liquidation, compensating insured depositors, and covering other creditors by the proceeds of liquidation. There would be no immediate fiscal costs, but the franchise value of AIB would be lost, and the potential for a generalized loss of depositor confidence would be greater.

[2] With AIB included, specific provisions to the NPLs ratio would be at 60¾ percent, as AIB was forced by the NBT to fully provision for its losses in December.

11. The sector suffers from the legacy of directed lending. Although the extent of directed lending has declined markedly in recent years, the misallocation of credit is likely to have imposed important economic and fiscal costs. While these are difficult to measure precisely, due to data and analytical limitations, illustrative calculations can be constructed based on the literature on the effects of financial deepening on growth (e.g., Beck, Levine, Loayza, 2000). For example, assuming that nearly 50 percent of AIB's loan book consists of nonperforming loans due to directed lending, this could have reduced annual GDP growth by as much as ¼ percentage points. And while the fiscal costs are also hard to measure, restructuring AIB could require the injection of public funds in an amount equivalent to around 2½ percent of GDP (Box 1).

Insurance sector

12. The insurance sector in Tajikistan is small and underdeveloped. Eighteen companies currently operate in Tajikistan, one of which is foreign owned and two are state owned. It is supervised by the State Insurance Supervisory Service (SISS), which is a unit of the Ministry of Finance (MoF). Discussions are underway to move the supervisory function to the NBT. Life insurance is particularly underdeveloped and amounts to less than 2 percent of total gross insurance premiums. The sector suffers from an absence of actuaries, underwriters, or loss adjustors.

Microfinance institutions

13. The microfinance institutions (MFIs) have experienced sustained growth in recent years and the largest institutions compete directly with banks for SME lending. The sector—which represents nearly 15 percent of the financial sector—comprises three tiers that serve over 400,000 borrowers: 42 micro-credit depository organizations (MDOs), 42 micro-credit organizations (MCOs), and 36 micro-credit funds (MCFs). The sector is also concentrated, with the five largest MFIs accounting for around 70 percent of total assets, which compete with banks in the SME segment. One microfinance organization acts exclusively as a wholesaler to smaller institutions.[3] MFIs also outperform banks on the number of loans, portfolio quality, and profitability. The NPL ratio in the microfinance sector was around 3¼ percent, while their return on assets reached 6¼ percent by September 2014. However, the sector faces substantial funding constraints, especially in local currency.

Leasing

14. The leasing sector is small and unregulated, and the absence of market monitoring or oversight makes analysis difficult. Banks and MFIs can provide leasing on their books, but the size of their financial leasing transactions is very small. Approximately, 90 percent of leasing transactions correspond to financial leasing, 10 percent relate to leaseback transactions, while operational leasing appears to be nonexistent.

[3] This business model could potentially improve access to financial services for the lower end of the market.

Capital markets

15. The capital market is limited to an emerging government debt market in addition to the NBT's open market operations. The government securities market is comprised of 91-day treasury bills (T-bills). In 2014, there were five auctions with only two auction participants: the state-owned Amonatbank and the Deposit Insurance Fund (DIF). The NBT's open market operations are more vibrant and include weekly auctions and instruments with maturities of 7, 14, 28, and 56 days. Most recently, the authorities have established a closed joint stock company "Securities Market of Tajikistan" (100 percent owned by the NBT), with a mandate to develop a secondary market for government securities and to establish a new stock exchange. In addition, Tajiksodirotbank has registered a company under the name "Dushanbe Stock Exchange." However, there are no market activities because the company has not yet been issued a license to operate as a stock exchange.

C. Progress with 2007 FSAP Recommendations

16. Tajikistan has made some progress in implementing the 2007 FSAP recommendations. The authorities at least partially implemented many of the key recommendations of the 2007 FSAP. In the banking sector, the surveillance framework for monitoring the build-up of credit risk has been strengthened and a wide range of corrective measures were introduced. Governance and autonomy of the NBT were enhanced and some funds were transferred to recapitalize the NBT. The bank regulatory and supervisory framework was strengthened. In the nonbank financial sector, a program of government securities issuance was launched; new laws on Deposit Insurance of Individual Savings (2011) and Credit Histories (2009) were adopted and were largely aligned with good international practice. Table 8 outlines the specific steps that have been taken and those remaining to be addressed.

FINANCIAL SECTOR STABILITY

A. Key Macro-Financial Risks and Vulnerabilities

17. Dollarization in the financial sector has been increasing and remains a challenge for FX risk and credit risk management. Prior to the global financial crisis, it was 82 percent and 76 percent, for bank loans and deposits, respectively, before tapering off some. From early 2011, both indicators of dollarization have again been on the rise, reflecting a lack of confidence in the somoni and the business environment. The overwhelming majority of private enterprises that borrow in foreign exchange earn income in somoni and thus are not hedged against depreciation. In the past, external shocks and substantial exchange rate depreciations have imposed significant costs on the banking sector. High dollarization also complicates monetary policy management and crisis management and resolution.

18. Rapid credit growth in a worsening macroeconomic environment is likely to make the system more vulnerable. A credit boom in 2014, with private credit expanding to 31½ percent, was accompanied by a slowing real economy, exchange rate pressures, and loss of foreign

exchange reserves. The placement of government deposits with commercial banks supported liquidity in the system and fueled already high credit growth. Weak underwriting standards, a legacy of directed lending, and regulatory forbearance have encouraged undue risk taking. In addition, credit quality is impacted by weaknesses in formal credit assessment methodologies and insufficient credit information. Moreover, credit growth has exceeded deposit growth, pushing the loan-to-deposit (LTD) ratio above 100 percent. FX loans have been expanding at a faster rate than general credit, exposing banks to indirect credit risk by customers, who maintain unhedged short foreign exchange exposures. (Figure 3).[4] An early sign of mounting vulnerabilities is the NPLs, which increased significantly to 25 percent at end-December 2014 compared to 16 percent a year ago.

19. Weaknesses among public sector borrowers represent another macro-financial risk. The weaker macroeconomic environment means that state-owned companies will likely have greater difficulties servicing their loans, with consequences for banks.[5] At end-2014, the share of government and SOEs in total bank credit was about 11 percent; 74 percent of these loans were overdue for 30+ days, the worst ratio among all economic sectors. Reform of the SOE sector will be a critical precondition for improving asset quality and securing financial stability.

20. Government-directed lending and poor governance at banks have increased credit and concentration risks. Exposure to the construction sector of one large bank increased five-fold in 2014. Another bank, which accounts for 50 percent of government on-lending, has an NPL ratio that is more than triple the industry average. Insider and connected lending is prevalent and interference in lending decisions is not uncommon. This practice is often motivated by efforts to support flagship public enterprises facing difficulties or by food and fuel security considerations.[6] Unless curbed, directed lending will continue to take a toll on the financial sector and productivity (see Box 1 on AIB, the main vehicle for directed lending in recent years).

21. Loan concentration exacerbates the banks' vulnerabilities. Loans are concentrated in the commercial sector (46 percent of the total NPLs), to government entities (30 percent of total NPLs), and to SMEs (14 percent of total NPLs) (Figure 4). The impact on banks is exacerbated by the fact that these sectors are where NPLs are the highest.

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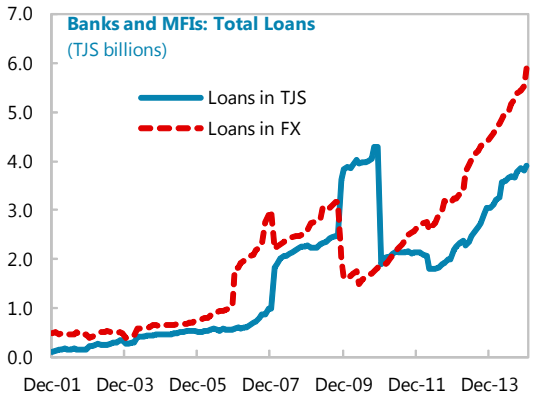
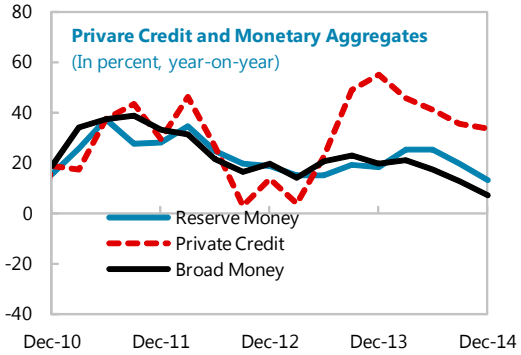
[4] Much of the new credit went into unhedged and riskier segments: construction and consumer credit.

[5] Poor payment discipline, tax arrears, inadequate cash collection and large operational losses at Barki Tajik, the state electricity monopoly, will necessarily lead to pressure to provide additional directed lending or budget support. Losses and low metal prices will likely push Tajik Aluminum Company to seek additional credit from banks to pay for current outlays. The revenues of the national air carrier, Tajik Air, are likely to decrease, as migrant travel declines following adverse developments in Russia.

[6] For example, as a result of financing State Material Reserve Agency's purchases of grain and fuel, the single borrower ratio of AIB in 2013 has increased to 73 percent, breaching the 20 percent prudential maximum, exposing the bank to high risk and contributing to subsequent difficulties.

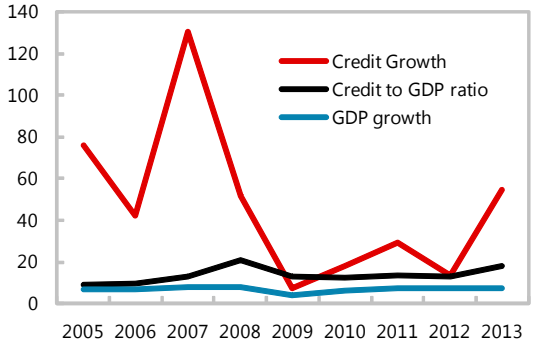
Firgure 3. Tajikistan: Private Credit and Money Aggregates



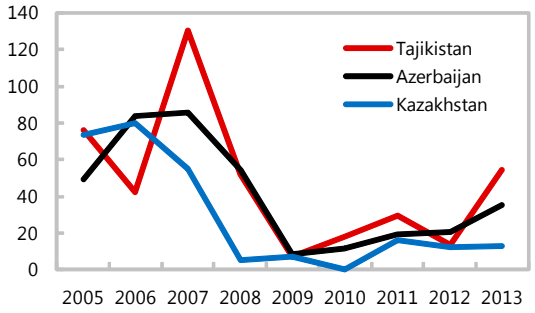


1/ As part of cotton debt resolution, KI loans were written off in 2010. Agroinvestbank was bailed out in 2012. Both affected

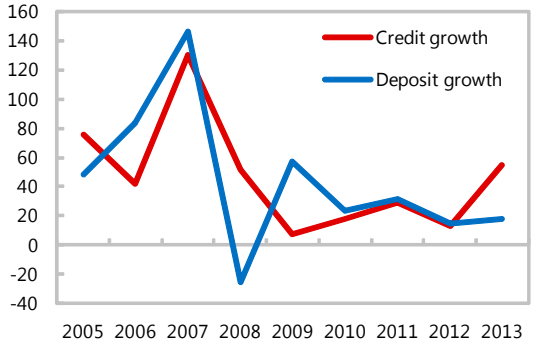
Credit to GDP ratio is still at a low level, but credit is growing faster than the economy...



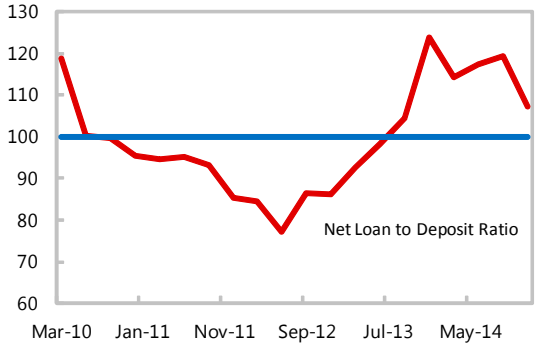
Credit Growth in Tajikistan has exceeded some Central Asian countries in recent years...
(in percent, yoy)



Credit growth has exceeded the deposit growth...
(in percent, yoy)

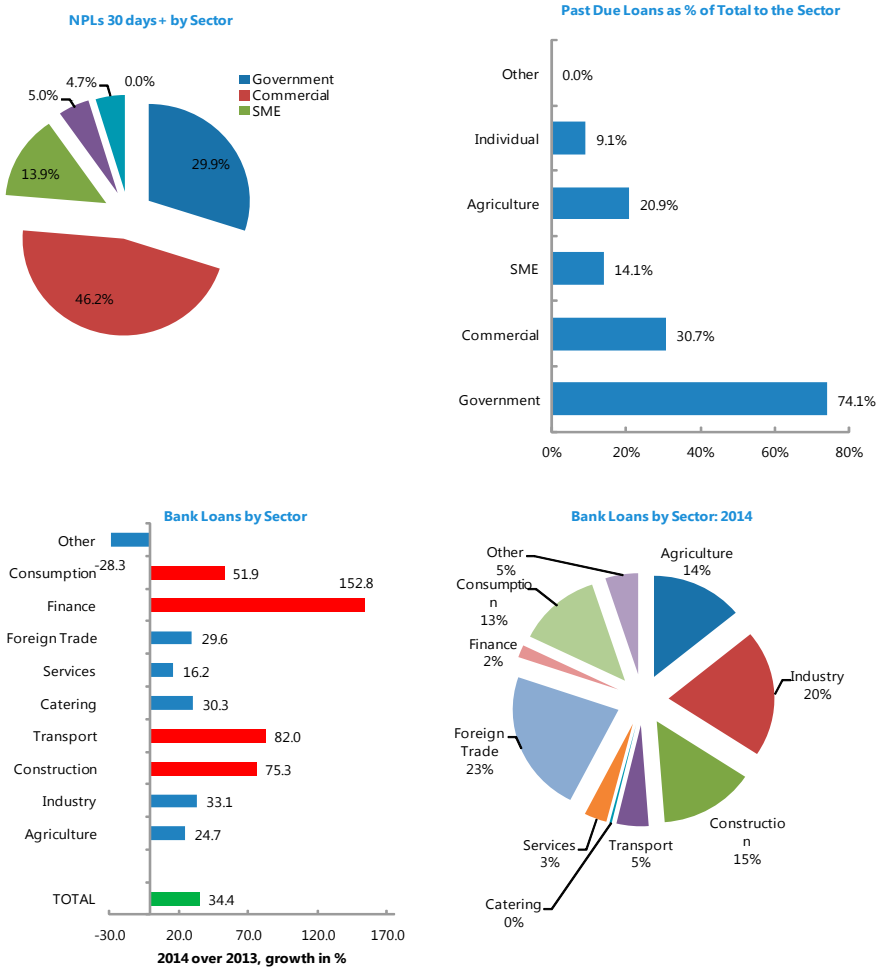


As a result, LTD ratio is above 100 percent again...
(in percent)



Sources: NBT; IFS; and IMFstaff estimates.

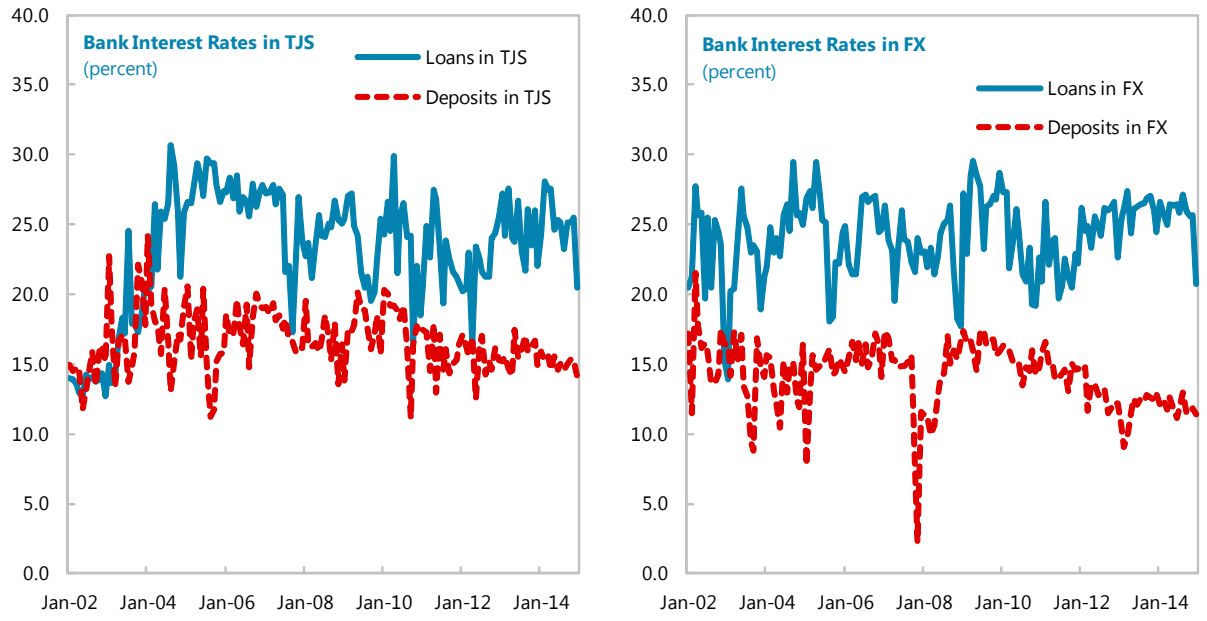
Figure 4. Tajikistan: Bank Loans and NPLs Concentration by Economic Sector



Sources:NBT, IFS;and IMF staff estimates.

22. Interest rates remain high, reflecting the poor business environment and elevated credit risk (Figure 5). High interest margins/spreads point to inefficiencies in intermediation and impede economic growth by discouraging productive investments. Lending-deposit spreads have been increasing since mid-2011 and remain elevated: 10 percent in somoni and 13¾ percent in FX on average during 2014.

Figure 5. Tajikistan: Interest Rates and Spreads



Sources: NBT; World Bank and IMF staff estimates.

B. Banking Sector Vulnerabilities

Overview and scenarios

23. Quantitative tests were conducted to assess banks' resilience to credit and liquidity shocks. These included bottom-up macroeconomic stress tests conducted by the banks themselves, single factor sensitivity analysis, and top-down solvency stress tests on nine banks using supervisory data through end-September 2014.[7] The results should be interpreted with care due to data limitations and quality concerns.[8]

24. The banking system's resilience was assessed against three scenarios: baseline, adverse moderate, and adverse severe, which correspond broadly to the main risks identified in the Risk

[7] AIB was excluded from the macro solvency stress testing due to its insolvency. In addition to five large banks, four smaller ones were used in stress testing.

[8] Consistent time series data were not available for a number of banks and the team was unable to verify the methodological consistency of key series.

Assessment Matrix (RAM, Table 7).[9] The baseline scenario is based on IMF staff projections as of January 2015 (Appendix I).[10] Shocks were calibrated based on historical data (especially the outcome of the 2009 crisis) and satellite models. For the credit risk model, the growth in NPLs is modeled as a function of real GDP growth, inflation, remittances, interest rates, and exchange rates. Five-year macroeconomic projections (Table 9 and Figure 6) were then quantified with real GDP as the leading dependent variable for each of these scenarios. Quarterly bank-specific data for nine banks were used in the regressions.

Solvency risk

25. Macro credit risk stress tests suggest that the banking sector is vulnerable even under the baseline scenario. Most banks are under-provisioned, as specific provisions only account for 42¾ percent of NPLs. When full provisioning was assumed (Figure 7),[11] the system-wide CAR falls to 16¾ percent in 2015, with three institutions (including two large banks) representing more than a third of the system assets falling below the regulatory threshold.

26. Significant strain appears in the system under the moderate and severe alternate scenarios. In the adverse moderate scenarios, loan quality deteriorates with the NPL ratio for the nine banks rising to 23¼ percent in 2015. The deterioration intensifies under the adverse severe scenario: the system-wide NPL increases to 30 percent, bringing the share of banks with the CAR below the regulatory minimum to nearly two-thirds of total assets.[12]

27. Credit risk is the most critical vulnerability. The results of the sensitivity analysis (see Tables 10A and 10B) are consistent with those of the macro stress test. Increases in NPLs have a significant impact on CAR, which turns negative. The system-wide CAR falls by 14 percentage points to 3 percent while the potential recapitalization amount in percent of GDP increases to 2½ percent.

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[9] Under a moderate scenario, remittances are anticipated to decline by 35 percent, cotton prices could fall by 25 percent, and depreciation of the somoni will reach 25 percent, all relative to 2015 baseline. Under a severe scenario, remittances are projected to fall by 70 percent, cotton prices to decline by 50 percent, and depreciation would reach 50 percent, all relative to 2015 baseline.

[10] These projections are biased upward, because the macro outlook worsened since January 2015 (see Table 5).

[11] Excluding AIB, the specific provisions to NPLs ratio would reach 60¾ percent, since the bank was forced by the NBT to fully provision for its losses in December. When the NBT's regulatory guidelines for provisioning are used (see footnote 19), the weighted average rate for provisioning is around 74 percent.

[12] Financial vulnerabilities of the largest banks are also confirmed in the reverse stress test. The tests shows that under current provision rates, the system-wide CAR will fall below 15 percent and 42 percent of standard loans would have to default. For the group of large financial institutions, only 18 percent of standard loans would have to default for the CAR to fall below 15 percent.

28. The largest banks are more vulnerable to concentration risk. The tests show that in the event of a default by the largest borrower and full provisioning rates, the CAR of the largest banks will fall from 11¼ percent to 9 percent. For the smaller banks, the CAR will decline by 3 percentage points (to 36 percent). If the top five borrowers default, the largest banks' CAR will drop to 4 percent, while the CAR for smaller banks will decline to 34 percent.[13]

29. Interest rate risk appears to be contained, but banks face considerable exchange rate risk. Interest rate risk is not significant for banks due to only small maturity mismatches. Even with an interest rate shift of up to 800 basis points, the impact on CAR is marginal, falling by only 2 percentage points, remaining above the regulatory threshold (Tables 11A and 11B). Banks are less resilient to a severe currency shock: a (direct impact of) depreciation of the somoni by 50 percent lowers the banking system's CAR to 19 percent. Five banks, including three large banks, fail to meet the minimum capital requirement: the number of banks in breach of the regulatory minimum increases to 6 and the system-wide CAR falls to 13 percent.

30. The banking sector was also stress tested for the indirect exchange rate risk.[14] The tests looked at an increase in FX NPLs on loans to "unhedged borrowers," which account for 85 percent of total FX loans. Each indirect credit risk single factor shock is then combined with the direct effects of exchange rate depreciation. Under a (moderate) 25 percent depreciation of the somoni, a 38 percent increase in FX NPLs,[15] and regulatory provisioning, the system-wide CAR falls to 12½ percent, with the CAR for large banks falling below the regulatory minimum of 15 percent. The losses are further accentuated under the adverse severe scenario.

31. The results of the multi-factor stress test suggest that the banking sector is vulnerable to adverse scenarios. Under the adverse moderate scenario, the banking sector's capital ratio falls to 15¾ percent and one bank becomes insolvent. In the adverse severe scenario, the CAR falls to 14½ percent and three banks become insolvent. The shock has a significant impact on the capital ratio of large banks, which declines to 7½ percent.

Liquidity risk

32. Banks are vulnerable to a run on foreign currency deposits and, to a lesser extent, a run on domestic currency deposits (Table 3). The liquidity stress test focused exclusively on funding liquidity risk since assets could not be evaluated, and market liquidity risk (i.e., the drop in

[13] The required provisioning is set at 100 percent since the test assumes a default loss category.

[14] This results from the FX positions taken by borrowers on their ability to repay (e.g., because their earnings are predominantly in domestic currency) and, subsequently, on banks' portfolio quality.

[15] The shocks are calibrated by first computing the elasticity of exchange rate depreciation and FX loans and linking it with the macro scenario shocks. Due to data limitations, FX loans was used as a proxy to determine the increase in FX NPL ratio, which may not represent the true potential losses related to indirect foreign exchange risk.

asset prices due to selling pressures) could not be quantified. Under a run on FX deposits, one bank exhausted its liquidity on the second day.[16] By the fifth day, six banks became illiquid, amounting to 42 percent of banking assets. As for a run on domestic currency deposits, banks are less vulnerable, as only one bank became illiquid on the third day, representing 2 percent of banking sector assets. The vulnerability to an FX deposit run is exacerbated by the NBT's inability to provide emergency liquidity support in foreign currency due to low reserve levels.

Table 3. Tajikistan: Liquidity Stress Test Results

Foreign Currency Deposits				Domestic Currency Depsoits			
Total Number of Banks tested	16	Number of Banks illiquid	In percent of assets	Total Number of Banks tested	16	Number of Banks illiquid	In percent of assets
Withdrawal of deposits: 1st day by	5%	0	0	Withdrawal of deposits: 1st day by	5%	0	0
Withdrawal of deposits: 2nd day by	5%	1	2	Withdrawal of deposits: 2nd day by	5%	0	0
Withdrawal of deposits: 3rd day by	5%	2	25	Withdrawal of deposits: 3rd day by	5%	1	2
Withdrawal of deposits: 4th day by	10%	5	42	Withdrawal of deposits: 4th day by	10%	1	2
Withdrawal of deposits: 5th day by	10%	6	42	Withdrawal of deposits: 5th day by	10%	1	2

Sources: NBT; and IMF staff estimates.

33. Another liquidity test simulated the impact of withdrawal of the largest one, three, and five depositors. The test, measured against a hurdle rate of 30 percent of liquid asset to total asset ratio, suggests that the banking sector is highly concentrated as it does not have sufficient liquidity against a large and sudden outflow of deposits (Table 4).

Table 4. Tajikistan: Large Depositor Outflow Test

Total number of banks tested	16	Number of bank < hurdle rate of 30 percent
Withdrawal of large depositors	Top 1	9
Withdrawal of large depositors	Top 3	9
Withdrawal of large depositors	Top 5	10

Sources: NBT; and IMF staff estimates.

[16] Even before the shock, this bank had a liquidity ratio of less than 11 percent, well below the regulatory requirement of 30 percent.

REGULATORY AND SUPERVISORY FRAMEWORK

A. Legal Framework

34. The authorities made progress in reforming the legal and regulatory framework for the financial sector following recommendations of the 2007 FSAP (Table 8). The amended Law on the National Bank of Tajikistan (LNBT) strengthens the provisions related to the appointment and dismissal of the governor, the bank licensing authority of the NBT, and fit-and-proper requirements. The NBT staff appointed to conduct examinations and the provisional managers are now protected against lawsuits for actions carried out in the good-faith exercise of their duties, with the NBT bearing the cost of any lawsuits. In addition, key prudential regulations were revised or introduced, including rules on capital adequacy, liquidity, connected lending, and other key prudential ratios. Finally, new instructions were adopted on banks' credit policies, including dealing with bad loans, loan classification and provisioning, and risk management and internal controls.

35. However, the following structural weaknesses remain and impose significant handicaps to safe and sound banking and effective banking supervision:

- The NBT does not have a mandate for fostering stability of the financial system as a whole. It is only responsible for *banking* sector stability.
- The judiciary is not used by the banks to support contract enforcement, due to excessive uncertainty about duration and outcome of lawsuits.
- Enforcement of prudential standards is weak, in particular with regard to the large and systemically important banks, which may be due to NBT's insufficient independence. In addition, there is no capacity in the banking supervision function to assess macro-prudential risks, which can be valuable early warning signals for financial distress.
- There is no central registry where companies' financial statements are deposited and can be examined.
- Accounting standards are still a hybrid of IFRS and pre-independence/Soviet accounting. The auditing profession in Tajikistan is still relatively young.[17] Practical experience requirements for bank auditors have been relaxed.
- Conditions for the effective exercise of market discipline are not favorable, as there is virtually no interbank or securities markets to provide a pricing mechanism to enforce prudent risk taking by banks.[18]

[17] The recently created Association of Auditors has no role in training and quality control of the profession.

36. While the LNBT lays the legal foundation, the Law on Banking Activities (LBA), revised in 2009, provides greater detail on the way the NBT exercises supervision. Based on this law, new regulations have been introduced. Specifically, they include updating the banks' capital adequacy and liquidity regimes and other basic prudential indicators, risk management and internal control in banks, and loan classification and provisioning. Several other new or revised regulations have been drafted but not yet finalized. These include regulatory acts on disclosure by banks, consolidated supervision, bank licensing, and the supervisory response to noncompliant banks and unsafe and unsound practices.

Bank regulation

37. The basic prudential norms are laid down in Regulation 176. It covers capital adequacy, liquidity, large exposure limits, insider lending, and shares in other entities. The capital adequacy regime is based on Basel I, but also appropriately includes a leverage ratio of 10 percent. The risk-weighted capital adequacy ratio is set at 12 percent and 15 percent for the five largest banks. The short-term liquidity ratio is set at 30 percent.

38. Regulations governs loan classification and provisioning establish four categories of impairment: Substandard, Doubtful, Problem, and Bad. Provisions are calculated on the outstanding loan amount minus the value of the collateral.[19] However, substantial haircuts are applied to collateral values.[20] If collateral is not sold within six months, the value is reduced to zero. Consideration should be given to imposing higher risk weights on chronic NPLs that do not produce any cash flow. Provisioning for off-balance sheet items should be introduced.

39. Rules on risk management and internal controls are extensive. These cover areas such as, the structure and responsibilities of the internal control and internal audit systems, stressing the oversight responsibility of the Board and bank's management.[21] Banks are required to report annually to the NBT on their compliance with this standard. Verification of compliance with the

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[18] However, there are a number of financial publications that provide news, information, and commentary on banking and financial developments.

[19] The provisioning percentages are as follows: (1) "substandard," requiring 5 percent provision for domestic currency exposure and 10 percent for foreign currency exposure; (2) "doubtful," requiring 30 percent and 40 percent; (3) "problem," requiring 75 percent and 85 percent; and (4) "bad/loss," requiring 100 percent and 110 percent. Percentages are topped up when the client refused access to credit bureau.

[20] A provision of 30 percent over the discounted amount is required when a bank is forced to take collateral onto its balance sheet.

[21] Detailed criteria are given for the assessment of how the banks deal with operational risk, business continuity plans, credit risk assessment, mortgage lending, dealing with financial instruments, stress testing, and asset and liability management.

many details of this regulation by bank supervisors is time consuming and may therefore not be sufficiently rigorous, given staff shortages.

40. An NBT Directive contains seven principles for good corporate governance in banks. These include issuance in the bank of a statement on corporate values and strategy, the need for clear levels of authority and lines of responsibility, and well-qualified Board members, who understand their role in corporate governance and ensure they receive the information needed to oversee management. Board members are also held responsible for the enforcement of corporate values and strategy, and transparency in the bank's governance.[22] However, in some past instances, inadequate governance-related checks and balances led to significant problems for banks.[23] Where needed, strong enforcement action needs to be taken to ensure the removal of dysfunctional shareholders, managers, and Board members, and to order banks to take steps to enforce the contractual obligations of these borrowers.

41. The NBT inspects banks on a yearly basis and microfinance institutions on a bi-annual basis, using the 2014 instruction on the conduct of inspections and the 2010 inspection manual.[24] Inspections cover broadly on average 45 percent of a bank's assets and are concluded with a meeting between the NBT team and bank management.[25] Annually, a meeting is held with the external auditor. Off-site analysis is conducted on the basis of the banks' periodic reports to the NBT.

42. A draft instruction on how to conduct banking supervision on a consolidated basis is pending. Although the existing regulations already require supervision on a consolidated basis, more detailed guidance is required. Memoranda of Understanding (MOUs) have been concluded with China, Iran, and Malaysia (Labuan), but are not implemented in practice. No practical follow-up has taken place. Moreover, the nonfinancial group components fall outside the consolidation

[22] Draft licensing instructions are being developed with considerable detail on the quality of bank governance. The draft includes provisions on beneficial ownership, control, and significant influence, as well as fit-and-proper requirements for prospective shareholders, Supervisory Board members, and managers.

[23] In some cases, Board members and shareholders were extended large-scale loans. Many of these connected loans have become terminally delinquent, severely undermining the banks' capital positions in some cases. The NBT needs to ensure that these banks take strong action to collect the delinquent loans and take the lead in developing a much stronger culture of good corporate governance in banks.

[24] The NBT is responsible for the regulation and supervision of 17 banks, with 332 branches, and 123 microcredit organizations, totaling 140 institutions. The Banking Supervision Department numbers 44 staff and is divided into four divisions for: licensing (8 staff), off-site analysis (11 staff), on-site inspections (11 staff), and microfinance inspections (10 staff). It is headed by a director and two deputy directors, who share a staff assistant.

[25] The NBT sends a letter to the Board, stating the findings and necessary remedial actions, and subsequently a higher level meeting between the NBT and bank management is held.

perimeter and their information cannot be verified by the NBT. Accounting rules will need to be reviewed for full compliance with the IFRS on consolidation of financial statements.

43. While the supervisory framework is broadly in place, problems remain that require immediate action. Insufficient numbers of staff and outdated technical resources are bottlenecks for the effectiveness of supervision. Proper inspection of loan portfolios—one of the most critical functions of banking supervision—is time-consuming. There is considerable need for training, keeping abreast of supervisory developments, and building macroprudential skills. Lack of time can lead to superficial compliance-oriented inspections, which risk undermining NBT authority and staff morale. Moreover, a broader skill mix is needed within the department, and specialists in IT, economic and mathematical modeling, as well as risk assessment, should be recruited. The BSD is also responsible for developing policy development, drafting of regulations, and methodology, which should be done separately.

44. The NBT needs to work with banks to reduce the NPLs overhang. Specifically, it should order banks to adequately classify the loans, use all legal means to rigorously and promptly enforce loan contracts, limit loan restructuring and evergreening, and write off non-collectible debt. Any tax disincentives for provisions and write-offs should be eliminated. The NBT should review progress with the banks on a quarterly basis.

45. In general, enforcement remains problematic, in particular with regard to the large systemic banks. Governance issues still substantially hinder effective supervision, which could undermine financial stability. In addition, staffing shortages hinder full investigations into noncompliant, or unsafe and unsound practices, limit the follow-through in appeals cases and media inquiries into high profile enforcement cases. In the post-inspection letters from the NBT to the banks, consideration should be given to a more rapid escalation to binding instructions from the NBT, and prompt follow-up on banks' corrective actions. It is important to build a reputation for the NBT as a strict enforcer of regulations and of safe and sound banking. Furthermore, a level playing field needs to be maintained to guarantee adequate supervision for both large and small banks.

Insurance regulation

46. Steps are necessary to make Tajikistan's current insurance consistent with the Insurance Core Principles (ICPs). Tajikistan's current insurance law is not consistent with the requirements of a number of ICPs, for example, those on the independence and powers of the insurance supervisor. The experience with the design of modern regulatory frameworks is limited in Tajikistan. Despite the recent technical assistance provided by the World Bank, various by-laws, subsidiary regulation, norms, and guidance need to be implemented to properly regulate the sector. A new draft insurance law that is more consistent with the ICPs is currently discussed with the industry and is expected to be implemented in 2015.

47. The insurance industry does not generate enough surpluses to endow its supervisor with the resources that would ideally be needed to create a level playing field and an

enabling environment that promotes growth, stability, and client value. Considerably lower salaries of supervisors (as compared to staff of insurance companies) make it difficult to attract and retain skilled professionals, and the lack of training budgets complicates the development and retention of expertise. The supervisor is not equipped to promote an enabling and competitive environment, such as transparency and trust (through the publication of suitably compiled, formatted, analyzed, and explained data), consumer protection and advocacy, dispute resolution, codes of conduct, and insurance education.

Microfinance regulation

48. The regulatory requirements and supervisory framework for MFIs are generally adequate. All MFIs are regulated and licensed by the NBT. MDOs are subject to prudential supervision and their deposits are insured with the DIF. MDOs established after August 2012 were required to have a minimum authorized capital of SM 4 million, while those established earlier were subject to lesser requirements. To strengthen the capital base of MDOs and consolidate the market, the NBT mandated all MDOs to gradually increase their minimum regulatory capital to SM 2 million between 2013 and 2015. One MDO has already transformed into a bank, while another one is finalizing its application for a bank license.

49. However, further improvements are needed to strengthen the supervisory capacity and specify the rules for transformation of MFIs into higher-tier MFIs and into banks. In addition, the playing field remains uneven across the MDO sector, given that 15 institutions have capital below the SM 4 million required for new entrants. Therefore, a progressive harmonization of minimum regulatory capital for MDOs is recommended. Supervisory capacity constraints may require an increase in the number of MFI supervisors to adequately handle supervisory needs for MDOs.

B. Macroprudential Oversight

50. Macroprudential surveillance at the NBT is still at a rudimentary stage. The LNBT allows the NBT to carry the responsibility of establishing prudential standards for lending institutions, but the mandate for financial stability and macroprudential policy are not explicitly specified in the legislation. The following macroprudential tools are in place to limit systemic risks: (i) reserve requirement ratio (RRR); (ii) capital surcharge on systemically important financial institutions; (iii) liquidity requirements; and (iv) limits on net open FX positions.[26] However, overall, both the tools and their use remain limited.

[26] Among these measures, the RRR has been used both as a monetary policy tool and a macroprudential policy tool. Since 2008, a differential between local and foreign currency has been introduced, aimed largely at de-dollarization. On December 22, 2014, the ratio for somoni was reduced from 5 percent to 2 percent, and that for foreign currencies increased from 7 percent to 8 percent.

51. The existing institutional framework at the NBT is insufficient to deal with growing credit risks in the banking system. The function of macroprudential surveillance is constrained and dispersed in various departments. For example, the RRR is operated by the Monetary Policy Department (MPD); capital surcharges on large banks, limits on concentration risk, and liquidity requirements are responsibilities of the Banking Supervision Department (BSD); and limits on open FX positions is monitored by the Currency Regulatory Department (CRD). There is no integrated department/unit devoted to macroprudential policy oversight. In addition, there is a lack of devoted resources for macroprudential surveillance. For instance, staff in the BSD is carrying the full responsibility for the on-site inspections and off-site analytical work. The limited capacity and heavy inspection workloads leave practically no resource allocated solely to macroprudential oversight.

52. There is an urgent need for the NBT to establish a comprehensive macroprudential framework. First, the mandate for financial stability and macroprudential responsibilities should be explicitly codified in the Law. Given the NBT's current mandate, Article 45 of the LNBT could specify the central role of the NBT in maintaining financial stability and carrying out macroprudential surveillance. Second, as a precondition for further development of the macroprudential toolkit, the institutional function should be strengthened at the NBT. Specifically, a Financial Stability Department—responsible for identifying risks and proposing policy responses— and a Financial Stability Committee—responsible for coordinating macroprudential decision making—should be established in a timely manner to strengthen macroprudential surveillance.

53. The NBT can also enhance the macroprudential toolkit to help smooth the impact of financial cycles in the future. Especially in light of the abovementioned increasing credit and FX risks, consideration should be given to tightening existing requirements on provisioning and risk-weighting for FX lending, FX liquidity ratio, and limits on new open FX positions. Consideration could also be given to additional tools: (i) caps on the LTD ratio to contain systemic credit risks stemming from rapid credit growth; (ii) caps on the LTV ratio to increase borrowers' resilience and protect banks from borrower default risks (including risks from nonresident liabilities); (iii) caps on DTI ratio to help maintain affordability of debt in the face of interest rate and income (remittances) shocks and bolster resilience of banks; (iv) limits on specific sector exposures (e.g., construction) to contain systemic credit risks stemming from rapid credit growth in specific sectors; and (v) caps on unhedged lending to contain the indirect FX risk.[27]

54. Given Tajikistan's circumstances described above, the new tools should be introduced gradually. In addition, these tools should be designed and adopted with appropriate prioritization, so that the additional macroprudential tools can be tailored to the banking sector and be used in combination with existing microprudential tools to provide better protection against risks.

[27] It should be noted that activation of tools, such as limits on LTV and DTI ratios, is conditioned on: (i) establishing a credit register system which could provide reliable credit information on a systemic basis and (ii) in-depth analysis of LTV or DTI ratio for household and/or corporate sector.

C. Anti-Money Laundering and Combating the Financing of Terrorism

55. The Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) assessment of Tajikistan was carried out by the World Bank in 2007. In addition, the mutual evaluation report was adopted by the Eurasian Group (EAG) on combating money laundering and financing of terrorism.[28] Tajikistan was rated partially compliant or noncompliant on 44 out of the 40+9 Financial Action Task Force (FATF) Recommendations, noting the absence of an AML/CFT regime and of a strategy to prevent, detect, disrupt, dismantle ML/TF, or to investigate, prosecute and confiscate the proceeds of these crimes. Due to the identified strategic deficiencies, the EAG placed Tajikistan under the enhanced follow-up procedure and, in June 2011, the International Co-operation Review Group (ICRG) included Tajikistan under its targeted review.

56. In recent years, Tajikistan managed to establish a comprehensive legal and regulatory AML/CFT system and adopted several measures necessary to effectively prevent and repress ML/TF. These included the adoption of the AML/CFT Law, amending the Criminal Code, the Law on Banking and other sectoral laws, bylaws, and guidance. In February 2010, the Financial Monitoring Department of the NBT (the financial intelligence unit) was established. In July 2012, the Tajik Financial Intelligence Unit (FIU) became a member of the Egmont Group, meeting the legal and operational requirements related to its status, core functions, data protection, and ability to exchange information with foreign competent authorities. In October 2014, the FATF acknowledged Tajikistan's significant progress in improving its AML/CFT regime and removed Tajikistan from its global AML/CFT compliance process. In November 2014, the EAG also removed Tajikistan from its enhanced follow-up procedure. Tajikistan will be assessed under the revised 2012 FATF 40 Recommendations in 2017.

[28] Tajikistan is a member of the EAG.

CRISIS PREVENTION AND MANAGEMENT FRAMEWORK

57. Urgent improvements of the framework for crisis prevention and management, including bank resolution, are needed. The authorities need to be prepared for rapid and effective response to a bank in distress or a system-wide crisis. For this reason, new forms of cooperation as well as a more effective use of existing powers and tools are needed. Importantly, Tajikistan needs to revise its bank resolution framework to bring it to the level of international best practice.

58. Interagency coordination for crisis preparedness as well as contingency planning is essential to ensure that each member of the financial safety net understands its role and responsibilities—including vis-à-vis systemic and nonsystemic institutions—and that the actions of the different players are coordinated at all stages. The planning—to be undertaken perhaps via a dedicated Crisis Management Committee—would identify the responsibilities and actions of each authority in the implementation of different forms of resolution options foreseen under the new bank resolution framework (see below). This framework would also involve the development of a joint communication strategy with stakeholders and the public/media for various measures and resolution approaches. Once the resolution framework is revised and the authorities have assumed their new roles and powers, a crisis-simulation exercise should be conducted to create awareness about the changes within the financial safety net and identify outstanding issues.[29]

A. Emergency Liquidity Assistance

59. The NBT can provide Emergency Liquidity Assistance (ELA) to banks in both somoni and foreign currency. However, the liquidity window does not distinguish between regular liquidity provision and ELA. According to the law, only solvent but temporarily illiquid banks can apply for the loans from the NBT. ELA is available for a maximum of three months (can be extended to six, with a remedial action plan), and is priced above inter-bank interest rate benchmarks. As of end-April 2015, SM 202 million of ELA funding was outstanding, compared to SM 93 million as of end-2014. Going forward, the newly established bank resolution authority (see below) should be part of the Credit Committee to factor in the risk assessment from recovery and resolution.

60. Lack of sufficient eligible collateral in the form of government or NBT securities is a problem. The NBT requires collateral for all liquidity provisions. In practice, only correspondent accounts and real estate function as collateral because the securities market is very small. Since the registration of real estate is time-consuming, the NBT has introduced a mechanism, by which borrowers can register collateral in advance. It can open a credit line of up to one year on condition

[29] It is recommended that this exercise is periodically repeated using different scenarios to test the adequacy of the legal framework and the contingency plans.

of the registered collateral (e.g., real estate, etc.). Haircuts from 30 percent to 50 percent are typically set by the NBT to reflect the quality of the underlying collateral in accordance with the assessment of the State Investment Committee. With the credit line in place, ELA can be approved within one day. Due to mounting liquidity pressures and unavailable traditional financial collateral, the NBT urges more banks to open such credit lines.

61. The operational frameworks should be further improved. The NBT should only provide liquidity on a collateralized basis, as it has recently started to do. It should effectively block correspondent accounts when these are used as collateral. The Risk Division should get involved to assess the credit risk of individual transactions and determine individual haircuts. In practice, there is no clear line between liquidity assistance and ELA, and some banks use the ELA facility to manage their periodic liquidity needs. The NBT, therefore, needs to critically reassess the ELA provisions and its terms and conditions going forward. In turn, the GoT should undertake steps to develop the securities market, which would have a positive effect on overall systemic liquidity management in the banking sector.

B. The Prompt Corrective Action Regime

62. The NBT is responsible for imposing remedial measures and enforcing them, with specific measures to be guided by procedures of application. Corrective measures may include, for example, ordering recapitalization of the bank, reclassification of the loan portfolio, requiring additional provisions to cover possible loan losses, making adjustments in capital and in calculation of the capital adequacy ratio, and prohibition of dividend payment or opening new branches. The NBT has gained experience in applying these rules, as it has, for example, prohibited banks from distributing profits or dividends and asked banks for action plans to improve their individual situation.

63. The legal framework provides NBT with discretionary powers to enforce corrective actions, but clear triggers for NBT's mandatory action are missing. Taking a certain action is optional (instead of required) for the NBT. The framework vaguely defines the criteria for unsafe and unsound banking practices and the applied measures are lacking some important elements (e.g., the suspension of deposit withdrawals of big depositors or shareholders, or senior management being subject to a fine apart from the bank itself).[30]

64. Given the shortcomings of the current PCA regime, the LNBT should be amended accordingly and more specific internal guidance developed for supervisory intervention.[31] The lack of specific guidance and mandatory actions may lead to inconsistencies in application, or even inaction, at the sign of banking distress. Indeed, such inaction is apparent in some cases. Overall,

[30] Article 48(2) includes as a corrective measure penal sanctions on the lending institution's officers, which may include a fine.

[31] A CAMEL based early intervention regulation is still only in draft form.

there is a need to strengthen an enforcement culture and discipline for financial policy stakeholders (e.g., supervision, enforcement, and resolution authorities) that is conducive to prompt corrective action, and that minimizes unwarranted forbearance, which is a serious issue in Tajikistan.

C. Bank Resolution Framework

65. There are significant deficiencies in Tajikistan's bank resolution framework. Currently, the laws only stipulate two ways to resolve a bank. The articles on provisional administration in the NBT law have weaknesses. The law is missing clear triggers for entry into resolution, which might lead to a late appointment of the provisional administrator. The resolution of gone-concern institutions, as foreseen in the current Law on the Liquidation of Lending Institutions, seems to be ineffective. Because of court involvement, substantial delays can occur before the opening of the liquidation process. Once the special administrator (liquidator) is appointed, the NBT has limited oversight of his/her work. The inadequate framework for bank resolution limits the options for the most pressing case, the resolution of troubled AIB (Box 1).

66. Immediate action is needed to adopt a comprehensive and robust framework for bank resolution based on international best practice, including the FSB's Key Attributes for Effective Resolution Regimes. The framework should:

- set out the objectives of resolution and the principles on which resolution powers may be used;
- specify the triggers/grounds for the use of each resolution power;
- ensure that shareholders and creditors (other than insured depositors and secured creditors) bear losses before other means of public funding are used; and
- foresee that all resolution powers are subject to an ex post independent assessment, so that no shareholder or creditor is left worse off than they would have been under a conventional liquidation.

67. The NBT should be the resolution authority and the liquidator for failed banks. It is important that a new resolution framework set out appropriate governance and accountability arrangements for the NBT in its capacity as the resolution authority to mitigate the potential conflicts that can arise between supervision and resolution, such as, regulatory forbearance causing delays in the activation of resolution. Going forward, it would be appropriate to require that early intervention powers be kept with the current BSD, while the resolution functions should be administered in a new NBT division that is separate from the BSD. In addition, it is proposed that the resolution authority wind down the operations of an institution that is not critical to the financial system or the economy, and that the NBT automatically becomes the liquidator.[32]

[32] The NBT should be able to outsource the liquidation tasks to external experts (natural as well as legal persons, such as auditing firms).

68. The provisions of the Law on Liquidation of Lending Institutions on the hierarchy of creditor claims in bank liquidations should be changed in accordance with best practice. Insured deposits currently do not enjoy a preferred creditor status (depositor preference). Therefore, the claims (and the deposit insurer subrogated to them after reimbursement) are likely to remain unrecovered due to unfavorable treatment in the law. These claims should rank before uninsured deposits as well as claims of the government and NBT, but below the funds spent on the bankruptcy proceedings and special administration as well as wages of the failed bank's employees.

D. Deposit Insurance

69. The Deposit Insurance Fund (DIF) is a simple pay box established in 2003. The DIF's role is limited to collecting the quarterly premiums of member institutions, investing the funds in safe securities and, when notified, reimbursing insured depositors up to the amount of SM 7,000 (US$1,250). While this coverage level seems to be relatively small, it currently fully covers nearly 73 percent of all depositors. Currently, 54 deposit-taking financial institutions are members of DIF (14 banks and 40 MDOs).[33]

70. The fund has gone through significant improvements since the adoption of the new Law on Deposit Insurance in August 2011. Members' contributions are set at ½ percent of deposits per quarter, which is among the highest rates globally. DIF has accumulated a sizable fund of over SM 171 million (US$30 million) fully funded by the industry and reaching a ratio of 4 percent of total deposits at the end of 2014 (the statutory target fund ratio is set at 7 percent). With that amount, DIF could pay out insured depositors, even of the biggest banks, in a single failure case.

71. However, the effectiveness and capacity of DIF could be strengthened. While the law provides for a single trigger for a depositor payout—revocation of the credit institutions' license—in practice it also requires a court decision on insolvency, which can take several weeks. In view of the growing income levels, as well as the sizable but weak SME sector, a gradual increase of the coverage level as well as broadening its scope to cover SMEs should be considered.[34] DIF's target funding level and funding model should also be reviewed to prevent an overburdening of the banking sector. Because the rate of return on the DIF is negative in real terms, its investment policy should also be revised. Greater clarity is also needed on the operational aspects of the DIF's ability to request back-up emergency funding from the government. Furthermore, all deposit taking institutions, including state-owned banks, should participate in the DIF to create a level playing field in the sector.

72. DIF's current operational framework for the payout procedure requires improvements. The DIF's staff has no hands-on experience in depositor payout as yet. The scheme

[33] The fully state-owned Amonatbank is not part of the scheme because its deposits are guaranteed by the State.

[34] An immediate increase of the coverage level up to SM 20,000 would be appropriate.

is lacking an IT system that is vital to quick processing. There is no detailed operational payout-manual with a crisis-communication plan. Furthermore, DIF should be allowed to use its funds to support the purchase and assumption of insured deposits by another bank or a transfer to a bridge bank under the "least-cost rule."

Table 5. Tajikistan: Selected Economic Indicators, 2011–20

(Quota: SDR 87 million)
(Population: 8.3 million; 2014)
(Per capita GDP: US$1121; 2014)
(Poverty rate: 42 percent; 2011)
(Main exports: aluminum, cotton, 2013)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Act.	Act.	Act.	Est.	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.
	(Annual percent change; unless otherwise indicated)									
National accounts										
Real GDP	7.4	7.5	7.4	6.7	3.0	4.1	5.0	5.0	5.0	5.0
GDP deflator (cumulative)	13.3	11.9	4.3	5.5	12.7	8.0	6.9	6.0	6.0	6.0
Headline CPI inflation (end-of-period)	9.3	6.4	3.7	7.4	11.7	6.5	6.4	6.0	6.0	6.0
Headline CPI inflation (period average)	12.5	5.8	5.0	6.1	12.8	6.3	6.5	6.0	6.0	6.0
Core CPI inflation (period average)	6.0	8.4	5.3	4.6	10.5	5.5	5.9	6.0	6.0	6.0
	(In percent of GDP; unless otherwise indicated)									
Investment and saving 1/										
Investment	20.5	17.5	17.7	19.2	17.0	17.8	18.3	20.1	21.0	21.7
Fixed capital investment	15.5	13.0	14.7	16.2	15.3	16.3	16.8	17.6	18.5	19.2
Government	12.5	9.0	9.5	10.0	9.7	10.5	10.0	10.3	10.7	11.4
Private	3.0	4.0	5.2	6.2	5.6	5.8	6.8	7.3	7.8	7.8
Gross national savings	15.6	15.0	14.8	10.1	9.9	11.9	13.5	15.9	17.3	18.2
Public	9.1	9.3	8.7	10.1	7.9	8.2	7.8	7.7	7.9	8.2
Private	6.5	5.7	6.1	0.0	2.0	3.7	5.7	8.2	9.4	10.1
General government finances										
Revenue and grants	24.9	25.1	26.9	28.4	26.2	26.5	26.1	26.3	26.5	26.8
Tax revenue	19.4	19.8	21.0	22.8	20.5	20.6	20.8	20.9	21.0	21.1
Expenditure and net lending 2/	28.2	24.8	27.7	28.3	28.0	28.7	28.4	28.8	29.2	30.0
Current 2/	16.0	16.0	18.1	18.2	18.1	18.1	18.2	18.4	18.4	18.6
Capital	12.5	9.0	9.5	10.0	9.7	10.5	10.0	10.3	10.7	11.4
Overall balance (excl. PIP and stat. discrepancy)	-0.3	1.6	0.2	1.0	-0.3	0.0	0.1	0.1	0.2	0.3
Overall balance (incl. PIP and stat. discrepancy)	-3.3	0.3	-0.8	0.1	-1.8	-2.2	-2.3	-2.5	-2.8	-3.2
Domestic financing 2/	0.8	-0.7	0.0	-3.0	1.1	0.9	1.0	1.0	0.8	0.7
External financing	2.6	0.4	-0.1	-0.2	0.7	1.3	1.2	1.5	1.8	2.4
Total public and publicly-guaranteed debt	35.4	32.4	29.2	28.2	29.1	29.7	30.9	30.9	31.7	31.5
Monetary sector 3/										
Broad money (12-month percent change)	33.1	19.6	19.7	7.0	16.3	15.4	15.4	14.2	14.0	13.8
Reserve money (12-month percent change)	27.9	18.4	18.3	13.2	14.8	13.2	13.2	12.4	12.3	12.1
Credit to private sector (12-month percent change) 4/	40.9	6.6	53.6	31.5	16.1	15.1	14.2	13.8	13.8	12.9
Velocity of broad money (eop)	5.1	5.1	4.8	5.0	5.0	4.9	4.7	4.6	4.5	4.4
Refinancing rate (in percent, eop/ latest value)	9.8	6.5	5.5	8.0	…	…	…	…	…	…
	(In percent of GDP; unless otherwise indicated)									
External sector 5/										
Exports of goods and services (U.S. dollar, percent change)	34.5	41.0	-3.1	-10.6	14.5	9.9	10.0	12.2	10.5	10.4
Imports of goods and services (U.S. dollar, percent change) 6/	47.6	16.9	12.0	0.1	-23.2	1.2	6.1	7.5	7.6	9.0
Current account balance	-4.8	-2.5	-2.9	-9.1	-7.1	-5.8	-4.9	-4.1	-3.7	-3.4
Trade balance (goods)	-47.7	-44.8	-45.5	-43.3	-31.1	-27.9	-26.6	-25.8	-25.1	-24.8
FDI	1.0	3.1	1.2	2.1	2.8	3.2	3.6	3.8	4.2	5.0
Total public and publicly guaranteed external debt	33.1	28.4	25.3	24.5	25.7	26.5	27.0	27.9	28.9	28.9
Exports of goods and services, in millions of U.S. dollars	1,164	1,642	1,591	1,423	1,630	1,791	1,971	2,211	2,443	2,696
Imports of goods and services, in millions of U.S. dollars	4,382	5,124	5,738	5,747	4,414	4,469	4,744	5,097	5,485	5,976
Current account balance, in millions of U.S. dollars	-316	-187	-244	-839	-604	-533	-487	-445	-434	-438
Total public and publicly guaranteed external debt, in millions of U.S. dollars	2,094	2,152	2,148	2,107	2,137	2,390	2,658	2,978	3,362	3,656
Gross official reserves (in millions of U.S. dollars)	501	649	477	511	459	549	659	829	979	1,204
In months of next year's imports 7/	1.2	1.4	1.0	1.4	1.2	1.4	1.6	1.8	2.0	2.2
In percent of broad money	18.3	19.2	11.8	11.4	7.0	6.9	7.0	7.5	7.6	8.0
Memorandum items:										
Nominal GDP (in millions of somoni)	30,069	36,161	40,525	45,605	52,936	59,519	66,835	74,387	82,793	92,148
Nominal GDP (in millions of U.S. dollars)	6,523	7,592	8,506	9,242	8,533	9,173	9,971	10,800	11,745	12,785
Social and poverty-related spending (in percent of GDP)	9.7	10.9	11.1	11.9	12.5	13.1	13.7	14.3	14.8	15.3
Nominal effective exchange rate (Index 2010=100)	92.7	93.0	95.7	99.3	…	…	…	…	…	…
Real effective exchange rate (Index 2010=100)	98.8	99.9	103.4	110.5	…	…	…	…	…	…
Average exchange rate (somoni per U.S. dollar)	4.61	4.76	4.76	4.93	…	…	…	…	…	…

Sources: Data provided by the Tajikistan authorities, and Fund staff estimates.
1/ Private investment and savings are estimates. Investment includes changes in stocks.
2/ Including statistical discrepancy, except in 2013 and 2014 where statistical discrepancy is treated as below the line domestic financing item.
3/ Figures differ from those reported earlier due to structural revision to monetary and financial sector statistics based on recent IMF TA.
4/ Slowdown in 2012 is due to bad loans write-off at Agroinvestbank.
5/ Receipts from aluminium exports under the tolling arrangements are booked as services exports.
6/ Adjusting for unrecorded oil imports in 2012-13.
7/ Excluding imports related projects financed with loans from China.

Table 6. Tajikistan: Financial Soundness Indicators, 2010–14 1/

(In percent, unless specified)

	Dec-10	Dec-11	Dec-12	Dec-13	Sep-14	Dec-14
Solvency Indicators						
Regulatory Tier 1 Capital to Risk-Weighted Assets	24.5	21.2	23.3	20.6	19.1	12.0
Regulatory Capital to Risk-Weighted Assets	26.6	24.4	25.9	22.5	20.2	14.7
Capital to Assets	18.9	19.3	20.5	19.0	17.3	13.2
Liquidity Indicators						
Liquid Assets to Total Assets (Liquid Asset Ratio)	26.0	24.5	30.0	23.8	24.7	21.5
Liquid Assets to Short Term Liabilities	62.5	65.1	83.7	79.7	86.1	71.4
Deposits to Total Assets (excluding interbank deposits)	48.7	50.6	50.2	47.8	42.9	49.6
Loans to Deposits	101.6	95.1	94.1	117.2	128.7	126.7
Sectoral distribution of bank credit to the private sector in percent of total credit to private sector						
Public	9.7	7.6	16.5	15.4	10.8	10.9
Commerce	46.9	48.4	34.2	38.1	41.0	36.7
SME	0.0	25.8	27.8	26.6	27.9	29.6
Agriculture	13.8	10.7	11.9	7.4	6.0	6.7
Consumer	29.4	7.6	9.5	12.5	14.3	16.0
Other	0.2	0.0	0.1	0.0	0.0	0.0
Asset Quality						
Non-performing Loans to Total Gross Loans 1/	17.2	14.1	18.2	22.9	25.4	27.2
Provisions to Non-performing Loans 1/	36.0	45.0	43.5	34.7	29.1	56.7
Non-performing Loans Net of Provisions to Capital 1/	28.8	19.3	23.7	44.5	57.6	56.2
Non-performing Loans to Total Gross Loans 2/	7.5	7.2	9.5	16.0	22.0	25.1
Provisions to Non-performing Loans 2/	73.7	80.5	75.6	46.4	32.8	60.8
Non-performing Loans Net of Provisions to Capital 2/	5.2	3.5	5.3	25.5	47.4	46.9
Large Exposures to Capital	62.9	68.1	58.5	90.4	90.3	103.2
Profitability Indicators						
Return on Assets	0.7	-0.4	0.2	0.7	1.9	-5.0
Return on Equity 2/	3.6	-2.3	0.7	3.8	10.9	-29.6
Interest Margin to Gross Income	50.5	46.4	33.2	40.4	35.0	32.0
Non-interest Expenses to Gross Income	62.4	86.2	75.8	65.9	62.2	66.5
Personnel Expenses to Non-interest Expense	55.0	54.4	50.8	55.5	54.8	53.2
Foreign Exchange Risk Indicators						
Net Open Position in Foreign Exchange to Capital	-0.3	-3.1	-0.7	2.3	-0.7	0.8
Foreign-Currency-Denominated Loans to Total Loans	54.1	61.2	65.2	60.7	57.8	54.1
Foreign-Currency-Denominated Liabilities to Total Liabilities	55.5	58.1	62.9	59.4	59.3	64.5

Sources: National Bank of Tajikistan.
1/Nonperforming loans include 4 loan classifications: substandard (1-30 days past due), doubtful (30-60), problem (60-180), and bad (180 days +).
2/ Nonperforming loans include 3 loan classifications: doubtful (30-60), problem (60-180), and bad(180 days +).

Table 7. Tajikistan: Risk Assessment Matrix (January 2015) 1/

Nature/Source of Main Risks	Likelihood of Realization in the Next Three Years	Expected Impact on the Economy if Risk is Realized
Protracted period of slower growth in emerging markets, especially in Russia where it is exacerbated by low oil prices, with risk of growth slowdown in China during 2015. Russia is the main source of remittance inflows to Tajikistan, which were equivalent to 43 percent of GDP in 2014. China is a major, and growing, source of investment. China and Turkey are the major trading partners.	**Staff assessment: Medium (Russia) to Low (China)** Latest Fund staff projections suggest that trend growth in emerging economies, particularly Russia, is lower as a result of low oil prices and weaker than expected productive capacity and human capital. The probability that growth in China will fall significantly below the Chinese authorities' target is, however, relatively low.	**Staff assessment: High** Sustained low growth in Russia would impact Tajikistan's growth through reduction in demand for migrant labor and lower remittances. Recent staff analysis suggests a 10 percent decline in the US dollar value of remittance inflows induces a 0.9–1.4 percent contraction in real GDP. Slower growth in China and other emerging markets (e.g., Turkey) could reduce investment, exports, and growth, and sustain pressure on the somoni. (In the stress tests, these risks are incorporated through an adverse macroeconomic scenario in the macro credit risk stress test.)
Commodity price shocks (particularly for cotton and aluminum). Tajikistan's current account and exports depend, to a large extent, on exogenous world market prices for these commodities.	**Staff assessment: Medium** Weak global demand for these commodities could lead to a sustained price decline.	**Staff assessment: Medium** A sustained decline of prices for cotton and aluminum could depress value of exports, put downward pressure on the somoni, lead to inflation, and increase credit risk(In the stress tests, these risks are incorporated through an adverse macroeconomic scenario in the macro credit risk stress test.) for banks. (In the stress tests, these risks are incorporated through an adverse macroeconomic scenario in the macro credit risk stress test.)

Table 7. Tajikistan: Risk Assessment Matrix (January 2015) (concluded) 1/

Nature/Source of Main Risks	Likelihood of Realization in the Next Three Years	Expected Impact on the Economy if Risk is Realized
Delays or reversals in structural reforms, particularly in banks and SOEs. Maintaining, or increasing, the role (or interference) of the state in economic activity will limit Tajikistan's prospects of becoming a dynamic, job-creating market economy.	**Staff assessment: High** The financial sector's health is declining due to rising NPLs at large banks, driven by the legacy of directed lending and unreformed SOEs. The authorities have yet to signal that they will restructure AIB in line with good international practice, or halt forbearance in regulating other large banks. SOE reform (e.g., of Barki Tajik) is stalled.	**Staff assessment: High** Nontransparent public spending leads to the inefficient use of public resources, and may eventually lead to higher public debt and lower long-term growth (e.g., through bailing out banks and SOEs, as has happened in recent years). Failures of state-owned banks may complicate the recovery of government deposits placed at those banks, generating a contingent liability for the government. (In the stress tests, these risks are incorporated through an adverse macroeconomic scenario in the macro credit risk stress test.)

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 of risks listed 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 percent 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.

Table 8. Tajikistan: Status of 2007 FSAP Main Recommendations

Recommendations	Actions Taken
Short-term	
Strengthen the surveillance framework to monitor the build-up of credit risk in the banking system to ensure that problems, if and when they emerge, can be addressed promptly.	Partially done. The NBT has issued a confidential internal guidance document on an improved CAMEL-based supervisory bank rating methodology. The part of this guidance that addresses asset quality comprises 25 assessment parameters. The Law on NBT, in Art. 48, enumerates a wide range of corrective measures, including compliance orders, instructions, corrective action plans, cease-and- desist orders, restrictions on dividend payments, financial rehabilitation, structural reorganization, fines, tighter prudential standards for the institution involved, recapitalization by shareholders, and revocation of the license. In practice, however, regulatory forbearance is still provided, corrective measures are often not used promptly or, if used, they are not commensurate to the emerging risks.
Develop and implement a strategy for the resolution of cotton debt. Key first steps should be an immediate halt to KI's non-asset-management-related commercial activities, followed by its comprehensive due diligence audit. KI may need to be resolved in the context of a comprehensive plan for the cotton sector.	Done. Cotton debt resolution strategy was developed and cotton debt was resolved. Kredit-Invest went through a due diligence audit and was resolved and closed down in 2012. As part of the strategy, cotton investors' debt, amounting to US$154 million, was transferred to the NBT to be collected over 2010–2018, according to an approved schedule. As of January 2015, the NBT managed to recover just US$0.015 million, undermining the original NBT recapitalization strategy and requiring additional contributions from the Ministry of Finance to replenish the NBT's negative capital.
Strengthen the governance and autonomy of the NBT. In particular, rules for the appointment, dismissal, and terms of office for the Chairman and the Board members should be spelled out and clear provisions on conflicts of interest should be introduced in the law.	Done, Art. 74 of the Law on The National Bank of Tajikistan (amended June 2011) (LNBT) states that the Chairman, Deputy Chairman, and independent Board members of the NBT shall be appointed by presidential decree and approved by parliament for terms of, respectively, seven, five, and four years. Art. 75 gives a limitative enumeration of the grounds for dismissal of these persons. Art. 78 (2) states that these persons must declare personal commercial financial or other interests to the Board if an issue being considered by the Board affects these interests; these persons are barred from voting on these issues.

Table 8. Tajikistan: Status of 2007 FSAP Main Recommendations (continued)

Recommendations	Actions Taken
Short-term	
The NBT should be recapitalized, including through the securitization of the government debt it holds. Further, the NBT must not resume commercial lending operations.	Partially done. Recapitalization of the NBT proceeded as scheduled through 2013. In 2014, the MOF contributed only SM 61 million, about half of the required annual contribution of SM 120 million envisaged under the plan and approved by presidential edict. The NBT no longer lends to the private sector and liquidity lending is priced at a 200 basis points penalty above average interbank market rates.
Strengthen the legal framework for bank licensing by reintroducing legal provisions on the NBT's authority to license banks, and allow the NBT to check on the suitability of beneficial owners of banks.	Partially done. Art. 6 LNBT (1) (3d indent) states as one of the objectives of the NBT the issuing of licenses to lending institutions and the regulation and supervision of their activities. Moreover, Art. 42 (1) first indent states that the NBT has the exclusive right to supervise banks and, to that end, shall issue bank licenses. Art. 7 of the Law on Banking Activities (May 2009) (LBA) also states that a license shall be issued by the NBT. Persons with a share, or with the ability to exercise voting rights, of 10 percent or more, directly or as an ultimate beneficial owner, are considered to have a qualifying holding (Art. 1, indent 20) and must be approved by the NBT as a bank shareholder in the licensing process. Art. 9 LBA states that such persons must submit personal information, as well as information on business profession and financial standing, and declare in writing that they have not been convicted in a court of law, bankruptcy has not been filed, and they have not been subject to professional restrictions. They must declare the identity of shareholders in any of their business enterprises. The NBT may request additional information. Art. 10 (7), second and third indent, states that the NBT must be satisfied as to the satisfactory financial situation and activities of shareholders and as to the identity and character of qualifying holders and executives as fit and proper persons. Misleading or fraudulent information is a ground for withdrawal of the license (Art. 18 LBA). Acquisition of a qualifying holding in an existing bank is subject to a similar approval process (Art. 26 LBA). NBT has also drafted a Guidance On Information Disclosure by Banks allowing checking the suitability of banks' beneficial owners. The Guidance was approved by NBT Resolution 91 in May 2014, but is not registered with Ministry of Justice yet.
Implement AML/CFT preventive measures.	Done. Law Against Money-laundering and Financing of Terrorism was adopted in March 2011. All relevant laws and regulations are posted on the NBT website, under "Financial Monitoring Department." Articles 262 and 179 of the Criminal Code designate respectively money laundering (ML) and the financing of terrorism (FT) as criminal offenses.

Table 8. Tajikistan: Status of 2007 FSAP Main Recommendations (continued)

Recommendations	Actions Taken
	Obligations to report suspected money laundering (ML) or financing of terrorism (FT) have been imposed on a broad range of persons and agencies, including lawyers and public notaries. The criminal code identifies over 100 offenses as predicate offenses which can give rise to money laundering. Between 2008 and 2014 a broad range of anti- ML instructions, rules and regulations have been issued, including Instruction 200 on KYC, Regulation 87 on freezing of funds, Resolution 87 on indicators for suspicious transactions, Instruction 181 (Art. 27) on Risk Management and Internal Controls, and Instruction 171 (Art. 30) on Opening a Bank Account, and Circular 306 providing Guidance for Credit Organizations in Detecting Terrorist Financing Activities. Reporting of suspicious transactions to the FIU can be done online, through special protected software introduced in March 2013. In light of significant progress in improving its AML/CFT regime, Tajikistan exited the Financial Action Task Force's (FATF) International Cooperation Review Group monitoring process in October 2014.
Launch a program of issuance of government securities, which would help develop the bond market and strengthen NBT's monetary framework.	Done. Program of government securities issuance was formally launched, but the market remains dormant and volumes of Treasury bills issuance are tiny. There is no serious interest by the MOF to further develop government bond market. In contrast, the NBT bills auctions and issuance work well.
Continue strengthening the bank regulatory and supervisory framework, including by submitting public banks to annual independent external audits.	Partially done. Since the 2007 FSAP a broad range of legislative and regulatory changes have been introduced to strengthen the bank regulatory and supervisory framework, including a new Law on the National Bank of Tajikistan (2011), a new Law on Banking Activities (2009), A Law on the Liquidation of lending Institutions (2011), Instruction 176 (amended 2014) on capital adequacy, liquidity, connected lending, and other key prudential ratios, Instruction 186 (amended 2014) on banks' credit policies including dealing with bad loans, Instruction 177 (amended 2014) on loan classification and provisioning, Instruction 181 (2011), on risk management and internal controls. Articles 43 and 44 of the LBA state that all banks shall prepare and publish audited annual financial statements. Draft regulations have been prepared on remedial action against banks based on the CAMEL (Sensitivity to market risk is not covered) methodology, on bank licensing and on supervision on a consolidated basis. Overall, bank regulatory and supervisory framework was strengthened, but in practice significant slippages such as prudential forbearance remain.

Table 8. Tajikistan: Status of 2007 FSAP Main Recommendations (concluded)

Recommendations	Actions Taken
Medium-term	
Eliminate the monopoly privileges of state-owned insurance companies on compulsory insurance products.	Not done.
Bring the new draft laws on insurance, deposit insurance, and credit bureaus into line with international good practice and submit them to parliament.	Partially done. The Law On Deposit Insurance of Individual Savings (2011, new edition) and the Law on Credit Histories (2009) were adopted and are largely aligned with good international practice, The new edition of Law on Insurance is still pending.
Ensure the business continuity of the real time gross settlement (RTGS) system and progressively migrate all large-value domestic currency payments from bilateral correspondent accounts to the RTGS.	Partially done. The NBT plans to purchase and set up an up-to-date and automated interbank money transfer system to replace the interbank payments system that it currently uses in 2015-2016. The purchase of this system will be made possible by a grant from the World Bank called "Enhancing the Competiveness of the Private Sector." The new system will be equipped with reliable tools for managing risks associated with payments, such as a tool for managing the timeliness of payments and the capacity to handle overnight and one-day loans from members. It is envisaged that after new system becomes operational, credit institutions will migrate all large-value domestic payments from bilateral correspondent accounts to the new RTGS.

Table 9. Tajikistan: Macro Projections for Stress Test Scenarios

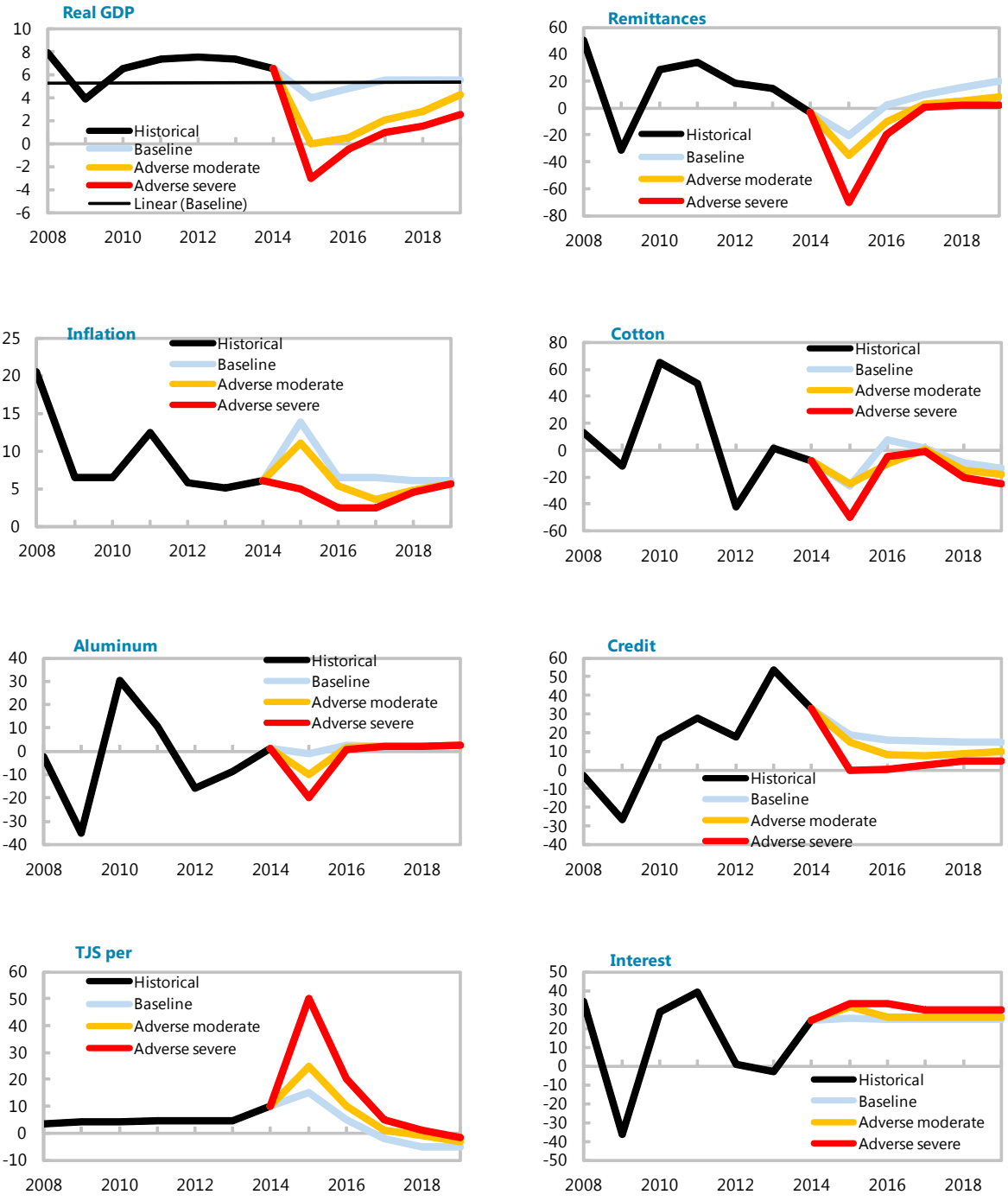
(In percent)

	Historical							Projection				
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Baseline Scenario													
RGDP	7.8	7.9	3.9	6.5	7.4	7.5	7.4	6.5	4.0	4.8	5.5	5.5	5.5
Remittances*	58.0	50.5	-31.3	28.8	34.3	18.6	14.2	-3.7	-20.2	2.0	10.0	15.0	20.0
Inflation*	13.2	20.4	6.5	6.5	12.4	5.8	5.0	6.1	13.8	6.5	6.5	6.0	6.0
interest	11.2	34.3	-36.7	28.7	39.3	0.9	-2.8	24.2	25.3	24.9	24.6	24.6	24.6
Cotton	9.0	12.8	-12.1	65.0	49.3	-42.3	1.3	-8.1	-26.5	7.8	1.4	-9.2	-13.4
Aluminum	2.6	-2.3	-35.3	30.2	10.5	-15.7	-8.7	1.1	-1.0	2.4	2.0	2.3	2.4
Credit growth	58.7	-3.3	-26.5	16.3	27.8	17.5	53.6	32.6	18.9	16.2	15.4	15.1	14.7
FX (postive denotes depreciation)*	3.4	3.4	4.1	4.4	4.6	4.8	4.8	10.0	15.0	5.0	-2.0	-5.0	-5.0
Adverse Moderate Scenario													
RGDP	7.8	7.9	3.9	6.5	7.4	7.5	7.4	6.5	0.0	0.5	2.1	2.8	4.3
Remittances*	58.0	50.5	-31.3	28.8	34.3	18.6	14.2	-3.7	-35.0	-10.0	3.0	5.0	8.0
Inflation*	13.2	20.4	6.5	6.5	12.4	5.8	5.0	6.1	11.0	5.3	3.5	4.8	5.6
interest	11.2	34.3	-36.7	28.7	39.3	0.9	-2.8	24.2	31.3	26.0	26.0	26.0	26.0
Cotton	9.0	12.8	-12.1	65.0	49.3	-42.3	1.3	-8.1	-25.0	-10.0	1.0	-15.0	-18.0
Aluminum	2.6	-2.3	-35.3	30.2	10.5	-15.7	-8.7	1.1	-10.0	1.5	2.0	2.3	2.4
Credit growth	58.7	-3.3	-26.5	16.3	27.8	17.5	53.6	32.6	15.0	8.0	7.5	8.7	10.0
FX (positive denotes depreciation)*	3.4	3.4	4.1	4.4	4.6	4.8	4.8	10.0	25.0	10.0	1.0	-1.0	-3.0
Adverse Severe Scenario													
RGDP	7.8	7.9	3.9	6.5	7.4	7.5	7.4	6.5	-3.0	-0.5	1.0	1.5	2.5
Remittances*	58.0	50.5	-31.3	28.8	34.3	18.6	14.2	-3.7	-70.0	-20.0	0.8	1.8	2.0
Inflation*	13.2	20.4	6.5	6.5	12.4	5.8	5.0	6.1	5.0	2.4	2.4	4.5	5.6
interest	11.2	34.3	-36.7	28.7	39.3	0.9	-2.8	24.2	33.3	33.0	30.0	30.0	30.0
Cotton	9.0	12.8	-12.1	65.0	49.3	-42.3	1.3	-8.1	-50.0	-5.0	-0.5	-20.4	-25.0
Aluminum	2.6	-2.3	-35.3	30.2	10.5	-15.7	-8.7	1.1	-20.0	1.0	2.0	2.3	2.4
Credit growth	58.7	-3.3	-26.5	16.3	27.8	17.5	53.6	32.6	0.0	0.5	2.3	5.0	5.0
FX (positive denotes depreciation)*	3.4	3.4	4.1	4.4	4.6	4.8	4.8	10.0	50.0	20.0	5.0	1.0	-1.5

Source: World Economic Outlook, IMF; and IMF staff estimates.

1/ These scenarios are based on projections made in January 2015. Therefore these numbers (in particular the projections for 2014) need to be interpreted in that context.

Figure 6. Tajikistan: Macro Projections for Stress Test Scenarios



Source: IMF, World Economic Outlook; and IMF staff estimates.

Figure 7. Tajikistan: Macro Scenarios Solvency Stress Test Results

(Regulatory capital in percent of risk weighted assets)

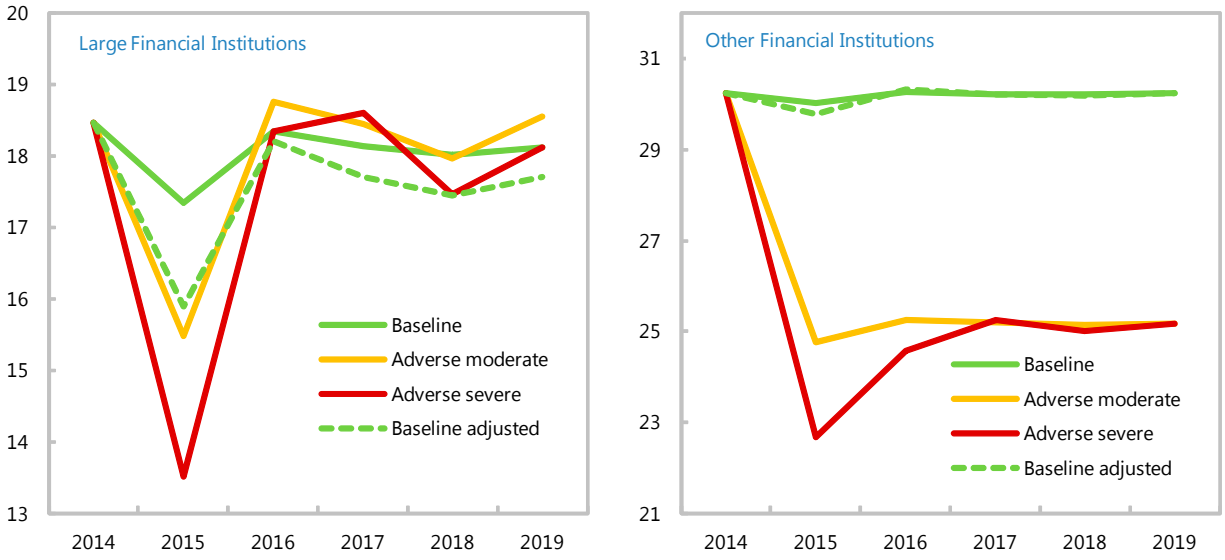
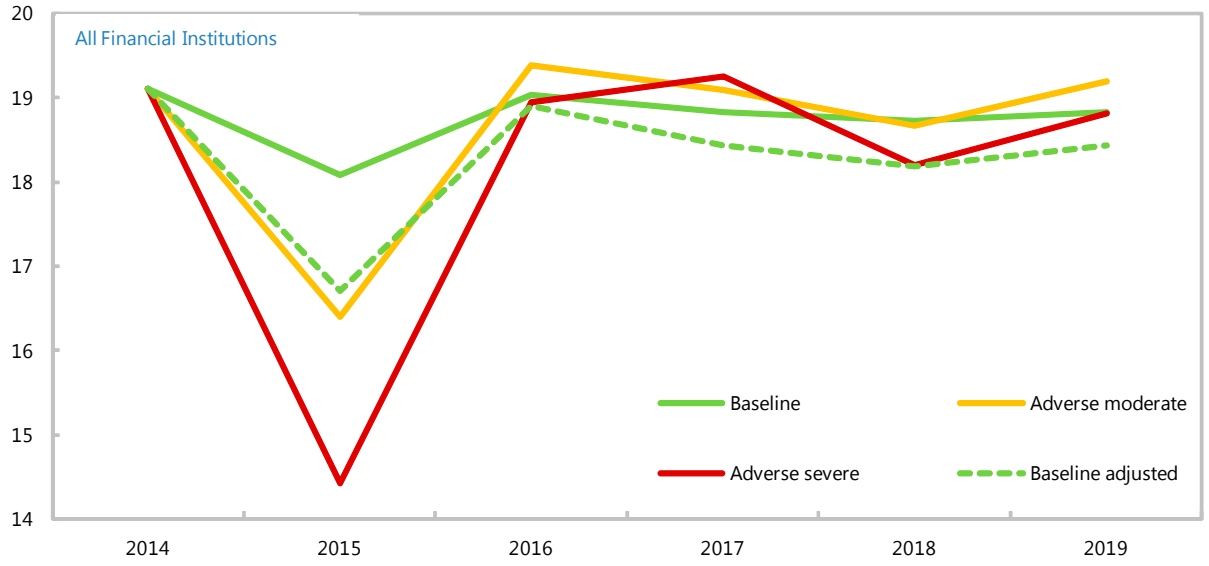


Figure 7. Tajikistan: Macro Scenarios Solvency Stress Test Results

(concluded)



Source: IMF and National Bank of Tajikistan staff estimates (top-down stress tests).
1/ The top down stress tests covers nine banks and AIB is excluded from the large institutions. Adjusted baseline takes into account full provisioning requirements.

Table 10A. Tajikistan: Sensitivity Stress Test Results on Credit Risks

(In percent unless indicated otherwise)

	Banking System		Distribution of Bank CARs								
	CAR (excluding AIB)	Tier 1	Number of institutions		Percent of system's asset		Percent of GDP		Number of insolvent banks	Capital Shortfall Needs (Percent of GDP)	
	percent	percent	below 12 percent	below 15 percent	below 12 percent	below 15 percent	below 12 percent	below 15 percent		<12	<15
Initial position	22.9	21.4	0.0	1.0	0.0	28.4	0.0	6.6	0.0	...	0.1
An increase in NPLs											
50 percent	21.2	19.7	1.0	1.0	2.1	28.8	0.0	6.6	0.0	0.0	0.1
100 percent	19.5	18.0	1.0	2.0	2.1	43.9	0.5	9.9	0.0	0.0	0.3
150 percent	17.7	16.1	1.0	3.0	2.1	47.9	0.5	10.6	1.0	0.0	0.6
Credit quality migration											
One category shift	22.3	20.9	1.0	1.0	2.1	28.5	0.5	6.6	0.0	0.0	0.1
Sectoral Loans											
An increase in agriculture NPLs (50%)	22.8	21.4	0.0	1.0	0.0	28.4	0.0	6.6	0.0	0.0	0.1
An increase in agriculture NPLs (100%)	22.8	21.4	0.0	1.0	0.0	28.4	0.0	6.6	0.0	0.0	0.1
An increase in agriculture NPLs (150%)	22.8	21.4	0.0	1.0	0.0	28.4	0.0	6.6	0.0	0.0	0.1
An increase in public sector NPLs (50%)	21.8	20.4	0.0	1.0	0.0	28.7	0.0	6.6	0.0	0.0	0.1
An increase in public sector NPLs (100%)	20.8	19.3	0.0	2.0	0.0	44.1	0.0	10.0	0.0	0.0	0.1
An increase in public sector NPLs (150%)	19.7	18.2	0.0	2.0	0.0	43.5	0.0	9.8	0.0	0.0	0.3
An increase in corporates and SMEs NPLs (50%)	22.1	20.7	1.0	1.0	2.1	28.6	0.5	6.6	0.0	0.0	0.1
An increase in corporates and SMEs NPLs (100%)	21.7	20.2	1.0	1.0	2.1	28.7	0.5	6.6	0.0	0.0	0.1
An increase in corporates and SMEs NPLs (150%)	21.3	19.8	1.0	1.0	2.1	28.8	0.5	6.6	0.0	0.0	0.1
An increase in consumer NPLs (50%)	22.8	21.4	0.0	1.0	0.0	28.4	0.0	6.6	0.0	0.0	0.1
An increase in consumer NPLs (100%)	22.8	21.4	0.0	1.0	0.0	28.4	0.0	6.6	0.0	0.0	0.1
An increase in consumer NPLs (150%)	22.8	21.3	1.0	1.0	2.1	28.4	0.5	6.6	0.0	0.0	0.1
Performing construction loans become NPLs (15%)	22.6	21.2	1.0	1.0	2.1	28.3	0.5	6.6	0.0	0.0	0.1
Performing construction loans become NPLs (25%)	22.6	16.4	1.0	1.0	2.1	28.3	0.5	6.6	0.0	0.0	0.1
Performing construction loans become NPLs (30%)	22.7	16.5	1.0	1.0	2.1	28.4	0.5	6.6	0.0	0.1	0.1
Performing mortgage loans become NPLs (15%)	22.9	21.4	0.0	1.0	0.0	28.4	0.0	6.6	0.0	0.0	0.1
Performing mortgage loans become NPLs (20%)	22.9	21.4	0.0	1.0	0.0	28.4	0.0	6.6	0.0	0.0	0.1
Performing mortgage loans become NPLs (25%)	22.9	21.4	0.0	1.0	0.0	28.4	0.0	6.6	0.0	0.0	0.1
Concentration Risk											
The top single borrower defaults	20.6	19.1	1.0	2.0	2.1	33.4	0.5	7.6	0.0	0.0	0.1
The top 3 borrower defaults	18.3	16.8	1.0	4.0	2.1	63.8	0.5	14.2	0.0	0.0	0.1
The top 5 borrowers defaults	17.1	15.6	1.0	4.0	2.0	62.9	0.4	13.8	0.0	0.0	0.5
Reverse Testing											
Share of performing loans causing CAR below 12%	16.2	14.7	3.0	5.0	...	...	...	...	0.0	...	...
Share of performing loans causing CAR below 15%	14.9	13.3	0.0	5.0	...	...	...	...	0.0	...	...

Sources: National Bank of Tajikistan: and IMF staff calculations.

1/ Additional NPLs are provisioned at 33 percent regardless of their category.

2/ NPLs are downgraded by one category.

Table 10B. Tajikistan: Sensitivity Stress Test Results on Credit Risks with Regulatory Provisioning

(In percent unless indicated otherwise)

	Banking system				Distribution of bank CARs						
	CAR (excluding AIB)	Tier 1	Number of institutions		Percent of system's asset		Percent of GDP		Number	Capital Shortfall Needs (Percent of GDP)	
	percent	percent	below 12 percent	below 15 percent	below 12 percent	below 15 percent	below 12 percent	below 15 percent	of insolvent banks	<12	<15
Initial position	17.4	15.9	1.0	2.0	2.2	42.4	2.8	9.4	1.0	...	0.7
An increase in NPLs											
50 percent	13.1	11.4	1.0	3.0	2.2	45.7	2.0	9.7	1.0	0.0	1.3
100 percent	8.2	6.5	1.0	3.0	2.3	44.0	0.5	9.0	1.0	0.0	2.0
150 percent	2.7	0.9	2.0	3.0	2.3	42.1	0.5	8.2	1.0	0.0	2.6
Credit quality migration											
One category shift	16.8	15.2	1.0	2.0	2.2	42.1	0.5	9.3	1.0	0.0	0.8
Sectoral Loans											
An increase in agriculture NPLs (50%)	17.4	15.8	1.0	2.0	2.2	42.4	0.5	9.4	1.0	0.0	0.7
An increase in agriculture NPLs (100%)	17.3	15.8	1.0	2.0	2.2	42.4	0.5	9.4	1.0	0.0	0.7
An increase in agriculture NPLs (150%)	17.2	15.7	1.0	2.0	2.2	42.5	0.5	9.4	1.0	0.0	0.7
An increase in public sector NPLs (50%)	14.8	13.2	1.0	2.0	2.2	41.0	0.5	8.8	1.0	0.0	1.2
An increase in public sector NPLs (100%)	11.9	10.3	1.0	2.0	2.3	39.5	0.5	8.3	1.0	0.0	1.6
An increase in public sector NPLs (150%)	8.8	7.1	1.0	2.0	2.3	37.9	0.5	7.8	1.0	0.0	2.1
An increase in corporates and SMEs NPLs (50%)	15.5	13.9	1.0	3.0	2.2	47.1	0.5	10.2	1.0	0.0	0.9
An increase in corporates and SMEs NPLs (100%)	14.4	12.8	1.0	3.0	2.2	46.7	0.5	10.0	1.0	0.0	1.1
An increase in corporates and SMEs NPLs (150%)	13.2	11.6	1.0	3.0	2.2	46.3	0.5	9.9	1.0	0.0	1.2
An increase in consumer NPLs (50%)	17.4	15.8	1.0	2.0	2.2	42.4	0.5	9.4	1.0	0.0	0.7
An increase in consumer NPLs (100%)	17.3	15.8	1.0	2.0	2.2	42.4	0.5	9.4	1.0	0.0	0.7
An increase in consumer NPLs (150%)	17.2	15.7	1.0	2.0	2.2	42.4	0.5	9.4	1.0	0.0	0.7
Performing construction loans become NPLs (15%)	16.9	15.3	1.0	2.0	2.1	42.3	0.5	9.3	1.0	0.0	0.8
Performing construction loans become NPLs (25%)	16.7	11.5	1.0	2.0	2.1	42.3	0.5	9.3	1.0	0.0	0.8
Performing construction loans become NPLs (30%)	16.5	11.4	1.0	2.0	2.1	42.2	0.5	9.2	1.0	0.8	0.8
Performing mortgage loans become NPLs (15%)	17.4	15.9	1.0	2.0	2.2	42.4	0.5	9.4	1.0	0.0	0.7
Performing mortgage loans become NPLs (20%)	17.4	15.9	1.0	2.0	2.2	42.4	0.5	9.4	1.0	0.0	0.7
Performing mortgage loans become NPLs (25%)	17.4	15.9	1.0	2.0	2.2	42.4	0.5	9.4	1.0	0.0	0.7
Concentration Risk											
The top single borrower defaults	14.8	13.2	1.0	3.0	2.2	47.3	0.5	10.2	1.0	0.0	0.9
The top 3 borrower defaults	12.2	10.5	1.0	4.0	2.1	61.9	0.4	13.0	1.0	0.0	0.9
The top 5 borrowers defaults	10.8	9.2	1.0	4.0	2.1	60.9	0.4	12.7	1.0	0.1	1.5
Reverse Testing											
Share of performing loans causing CAR below 12%	11.9	10.3	5.0	5.0	...	...	...	...	1.0	...	...
Share of performing loans causing CAR below 15%	14.9	13.3	1.0	5.0	...	...	...	...	1.0	...	...

Sources: National Bank of Tajikistan: and IMF staff calculations.

1/ Additional NPLs are provisioned at 33 percent regardless of their category.

2/ NPLs are downgraded by one category.

Table 11A. Tajikistan: Sensitivity Stress Test Results on Market Risks

(In percent unless indicated otherwise)

	Banking system		Distribution of bank CARs							Capital Shortfall	
			Number of institutions		Percent of system's asset		Percent of GDP		Number	Needs	
	CAR (excluding AIB	Tier 1	below 12	below 15	below 12 percent	below 15 percent	below 12 percent	below 15 percent	of insolvent banks	(Percent of GDP) <12	<15
Initial position	22.9	21.4	0	1	0.0	28.4	0.0	6.6	0	0.0	0.2
Direct Interest Rate Risk											
Interest rates increase by 600 basis points	21.4	20.0	1	2	2.1	32.8	0.0	7.5	0	0.0	0.2
Interest rates increase by 800 basis points	20.4	19.0	1	2	2.1	33.0	6.6	7.7	0	0.0	0.2
Exchange Rate Risk - shock to net open position											
Depreciation of TJS by 25%	21.0	19.5	1	2	2.1	32.9	0.5	7.5	0	0.0	0.2
Depreciation of TJS by 50%	19.0	17.5	2	3	4.3	49.1	1.0	11.0	0	0.0	0.3
Exchange rate Induced Credit Risk											
NPL FX Loans Increases by 38 percent	22.1	20.7	1	1	2.1	28.6	0.5	6.6	0	0.0	0.1
NPL FX Loans Increases by 46 percent	22.0	20.5	1	1	2.1	28.6	0.5	6.6	0	0.0	0.1
Combination of Direct and Indirect Credit Risk											
Devaluation of TJS (25%) and FX NPL (38%)	20.0	18.6	1	2	2.1	33.2	0.5	7.5	0	0.0	0.2
Devaluation of TJS (50%) and FX NPL (46%)	18.0	16.5	2	4	4.3	65.2	1.0	14.5	0	0.0	0.4
Combination of Direct and Indirect Credit Risk											
Devaluation of TJS (25%), FX loans unhedged borrowers (38	20.6	19.1	1	2	2.1	32.9	0.5	7.5	0	0.0	0.2
Devaluation of TJS (50%, FX loans unhedged borrowers (46'	18.5	17.0	2	3	4.3	49.1	1.0	11.0	0	0.0	0.4

Sources: National Bank of Tajikistan and IMF staff calculations.

Table 11B. Tajikistan: Sensitivity Stress Test Results on Market Risks with Regulatory Provisioning

(In percent)

	Banking system		Distribution of Bank CARs							Capital Shortfall	
			Number of institutions		Percent of the system's		Percent of GDP		Number	Needs	
	CAR (excluding AIB	Tier 1	below 12	below 15	assets below 12 percent	below 15 percent	below 12 percent	below 15 percent	of insolvent banks	(Percent of GDP) <12	<15
Initial position	17.4	15.9	1	2	2.2	42.4	0.5	9.4	1.0	0.0	0.7
Direct Interest Rate Risk											
Interest rates increase by 600 basis points	16.0	14.5	1	3	2.1	46.4	2.6	10.1	1.0	0.0	1.0
Interest rates increase by 800 basis points	15.2	13.7	1	3	2.2	47.3	9.4	10.4	1.0	0.0	1.1
Exchange Rate Risk - shock to net open position											
Devaluation of TJS by 25%	15.3	13.7	1	3	2.2	46.9	0.5	10.2	1.0	0.0	1.0
Devaluation of TJS by 50%	13.0	11.3	2	4	4.5	63.6	1.0	13.5	1.0	0.0	1.2
Exchange rate Induced Credit Risk											
NPL FX Loans Increases by 100 percent	15.5	14.0	1	2	2.2	41.6	0.5	9.0	1.0	0.0	1.0
NPL FX Loans Increases by 150 percent	15.1	13.6	1	2	2.2	41.4	0.5	9.0	1.0	0.0	1.1
Combination of Direct and Indirect Credit Risk											
Devaluation of TJS (25%) and FX NPL (38%)	12.6	10.9	1	3	2.2	45.9	0.5	9.7	1.0	0.0	1.3
Devaluation of TJS (50%) and FX NPL (46%)	12.0	10.4	2	4	4.5	63.8	1.0	13.4	2.0	0.0	1.3
Combination of Direct and Indirect Credit Risk											
Devaluation of TJS (25%), FX loans unhedged borrowers (38%	14.3	12.7	1	3	2.2	46.8	0.5	10.0	1.0	0.0	1.0
Devaluation of TJS (50%, FX loans unhedged borrowers (46%)	11.7	10.0	2	4	4.6	63.6	1.0	13.4	2.0	0.0	1.4

Sources: National Bank of Tajikistan and IMF staff calculations.

Table 12A. Tajikistan: Sensitivity Stress Test Results on Multi Factor Shocks

(In percent unless indicated otherwise)

	Banking system		Distribution of Bank CARs								
			Number of institutions		Percent of system's asset		Percent of GDP		Number	Capital Shortfall Needs (Percent of GDP)	
	CAR (excluding AIB)	Tier 1	below 12	below 15	below 12	below 15	below 12	below 15	of insolvent	below 12	below 15
Initial position	22.9	21.4	0.0	1.0	0.0	28.4	0.0	6.6	0.0	...	0.1
NPLs increase by 100% (NPL ratio increases from)											
Interest rates increase by 600 basis	15.7	14.2	1.0	4.0	2.1	64.3	1.2	14.0	1.0	0.0	0.8
Devaluation of TJS by 25%											
NPLs increase by 150% (NPL ratio increases from											
Interest rates increase by 800 basis	14.6	12.6	2.0	4.0	5.0	58.1	0.9	10.4	3.0	0.1	0.9
Devaluation of TJS by 50%											

Sources: National Bank of Tajikistan and IMF staff calculations.

Table 12B. Tajikistan: Sensitivity Stress Test Results on Multi Factor Shocks with Regulatory Provisioning

(In percent)

	Banking system		Distribution of Bank CARs								
			Number of institutions		Percent of system's asset		Percent of GDP		Number	Capital Shortfall Needs (Percent of GDP)	
	CAR	Tier 1	below 12	below 15	below 12	below 15	below 12	below 15	of insolvent	below 12	below 15
Initial position	17.4	15.9	1	2	2.2	42.4	0.5	9.4	1.0	0.0	1.9
NPLs increase by 100% (NPL ratio increases from)											
Interest rates increase by 600 basis	9.0	7.3	1	4	2.2	62.1	0.5	12.7	1.0	0.0	1.9
Devaluation of TJS by 25%											
NPLs increase by 100% (NPL ratio increases from											
Interest rates increase by 800 basis	0.0	-1.9	2	4	4.8	59.7	0.9	11.4	3.0	0.1	3.0
Devaluation of TJS by 50%											

Sources: National Bank of Tajikistan and IMF staff calculations.

Appendix I. Stress Testing Scenarios and Methodologies

Summary of Macroeconomic Assumptions for Scenario-Based Solvency Stress Tests

1. The FSAP team developed macroeconomic stress tests to assess banks' performance under a baseline and alternative adverse macroeconomic scenarios, using the relevant macro variables (i.e., GDP growth, remittances, real exchange rate, inflation, interest rates, and prices of aluminum, cotton, and crude oil). The baseline scenario will be based on January 2015 World Economic Outlook assumptions and projections. Shocks are calibrated based on historical data and satellite models. Real GDP growth is the leading variable in the regression framework affecting NPLs. Assumptions for different variables in all scenarios are made over a five-year horizon.[35]

Mapping of risks and shocks

2. The adverse macroeconomic scenarios corresponded broadly to the main risks identified in the Risk Assessment Matrix (RAM, Table 7).

- The risk of a protracted period of slower growth in emerging markets, especially in Russia (RAM risk #1) was analyzed via a *shock to GDP growth*. An oil price shock and subsequent worsening condition in Russia (also as a result of the Western sanctions) will reduce remittances, dampen aggregate demand, and have implications on the borrowers' ability to service their loans.[36]

- The consequences of commodity (especially cotton and aluminum) price shocks (RAM risk #2) were assessed via a direct *price shock*. A prolonged collapse in cotton prices and unchanged aluminum prices would be channeled through a weaker balance of payments and result in downward pressure on the somoni, resulting in difficulties in services loans and higher interest rates.

- The impact of delays/reversals in structural reforms, particularly in state-owned banks and enterprises (RAM risk #3) was analyzed via a combination of a protracted slowdown in GDP growth and adjustment of NPLs and collateral valuation.

- The analysis factored in the possibility of multiple shocks (e.g., slower growth in Russia, a drop in commodity prices, and the delayed resolution of insolvent domestic banks) unfolding at the same time, potentially magnifying the impact on the banking system.

[35] This Appendix should be read in conjunction with the accompanying Technical Note, which contains more details.

[36] Given the Tajik economy's heavy reliance on remittances from Russia, the drop in global oil prices has an overall negative impact on Tajikistan's balance of payments and is therefore considered a negative shock.

Methodology of the credit risk model

3. The credit risk was modeled as a function of a set of macroeconomic variables. The model explained NPL ratio as a function of real GDP growth, remittances, inflation, exchange rate, and interest rate.[37] We used bank-by bank panel data from 2006 Q4 to 2014 Q3 for nine banks. The model used fixed effects to estimate the coefficients and their standard errors.[38] The estimation model can be expressed as:

$$\Delta ln(NPL)_{i,t} = \propto + \beta_1 \Delta ln(NPL)_{i,(t-1)} + \beta_2 \Delta lnGDP_{(t-1)} + \beta_3 \Delta lnCPI_{(t-1)} + \beta_4 \Delta lnRemittances_{(t-1)} + \beta_5 \Delta lnInterest_{i,(t-1)} + \beta_6 \Delta lnExchange\ rate_{(t-1)} + \varepsilon_{i,t}$$

Fixed Effects Panel Regression Output
Quarterly Data, 2006Q4 to 2014Q3
Dependent variable: change in NPL ratio

	Panel With Fixed Effects NPL ratio 1/	
C	0.040	
	(0.140)	
Lagged dependent variable	0.799	**
	(19.428)	
Real GDP growth	-6.034	*
	(-2.167)	
Remittances	-0.387	*
	(-2.247)	
Inflation	3.102	**
	(2.498)	
Exchange rate	-1.692	
	(-2.425)	*
Interest rate	0.346	
	(0.741)	
Rsquared	0.622	
number of observations	285	

Note:t-statistics in paranthesis. * and ** indicate significance at 5 and 1 percentage significance level, respectively.

4. The econometric model indicates that bank credit quality is sensitive to macro-economic shocks. GDP growth, remittances, inflation, and exchange rate are all statistically significant, at least at the 5 percent level. The regression provided a good fit with an R-squared of 62 percent.

[37] The model also included bank-specific credit growth as a regressor but was eventually dropped.

[38] Alternatively, the model can be estimated by using Arellano and Bond methodology or Buncic and Melecky (2013).

5. The next step was to determine the projected increases in NPL ratio on bank capital adequacy. This was calculated using balance sheet analysis and the following assumptions were made.

- Existing/current levels of provisioning.
- Full provisioning, using NBT mandated rates for each category of NPLs (including for domestic and foreign currency loans).
- Zero bank profits, given the weak economic prospects.

Methodology of the sensitivity tests

Data adjustments

6. The stress test applied required provisioning rates to adjust for inadequate provisioning and possible misclassifications. Banks net out collateral in their provisioning calculations, which poses additional risks to the banking sector. A large proportion of banks' credit portfolio is secured loans, with land and buildings pledged as collateral. Such collateral is hard to dispose of, especially during times of economic distress. Collateral enforcements are hampered by a weak judicial bureaucratic constraint. Further, with collateral revaluation not done periodically, it is difficult to assess whether banks are fully provisioned according to NBT standards.

7. Adjusted capital was subsequently computed by correcting the reported capital for underprovisioning. Before the credit risk shocks are applied, under current provisioning rates, one large bank's capital adequacy ratio falls short of the 15 percent regulatory requirement. If full provisioning is imposed, one large bank becomes insolvent and another fails to meet the regulatory requirement (of 15 percent).

8. The scope of the stress test and sensitivity analysis is hampered by the quality and availability of data. Direct access to the data for verification purposes was not possible. The mission was, therefore, unable to verify adequately the accuracy of different variables.[39] Cross-checks for data consistency were also difficult, given the lack of an adequate time series. Also, it was not possible to establish the methodological consistency of the data for NPLs, ROE/ROA, and capital levels. The mission took account of these uncertainties by adjusting these parameters.

9. To complement the macro stress tests, sensitivity analysis for credit, concentration, interest rate, and direct and indirect foreign exchange risks were conducted. These tests assessed the adequacy of banks' capital and liquidity buffers to withstand a variety of single-factor shocks. The sensitivity tests included the following shocks: increases in NPLs of up to 150 percent at current and higher provision rates. The shocks were determined by simple elasticities by linking NPLs

[39] Historical NPL data was obtained from the Resident Representative Office and was only available from 2005.

and macro variables. NPLs on sectoral credit, mainly agriculture, public sector, corporate and SMEs and individual loans were also included and the same magnitude of shocks. For sectors such as construction and mortgages, the shocks were based on past trends and elasticities. It was assumed that between 15 percent to 25 percent of past construction loans would be reclassified as NPLs. Other tests examined the impact of credit quality migration, downloading loans by one category: 20 percent of substandard loans to doubtful, 35 percent of doubtful to risk, and 15 percent from risk to bad.[40] Reverse credit risk stress tests estimated the shocks to NPLs that will push individual banks and the system below the regulatory capital minimum. Concentration risks were examined by assessing banks' resilience to defaults of the top one, three, and five largest borrowers. These tests examined the banks' resilience to a situation where one or more large borrower default simultaneously.[41]

10. The mission also conducted sensitivity tests to gauge the system's resiliency to interest rate, exchange rate, and liquidity shocks. Interest rates shock envisaged a parallel upward and downward shift in interest rates of up to 600 basis points and 800 basis points (translating to two and three standard deviations). These shocks primarily worked their way to the quality of loan portfolio via increase of cost of borrowing at the time of refinance/rollover, as much of the loans are fixed rated. The shocks reflect the high volatility in interest rates over the last seven years. Direct currency risks tests assessed banks' resilience to surprise devaluations of 25 percent and 50 percent, respectively, based on historical estimates. In addition, with high levels of dollarization emerging as an important source of financial vulnerability, the FX-induced credit risk was also assessed by targeting FX-denominated NPLs. Due to data limitations, FX loans were used as a proxy to determine the increase in FX NPL ratios. The tests assessed the increase in FX NPLs and loans to "unhedged borrowers" (which account for 85 percent of total FX loans). The outcomes of these indirect credit shocks were then combined with the direct effects of exchange rate depreciation.

11. To assess liquidity risk, four tests were conducted. The first three liquidity tests focused exclusively on funding liquidity risk, since asset prices could not be evaluated, market liquidity risk (i.e., the drop in asset prices due to selling pressures) could not be assessed The first one assumed a five-day bank run on all deposits, whereas the second and third assumed a similar run separately; one on domestic currency and the other on foreign currency deposits. The fourth test measured the impact of withdrawal of the largest one, three, and five depositors. In each liquidity test, it assessed how many days it would take a bank to survive a liquidity drain without resorting to liquidity from outside (other banks or the central bank) over a five-day period. The test also assumed that a simple liquidity drain would affect all banks in the system proportionally.

[40] Nonperforming loans include 3 loan classifications: doubtful (30-60 days), problem (60–180 days) and bad (180+ days).

[41] Under current regulations, there is a limit on large exposures (borrower or a group of connected borrowers) of 20 percent of total regulatory capital.

Appendix II. Tajikistan: Stress Test Matrix (STeM) for the Banking Sector: Solvency and Liquidity Risks

Domain		Assumptions	
		Bottom-Up by Banks (if applicable)	Top-Down by Authorities and FSAP Team (if applicable)
BANKING SECTOR: SOLVENCY RISK			
1.Institutional Perimeter	Institutions included	• 7 largest banks	• Macro credit risk solvency stress test (9 banks). • Single-factor sensitivity test (16 banks). AIB was excluded from the stress testing exercise.
	Market share	• (61 percent)	• Macro credit risk test (73 percent). • Single factor shocks sensitivity test (82 percent).
	Data and baseline date	• Banks' own data. • Cut-off date as of end September 2014	• Supervisory and Resident Representative data. Cut-off date as of end September 2014.
2. Channels of Risk Propagation	Methodology	• Combination of banks' own internal models and pre-defined benchmarks	• IMF balance sheet stress testing framework (tailor-made for Tajikistan FSAP and macro satellite and credit risk models). • For sensitivity analysis, FSAP team will use Martin Cihak model (2007), IMF WP/07/59, for the solvency stress tests.
	Satellite models for macro-financial linkages		• IMF's econometric models for credit losses, pre-impairment income, credit growth and expert judgment.
	Stress test horizon	• 5 years (2014–19)	• 5 years (2014–19).
3. Tail shocks	Scenario analysis	• Shocks based on GDP trajectories, and translated in a consistent manner to all other variables in the macro-scenarios	• Shocks based on GDP trajectories, and translated in a consistent manner to all other variables in the macro-scenarios. • Two adverse scenarios; moderate shock (around 1 StD of GDP growth in historical terms, 1996-2014) and severe shock (2 StD of GDP growth; larger output losses than those recorded during the Russian crisis and the global financial crisis).

Domain		Assumptions	
		Bottom-Up by Banks (if applicable)	**Top-Down by Authorities and FSAP Team (if applicable)**
		• Three scenarios: baseline scenario; moderate external shock scenario; severe external shock scenario (implying output losses larger than those recorded in recent relevant historical crisis)	• Magnitude of shocks: (i) a decrease of 35 percent and 70 percent in remittances relative to baseline; (ii) an fall in cotton prices by 30 percent and 50 percent relative to baseline;(iii) aluminum prices are envisaged to contract by 10 percent and 20 percent; and (iv) an exchange rate depreciation of 25 percent and 50 percent of the somoni against the dollar.
	Sensitivity analysis	• N/A	• Single factor shocks (linking NPLs and macro variables). (i) Credit risk: an increase in NPL ratios of up to 150 percent in banks' loan portfolio and key sectors (commercial, small medium enterprises and individuals). (ii) Reverse test that will estimate the NPLs thresholds pushing individual banks and the system below the regulatory capital requirement. (iii) Credit concentration risk: defaults of the top one, three and five largest borrowers in banks' portfolios. (iv) Interest rate risk: parallel shifts in interest rates of up to 800 basis points. (v) Currency risk: devaluation of up to 50 percent. (vi) Multi-factor shock. A combination of credit, interest and exchange rate risk, and also replicating historical events.
4.Risks and Buffers		• Credit risk: credit risk on loan book • Market risk: interest rate risk impact on net interest income; FX risk	• Credit risk: credit risk on loan book. • Market risk: interest rate risk impact on net interest income. • FX risk.

Domain		Assumptions	
		Bottom-Up by Banks (if applicable)	Top-Down by Authorities and FSAP Team (if applicable)
	Behavioral adjustments	• Evolution of total assets and RWAs based on constant balance sheet assumption • No management assumptions considered • Other net income items, dividends, and taxes, based on macroeconomic scenarios and pre-determined rules	• Evolution of total assets and RWAs based on constant balance sheet assumption. • No management assumptions considered. • Other net income items, dividends, and taxes, based on macroeconomic scenarios and pre-determined rules.
5. Regulatory and Market-Based Standards and Parameters	Calibration of risk parameters	• Expected losses or loan migration (downgrades) and changes in provisions based on banks' internal models • Interest income and valuation losses affect capital are based on gap and duration analysis	• Expected losses or loan migration (downgrades) and changes in provisions based on satellite models. • Interest rate income and valuation losses affect capital are based on gap and duration analysis.
	Regulatory/Accounting and Market-Based Standards	• Basel 1 (current standard). • Regulatory requirement of 15 for large banks and 12 percent for other institutions	• Basel 1 (current standard). • Regulatory requirement of 12 percent (total regulatory capital, both tier 1 and tier 2 capital). • Tier 1/RWA (if applicable). • Tier 1/Total Assets (if applicable).
6. Reporting Format for Results	Output presentation	• System-wide CAR and four banks • For each range of capital ratios, number of banks that pass or fail • Percent of assets that fail the test as a percent of GDP	• System-wide CAR. • For each range of capital ratios, number of banks that pass or fail. • Percent of assets that fail the test as a percent of GDP. • Capital shortfalls in percent of total assets and GDP.

Domain		Assumptions	
		Bottom-Up by Banks (if applicable)	Top-Down by Authorities and FSAP Team (if applicable)
BANKING SECTOR: LIQUIDITY RISK			
1. Institutional Perimeter	Institutions included	N/A	• 16 banks.
	Market share	N/A	• 82 percent of banking sector's total assets.
	Data and baseline date	N/A	• Supervisory data.
2. Channels of Risk Propagation	Methodology	N/A	• Bank run test – 5 day and 30-day scenarios.
3.Risks and Buffers	Risks	N/A	• Funding risk. • Concentration of funding. • FX liquidity test.
	Buffers	N/A	• Fire sale of assets, liquid assets (counterbalancing capacity).
4. Tail shocks	Size of the shock	N/A	• 5 day bank run (5, 5, 5, 10, 10 percent). Large depositors withdraw all their funds in one day. • Asset daily disposal rate of 90 percent for liquid assets and 1 percent for illiquid assets.
5. Regulatory and Market-Based Standards and Parameters	Regulatory standards	N/A	• Regulatory requirement on liquidity ratio (liquid assets to demand deposits and short-term liabilities) set at a minimum of 30 percent and above.
6. Reporting Format for Results	Output presentation	N/A	• Number of banks that are below the minimum requirement for liquidity ratio. • Number of "illiquid" banks. • Liquidity shortfalls in percent of total assets.