



Technical Assistance Report

Project Number: 53006-001
Knowledge and Support Technical Assistance (KSTA)
September 2019

Mongolia: Supporting Development of a Resilient and Well-Functioning Money Market and Macroprudential Policy Framework

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 12 August 2019)

Currency unit	–	togrog (MNT)
MNT1.00	=	\$0.000375
\$1.00	=	MNT2,667.50

ABBREVIATIONS

ADB	–	Asian Development Bank
BOM	–	Bank of Mongolia
TA	–	technical assistance

NOTE

In this report, "\$" refers to United States dollars.

Vice-President	Ahmed M. Saeed, Operations 2
Director General	Amy S. P. Leung, East Asia Regional Department (EARD)
Director	Xiaoqin Fan, Public Management, Financial Sector, and Regional Cooperation Division, EARD
Team leader	Giacomo Giannetto, Principal Financial Sector Specialist, EARD
Team Members	Genny de Torres, Administrative Assistant, Budget, Personnel and Management Systems Department Consuelo Javier, Project Analyst, EARD Seung Min Lee, Senior Financial Sector Specialist, EARD

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KNOWLEDGE AND SUPPORT TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 53006-001
Project Name	Supporting Development of a Resilient and Well-Functioning Money Market and Macroprudential Policy Framework	Department/Division EARD/EAPF
Nature of Activity	Capacity Development	Executing Agency Bank of Mongolia (Central Bank)
Modality	Regular	
Country	Mongolia	
2. Sector		ADB Financing (\$ million)
✓ Finance	Finance sector development	0.40
		Total 0.40
3. Operational Priorities		Climate Change Information
		Climate Change impact on the Project Low
Sustainable Development Goals		Gender Equity and Mainstreaming
SDG 1.5		No gender elements (NGE) ✓
SDG 8.10		
		Poverty Targeting
		General Intervention on Poverty ✓
4. Risk Categorization Low		
5. Safeguard Categorization Safeguard Policy Statement does not apply		
6. Financing		
Modality and Sources		Amount (\$ million)
ADB		0.40
Knowledge and Support technical assistance: Technical Assistance Special Fund		0.40
Cofinancing		0.00
None		0.00
Counterpart		0.00
None		0.00
Total		0.40
Currency of ADB Financing: US Dollar		

I. INTRODUCTION

1. The Government of Mongolia requested the Asian Development Bank (ADB) to provide technical assistance (TA) supporting the development of a resilient and well-functioning money market and macroprudential policy framework. The proposed TA will assist the Monetary Policy Department of the Bank of Mongolia (BOM). The TA is included in ADB's country operations business plan for Mongolia, 2019–2021.¹

II. ISSUES

2. **Weak monetary policy transmission mechanism.** The absence of a resilient and well-functioning money market impairs the effectiveness of the monetary policy framework. Because the banking sector is highly concentrated with a limited product set, monetary policy transmission to financial markets using the interbank rate as a reference is weak. Although the BOM has taken several policy actions to stimulate the interbank money market, it remains underdeveloped both as a monetary policy transmission channel and as a mechanism to balance liquidity and funding needs across banks. The BOM is successful in steering interbank rates close to the policy rate, but commercial banks' deposit and lending rates do not always follow the changes. The shallow money market, combined with an under-developed primary and secondary debt market, also (i) inhibits the development of a complete and reliable yield curve to be used for full development of capital markets in Mongolia and (ii) creates an information gap and asymmetry in price discovery, leading to market inefficiency and no reliable benchmark. There is an over-reliance on BOM liquidity facilities. Banks heavily rely on BOM facilities for liquidity management rather than taking a more active approach to rebalance liquidity and funding needs among themselves in the market. While this is caused by the lack of a well-functioning money market, the ease of availability of BOM facilities as a first choice also impairs overall development.

3. **Underdeveloped money market.** The money market is highly concentrated and dominated by a few commercial banks. More than 57% of the market share of the interbank money market by transaction volume in 2018 is concentrated among only three banks. Market breadth is limited, with transactions primarily focused on an unsecured over-the-counter basis. The market is shallow and short-term, increasing market volatility as banks trade with each other mainly overnight. The average tenor of interbank transactions was 6.3 days in 2017 and 10.4 days in 2018. According to the BOM, overnight transactions in 2018 accounted for almost 33% of total interbank transaction frequency. While economic growth and credit volume has expanded since the 2016 economic and financial crisis, there has been no improvement in the linkage between official BOM monetary policy decisions regarding the base rate and credit issuance volume of banks. The base interest rate had a 1.0 percentage point cut in early 2018, which followed a 2.0-point cut in 2017. Subsequently, in response to mounting pressure on the exchange rate, the BOM hiked the base rate by 1.0 percentage point in November 2018, but the impact on bank commercial rates was nominal and the change in overall credit growth was essentially uncorrelated. This evidence supports concerns about the effectiveness of (i) interest rates as the key monetary policy tool and (ii) the money market as a key policy transmission mechanism.

4. The finance sector needs to expand the scope of money market instruments. Secured instruments exist in the interbank market, with banks usually performing "repos" (repurchase

¹ ADB. 2018. *Country Operations Business Plan: Mongolia, 2019–2021*. Manila. The TA first appeared in the business opportunities section of ADB's website on 16 September 2019.

agreements), but not for more than an overnight basis. The main security for repos is central bank bills. Instruments such as repos and reverse repos are now governed only under a domestic master agreement that BOM developed in 2014. A global master repurchase agreement is not in place. The infrastructure supporting the interbank money market lacks development. Trade communication among banks is generally via phone. No interbank matching system managed by the BOM exists. Further, there is no framework to effectively regulate practices in the money market. No market conduct supervision system exists. A framework is needed to oversee market development and practices. A well-functioning money market will (i) aid the conduct of monetary policy through market-based instruments; (ii) provide an anchor for the short end of the yield curve; (iii) support the development of the foreign exchange market; (iv) provide the BOM with better signals of market expectations; (v) allow banks and customers to better manage their liquidity needs; (vi) strengthen financial intermediation; (vii) promote private issuance of negotiable certificates of deposits, promissory notes, and commercial paper; and (viii) support the development of the corporate bond market. ADB has assisted the BOM in efforts to enhance development of the money market and monetary policy transmission. Work focused on defining key policy issues in economic management and proposing solutions, including the process for monetary policy committee meetings and assistance in restructuring the BOM's domestic markets and foreign exchange departments. Generally, structural improvements were to include: (i) enhancements to the legal and institutional arrangements for improved monetary and foreign exchange policy within the law of the BOM; (ii) solutions to improve processes that help formulate monetary policy, including data and statistical analysis and forecasting techniques; (iii) assessing monetary policy transmission mechanisms; (iv) enhancements to the functioning of the monetary policy committee and restructuring the Monetary Policy Department; and (v) exploring the potential benefits of hedging on the macro-economy, particularly for the prices of meat and livestock. While these efforts were sound, the BOM needs better analytical capacity and mechanisms to support direct money market development.

5. **Ineffective macroprudential policy.** A well-articulated framework for macroprudential policy does not exist. Mechanisms must be in place to measure and manage overall financial system risks and to improve resilience to shocks. The BOM's macroprudential analysis and systemic risk assessment capacity is weak. While the BOM's mandate is to ensure financial stability, it lacks a full scope of tools and measures to conduct an effective, forward-looking macroprudential policy.

6. **Narrow capacity and analytical tools to perform risk assessments.** The BOM needs to expand analytical tools to assess risk scenarios and improve its capacity to use these tools to identify and monitor vulnerabilities within the financial system. Although not yet fully developed, a top-down, macro stress test would serve as the first step to establishing a more holistic, macroprudential analytical framework at the BOM. The BOM needs to (i) expand stress testing to enhance analytical capacity and forward-looking policy decision-making, (ii) develop satellite models on banks' balance sheets and profit and loss, and (iii) model credit risk of households and the corporate sector to fine tune macro model effects.

7. **A highly interconnected financial system.** Mongolia's financial and economic cycles are linked heavily to its mining industry and external conditions and are therefore vulnerable to swings in global commodity prices. This concentration can result in situations where a financial cycle decline coincides with a real economic cycle recession, thus amplifying the adverse impacts on the economy. In these cases, monetary policy alone is not enough to resolve the situation. The BOM lacks macroprudential policy measures that can reduce procyclicality and protect the financial system from risks and vulnerabilities. In a small economy like Mongolia, traditional monetary policy cannot easily contain financial and economic cycle risks. Actions to contain these

risks require more targeted prudential intervention that acts more directly to constrain excessive credit and leverage as well as manage overexposure to aggregate shocks, such as changes in exchange rates and asset prices. Because of the high degree of interconnectedness within the financial system and between banks, businesses, and the mining sector, it is important to prepare adequate systemic risk monitoring and macroprudential tools.

8. **Limited available policy measures.** A broad range of macroprudential policy measures does not exist. At present, only a series of early warning indicators and a limited range of policy controls are available. These measures include a 60% debt service to income limit on consumption loans and a capital adequacy 150% risk weight on loans denominated in a foreign currency. These are all isolated measures and a comprehensive framework that incorporates all macroprudential measures and tools on a consolidated basis is absent. Mongolia has made some progress on enhancing the financial stability oversight mechanism, within the context of macroprudential policy, through support of ADB TA and lending programs.² The law that governs the operation of the Financial Stability Council was amended to clarify its mandate and authority and expand its membership to include the Deposit Insurance Corporation of Mongolia. The law expanded the capacity of the council's secretariat and financial stability coordinators domiciled in the Financial Regulatory Commission and Ministry of Finance. The BOM revised the responsibilities, capacity, and structure of the secretariat and staff and developed a road map to enhance operations and facilitate collaboration. The BOM designed basic analytical capabilities and tools to assess policy proposals, communicated recommendations on using alternative models to assess financial stability policy decisions and augmented quantitative and qualitative analyses produced by the secretariat. While the BOM made enhancements, they must complete preparation of a model to assess policy impacts and financial system vulnerabilities and adopt a broader range of policy measures.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The TA is aligned with the following impact: a stable, sustainable, and balanced finance sector promoted.³ The TA will have the following outcome: policies for supporting the development of a resilient and well-functioning money market strengthened.

B. Outputs, Methods, and Activities

10. The TA will help establish an analytical framework for macroprudential policy and help develop the money market as a more effective transmission mechanism for monetary policy through two outputs. This TA will draw upon existing, completed TA work supporting financial sector development and stability, government plans for market development, and strategic knowledge products and research networking (footnotes 2 and 3).

11. **Output 1: Policy recommendations to expand efficiency and liquidity of the money market proposed.** The TA will prepare an assessment of the status and condition of the money market in Mongolia. The analysis will evaluate the state of the elements needed to build a well-functioning money market in Mongolia, including the: (i) capacity and structure of the supporting

² ADB. 2016. *Technical Assistance to Mongolia for Supporting Financial Sector Development and Stability*. Manila. ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Policy-Based Loan and Technical Assistance Grant to Mongolia for the Banking Sector Rehabilitation and Financial Stability Strengthening Program*. Manila.

³ Government of Mongolia. 2017. *The Reform and Development Program of Financial Market Until 2025*. Ulaanbaatar.

trading and settlement platforms; (ii) current market dynamics and liquidity; (iii) scope and capacity of market participants and the scale of the interbank market; (iii) instruments available, including repos, collateralized lending, and securities lending; (iv) legal and regulatory environment; (v) tax framework; (vi) depth and liquidity of the market; (vii) accuracy, transparency, and availability of price and trade data; (viii) market's conduct and governance practices; (ix) enforceability of transaction documentation and application of international standard agreements; and (x) market conventions used. The TA will produce a money market development agenda to help guide the BOM and other stakeholders with specific recommendations to enhance the efficiency and liquidity of the money market. The TA will identify (i) infrastructure and instrument and policy recommendations, among other elements, based on international best practices most applicable to Mongolia's stage of development and (ii) measures that the BOM can enact to encourage more participation in the money market. The BOM will establish a working group supported by the TA and financial sector stakeholders to formulate the introduction of the global master repurchase agreement to facilitate market-making and hedging. This agreement is expected to increase market-making and allow hedging of capital market instruments. The TA will hold workshops to bring financial market participants together to discuss needed enhancements to the money market. The TA will hold training for BOM staff on developing money markets.

12. **Output 2: Draft framework for macroprudential policy proposed.** The TA will produce an assessment and recommendations that outline the international best practices of macroprudential policy frameworks and the options to build a forward-looking macroprudential policy to monitor and track the banking sector's financial soundness in Mongolia. The assessment will identify macroeconomic factors, among other elements, that influence financial institutional performance in Mongolia. Because of the high degree of interconnectedness within the financial system and between banks and the enterprise sector, it is important to use adequate macroprudential tools. The TA will prepare a top-down macro stress testing program and base model, with functional model codes, for macroprudential policy analysis and forecasting. The framework proposal will consider identifying and modeling the factors that affect banking institutions' profitability to enable the BOM to evaluate a broad range of market risks and analyze the impact of macroprudential measures such as loan-to-value ratios, debt-service-to-income ratios for household loans, and capital adequacy risk weights. The TA will evaluate the cyclical or time-varying components of systemic risk and propose recommendations for mitigations, because these evaluations involve analyzing the gradual build-up of risks in a financial system. The TA will consider the mechanisms and tools needed to assess, signal, and mitigate concerns from volatile financial cycles, credit booms, and leveraged asset price bubbles. The tools will factor baseline and adverse macroeconomic shock scenarios into the tools and consider the structural aspects of systemic risk. The risk from the interconnectedness of the banking system in Mongolia must be captured and modeled, among other elements, to consider the liquidity risk arising from contagion and spillovers from one institution to another and onto the entire financial system. The TA will hold capacity-building training for BOM staff on implementing a new and expanded macroprudential framework. The TA will support a study tour by BOM officials to an ADB member country with advanced experience in macroprudential policy assessment and frameworks for the officials to see, firsthand, practices that can be applied most appropriately to Mongolia.

C. Cost and Financing

13. The TA is estimated to cost \$430,000, of which \$400,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-6). The key expenditure items are listed in Appendix 2. The government will provide counterpart support in the form of counterpart staff, access to needed data and printed documents, facilities for key meetings between the

implementing agency and consultants, printing and distribution of project materials to staff, assistance in coordinating meetings, and other in-kind contributions.

D. Implementation Arrangements

14. ADB will administer the TA. The executing agency is the BOM. The implementing agency is the Monetary Policy Department of the BOM. The implementing agency will assign staff to a working group to support the project by jointly evaluating the existing conditions in Mongolia, organizing outreach discussions workshops, and formulating final applicable recommendations. The TA will require two international consultants for 10 person-months total and one national consultant for 6 person-months, contracted through a firm on the basis of a simplified technical proposal. One national consultant (4 person-months) will be individually selected and engaged by ADB under time-based contract. The firm and national consultant will have provisions for fixed out-of-pocket expenditures. ADB will select, supervise, and evaluate the firm and consultants and provide staff to act as the resource persons in the workshop and conferences if needed. The implementation arrangements are summarized in the table.

Implementation Arrangements			
Aspects	Arrangements		
Indicative implementation period	October 2019–December 2021		
Executing agency	Bank of Mongolia		
Implementing agency	Bank of Mongolia, Monetary Policy Department		
Consultants	To be selected and engaged by ADB		
	Firm: Quality- and cost-based selection 90:10	Expert in money markets and team leader (international): 5 person-months Expert in macroprudential policy and modeling (international): 5 person-months Specialist in macroprudential policy and modeling (national): 6 person-months	\$281,000
	Individual:	Project coordinator (national): 4 person-months	\$9,000
Disbursement	The TA resources will be disbursed in accordance with ADB's Technical Assistance Disbursement Handbook (2010, as amended from time to time).		

Source: Asian Development Bank.

15. **Consulting services.** ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and associated staff instructions.⁴

IV. THE PRESIDENT'S DECISION

16. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$400,000 on a grant basis to the Government of Mongolia for Supporting Development of a Resilient and Well-Functioning Money Market and Macroprudential Policy Framework, and hereby reports this action to the Board.

⁴ Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 3).

DESIGN AND MONITORING FRAMEWORK

Impact the TA is Aligned with			
A stable, sustainable, and balanced finance sector promoted (The Reform and Development Program of Financial Market until 2025) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Policies for supporting the development of a resilient and well-functioning money market strengthened	By 2022: The top three banks account for no more than 50% market share of the interbank money market, by transaction volume. (2018 baseline: 57%)	BOM annual reports and website (https://www.mongolbank.mn/eng/)	The country is hit by a financial crisis, causing deterioration in the economy and finance sector, which prevents the expansion of market development.
Outputs 1. Policy recommendations to expand efficiency and liquidity of the money market proposed 2. Draft framework for macroprudential policy created	By 2022: 1a. Assessment of the status and condition of the money market prepared (2019 baseline: no assessment done) 1b. Money market development agenda prepared with specific recommendations for enhancement of efficiency and liquidity of the money market (2019 baseline: no agenda prepared) 2a. Report on the options for macroprudential policy and its instruments best suiting Mongolia's circumstances and current stage of financial sector development prepared (2019 baseline: no report prepared) 2b. At least 25 participants (at least 6 women) who attend a national conference will report increased understanding of macroprudential policy mechanisms (2019 baseline: no conference held)	1a. Interim report prepared by consulting team 1b. Final report issued by consulting team 2a. Interim report prepared by consulting team 2b. Post-conference survey	High turnover of implementing agency staff and lack of management action to support follow-through with actions to enhance money market and monetary policy effectiveness.
Key Activities with Milestones 1. Policy recommendations to expand efficiency and liquidity of the money market proposed 1.1 Recruit and field consultants by January 2020. 1.2 Conduct an inception workshop by February 2020. 1.3 Organize a national workshop by October 2020.			

- 1.4 Prepare an interim report by December 2020.
- 1.5 Prepare a draft final report by June 2021.
- 1.6 Submit a final report by December 2021.

2. Draft framework for macroprudential policy proposed

- 2.1 Recruit and field consultants by January 2020.
- 2.2 Conduct an inception meeting by February 2020.
- 2.3 Hold a training event for the BOM by June 2020.
- 2.4 Organize a national workshop by October 2020.
- 2.5 Prepare an interim report by December 2020.
- 2.6 Hold a study tour by April 2021.
- 2.7 Prepare a draft final report by June 2021.
- 2.8 Submit a final report by December 2021.

Inputs

ADB: \$400,000 Technical Assistance Special Fund (TASF-6)

Note: The government will provide counterpart support in the form of counterpart staff, access to needed data and printed documents, facilities for key meetings, printing and distribution of project material to staff, assistance in coordinating meetings, and other in-kind contributions.

Assumptions for Partner Financing

Not applicable

ADB = Asian Development Bank, BOM = Bank of Mongolia, TA = technical assistance.

^a Government of Mongolia. 2017. *The Reform and Development Program of Financial Market until 2025*. Ulaanbaatar.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (10 person-months)	242.0
ii. National consultants (10 person-months)	48.0
b. Out-of-pocket expenditures	
i. Domestic and international travel	15.0
ii. Reports and communications ^b	10.0
2. Conferences, training, workshops, and study tour	
a. Workshops and conferences ^c	30.0
b. Study tour ^d	35.0
3. Miscellaneous administration and support costs ^e	10.0
4. Contingencies	10.0
Total	400.0

Note: The technical assistance (TA) is estimated to cost \$430,000, of which contributions from the Asian Development Bank (ADB) are presented in the table above. The government will provide counterpart support in the form of counterpart staff, access to needed data and printed documents, facilities for key meetings between the implementing agency and consultants, printing and distribution of project material to staff, assistance in coordinating meetings, and other in-kind contributions. The value of government contribution is estimated to account for 7.0% of the total TA cost.

^a Financed by ADB's Technical Assistance Special Fund (TASF-6).

^b Includes costs for translation.

^c Includes costs of arrangement of venues for key missions and meetings, local transportation for project teams during key missions, translation and interpretation for key meetings, workshops and conferences, and honoraria, travel costs, and accommodation for resource persons. Covers travel costs and accommodation for ADB staff as resource persons at conferences and workshops.

^d For Bank of Mongolia officials to an ADB member country with advance experience in macroprudential framework.

^e Includes translation and interpretation costs of the TA.

Source: Asian Development Bank estimates.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/LinkedDocs/?id=53006-001-TARreport>

1. Terms of Reference for Consultants