

## ECONOMIC ANALYSIS

1. The economic analysis of the Supporting the Credit Guarantee System for Economic Diversification and Employment Project was conducted in accordance with the Asian Development Bank (ADB) Guidelines for the Economic Analysis of Projects.<sup>1</sup>

### A. Macroeconomic Context

2. Economic growth in Mongolia will slow down in 2015, reflecting fiscal and monetary tightening necessary to contain inflationary and balance of payments pressures. ADB's Asian Development Outlook for 2015 forecasts that gross domestic product (GDP) growth will be 3.0% in 2015, down from 7.8% in 2014.<sup>2</sup> Assuming a stable external environment and the resumption of major investment in mining in 2015, economic growth should recover to 5.0% in 2016. Consumer price inflation, which peaked in July 2014 at 14.9% year-on-year due to expansionary monetary and fiscal policies and currency depreciation, dropped to 9.3% in February 2015 as monetary policy was tightened. Inflation is expected to meet the central bank's policy target of 7.0% by the end of 2016. The government's immediate economic policy challenge is to tighten monetary and fiscal policy to address pressure on the balance of payments, while also safeguarding financial sector stability, debt sustainability, and the welfare of the population, especially citizens living under the poverty line. Nominal public debt to GDP, including the central bank's foreign liabilities, rose from 31.0% in 2010 to 77.4% in 2014, with the consolidated deficit peaking at 11.5% of GDP in 2014.<sup>3</sup> While some recent fiscal reforms are steps in the right direction, debt management needs to be strengthened, particularly by ensuring that borrowed funds are invested in a manner that increases the competitiveness of Mongolia's key economic sectors. It is also important to prepare for the repayment of significant liabilities in 2017–2018. Diversification of the economy remains a central challenge to ensure more consistent growth patterns and generate jobs, which the currently dominant and capital-intensive minerals sector is less apt than other sectors to do.<sup>4</sup>

### B. Sector Context

3. The small and medium-sized enterprise (SME) sector in Mongolia plays an important role in terms of employment, but its contribution to GDP remains low. Micro, small, and medium-sized enterprises make up 98% of all enterprises in the country, and 80% of all enterprises are micro businesses. According to the International Finance Corporation, this sector contributed about 25% of GDP and employed 52% of the workforce in 2014.<sup>5</sup> If SMEs are to fully deliver their potential boost to the economy, policy needs to change to create the right environment. The current legal and business environment is challenging. Of particular concern are issues related to establishing businesses, licensing operations, inspections, the payment of taxes, international trade, accessing finance, and current regulations on what happens when companies face financial difficulty and possible closure. It has been very costly and time-consuming to set up a business in Mongolia, and entrepreneurs have faced several regulatory obstacles before starting operations. The government's new e-registration and e-payment

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<sup>1</sup> ADB. 1997. *Guidelines for the Economic Analysis of Projects*. Manila.

<sup>2</sup> ADB. 2015. *Asian Development Outlook 2015: Financing Asia's Future Growth*. Manila.

<sup>3</sup> *Ibid.*

<sup>4</sup> ADB. 2015. *ADB President Commends Mongolian Efforts to Stabilize Economy*. 25 September 2015. <http://www.adb.org/news/adb-president-commends-mongolian-efforts-stabilize-economy>

<sup>5</sup> International Finance Corporation. 2014. *SMEs and Women-owned SMEs in Mongolia: Market Research Study*. Washington.

systems, set up in 2014, promises to make doing business easier. However, reforms are still needed to reduce the licenses and permits required and to bring the costs of obtaining them more into line with the expected business benefits.

4. Once in operation, SMEs are subject to inspections aimed at monitoring compliance with government public health, safety, and environment standards, as well as their payment of taxes. While generally needed, inspections disturb day-to-day SME operations. Inspections need to be more efficient and effective to ensure that public objectives are met with minimum disruption. Inspecting agencies need to be more transparent and accountable. Government reforms in 2006 reduced tax rates and broadened the tax base, but a progressive corporate income tax rate structure imposes high economic costs. While tariff and non-tariff barriers have been eased, administrative procedures for exporting and importing remain cumbersome. They prevent SMEs from taking advantage of foreign trade, important when the domestic market is small. Bankruptcy is currently one of the most common solutions Mongolia's SMEs pursue when they face financial difficulties or become insolvent. Yet businesses in distress may still be viable and simply need to restructure. Doing this can be facilitated by an efficient insolvency regime, but Mongolia has made no progress on reforming insolvency legislation providing virtually no room for reorganizing distressed but viable enterprises.

### **C. Demand Analysis<sup>6</sup>**

5. According to a survey of SMEs carried out in 2015 during project due diligence, 86% of SMEs reported that they would need external finance in the next 3 years.<sup>7</sup> About 74% of SMEs surveyed would seek loans from banks or other financial institutions. Only 6% would look for loans from owners, family, or friends, and this percentage declined as the firms grew in size—for example, 7.5% of micro businesses but only 3.0% of medium-sized firms. One of the most burdensome obstacles SMEs face accessing finance is their lack of collateral.<sup>8</sup> This is a particularly serious barrier for rural SMEs which are less likely than urban ones to have the real estate holdings. Survey results showed that 20% of SMEs in rural areas were not currently using any financial resources, compared with 12% of urban SMEs. About 20% of urban and 22% of rural SMEs see poor access to finance as the main barrier to their business development and subsequently, to creating new jobs. The lack of finance often forces them to reduce their business activities. High interest rates and insufficient collateral are two main problems SMEs confront in obtaining bank loans. SMEs operated by women are especially affected which may be due to a number of factors but mainly that SMEs run by women are typically characterized by banks as having insufficient assets and low capitalization. They are considered more risky when compared to SMEs run by men that tend to have larger business operations and more assets.<sup>9</sup> Investment in equipment and machinery is a common purpose for SMEs looking for new loans, especially in rural areas. These types of investments require longer-term loans, but banks have only a limited ability to provide long-term loans.

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<sup>6</sup> Data for the supply and demand analysis were obtained from Government of Mongolia, National Statistical Office of Mongolia. 2013. *Mongolian Statistical Yearbook 2013*. Ulaanbaatar.

<sup>7</sup> The survey during 12–21 June 2015 involved 755 SMEs from across Mongolia. A representative sample was chosen from each province (known as aimag in Mongolia), and total respondents amounted to 1.4% of all SMEs in the country. All sectors except mining were surveyed. Of the SMEs that participated, 66.1% were in the manufacturing sector, 10.7% in services, 9.0% in agriculture, 4.3% in construction, 4.3% in wholesale and retail trade, 2.4% in transport, and 3.1% in other areas.

<sup>8</sup> Mongolia's banks generally accept only real estate as collateral, because a moveable assets registry does not exist. SMEs.

<sup>9</sup> IFC. 2014. *SMEs and Women-owned SMEs in Mongolia: Market Research Study*. Washington D.C.

## D. Economic Rationale

6. The project will give SMEs significantly greater access to financial resources and thereby help spur the development of these businesses in urban and rural areas. The project will also enhance the capacity of SMEs, which will help them increase the volume, quality, and competitiveness of their products and services. Their employees will benefit indirectly through a higher and more stable flow of income. By 2021, the project will give SMEs that previously could not access external financing due to a lack of recognized collateral the chance to obtain bank loans, enabling them to build the credit history that will be important to meeting their future financing needs. Loans with longer tenures than previously available will allow SMEs to invest in machinery and equipment that will expand their business and increase production efficiency.

7. The analysis examined the economic benefits related to the intended project impact and outcome. An indirect project impact will be greater contribution by SMEs to economic diversification by business development, job creation, and self-employment opportunities. This is in line with the government SME development program for 2014–2016.<sup>10</sup> Because SMEs lack collateral that is acceptable to banks or access to long-term loans, they cannot finance expansion or capital investment. Both activities would allow business to grow and expand employment or ensure greater job stability and higher wages for employees. They would also give SMEs a stronger financial foundation to better withstand the volatile, commodity-driven business cycles in Mongolia. Due to tight bank liquidity conditions, they lend primarily for terms of less than 1 year. The need for longer-term financing is not being met. The funding and capital constraints on SMEs not only hold back their growth but also jeopardize their viability. Because foreign currency interest rates are lower than those for local currency lending and it helps banks' balance their open foreign currency positions, banks often issue loans to SMEs in US dollar even though SMEs lack the ability to generate foreign currency for repayment. The Mongolian National Chamber of Commerce and Industry reported in 2014 that bankruptcies were rising among SMEs needing to service loans in US dollars.

## E. Cost-Benefit and Sensitivity Analysis

8. The key economic benefit will be job creation. The analysis took the value of new job creation to be the difference between the average wage<sup>11</sup> across Mongolia and the national subsistence income level<sup>12</sup> on an annual basis.<sup>13</sup> It assumed that most of the individuals who fill new jobs in SMEs are not fully unemployed but tend to work in the informal sector. When a new SME job is filled by an individual who has been employed elsewhere, a job vacancy will be

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<sup>10</sup> The Ministry of Industry is in charge of SME development in Mongolia and of the government's program to develop SMEs during 2014-2016. The main goal of this program is to enhance the competitiveness of SMEs and increase employment. Its six key objectives are (i) enhancement of the legal environment to fill gaps and remove barriers; (ii) cluster development to boost industry; (iii) research refinement and innovation development; (iv) capacity building for SMEs to increase competitiveness; (v) an increase in SMEs' resources and access to financing; and (vi) support for market development through more goods of better quality. No official publication is available but the SME Development Program is referenced at Mongolian National Chamber of Commerce: *MNCCI participates in Ministry of Labour donor coordination meeting* <http://www.mongolchamber.mn/en/index.php/news/250-2013-12-10-123903> (accessed 7th September 2015) and Info Mongolia: *The SME Development Program was introduced to donor organizations in Mongolia* <http://www.infomongolia.com/ct/ci/7085> (accessed 7th September 2015).

<sup>11</sup> MNT851,000 monthly net of taxes, as of January 2015.

<sup>12</sup> MNT168,380 monthly, as of January 2015.

<sup>13</sup> Applying conversion factors and adjusting for skilled and unskilled labor results in MNT639,926 of economic benefit per job per month. Based on the SME survey data prepared as part of due diligence in June 2015, the analysis estimated that 63.5% of jobs will be skilled.

created at the previous place of employment and so the benefit will remain. The net job creation benefit was calculated in annual terms over only 7 years even though the job may last longer or indefinitely. The benefit was estimated conservatively over only the estimated tenor of an SME subloan that will be obtained for investment purposes and support job creation. To determine the number of jobs that will be created, the analysis estimated the volume of new guarantees that CGFM will issue. Demand was assumed to be on an equal basis over the first 5 years of the loan, with \$6 million being drawn semiannually. After funds are fully drawn down, they will be recycled to support new subloans. The analysis doubled the average size of previous loans supported by the CGFM, because the project aims to make new subloans available for capital investment and business expansion. As loan funds are recycled, new guarantees will be issued, which in turn will enable SMEs to create jobs. For conversion factors, 1.00 is used as the shadow wage rate factor for skilled labor and 0.70 for unskilled labor.<sup>14</sup>

9. The base case analysis (i) put the average SME subloan tenor at 7 years; (ii) valued economic benefits and costs in domestic prices and local currency; (iii) excluded taxes and financing from economic costs; (iv) put the economic opportunity cost of capital at 12% per annum; (v) assumed that new jobs will be created by SMEs at the same rate reported by the CGFM for guarantees issued through May 2015;<sup>15</sup> (vi) calculated job creation benefits for only the average subloan tenor period of 7 years; (vii) presumed that ADB loan funds will be recycled at least 3.6 times by maturity; (viii) assumed a steady, even drawdown of ADB loan funds during 2016–2020; and (ix) estimated the average subloan size at MNT156 million, or twice that of the current average loan guaranteed by the CGFM to reflect the larger loans that will be needed for the investments by SMEs that the project seeks to support. This analysis resulted in a base case employment creation estimate of 13,200 jobs over the life of the ADB project loan.

**Table 1: Net Present Value of Incremental Costs and Benefits**

Year of Issue for Guaranteed Subloans to SMEs	Cost (Funding)	Benefits	Net Benefits	Project ENPV	Project EIRR (%)
		(Net New Wages) (MNT million)			
2016	(35,100)	29,565	(5,535)	2,540	21.1
2017	(35,100)	39,419	4,319		
2018	(35,100)	39,419	4,319		
2019	(35,100)	39,419	4,319		
2020	(35,100)	39,419	4,319		
2021		39,419	42,074		
2022		39,419	42,074		
2023		39,419	42,074		
2024		39,419	42,074		
2025		39,419	42,074		
2026		39,419	42,074		
2027		39,419	42,074		
2028		39,419	42,074		
2029		39,419	42,074		
2030		39,419	42,074		
2031		39,419	42,074		

<sup>14</sup> The wage rate factors were from ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Mongolia for Skills for Employment Project*. Manila.

<sup>15</sup> As of 30 June 2015, CGFM has issued 364 guarantees for MNT 24.4 billion supporting approximately MNT 59.7 billion of gross loans with an average 43 month tenor and creating 1,210 new jobs or an average of 3.3 jobs per guarantee.

Year of Issue for Guaranteed Subloans to	Cost (Funding)	Benefits (Net New Wages)	Net Benefits	Project ENPV	Project EIRR
2032		39,419	42,074		
2033		39,419	42,074		
2034		9,855	9,855		

EIRR = economic internal rate of return, ENPV = economic net present value, SMEs = small and medium-sized enterprises.

Source: Asian Development Bank estimates.

10. The project is economically viable, since the estimated economic internal rate of return is 21.1%, which exceeds the economic opportunity cost of capital of 12%. Sensitivity analysis, using the switching value technique, examined the robustness of the base case economic internal rate of return and economic net present value under three different adverse scenarios: (i) a reduction in the estimate of the jobs to be created per guarantee issued; (ii) a reduction in the project's projected incremental wage gains; and (iii) a one-year delay in the projected start of the project-support CGFM guarantees. The first scenario reduced the job-creation-per-guarantee-issued base case estimate, which was based on the CGFM's experience since it began operations in 2012. During the fund's first year of operation, 3.0 jobs were created per guarantee issued. This rose to 3.3 jobs per guarantee as of May 2015. The scenario lowered the 2015 level by 20% to 2.8 jobs per guarantee issued. The second scenario reduced the base case estimated level of incremental wage gain—i.e., the difference between the average wage and the highest regional minimum subsistence income.<sup>16</sup> The scenario assumed that the new jobs will be filled by workers from the area with the highest subsistence income. Scenario three assumed that the CGFM would start issuing guarantees 1 year later than in the base case allowing extra time for the CGFM to create new guarantee products and enhance the marketing of its services before the project-funded guarantee operations start. This 1-year delay means that the initial drawdown on the ADB loan would occur in 2017 rather than 2016, and a final drawdown would occur one year later than initially planned. Under this scenario, the first guarantees would not be issued until the second quarter of 2017 and no jobs would be created in the first year of the project.

**Table 2: Sensitivity Analysis**

Scenario	Project ENPV (MNT million)	Project EIRR (%)
Base case	2,540	21.1
20% reduction in jobs created per guarantee	2,543	20.4
10% reduction in incremental wage gains	2,566	15.7
1-year delay in initial guarantee issuance and job creation	1,365	15.8

EIRR = economic internal rate of return, ENPV = economic net present value.

Source: Asian Development Bank estimates.

11. The sensitivity analysis confirmed the robustness of the project's economic viability. The sensitivity analysis indicated that the project would remain economically viable against the 20% reduction of jobs, 10% reduction in wage gain benefits, and a 1-year delay in the start of project-generated job creation.

<sup>16</sup> As of January 2015, the average monthly wage was MNT851,400. The average minimum subsistence income was MNT168,380, and the minimum subsistence income in Ulaanbaatar was the highest in the country at MNT185,400.