

**FOR
AGENDA**

SM/08/153
Correction 1

June 3, 2008

To: Members of the Executive Board
From: The Secretary
Subject: **Mongolia—Selected Issues and Statistical Appendix**

The attached corrections to SM/08/153 (5/19/08) have been provided by the staff:

Factual Errors Not Affecting the Presentation of Staff's Analysis or Views

Page 5, para. 5, third bullet, last line: for “cannot exceed” read “can be reduced to”

Page 8, first table “Modeling Assumptions”, second column, rows 5, 7, 9, 10: data revised.
second table “Cashflow and GOM Revenue”, columns 3–5, rows 5–7: data revised.

Page 10, para. 13, penultimate line: for “US\$4,000” read “US\$4,009”

Page 11, top table, footnote 9, second line: for “cannot exceed” read “can be reduced to”

Page 31, para. 49, line 2: for “50” read “39”
line 3: for “73” read “61½”
line 5: for “47” read “38”

Page 33, para. 52, line 10: for “2005” read “2006”

Page 50, Table 4, columns 2002–2005, rows 1–17: data revised.

Page 60, Table 14, columns 13–16 (Apr. to Jul.): removed.
column 17 (Aug.), rows 1–13: revised.

Page 90, Table 44: footnote 1 added.

Questions may be referred to Mr. Kronenberg (ext. 39941) and Mr. Feridhanusetyawan (ext. 35690) in APD.

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4. **This paper illustrates the impact of a fiscal regime on the composition, the share and the sensitivity of government revenue from a copper/gold mining project.** The analysis is based on the development of a copper and gold mine with characteristics broadly similar to the OT project under the minerals tax regime in place at the end of 2007 (Open Society Forum, 2007). The results indicate that, while the overall tax burden is reasonable under general circumstances, the marginal burden for the copper and gold mining sectors appears to be high by international standards, particularly, if minerals prices remain above the thresholds for the windfall profit tax. The paper also suggests that the resource rent tax could be a better alternative to the windfall profit tax and state equity participation. The rest of the paper is organized as follows. Section B provides an analysis on the current fiscal regime for Mongolia's mining sector. It also discusses the expected budget revenue from the project under the current tax regime, the mineral price sensitivity of the revenue, and the effectiveness of the current regime in terms of the progressiveness. Section C compares the current fiscal regime in Mongolia with one in other major copper producers and proposes alternative regimes for Mongolia. The last section concludes.

B. Modeling the Fiscal Regime for a Copper/Gold Mine

The Fiscal Regime for the Mining Sector

5. **The current fiscal regime for the mining sector is governed by the Minerals Law and various tax laws.** The direct taxes under the regime include a royalty, a corporate income tax (CIT), withholding taxes (WT), and the windfall profit tax (WPT), which applies to copper and gold sales. There are also certain fees, including exploration and mining license fees, but these are of less importance. The indirect taxes applicable to the mining sector include import duties and value-added tax (VAT). The specific tax rules under the regime are as follows:

- **Royalty.** The Minerals Law sets the royalty rate for all metals at 5 percent of the sales value. A 2½ percent royalty rate applies to coal and other common minerals sold in the domestic market or used for power generation.
- **Corporate Income Tax.** The CIT is levied at a rate of 10 percent on the first Tog 3 billion of taxable income (about US\$2.6 million at the current exchange rate) and 25 percent on the excess over the threshold. The CIT law also includes a loss carry-forward provision, under which operating losses can be carried forward two years. The amount of the loss that can be deducted against taxable income in each of two succeeding years cannot exceed 50 percent of that year's taxable income.
- **Withholding Tax.** The Mongolian CIT law imposes a 20 percent WT on certain payments to nonresidents, including dividends, royalty, loan interest, leasing interest, and income from management expenses. However, this tax rate can be reduced by treaty; for example, the tax treaty with Canada provides that the WT on dividends paid to a Canadian company can be reduced to 5 percent.

- **Windfall Profit Tax.** The WPT was introduced in June 2006 to capture a higher share of the revenues accruing to copper and gold mining companies from high export prices. The tax, which is modeled after the Russian oil export tax, is imposed on sales of gold and copper ore/concentrate extracted in Mongolia.³ For copper concentrate, the tax is levied at a rate of 68 percent on the difference between actual copper prices in the London Metal Exchange and the sum of a base price (set at US\$2,600 per ton) and smelting costs (estimated to be US\$1,580 per metric ton in 2006). For gold, the same rate applies to the difference between the Bank of Mongolia's gold price and the base price (set at US\$500 per ounce of gold).⁴ The WPT is deductible for purposes of the regular income tax, and the base prices are not indexed.
- **Import Duties.** Mongolia has a single import duty rate of 5 percent. However, the customs law provides a number of exemptions, including an exemption for technological equipment and heavy machinery imported by foreign investors for use in priority sectors and export-oriented industries. The mining sector can benefit from this provision.
- **Value-Added Tax.** The current VAT law became effective from January 1, 2007, which reduced the VAT rate from 15 to 10 percent and eliminated a number of exemptions, including the exemption for capital goods imports for use in export-oriented industries. The mining sector is now treated for VAT purposes on par with other importers. As mining companies in Mongolia export most of their output and exports are zero-rated, they are in a VAT refund situation.

6. **The Minerals Law allows for state equity participation in commercial mining projects and stability agreements between mining license holders and the government of Mongolia (GOM).** The law provides that the GOM may take up to a 50 percent equity interest in a project that was identified through state funds, and up to a 34 percent equity participation in other projects.⁵ From the legislation, however, it is not clear whether and how the GOM should compensate mining license holders for its equity acquisition. The Minerals Law also allows mining companies to enter into an Investment Agreement with the GOM to ensure a stable operational environment, when their investment during the first 5 years

³ Currently, all WPT on copper is collected from the Erdenet copper mine, which produces only copper concentrate. The Mongolian government owns 51 percent of the company, and the Russian government owns the rest. In contrast, WPTs on gold are mostly collected from several small gold mines, which accounted for about 4-5 percent of the total WPT revenue in 2006. The largest gold mine—Boroo—is exempted, as it is covered by a stability agreement with the government made under the 1997 Minerals Law.

⁴ The *WEO* price projections for 2008, available in March 2008, are US\$7,000 per ton of copper and US\$960 per ounce of gold.

⁵ The rules for the state equity participation are currently under review in Parliament, and the ceiling for the state equity share would likely be lifted.

exceeds US\$50 million. The duration of the stability agreement depends on the amount of the initial investment, with the maximum of 30 years.

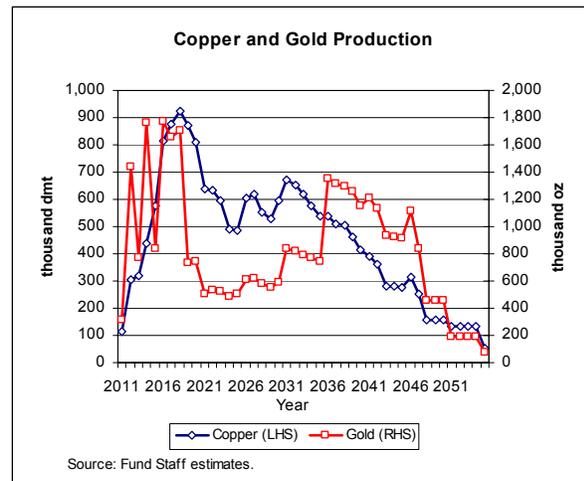
7. Tax rules for cost recovery, which are important factors to determine the attractiveness of the fiscal regime, are stipulated in the Minerals Law and CIT Law.

The Minerals Law provides that all costs incurred for exploration and mine development shall be amortized on a straight-line basis over the terms of mining license (for license fees) or 5 years beginning in the year production starts (for other exploration and development costs). Under the CIT law, most assets acquired as the result of incurring capital expenditure will be considered depreciable properties, and the cost of depreciable assets is recovered on the straight-line basis over their useful lives set by the law. To limit excessive use of debt (i.e., thin capitalization), the CIT law denies a deduction of interest expense on debt in excess of a 3:1 debt/equity ratio.

The Copper/Gold Mining Project

8. The project simulated in this paper is assumed to produce total 20½ million dry metric tons (dmt) of copper and 37 million ounces of gold over 45 years of the projected mine life. Assuming the mine development starts in 2008, copper and gold will come on

stream from 2011. Annual copper production will reach the peak at 924 thousand dmt in 2018 and then gradually decline thereafter. Annual gold production will reach the peak at 1,768 thousand oz. of gold in 2016 and then remain low until it bounces back in 2036. The total exploration and investment costs over the mine life are estimated to be US\$7.7 billion.⁶ The financing need to cover initial investment and operating losses, before net cash flow of the project turns positive, is estimated to be US\$2.7 billion.



9. The base case simulation uses the *World Economic Outlook (WEO)* copper and gold price projections until the last year of *WEO* projection (2013), and then assumes constant prices in real terms thereafter.⁷ The average prices over the mine life are assumed to be US\$3,084 per dmt of copper and US\$940 per oz. of gold. The average treatment and refinement costs (TC/RC) are estimated at US\$138 per dmt of concentrate, and the average

⁶ Throughout the paper, US\$ refers to constant 2007 U.S. dollars, unless otherwise indicated.

⁷ *WEO* price projections published in March 2008 are used throughout the paper.

operating costs excluding depreciation are estimated at US\$261 per dmt of concentrate. These costs are assumed to be independent of copper and gold prices.

Modeling Assumptions		
Total production of concentrate	66.4	million dmt
Total copper content in concentrate	20.5	million dmt
Total gold content in concentrate	36.9	million oz
Average price of		
Copper	3,084	constant US\$ per ton of copper
Gold	940	constant US\$ per oz of gold
Treatment and refinement costs	138	constant US\$ per ton of concentrate
Operating costs including depreciation	261	constant US\$ per ton of concentrate
Years of initial development	3	years
Years before positive cashflow	4	years
<i>Over which:</i> total financing required	2.8	billion constant US\$
Sources: Mongolian authorities; and <i>IMF World Economic Outlook</i> .		

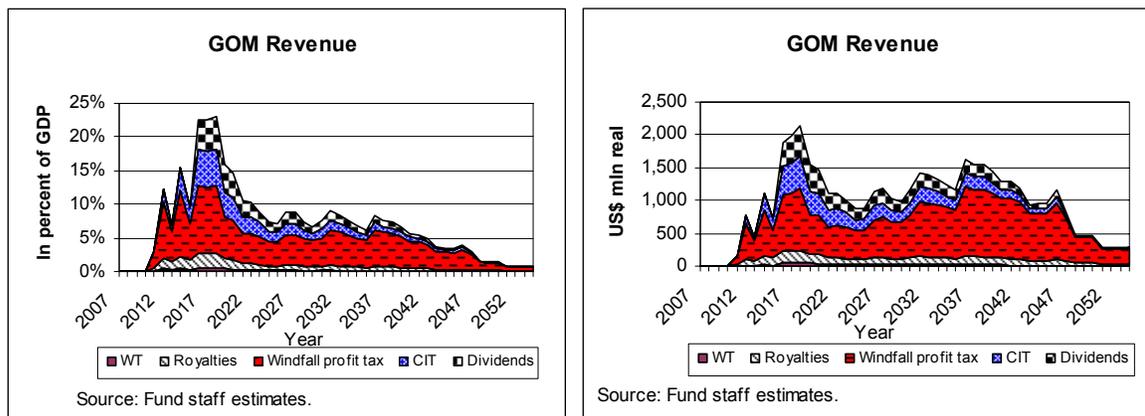
Project Cash Flow and Government Revenue

10. The simulation indicates that net cash flow amounts to US\$60 billion, from which the GOM receives US\$47 billion.⁸ The project appears to be very profitable as the post-tax internal rate of return (IRR) stands at 21 percent. Discounted at 10 percent per year, the net present value (NPV10) of the project is estimated to be US\$9.7 billion, of which the GOM's share amounts at US\$8.1 billion. The GOM is estimated to receive 60 percent of "total benefits", which is twice as much as the 2007 nominal GDP (US\$3.9 billion).⁹

Cashflow and GOM Revenue				
Pre-tax IRR (in percent)	real	33		
Post-tax IRR (in percent)	real	21		
Discount rates (in percent)		0	5	10
Project's NPV	US\$ mln	59,632	21,702	9,723
Lender's NPV	US\$ mln	775	172	-187
Investors' NPV	US\$ mln	12,075	4,454	1,790
GOM NPV	US\$ mln	46,781	17,076	8,120
Total benefits	US\$ mln	67,373	26,690	13,547
		(in percent)		
GOM share in total benefits (in percent)	real	69	64	60
<i>Of which:</i> WPT				31
CIT				12
Dividends				9
Royalties				6
Source: Fund Staff estimates.				

⁸ The model assumes that the GOM will take a 34 percent equity interest at the beginning of the project development, and it will be responsible for a third of future equity financing if it wants to keep the same share. The model makes an additional assumption on the government cash contribution: private partner(s) finances the GOM's cash requirements, and the GOM pays for its equity (plus interest on the carry) out of its share of dividends. The interest rate of LIBOR+3.3 percent applies to the debt. If the project never earns sufficient profits for the GOM to pay for its carried interest, the GOM would not be liable for the unpaid debt (nonrecourse loan).

11. **The annual GOM revenue from the mine is estimated to reach its peak at 23 percent of GDP in 2018 (US\$2.15 billion) and decline thereafter.** The analysis also shows that the WPT revenue is the largest contributor to the GOM revenue, followed by CIT, dividends and royalties (in that order). While the WPT was introduced to capture windfall profits accruing to copper and gold mining companies from high export prices, it has several weaknesses as an additional revenue sharing measure (see Section C, for details). In particular, the unindexed base prices for deduction (US\$2,600 per dmt of copper and US\$500 per oz. of gold) could arbitrarily increase tax burdens in an inflationary situation, unable to allow for reasonable returns for investment or cost recovery.¹⁰



Progressiveness of the Current Fiscal Regime

12. **The project appears to generate significant economic returns for both GOM and investors under reasonable price assumptions.** To assess the sensitivity of the projected IRR, a conventional measure of the profitability of a business plan, we show the GOM's shares in total benefits discounted at 10 percent (TB10) and the IRRs of the project under different copper price assumptions.¹¹ The post-tax IRR would reach 20 percent, which is often thought as a threshold for a reasonable return in the mining sector, with the average copper price of US\$2,775 per ton (US\$1.26 per pound) and the average gold price of US\$940 per ounce. However, the post-tax IRR does not increase as fast as either copper prices or pre-tax IRR, due to the progressiveness of the tax regime currently in place.

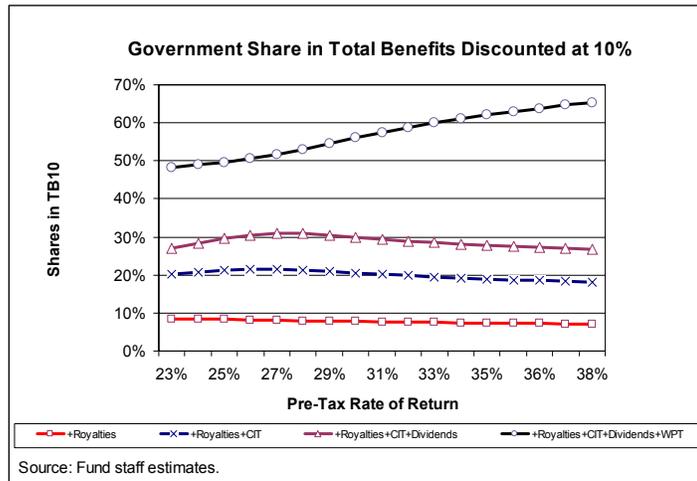
⁹ Total benefits are conventionally defined as gross revenues less operating costs and replacement expenditures, which signify the amount available to pay taxes, service debt and reward investors. Due to data unavailability, however, total benefits are defined in this study as gross revenues minus operating costs.

¹⁰ This is the main reason why the WPT share in total GOM revenue increases over time in the model.

¹¹ There are various factors that could affect pre-tax IRRs, including investment and operating costs. In this paper, we consider price-induced profitability changes only.

Copper price (US\$/ton)	1,850	2,159	2,467	2,775	3,084	3,392	3,701	4,009	4,317
Pre-tax IRR (in percent)	25	27	29	31	33	35	36	38	39
Post-tax IRR (in percent)	16	18	19	20	21	22	22	23	24
GOM share (in percent)	50	52	54	57	60	62	64	65	67

13. **This analysis shows that the current fiscal regime for Mongolia’s mining sector is progressive, due mostly to the WPT.** Royalties, import duties and WT for dividends and interest earnings are regressive (“+Royalties” in the graph). While the addition of CIT and dividend revenues make the system progressive until the pre-tax IRR reaches 28 percent (copper price, US\$2,313), these revenues are regressive in a wider range of IRRs, mostly because highly progressive WPTs are treated as a deduction in calculation of CIT and dividends.¹² Overall, the total GOM share in TB10 increases from 50 percent when copper price is US\$1850, (pre-tax IRR is 25 percent) to 65 percent when copper price is US\$4,009 (pre-tax IRR is 38 percent).



C. International Comparisons and an Alternative Tax Regime

International Comparisons of the Fiscal Regime

14. **The general tax regime for Mongolia’s mining sector, which does not include special provisions on the WPT, appears to be reasonable.** While Mongolia’s 5 percent royalty rate for minerals is somewhat high by international standards, the tax burden is broadly in line with those in other countries (Marginal Effective Tax Rate (METR) without WPT is 32.3 percent), given the 25 percent income tax with liberal capital cost recovery. However, the WPT could increase the marginal tax rate on the additional income from a dollar increase in copper and gold prices substantially (to around 81 percent), in particular, with the relatively low base price for the WPT (fixed in nominal terms at US\$2,600 per dmt).¹³

¹² As prices rise beyond a certain level, the WPT payment erodes the bases for CIT and dividends payable to the GOM.

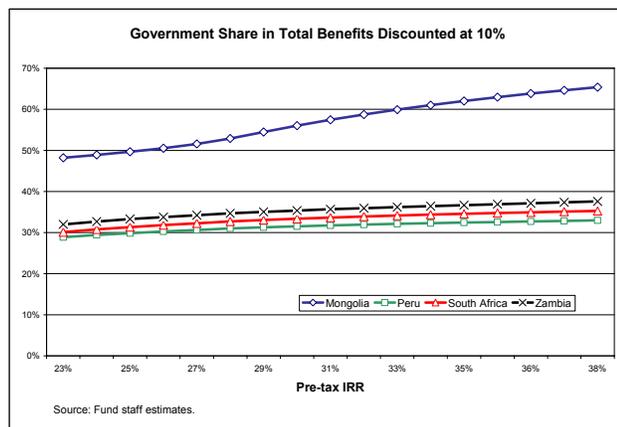
¹³ The government’s desire to take an equity position in projects would also reduce the competitiveness of Mongolia’s fiscal regime, while its effect is difficult to quantify.

International Comparisons: Marginal Effective Tax Rate (METR)					
	Mongolia	Peru	South Africa	Zambia 1/	Australia
	In percent				
Royalty	5.0	3.0 2/	2.0 3/	3.0	2.5 4/
WPT	68.0	8.0 5/	0.0	50.0 6/	0
CIT	25.0	32.0 7/	30.0 8/	30.0	0.3
Withholding Tax on Dividends (DWT)	5.0 9/	4.1	12.5	15.0	0
METR without WPT	32.3	36.9	...
METR	80.8	34.3	40.0	72.0	31.8

1/ Effective from April 2008.
2/ When annual revenue is larger than US\$120 million.
3/ Based on the Dec 2007 draft royalty bill.
4/ 2.5 percent for copper concentrate; and 5 percent for refined copper.
5/ An 8 percent workers' profit sharing, which enters the tax calculation as a deduction, but is not part of marginal tax burden.
6/ 25 percent when copper price is between US\$2.5 per pound (US\$5,510 per dmt) and US\$3.0 per pound; 50 percent for the next 50 cent; and 75 percent above US\$3.5 per pound.
7/ Taxpayers shielded by a stability agreement should pay a 2 percent fee in addition to a 30 percent CIT.
8/ Alternatively, variable income tax applies, where the tax rate depends on the ratio of taxable income to gross income.
9/ While the DWT rate is 20 percent, it can be reduced by treaty. The Canadian Tax Treaty provides that the withholding tax on dividends paid to a Canadian company can be reduced to 5 percent. The reduced rate would be applied to the OT mine, which will be developed by a Canadian company, Ivanhoe Mines Canada.

15. **While the government share (TB10) under the current regime is found to be higher and more progressive than the comparator regimes, a careful interpretation is warranted.** In the entire range of pre-tax IRRs considered, the government share in

Mongolia is higher, and it grows at a faster rate than in other countries as the profitability increases.¹⁴ However, it should be noted that these international comparisons are subject to a significant margin of error, given inherent difficulties in taking account of variations in mine quality, development and operating cost structure, and details of country-specific tax treatments, including



indirect taxes, cost recovery and exemption rules. In particular, the post-tax IRR, which indicates the financial attractiveness of a mine development project, is at a reasonable level despite the relatively high government share. Furthermore, the assessment made here is based on assumptions that cannot necessarily be extended to other mines and other minerals.¹⁵ In this regard, a market test for competitiveness—whether a country can attract interest of international mining companies for exploration and development of its mining sector—could provide more comprehensive view on the mining sector.

¹⁴ The average prices considered in this simulation range from US\$1,542 per dmt of copper to US\$4,009 per dmt. At this price range, Zambian WPT, which has relatively high trigger prices, would not be effective for most of period and price ranges under consideration.

¹⁵ The high government share in the analysis is mostly driven by state equity participation and the WPT, which applies exclusively to copper and gold sales.

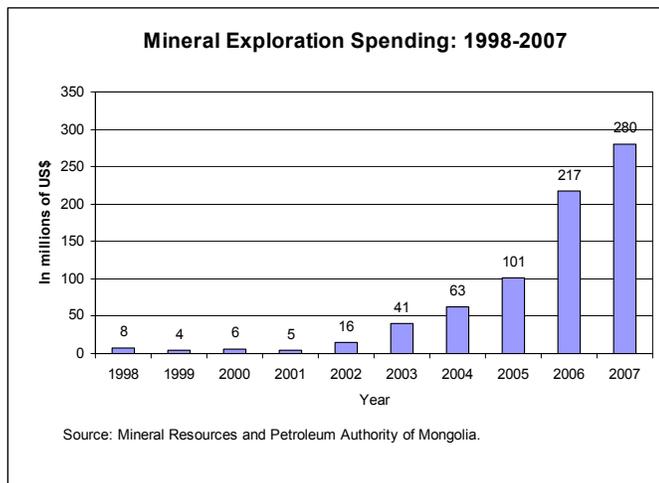
International Comparisons: Mining Sector Attractiveness Ranking						
	Year	Mongolia	Australia 1/	Chile	Peru	Zambia
Policy Potential Rank	2005-06	33/64	19/64	4/64	44/64	57/64
	2006-07	62/65	12/65	27/65	52/65	50/65
Mineral Potential Rank	2005-06	3/64	19/64	1/64	43/64	53/64
	2006-07	58/65	15/65	8/65	41/65	32/65

Source: Fraser Institute *Annual Survey of Mining Companies 2006/2007*.

1/ Average of 7 jurisdictions.

16. **The introduction of the WPT, the ongoing uncertainty over how the government will finance its equity stake in future mining projects, and questions about the stability of the mining regime over time have affected investors' perceptions about the attractiveness of the mining environment.** According to recent surveys by the Fraser Institute, the overall attractiveness of Mongolia's overall investment climate dropped from near the middle of the jurisdictions surveyed in 2005/06 to near the end of the list in 2006/07.¹⁶ The survey's ranking of Mongolia's attractiveness for minerals exploration dropped from near the front to near the back of the jurisdictions.¹⁷ Despite the concerns voiced by potential investors, however, actual mineral exploration spending has increased to US\$280 million in 2007.

17. **The attractiveness of Mongolia's mining sector could be enhanced with some modification to the current rules for the WPT and state equity participation.** While the recent changes in the fiscal regime raised concern about the stability and transparency of the business environment in Mongolia, the WPT also has several structural weaknesses as a revenue sharing



¹⁶ See Fraser Institute (2007). The survey covers 65 jurisdictions around the world, on every continent except Antarctica, including sub-national jurisdictions in Canada, Australia, and the United States. Indexes for Mongolia do not take into account the possibility that the 20 percent dividend WT can be reduced by treaty.

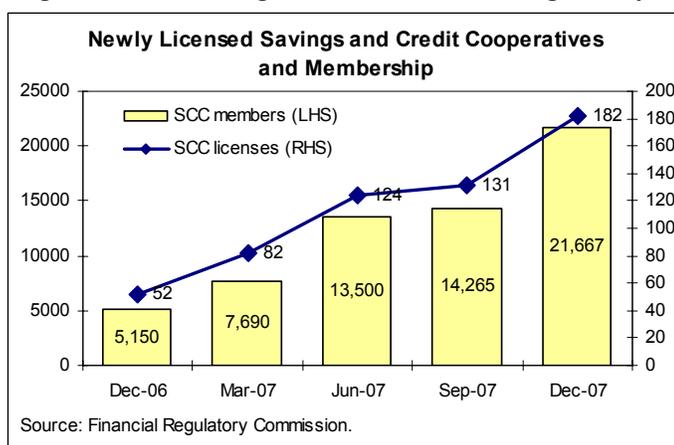
¹⁷ In particular, Mongolia is placed low in the areas of uncertainty concerning the administration, interpretation and enforcement of existing regulations; regulatory duplication and inconsistencies; tax regime; infrastructure; and socioeconomic agreements.

Losses of 29 failed SCCs	
Number of failed SCCs	29
Number of victims (depositors)	8,903
Estimated losses	Tog 67.9 billion
Loans outstanding	Tog 4.0 billion
Worth of sealed assets	Tog 43.0 billion
Source: Parliament Secretariat (2007).	

D. Post-Crisis Situation

48. **In light of a large number of SCC member complaints, the FRC has started fixing the regulations for SCCs and issuing new licenses to SCCs.** In the absence of appropriate legislation for SCCs, in 2006 the FRC issued a temporary regulation on licensing of SCCs. The FRC also issued various guidelines and regulations to meet its regulatory and supervisory duty and ensured that the entire process of SCC

licensing and setting up of a supervisory framework will be transparent and the views of stakeholders be sought. At end-2007, 182 SCCs with around 22,000 members were licensed, around 100 SCCs were waiting for approval of their applications, and another 50 SCCs had to resubmit their applications with updated information. About



600 SCCs that had been registered with the tax authority but did not apply for licensing by October 1, 2007, as required, and will be dissolved through court procedures in line with the Law on Enforcement of Selected Provisions of the Cooperative Law adopted in 2007.

49. **The newly licensed SCCs are predominantly small institutions, but one large SCC dominates the SCC sector with 39 percent of the sector's share capital and 61½ percent of its profits.** Half of the SCCs has 100–500 members and paid-in capital of less than Tog 100 million (US\$86,000). The sector's total assets doubled in 2007, reaching Tog 36 billion (0.8 percent of GDP) at end-2007. About 38 percent of total assets at end-2007 were cash and deposits placed with commercial banks. The loan portfolio constituted only half of total assets, way below the 70–80 percent threshold set forth by the FRC's prudential ratios. According to FRC data, the NPL ratio hovered at 6½ percent while loan loss provisions have been built accordingly. The return on equity stood at 29 percent whereas the return on assets recorded 5 percent.

Consolidated Balance Sheet of Savings and Credit Cooperatives as of December 2007			
(In millions of togrogs)			
Assets		Liabilities and Owners' Equity	
I. Current assets	34,082.30	I. Liabilities	28,269.30
Cash and deposits	13,600.20	Deposits	25,959.70
Loans	18,037.50	Short-term loans	386.8
Receivables	1,959.90	Other short-term liabilities	1,807.00
Other current assets	484.7	Long-term liabilities	115.8
II. Non-current assets	1,545.30	II. Owner's equity	7,358.20
Fixed assets	1,318.50	Share capital	6,513.60
Other non-current assets	226.8	Coop members' property	844.6
Total assets	35,627.60	Total liabilities and equity	35,627.50

Source: Financial Regulatory Commission.

50. **Amid growing public outcry, the government decided to bail out the depositors at 29 SCCs in April 2007.** While relentlessly demanding a bail-out, the depositors insisted that the government was responsible for the losses since it has not supervised the SCCs properly. After much political debate, Parliament approved the law granting the bail-out in August 2007. The loss compensation act provides that the state budget would pay for 50 percent of losses (estimated at Tog 68 billion or 1.5 percent of GDP) incurred to depositors of 29 failed SCCs under the condition that the budget funds would be reimbursed from proceeds of assets seized.³⁷ So far the court has issued its verdicts on 20 SCCs, and it appears that the value of the assets seized is far below the government's compensation of losses.

Savings and Credit Cooperative Loss Compensation	
(As of March 2008)	
Compensation law adopted	August 3, 2007
Compensation commenced	October 19, 2007
Total compensation due (pursuant to the law)	Tog 33.0 billion
Court decisions issued	20 SCCs
Total compensation due (pursuant to court decisions)	Tog 34.2 billion
Compensation paid out	Tog 22.7 billion
Cash and net worth of assets pending for recovery	Tog 1.7 billion

Source: Court Decision Execution Agency.

E. Concluding Remarks

51. **The SCC sector had grown rapidly in recent years without an appropriate supervisory and regulatory framework, which resulted in the failure of over 30 SCCs in 2005–06.** Before the creation of the FRC in early 2006, SCCs were largely unregulated and competed with the banking system for deposits by offering very high interest rates.

³⁷ During Parliament's consideration of the loss compensation law, five more SCCs went bankrupt. The law does not include these five SCCs' depositors for compensation.

Consequently, over 30 SCCs accounting for more than half of the sector's total assets failed in 2006. Despite its initial resistance, the government eventually decided to compensate depositors for 50 percent of their losses.

52. **Adequate resources need to be provided to the FRC for proper supervision of the nonbank financial sector, and the legal framework for the SCC sector needs to be strengthened.** Since its creation, despite the constraints the FRC has made good progress by undertaking several initiatives to improve the legal, regulatory, and supervisory environment for the nonbank sector. With the responsibility to oversee nearly 1,000 institutions, however, the FRC does not have enough resources, including experienced staff, and needs a substantial increase in resources, industry statistics, and training to substantially strengthen its institutional capacity. At the current stage of nonbank financial institutions' development, it will be important that the government provides adequate budgetary resources to support the FRC's operations. A law specific to SCCs, drafted in 2006 with ADB assistance, has not been passed yet. Before the passage of this law, it will be important to seek the SCC industry's views and reflect the FRC's experience since 2006 in supervising SCCs to ensure proper implementation. Better legal protections are also needed for supervisory staff of the FRC.

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Table 3. Mongolia: Gross Domestic Product by Sector at 2005 Constant Prices, 2002–07

	2002	2003	2004	2005	2006	2007 Est.
	(In millions of Togrog)					
Agriculture, hunting and forestry	446,532	474,495	549,349	608,229	654,054	757,245
Fisheries	38	48	89	106	94	95
Mining and quarrying	421,113	419,431	550,059	608,209	646,310	657,236
Manufacturing	113,202	131,549	126,675	101,963	115,585	152,962
Energy	74,743	76,649	79,588	80,021	83,635	86,273
Construction	35,177	54,515	50,914	58,835	61,828	75,682
Wholesale and retail trade	210,622	232,839	221,367	226,961	261,760	301,995
Hotels and restaurants	14,567	14,680	16,396	19,135	21,022	21,278
Transport, storage and communications	201,869	233,357	252,249	309,100	346,429	410,868
Financial intermediation	50,419	73,558	87,433	99,967	96,776	110,029
Real estate, renting and business activities	179,467	194,979	200,123	217,120	228,863	238,925
Public administration and defense	64,484	63,835	64,863	66,847	67,154	67,222
Education	105,402	99,509	89,654	84,916	88,686	90,922
Health and social services	37,601	36,784	36,980	37,966	41,515	42,276
Other community, social and personal services	23,207	24,574	27,319	28,323	30,027	33,479
Less: Indirect services of financial institutions	-43,176	-56,431	-69,654	-79,859	-109,673	-149,011
Goods and services net tax (indirect taxes)	254,052	268,302	308,187	311,738	383,360	419,022
Real Gross Domestic Product	2,189,320	2,342,674	2,591,593	2,779,578	3,017,426	3,316,499
Mineral real GDP	421,113	419,431	550,059	608,209	646,310	657,236
Nonmineral real GDP 1/	1,768,207	1,923,243	2,041,534	2,171,369	2,371,116	2,659,262
Agriculture, hunting, forestry, and fishery	446,569	474,543	549,437	608,335	654,148	757,340
Other	1,321,638	1,448,700	1,492,096	1,563,034	1,716,967	1,901,922
	(Annual percentage change)					
Memoranda items:						
Real GDP	4.7	7.0	10.6	7.3	8.6	9.9
Mineral GDP 2/	-5.6	-0.4	31.1	10.6	6.3	1.7
Nonmineral GDP 1/ 2/	7.5	8.8	6.2	6.4	9.2	12.2
Agriculture, hunting, forestry, and fishery	-10.1	6.3	15.8	10.7	7.5	15.8
Other	15.2	9.6	3.0	4.8	9.8	10.8

Sources: Data provided by the Mongolian authorities; and Fund staff estimates.

1/ Total GDP minus mineral GDP.

2/ Data in 2002-05 are slightly different from those in the Staff Report due to revisions received from the authorities in May 2008.

Table 4. Mongolia: Gross Domestic Product Deflator by Sector, 2002–07

	2002	2003	2004	2005	2006	2007 Est.
	Annual percentage change					
Agriculture, hunting and forestry	1.8	8.7	20.7	14.8	10.6	12.0
Fisheries	28.9	25.7	-41.5	30.0	18.3	1.0
Mining and quarrying	32.4	48.1	50.0	50.4	72.1	10.4
Manufacturing	-31.9	6.0	11.1	66.0	11.5	10.5
Energy	36.3	0.3	16.9	15.2	13.7	8.2
Construction	11.9	5.4	6.3	1.3	2.2	10.7
Wholesale and retail trade	-2.0	3.4	14.7	10.6	4.8	9.3
Hotels and restaurants	1.3	4.2	6.1	11.2	9.2	17.2
Transport, storage and communications	5.1	-3.6	10.4	3.9	-3.3	4.5
Financial intermediation	2.3	2.3	10.3	7.3	9.8	7.5
Real estate, renting and business activities	0.0	2.1	6.1	7.9	5.2	11.6
Public administration and defense	13.9	11.3	13.0	11.4	75.7	48.7
Education	8.4	22.2	9.8	36.2	36.6	42.8
Health and social services	5.4	15.4	28.4	11.1	30.3	46.5
Other community, social and personal services	1.6	6.9	10.5	5.1	17.2	11.2
Less: Indirect services of financial institutions	2.0	2.7	10.5	7.3	10.1	6.7
Goods and services net tax (indirect taxes)	-6.3	4.1	14.6	14.5	5.7	10.6
Total GDP	5.1	9.8	17.2	20.4	23.1	11.6
Mineral GDP	32.4	48.1	50.0	50.4	72.1	10.4
Nonmineral GDP 1/	1.2	5.3	14.1	14.3	9.8	13.4
Agriculture, hunting, forestry, and fishery	1.8	8.7	20.7	14.8	10.6	12.0
Other	0.2	4.3	12.2	14.1	9.4	13.9

Sources: Data provided by the Mongolian authorities; and Fund staff estimates.

1/ Total GDP minus mineral GDP.

Table 13. Mongolia: Ulaanbaatar Consumer Price Index (CPI), 2002–07

(December 2005 = 100)

	2002	2003	2004	2005	2006	2007
	(Period average)					
Overall index	77.5	81.5	88.2	99.5	104.5	114.0
Food and Non-alcoholic beverages	69.8	75.4	85.2	100.8	106.0	118.6
Alcoholic beverages, Tobacco	89.9	87.3	91.3	99.9	101.5	104.4
Clothing and Footwear	92.5	95.5	96.4	98.2	103.7	105.7
Housing, Water, Electricity, Gas, and Others	89.2	89.5	91.1	99.0	100.4	109.7
Furniture, Household equipment etc.	91.5	90.7	92.4	97.2	102.0	112.8
Health	82.3	88.3	91.8	97.0	106.7	130.4
Transport	80.0	82.3	87.7	97.6	109.8	119.2
Communications	65.7	66.2	77.1	99.5	90.0	79.8
Recreation and Culture	84.4	91.9	98.1	100.1	103.4	107.0
Education	70.8	77.7	85.5	93.5	104.3	119.6
Restaurant and Hotels	78.7	81.5	87.4	97.2	104.3	117.6
Miscellaneous Goods and Services	77.1	86.5	94.0	98.6	104.7	108.8
	(End of period)					
Overall index	78.6	82.3	91.4	100.0	106.0	122.0
Food and Non-alcoholic beverages	68.3	74.2	86.0	100.0	103.3	128.7
Alcoholic beverages, Tobacco	89.9	87.2	93.2	100.0	103.3	106.1
Clothing and Footwear	99.2	99.1	100.4	100.0	107.5	110.7
Housing, Water, Electricity, Gas, and Others	93.9	92.3	95.9	100.0	108.7	121.0
Furniture, Household equipment etc.	93.1	90.5	95.1	100.0	107.4	122.3
Health	85.8	90.0	93.3	100.0	123.6	141.1
Transport	81.9	84.4	94.2	100.0	112.1	124.0
Communications	66.2	66.2	94.7	100.0	86.6	77.3
Recreation and Culture	86.2	94.9	102.7	100.0	106.3	110.8
Education	73.8	83.1	88.9	100.0	110.3	132.5
Restaurant and Hotels	78.5	81.8	91.9	100.0	110.1	125.5
Miscellaneous Goods and Services	79.2	90.0	97.4	100.0	107.7	111.8
	(Percent change)					
Memoranda items: 1/						
Annual average	0.3	5.1	8.3	12.7	5.1	9.0
End of period	1.6	4.7	11.0	9.5	6.0	15.1

Source: Data provided by the National Statistical Office.

1/ The overall CPIs in 2002-05 are slightly different from those in the Staff Report due to changes in the consumption basket starting from December 2005.

Table 14. Mongolia: Ulaanbaatar Consumer Price Inflation, 2002-07
(12-month percentage change)

	2002		2003		2004		2005		2006		2007											
	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
Overall consumer price index (CPI) 1/	1.6	4.7	11.0	9.5	6.0	4.2	5.4	5.9	5.2	5.7	6.3	7.1	11.3	13.2	14.2	14.4	15.1	15.1	14.2	14.2	14.4	15.1
Food and Non-alcoholic beverages	-1.8	8.7	15.9	16.2	3.3	2.3	5.2	6.6	4.6	6.4	7.5	8.9	15.2	21.4	19.7	21.2	24.6	24.6	19.7	21.2	21.2	24.6
Alcoholic beverages, Tobacco	-0.8	-3.0	6.9	7.2	3.3	2.9	1.1	2.5	2.3	2.2	1.9	1.7	5.0	4.6	5.1	2.9	2.7	2.7	4.6	5.1	2.9	2.7
Clothing and Footwear	5.7	-0.1	1.3	-0.4	7.5	6.7	5.6	3.1	0.1	-1.3	-0.2	0.4	-0.3	1.3	2.7	2.3	3.0	3.0	1.3	2.7	2.3	3.0
Housing, Water, Electricity, Gas, and Others	4.8	-1.7	3.9	4.3	8.7	3.7	3.7	4.8	7.9	7.7	8.1	11.0	14.4	7.7	16.4	13.3	11.3	11.3	7.7	16.4	13.3	11.3
Furniture, Household equipment etc.	2.3	-2.8	5.1	5.2	7.4	7.3	8.1	7.5	10.1	9.6	9.1	9.7	11.1	14.2	13.8	12.5	13.9	13.9	14.2	13.8	12.5	13.9
Health	9.2	4.9	3.6	7.2	23.6	23.8	23.0	22.3	23.2	23.2	23.7	23.7	35.0	32.9	13.8	13.0	14.2	14.2	32.9	13.8	13.0	14.2
Transport	0.7	3.1	11.6	6.2	12.1	5.4	6.7	5.2	6.1	4.8	6.7	6.7	8.7	7.3	16.7	17.0	10.6	10.6	7.3	16.7	17.0	10.6
Communications	10.8	0.0	42.9	5.6	-13.4	-16.6	-17.3	-10.3	-9.4	-7.6	-6.7	-13.5	-10.8	-10.6	-10.3	-10.6	-10.7	-10.7	-10.6	-10.3	-10.6	-10.7
Recreation and Culture	1.8	10.0	8.2	-2.6	6.3	6.8	6.5	4.4	3.3	5.0	2.9	2.2	2.5	-0.2	1.0	2.8	4.2	4.2	-0.2	1.0	2.8	4.2
Education	6.7	12.5	6.9	12.5	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
Restaurant and Hotels	0.0	4.2	12.4	8.8	10.1	11.4	13.1	11.8	11.3	11.6	11.6	11.6	11.6	17.0	13.2	13.6	14.0	14.0	17.0	13.2	13.6	14.0
Miscellaneous Goods and Services	4.3	13.6	8.2	2.7	7.7	6.9	7.0	6.8	7.6	4.1	1.3	1.3	1.7	1.5	2.6	3.9	3.8	3.8	1.5	2.6	3.9	3.8

Source: Data provided by the National Statistical Office.

1/ The overall CPIs in 2002-05 are slightly different from those in the Staff Report due to changes in the consumption basket starting from December 2005.

Table 43. Mongolia: External Debt and Debt Service, 2002–07 1/

	2002	2003	2004	2005	2006	2007
(In millions of US dollars)						
External debt	978.1	1,237.0	1,352.4	1,305.6	1,420.3	1,535.4
Medium- and long-term	936.1	1,138.1	1,308.5	1,270.5	1,389.5	1,509.9
IMF	42.0	48.9	43.9	35.1	30.8	25.4
Short-term 2/	0.0	50.0	0.0	0.0	0.0	0.0
Debt service	32.0	284.0	91.4	42.8	57.0	51.6
Amortization	20.9	272.3	75.2	27.5	42.4	35.6
Interest	11.1	11.6	16.2	15.3	14.6	16.0
Medium- and long-term	24.2	275.2	32.5	36.7	52.6	45.3
Amortization	13.2	263.8	17.9	21.6	38.2	29.5
Interest	11.0	11.4	14.6	15.1	14.4	15.8
IMF	7.8	8.7	7.5	6.1	4.4	6.3
Repurchase/Repayments	7.7	8.5	7.3	5.9	4.2	6.1
Charges	0.1	0.2	0.2	0.2	0.2	0.1
Short-term 2/	0.0	0.0	51.3	0.0	0.0	0.0
(In percent)						
External debt/GDP	76.9	85.4	74.6	56.6	45.0	39.4
Medium- and long-term	73.6	78.6	72.2	55.1	44.0	38.8
IMF	3.3	3.4	2.4	1.5	1.0	0.7
Short-term 2/	0.0	3.5	0.0	0.0	0.0	0.0
External debt/exports of goods and services	138.0	148.0	111.7	88.0	69.9	60.8
Medium- and long-term	132.1	136.3	108.1	85.7	68.4	59.8
IMF	5.9	5.8	3.6	2.4	1.5	1.0
Short-term 2/	0.0	6.0	0.0	0.0	0.0	0.0
Debt-service ratio 3/	4.5	34.0	7.5	2.9	2.8	2.0
Amortization	2.9	32.6	6.2	1.9	2.1	1.4
Interest	1.6	1.4	1.3	1.0	0.7	0.6
Medium- and long-term	3.4	33.0	2.7	2.5	2.6	1.8
Amortization	1.9	31.6	1.5	1.5	1.9	1.2
Interest	1.6	1.4	1.2	1.0	0.7	0.6
IMF	1.1	1.0	0.6	0.4	0.2	0.2
Repurchase/repayments	1.1	1.0	0.6	0.4	0.2	0.2
Charges	0.0	0.0	0.0	0.0	0.0	0.0
Short-term 2/	0.0	0.0	4.2	0.0	0.0	0.0

Sources: Data provided by the Ministry of Finance; and Fund staff estimates.

1/ Public or publicly guaranteed debt.

2/ Includes treasury bill in US\$ to nonresident issued in relation to pre-1991 Russian debt settlement.

3/ In percent of exports of goods and services.

Table 44. Mongolia: External Debt Stock by Creditor, 2002–07 1/

(In millions of U.S. dollars, end of period)

	2002	2003	2004	2005	2006	2007
External Debt	978.1	1,237.0	1,352.4	1,305.6	1,420.3	1,535.4
Medium and long-term official (excluding IMF)	936.1	1,138.1	1,308.5	1,270.5	1,389.5	1,509.9
Multilateral (excluding IMF)	548.0	668.8	790.6	770.9	852.9	922.6
Asian Development Bank	366.1	439.1	498.6	485.9	539.3	575.3
World Bank	179.0	225.0	285.9	276.6	302.1	332.6
IFAD	2.9	4.7	6.2	8.4	11.5	14.7
Bilateral official	375.1	456.3	504.9	486.6	536.5	587.3
Paris Club	322.2	395.7	442.3	407.8	429.7	462.6
Japan	219.3	261.8	293.4	269.0	269.5	280.4
Russia	24.5	22.1	16.7	16.7	16.7	16.7
Germany	59.9	77.9	88.9	81.8	95.1	104.2
Finland	5.9	7.9	8.8	7.6	8.2	8.8
Norway	12.5	17.1	21.9	21.5	27.8	34.9
Spain	0.0	8.8	12.9	11.2	12.5	17.6
Non-Paris Club	52.9	60.6	62.6	78.8	106.8	124.7
China	15.0	15.0	15.0	15.4	28.7	30.9
Korea	24.5	30.2	31.7	31.9	33.5	37.0
Abu Dhabi	0.0	0.0	0.0	6.9	11.4	15.3
India	0.7	0.6	0.4	0.3	0.2	0.0
Kuwait	12.7	14.8	15.6	24.4	30.2	38.8
Poland	0.0	0.0	0.0	0.0	2.9	2.7
Treasury bill in US\$ to nonresidents	0.0	50.0	0.0	0.0	0.0	0.0
IMF	42.0	48.9	43.9	35.1	30.8	25.4
Commercial	13.0	13.0	13.0	13.0	0.0	0.0

Sources: Data provided by the Ministry of Finance; and Fund staff estimates.

1/ Public or publicly guaranteed debt.