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# Mongolia Economic Retrospective: 2008-2010



THE WORLD BANK



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# Mongolia Economic Retrospective: 2008-2010



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Washington, D.C.

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# Acronyms and Abbreviations

ADB	Asian Development Bank
bn	Billion
BoM	Bank of Mongolia
CPI	Consumer Price Index
FX	Foreign currency
GDP	Gross Domestic Product
LC	Local currency
LHS	Left hand side
MFA	Mongolian Financial Association
mn	Million
MNT	Mongolian togrog
MoF	Ministry of Finance
mom	month-on-month
mt	metric ton
NPL	Nonperforming loan
NSO	National Statistics Office
RHS	Right hand side
ozt	troy ounce
WPT	Windfall Profit Tax
oy	year-on-year
ytd	year-to-date

# Executive Summary

Mongolia was one of the East Asian economies hardest hit by the global downturn, as copper prices collapsed and external demand fell. With the recovery in economic activity currently well underway, but the policy challenges highlighted by the crisis yet to be fully addressed, this Economic Retrospective examines the key economic, financial, and policy developments from mid 2008 to April 2010.

Collapsing mineral prices and a steep drop in external demand due to the global downturn of 2008 and 2009 were the external shocks which were transmitted to Mongolia's economy. This shock exposed underlying weaknesses in the economic structure and policy environment. For example, entering the crisis, the country's fiscal position was highly reliant on mineral revenues. Policy did not allow for adequate savings during the boom, which saw large increases in unsustainable, inefficient, and populist expenditures. The banking sector was also overheating as loan growth boomed, outpacing deposits. Banks were highly exposed to sectors such as construction, which suffered badly during the downturn, and to adverse shocks to single creditors due to a concentrated loan book.

The proximate impact of the external shock was a sharp widening of the fiscal and current account deficits. Demand for local currency dropped and reserve losses were incurred in support of the de facto exchange rate, which depreciated sharply through early 2009. Confidence in the banking sector fell, when a major bank failed in late 2008 and local currency deposit outflows mounted.

In response to the crisis, in the second quarter of 2009, the government undertook strong actions on fiscal, monetary, exchange rate, and financial policies. They were made possible by strong political leadership and an effective bipartisan consensus. These actions were also supported by a rapid response from development partners in the form of budget and balance of payments support, and technical assistance. Significant progress in mining sector reform and development was also made during 2009 with the signing of the long-awaited Oyu Tolgoi (OT) Investment Agreement. Leading up to the signing of this agreement, a number of policy issues were clarified and some of the key disincentives to mining investment were removed.

The policy response of authorities, helped by improved external conditions, as commodity prices and Chinese import growth recovered, led to a rapid stabilization in the economic situation from mid-2009. Nonetheless, real GDP in 2009 fell by 1.6 percent after steady growth of 8.9 percent in 2008. The social impact of the crisis was evident through a sharp decline in real wages, particularly in the informal sector. Recent livestock losses due to the dzud have also placed further pressure on the livelihoods of the rural poor.

Looking forward, Mongolia's medium and long-term growth outlook is favorable, driven by the mining sector. However, there remain sizeable policy challenges going forward. In particular, continued fiscal prudence is necessary to successfully bridge the next few years prior to the rise in fiscal and export revenues from the OT project. Revenues will suffer from the expiration of the Windfall Profit Tax in 2011 and donor financing is set to decline. Other near-term challenges are to resolve the ongoing

solvency problems in the banking sector in a decisive and transparent manner in order to prepare the sector for the upturn in economic activity, investment, and capital inflows in the years ahead. The monetary and fiscal policy stances must also respond appropriately to rising inflationary pressures in order to avoid a repeat of the boom and bust cycle of recent years.

More generally, now is the time to put in place a strong policy framework to manage the upcoming mining boom and avoid the mistakes of the past. The looming mining boom brings the risks of “Dutch disease” effects and a return to the profligate populism of the past. Measures to address these risks include the recently adopted fiscal stability law that will help the country move away from the fiscal boom and bust cycles of the past; improvements to the budget process and the planning and management of public investments in order to more efficiently absorb the large projected increases in revenues; and appropriate policy frameworks to support future infrastructure investment. Implementing a targeted poverty benefit should also ensure the poor are protected from mining boom-and-busts in a fiscally sustainable manner. Finally, continued reforms in the mining sector will enhance incentives for new exploration and environmentally and socially sustainable development.



## CHAPTER 1

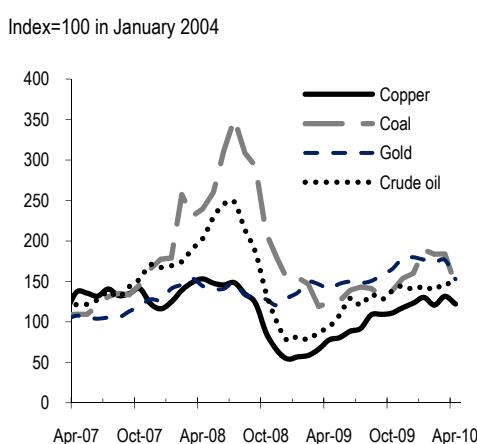
# The External Shock and Its Proximate Impact

### External Shock in 2008-09

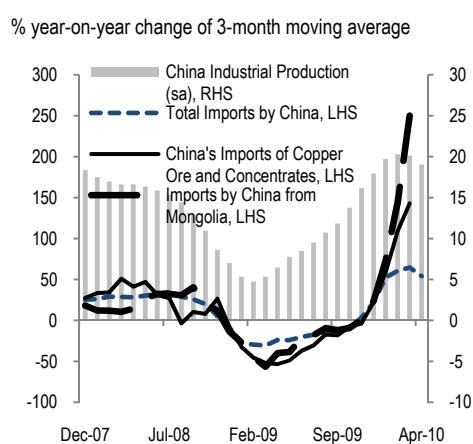
Mongolia was hit by a significant external shock in late 2008 and early 2009 as mineral prices collapsed and export demand fell with the global economic downturn. The price of copper, the country's main export, fell by as much as 65 percent from US\$8,700 per ton in April 2008 to US\$3,000 per ton in March 2009. Prices of other key export commodities—coal, zinc, cashmere, and crude oil—also fell significantly. Only the price of gold held up, because of its role as a safe-haven investment (Figure 1.1).

This external price shock was combined with an external demand shock resulting from the downturn in economic activity of Mongolia's major trading partners. For example, China's industrial production growth, which absorbs about 70 percent of Mongolia's exports, slowed from about 16 percent year-on-year in mid-2008 to 5 percent in the first quarter of 2009. Chinese import demand for copper and Mongolian goods generally fell sharply, reaching around 50 percent year-on-year (yo-y) in the first half of 2009 (Figure 1.2).

**Figure 1.1. Commodity Prices Collapsed in the Second Half of 2008...**



**Figure 1.2. ...And Demand in China, Mongolia's Largest Trading Partner, Dropped**



Source: LME, World Bank.

Source: Haver Analytics, World Bank.

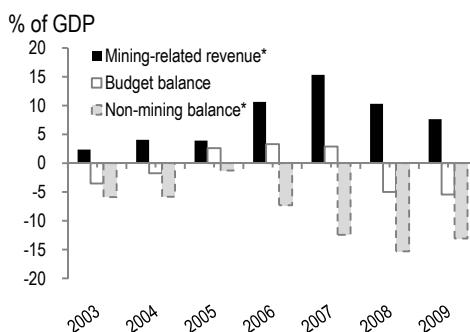
The fall in the copper price and sudden economic downturn exposed structural and economic policy weaknesses in Mongolia. As a result, as copper prices fell, the fiscal and current account deficits widened. Demand for local currency dropped and reserve losses were incurred in support of the domestic currency, which depreciated sharply through early 2009. Confidence in the overheating banking sector fell, with a major bank failing in late 2008, and deposits falling rapidly.

### **Sharp Deterioration in Fiscal Balances**

The copper price collapse resulted in a sharp deterioration in the fiscal balance due to the high reliance on mineral revenues and the failure to save during the boom. The government had run only modest fiscal surpluses during the boom years (2005-07), which were insufficient to absorb the fiscal shock caused by the collapse of the mineral prices. In addition, during the boom period, the government had shifted the fiscal burden away from the non-mining sector, leaving the budget increasingly dependent on mining revenues. At its peak in 2007 mining-related revenue contributed nearly 40 percent to total revenue or 15 percent of GDP. In addition, the central bank pursued a de facto peg of the local currency to the dollar, which resulted in direct transmission of the falling international copper price to tax revenues. The non-mining fiscal deficit increased dramatically from 7.3 percent of GDP in 2006 to a 15.3 percent deficit in 2008 (Figure 1.3).

Rising revenues during the boom period had fuelled unsustainable and inefficient expenditure trends which further intensified the fiscal pressures due to the crisis. Social transfers proliferated, becoming universalized during boom years. The most important social transfer program was the Child Money Program (CMP), which disbursed about MNT 140 billion per year (5.6 percent of fiscal spending in 2008). With volatile mining revenues accounting for roughly three quarters of CMP's financing; the main social safety net for the poor was dependent on fluctuating international copper price. Furthermore the CMP was not well-targeted, with extensive leakage of benefits to nonpoor households. Spending on wages, salaries, capital expenditures, and subsidies as a share of GDP also increased sharply in 2008 (Figure 1.4). However, as discussed in Chapter 5, many of the investment projects funded during the boom frequently lacked even basic feasibility studies. Years of extremely poor public investment planning had also resulted in poor operational efficiency of new investments. Meanwhile, gross underspending on capital maintenance had led to disrepair in the energy and roads sectors.

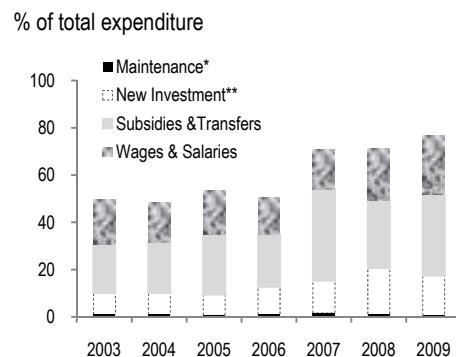
**Figure 1.3. The Fiscal Balance Moved into Deficit in 2008 with the Non-Mining Deficit Rising in the Boom**



Source: Ministry of Finance, World Bank.

Note: Central/state and local budget, MDF, and social security fund. \* Corporate income tax and dividends from mining companies, the WPT, and royalties.

**Figure 1.4. Rising Share of Expenditures on Subsidies and Transfers Followed by Boom in Investment**



Source: Ministry of Finance and World Bank.

Note: \* Maintenance defined as Capital Repairs (in budget); probably underestimates actual capital repairs, as part is included in other items. \*\* New investment defined as Domestic Investment only.

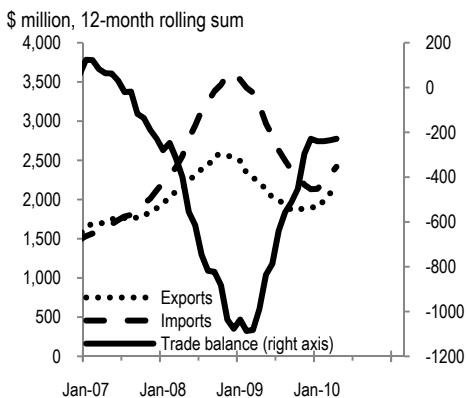
## Current Account, Surplus to Deficit

The current account balance swung from surplus to deficit. Due to the fall in commodity prices and export values, the trade balance deteriorated markedly through late 2008 and early 2009 (Figure 1.5). The value of exports fell with international commodity prices, more than outstripping moderation in the rate of growth of imports. As a result the current account balance moved from a surplus of 6.7 percent of GDP in 2007 to a deficit of 14 percent in 2008 climbing to over 15 percent in the first two quarters of 2009 (Figure 1.6).

## Substantial Reserve Losses

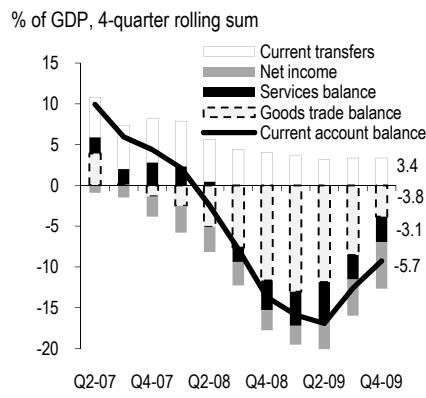
With demand for local currency falling in late 2008 and early 2009, substantial reserve losses were incurred in support of the currency. Currency flight during the crisis period was further aggravated by the Bank of Mongolia's (BoM) attempt to hold on to its de facto currency peg to the U.S. dollar. This was in contrast to other major commodity exporters that let their currencies freely depreciate as a first defense mechanism against falling international commodity prices. In the process, the BoM lost US\$500 million of international reserves between July 2008 and February 2009. The currency depreciated anyway, by about 38 percent between the end of October and the middle of March 2009 (Figures 1.7 and 1.8).

**Figure 1.5. The Trade Balance Worsened Markedly in Late 2008**



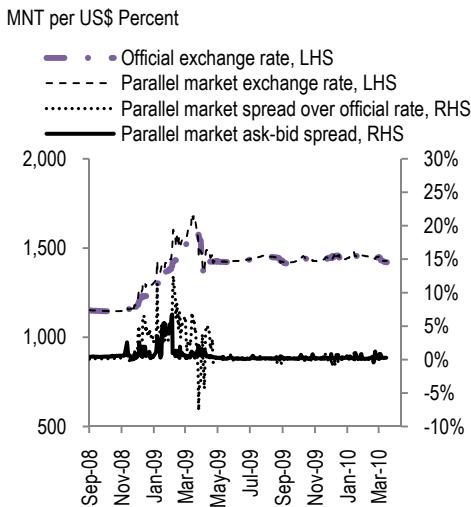
Source: National Statistical Office, World Bank.  
Note: Monthly trade data is strongly affected by the seasons in Mongolia, and has strong month-to-month fluctuations. For this reason, 12-month rolling sums are illustrated.

**Figure 1.6. ...Leading to a Deterioration in the Current Account Balance**



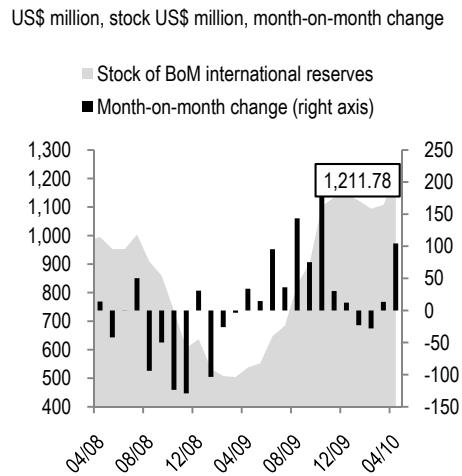
Source: Bank of Mongolia, National Statistical Office, World Bank.  
Note: Numbers on the right are the values of major balance of payments components as a % of GDP on a 4-quarter rolling basis.

**Figure 1.7. Divergence between Parallel and Official Rates as Pressure on the Currency Intensified**



Source: Mongolian Financial Association, World Bank.  
Note: Last observation: April 12, 2010.

**Figure 1.8. ...And Reserve Losses Mounted in an Attempt to Defend the De Facto Peg when Copper Prices Fell**

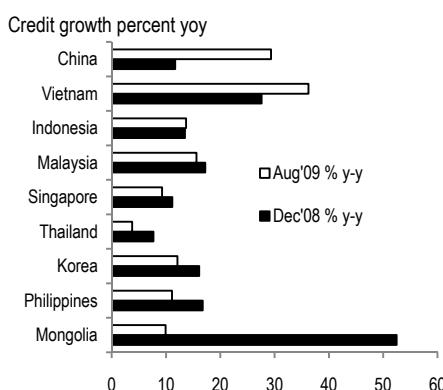


Source: Bank of Mongolia, World Bank.  
Note: Number in box is end-April stock of BoM international reserves in \$ million.

## **Banking Sector Weaknesses**

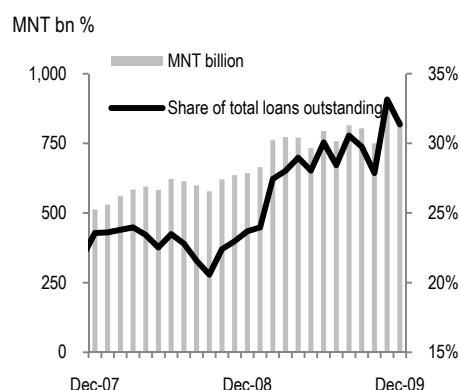
Weaknesses in the banking sector exposed by the external shock resulted in a crisis of confidence in late 2008 and deposit flight. The global downturn exposed problems in Mongolia's financial sector, which had been overheating during the boom years. Very high domestic inflation—33.7 percent yoy in August 2008, the highest in East Asia in 2008—and loose monetary policy led to a credit boom (Figure 1.9), which hid the growth in nonperforming loans (NPLs) and weaknesses in credit quality. Lending portfolios entered the crisis heavily concentrated on sectors such as construction and real estate. Exposures to individual major borrowers were high, increasing the vulnerability of a bank's loan portfolio to shocks hitting individual creditors. For example, from mid-2008 onwards, loans accounted for by the top 50 borrowers by loan size increased from around 20 percent to 30 percent (Figure 1.10). These figures are on an aggregate basis and individual banks may well have higher exposures.

### **Figure 1.9. A Credit Boom Set the Stage for Trouble in the Financial Sector**



Source: World Bank

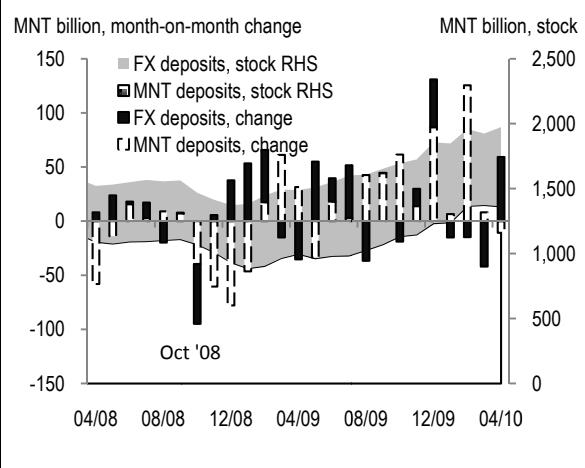
**Figure 1.10. Concentrated Lending  
Increased Exposure to the 50 Largest  
Borrowers**



*Source:* Bank of Mongolia, World Bank.

The high level of inflation resulted in negative real interest rates on local currency deposits, contributing to the movement of local currency (MNT) savings into FX deposits from mid-2008 (Figure 1.11). When Anod Bank, the fourth largest bank, was taken under conservatorship by the BoM, at the end of 2008, the public started to lose confidence in the banking sector. Major shortages of foreign currency emerged and the BoM rationed FX leading to a substantial deviation between the official BoM exchange rate and the parallel market rate (refer back to Figure 1.7). This led to a generalized flight out of both MNT and FX deposits. To restore public trust, the government issued a blanket deposit guarantee in November 2008, but it left many customers in uncertainty about which deposits were included, while real interest rates on MNT deposits were negative.

**Figure 1.11. Fall in Confidence in Late 2008 Led to Deposit Outflows, and Currency Shifting**

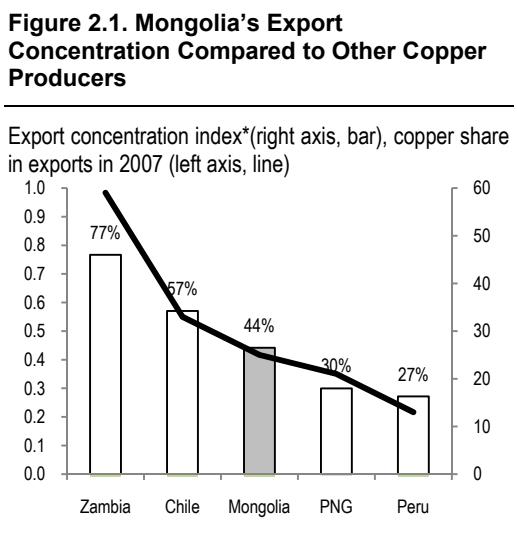


Source: Bank of Mongolia, World Bank.

## CHAPTER 2

# Mongolia's Experience Compared to Other Copper Producers

All the major copper producers in the world were affected by the collapse in copper prices. However, Mongolia's experience was perhaps the most severe because of its particularly weak economic and policy environment. The largest copper exporters in the world, in terms of share of copper to total exports, are Zambia, Chile, Mongolia (MNG), Papua New Guinea (PNG), and Peru (Figure 2.1).

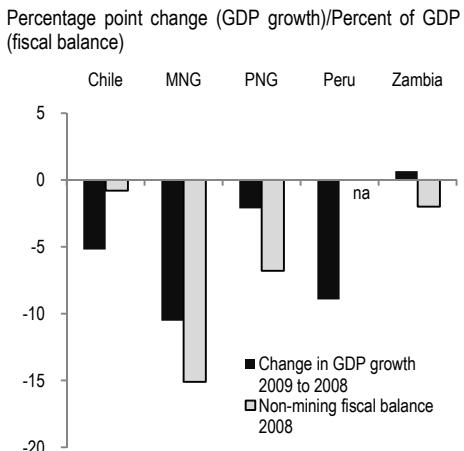


Source: UN Comtrade, World Bank.

Note: \* Herfindahl index: sum of squares of % export shares across all commodities (range: 0 – 100).

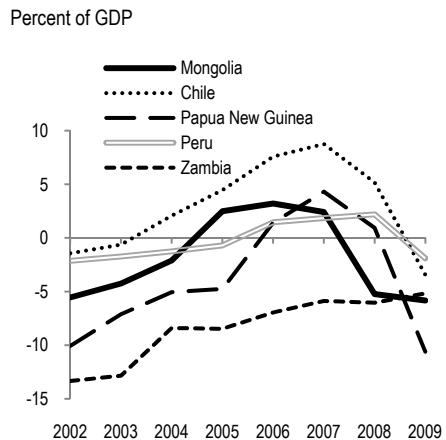
Even though these countries were all exposed to the same global copper price collapse, the impact on their economies was different. All five countries faced GDP growth declines in 2009, but Peru and Mongolia suffered the largest declines (Figure 2.2). All countries fiscal balances moved into deficit in 2009. Chile and Papua New Guinea had run large fiscal surpluses during the boom up to 2008, whereas Mongolia and Zambia were already in deficit in 2008 (Figure 2.3). Mongolia's non-mining fiscal deficit was the largest of all.

**Figure 2.2. Mongolia's Growth and Non-mining Fiscal Balance Worst Affected among Copper Producers**



Source: IMF World Economic Outlook database, IMF Article IV reports, World Bank

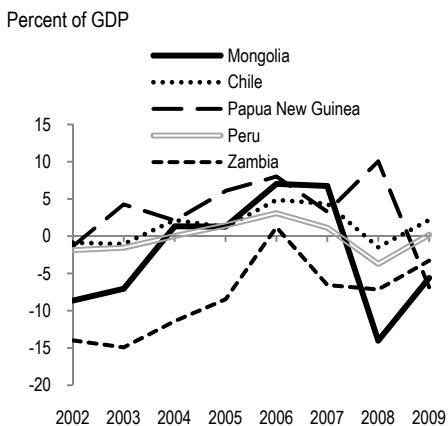
**Figure 2.3. Fiscal Balances Deteriorated for All Copper Producers**



Source: IMF World Economic Outlook Database.  
Note: Government balance excluding grants.

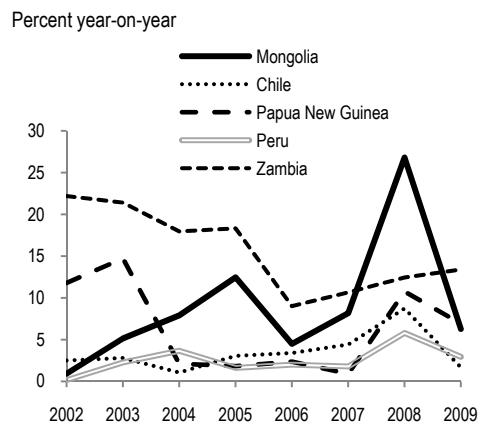
The current accounts of all countries were also strongly impacted by the copper price collapse. However, Mongolia saw a particularly large deterioration in 2008 (Figure 2.4), with Zambia also requesting external assistance.<sup>1</sup> The rise in average CPI inflation during the commodity price run-up was also greatest in Mongolia, evidence of the largest domestic boom, compared to the other four countries (Figure 2.5).

**Figure 2.4. ...But the Current Account Reversal for Mongolia Was Particularly Marked...**



Source: IMF World Economic Outlook Database.

**Figure 2.5. ...As Was the Rise and Fall in CPI Inflation**



Source: IMF World Economic Outlook Database.  
Note: Inflation of average consumer prices.

Copper export dependence, or a high export concentration, alone does not explain the differences in performance during the crisis. For example, Zambia and Chile are the most dependent on copper exports, but their expected drop in GDP is less than that of Mongolia and Peru. Zambia opened a major new copper mine in late 2008 (the only country to do so).

The increase in copper output mitigated the downturn. Zambia also removed the windfall tax on mining to continue to attract new mining investments and prevent existing operations from being scaled down prematurely. Zambia also benefited from debt relief as a result of good economic performance. Peru had accumulated sizeable fiscal surpluses for the previous three years, and used the mineral windfall largely by increasing savings and reducing public debt.

Chile found itself in a good position to weather the storm: it benefited from a fiscal rule that limited expenditure during boom times, inflation targeting, a flexible exchange rate, a copper stabilization fund to help ensure that the fluctuations in copper prices do not spillover into the rest of the economy, and adequate access to foreign financing.

Indeed, the contrast of Mongolia's experience with that of Chile is particularly striking: Chile's exchange rate was flexible (so it absorbed part of the shock) and it was able to self-finance a large stimulus package to support its economy. This was achieved drawing on large fiscal savings made from boom years under its structural balance rule (see Box 2.1). Chile's banking sector was also unaffected due to prudent lending policies during the boom period, unlike Mongolia.

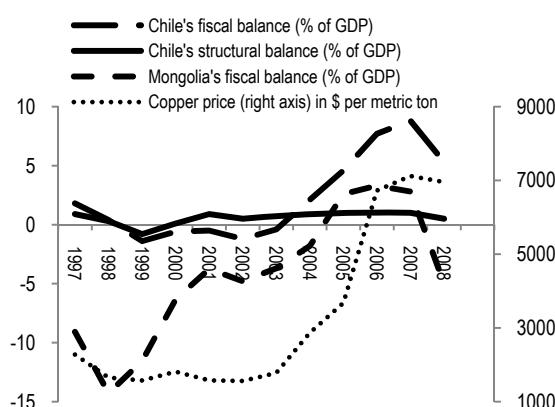
### Box 2.1. Chile's Fiscal Regime

Prior to the introduction of its fiscal regime, Chile had suffered from a seemingly endless succession of mining booms and busts. In 2001, the Chilean Ministry of Finance adopted a structural balance rule (Box Figure 2.1) which limited the effects of cyclicalities on fiscal management (mining revenues are in the order of 15 percent of total revenues) and improved

weak public finances seen in the late 1990s. These weaknesses included a series of fiscal deficits, the negative net worth of the Central Bank (undermined by a large bailout of insolvent banks in the 1980s and FX operations in the 1990s), foreign debt vulnerabilities, and the large contingent liabilities associated with pensions and infrastructure concessions. A new fiscal regime was needed to neutralize the fluctuations. In order to provide maximum clarity on the fiscal situation and avoid manipulation the regime had to be simple, clearly defined, and transparent.

The source of the fluctuations on fiscal revenues was threefold. First, whenever copper (and molybdenum) prices went up, mining tax revenues followed.

**Box Figure 2.1. How Chile's Structural Balance Rule Stabilized the Budget During the Copper Price Boom and Bust**



Source: World Bank, IMF, Central Bank of Chile and Mongolia.

(Box continues on next page)

**Box 2.1 (continued)**

To neutralize fluctuations, a long-term copper price projection was used instead of the actual price. This determined the “structural” mining revenues. If the actual mining price went above the long-term price projection, the realized revenues would be saved. Second, whenever GDP fluctuated, non-mining tax revenues fluctuated. To neutralize this, a long-term GDP growth rate was estimated, and a structural non-mining tax revenue stream was created. Third, a similar smoothing mechanism was adopted to control fluctuations of the governments’ financial assets.

In each year, the “structural” (not actual) revenues would set a limit on actual expenditures in such a way that a specific fiscal balance would be achieved. The budget balance thus targeted is therefore called a structural balance. Chile began with a structural balance of 1 percent of GDP (a surplus). During the mining boom years of the mid-2000s, the structural balance rule was in place. Chile’s actual fiscal surpluses would grow to 8 or 9 percent of GDP, but expenditures were limited to 1 percent. The structural balance target is reviewed every year, and in the case of Chile it was also revised downward several times to better respond to the emerging economic trends. Currently, Chile is under a structural fiscal deficit rule of 0.5 percent.



Chile’s fiscal responsibility law complements this regime by managing the financial assets generated by the rule. The Pension Reserve Fund (PRF) and Social and Economic Stabilization Fund (ESSF) were created and wholly invested abroad in order to shield the exchange rate and local financial asset markets from fiscal portfolio growth. The fiscal responsibility law also permits the recapitalization of the Central Bank over five years and increases transparency of fiscal policy and financial asset management. The savings set aside in the stabilization fund are used for two purposes only: financing the fiscal deficit and repaying public debt. The investment strategy is conservative and mindful of the requirement to be liquid; invested mostly (70 percent) in government bonds of the United States, several EU states, and Japan. The PRF receives 0.5 percent of GDP every year, with a floor of 0.2 percent. The stabilization fund held about US\$25 billion in savings before the global crisis. Today, the savings are down to US\$7 billion, because of the financing of the fiscal deficit caused by the stimulus package.

The structural balance rule effectively ended the boom and bust cycles, with predictable and sustainable budgets. Chile weathered the storm better than others with savings of about one third of its GDP. Chile is now injecting funds into the economy, including funds to protect the poor from the downturn. The Chilean fiscal stimulus package is entirely domestically financed, and consists of 1 percent of GDP tax cuts, 1 percent increased current expenditures, and 0.8 percent public investments. The policy of running large fiscal surpluses during the mining boom, which had been controversial, is now fully vindicated and legitimized by political polls.

*Source:* World Bank staff; Bloomberg; Budgets Bureau, Ministry of Finance of Chile.

**Note**

<sup>1</sup> In response to the crisis, Zambia received a substantial increase in financing of its ongoing IMF poverty reduction program, although its access to IMF financing is still only around 50 percent of its quota, whereas Mongolia received 300 percent under its SBA. For completeness, Peru had a 25-month IMF Stand-By Arrangement from January 2007, but this was considered precautionary with low access to IMF resources.

## CHAPTER 3

# The Policy Response

### **The Government's Strong Policy Actions**

Strong policy actions were taken by the government in early 2009 to address the crisis. Faced with the reality of the severe downturn, the government initially considered a variety of possible responses. These included signing long-term mineral export contracts in exchange for large up-front payments and implementing a wide-ranging stimulus package to be funded by a US\$1.2 billion sovereign bond. As economic conditions worsened, and access to international capital markets on reasonable terms seemed very difficult, a bipartisan consensus began to emerge around a more comprehensive policy response, a response that could be supported by the IMF and other development partners.

These policy changes included strong actions on fiscal, monetary, exchange rate, and financial policies (Table 3.1). For example, to prevent an overshooting of the exchange rate the central bank sharply raised interest rates in March 2009 to 14 percent from 9.75 percent. The BoM also abandoned its de facto peg and introduced a transparent bi-weekly foreign exchange auctioning mechanism to restore confidence in the local currency. On the fiscal side, without additional measures, it was forecast in early 2009 that the 2009 budget deficit was heading for 12 percent of GDP.

**Table 3.1. Summary of Policy Actions Taken over 2009**

Sectors	Policy actions:
Fiscal policy	Deficit contained to 5.4 percent of GDP, below the 5.8 percent target in the June 2009 budget Public investment cut Expenditure cut on wages and salaries of public servants; hiring freeze imposed. Non-concessional foreign borrowing limited in 2009
Exchange rate and monetary policy	BoM raised the policy rate to 14% and introduced FX auction
Banking sector	Two failed banks put under receivership. Audit by international reputable auditor for one bank completed and bank being liquidated. Receiver appointed for second bank and audit underway. State bank created to house the good assets. BoM increased capital adequacy requirements. BoM revised and clarified deposit guarantee law.
Mining sector	Signing of OT agreement and associated policy measures (e.g. cancellation of WPT) Progress on EITI

*Source:* World Bank staff.

To keep the fiscal deficit within financeable limits, the government could cut spending or raise revenues, or both. Since raising revenues is inherently difficult during an economic downturn, the government had little choice but to cut spending drastically in its 2009 budget, with the budget amended in March and June 2009. The June amendment targeted a 5.8 percent of GDP deficit (MNT 364 billion) which compares with the full year outturn of 5.4 percent of GDP (MNT 328 billion).

### **Support by International and Bilateral Donors**

The government presented its action plan to the development partners on March 14, 2009. On April 1, 2009, the IMF Board approved an 18-month Stand-By Arrangement (SBA)<sup>1</sup> of US\$229 million in balance of payments support to help Mongolia adjust by stabilizing the macroeconomic situation.

The key objectives of the IMF-supported program are: to restore macroeconomic stability through fiscal, monetary, and financial sector policies; and protect the poor from the burden of the needed adjustment. The program also aims to outline a solid macroeconomic framework that provides the basis for the authorities to approach the broader international community for financial support.

However, the center piece was a substantial fiscal adjustment to deal with the fall in mineral revenues of 10 percent of GDP. Fiscal deficits of 6 and 4 percent of GDP in 2009 and 2010, respectively, were built into the program, with a total fiscal financing gap at the time estimated at US\$205 million in 2009 and 2010. The fiscal adjustment is centered primarily around expenditure restraint. The biggest savings will come from postponement of domestically financed capital expenditure plans. Additional savings will be generated from a wage and hiring freeze, cuts in some untargeted social allowances, and reductions in other purchases and goods and services. To prevent the future boom-bust fiscal cycle, a stronger institutional framework will be placed to ensure a greater proportion of windfall copper revenues is saved.

Additional reforms focus on monetary and exchange rate policies, rebuilding confidence in the banking system, and protecting the most vulnerable from the downturn and the adjustments. The program envisages strengthening the country's international reserve position and calibrating monetary policy to prevent any undue overshooting of the exchange rate and to keep inflation on a downward path. A new system of foreign currency auction has been introduced to have a nondiscriminatory and transparent mechanism to sell foreign exchange that allows for market determination of the exchange rate. To build confidence in the local banking system, the program includes measures to further strengthen the banking system by improving the current framework for deposit guarantees and enhancing bank supervision. Finally, with one third of the population living below the poverty line, improving the social safety net is a key element of the program. This is to ensure the poorest segments of society are protected adequately. In collaboration with the Asian Development Bank (ADB) and the World Bank, the authorities will design a comprehensive overhaul of the existing untargeted system of social transfer programs. The goal will be to better target these programs towards the very poor and increase the support that poor households receive.

Adherence to the IMF program has been strong. In March 2010, the IMF Board approved the completion of the fourth review, which enabled the immediate

disbursement of an amount equivalent to SDR 15.33 million (about US\$23.4 million). This brought total disbursements under the arrangement to an amount equivalent to SDR 122.64 million (about US\$187.4 million). The Board also approved the request for the modification of performance criteria to reflect the revised macroeconomic data and framework. The Board's press release noted the substantial improvement of Mongolia's macroeconomic outlook and the government's progress in strengthening public finances. The need for continued fiscal adjustment and discipline was emphasized, in particular through the early passage of the comprehensive social transfer and fiscal stability laws that were submitted to parliament. The importance of strengthening the banking system was also highlighted, with parliamentary adoption of a comprehensive bank restructuring plan viewed as a key measure.

To fill the fiscal financing gap, the World Bank pledged US\$60 million. This came in the form of two single-tranche development policy credits (DPCs, US\$40 million for 2009 and US\$20 million for 2010) supporting reforms in the policy areas most affected by the downturn. The first DPC, disbursed in July 2009 (Box 3.1), focused on the following policy areas (i) fiscal policy and management, given the budget's strong dependence on mining revenues; (ii) social protection, given the impact of the economic downturn on the poor; (iii) the financial sector, which was overheating when the global crisis hit, and which experienced a major bank failure in late 2008; and (iv) the mining sector, given the sector's importance in driving the recovery.<sup>2</sup> Preparation of the second DPC is ongoing with funds having been increased to US\$30 million.

The government obtained equally strong support from the ADB (US\$60 million) and Japan (US\$50 million), and also received budget support from Australia (US\$3.5 million), and a firm pledge from the United States. As a result, the projected balance of payments and fiscal gaps were filled. The World Bank, Japan, the ADB, and Australia disbursed their pledged amounts for budget support in 2009 (US\$133.5 million in total) in July 2009. The IMF, meanwhile, disbursed about US\$169 million in 2009 under the SBA in balance of payments support for the central bank.

### **Mining Sector Reforms**

Important mining sector reforms were also undertaken with the signing of the OT Investment Agreement. Significant progress in mining sector reform and development was also made during 2009 with the signing of a large, world-class mining project agreement: the OT Investment Agreement with Ivanhoe Mines and Rio Tinto (Box 3.2). In the process leading up to the signing of this agreement on October 6, a number of policy issues were clarified and some key disincentives to investment were removed. In particular, the Windfall Profits Tax<sup>3</sup> was repealed with effect from January 2011. Other positive changes included permitting private sector construction and management of roads and water supply facilities, liberalizing the policy environment and changing the income tax regime to extend loss carry forward provisions. In addition, the OT agreement can be used as the draft standard agreement upon which future projects will be negotiated.

Nevertheless, other measures were introduced that provided strong disincentives to new exploration and development. Just as the OT negotiations were being completed, an amendment to the VAT Law was introduced. This amendment excluded

exports of mineral products from claiming refunds for the VAT paid on the inputs used for these mineral products. This constitutes a significant increase in operating costs to miners and reduces profitability. In addition, forward movement on important regulatory developments, in relation to mineral licensing, has been slow.

### **Box 3.1. World Bank Budget Support Approved**

On June 25, the Board approved US\$40 million in budget support for Mongolia. It was ratified by parliament on July 2. The support came as part of a concerted effort by Mongolia's development partners, including the IMF, the ADB, Japan, and Australia, to help manage the downturn. The World Bank's budget support to Mongolia came in the form of a DPC to Mongolia of US\$40 million on IDA terms.<sup>a</sup>

The DPC is the first of two credits—a DPC2 is planned for 2010—designed to assist the government manage the current downturn, which was triggered by the collapse of the copper price, and support the economic recovery. The DPC2 supports reforms in fiscal policy and management, social protection, the financial sector, and the mining sector, given the sector's importance in driving the recovery.

Regarding fiscal policy and management, the DPCs support improvement in capital budget planning, including the protection of maintenance of basic infrastructure. To support these reforms, the Bank will provide technical assistance to develop robust criteria for project prioritization and selection, and the financing of project maintenance over the lifespan of the infrastructure. In the area of social protection, together with the ADB, the Bank supports social welfare reforms by helping to create a system that will allow the Ministry of Social Welfare to better target its social assistance to the poor. In the financial sector, the aim is to improve confidence in the financial sector and strengthen banking supervision. This is important because addressing the problems of the financial sector in a decisive and transparent manner will help pave the way for a much stronger banking sector in the years ahead and also help prepare it for the upcoming economic upturn when the Oyu Tolgoi mine becomes operational.

The final area is the mining sector, which will be a key driver of growth in the medium to long term. Using current negotiations of major mining projects, the government is working with parliament to clarify and improve its mining policy framework. This includes insisting on responsible mining practices, consistent with international standards (namely, the Equator Principles), and becoming validated under the Extractive Industries Transparency Initiative (EITI) program.

*Source:* The full DPC document is available at the World Bank's Documents and Reports Website: <http://go.worldbank.org/ROT5TQLVC0>.

a. It is a concessional loan, which will need to be paid back in 40 years, with no payments due for the first 10 years. There is a service charge of 0.75 percent per year.

### **Box 3.2. The Oyu Tolgoi Investment Agreement**

OT is the world's largest undeveloped copper-gold project and is located in the Southern Gobi region, just north of the Chinese border. An investment agreement to develop the OT mining deposit was successfully concluded in October 2009 between the Government of Mongolia and Rio Tinto International (a British-Australian mining company), Ivanhoe Mines Limited (Canadian), and Ivanhoe Mines Mongolia Inc, LLC (IMMI) and took full and binding effect on March 31, 2010. A key aspect of the agreement is that the government will hold a 34 percent equity share in IMMI, which is the license holder of the OT project.

Mine construction costs are projected at roughly US\$4 billion. The joint Ivanhoe-Rio Tinto conditional budget approved for 2010 to begin the full-scale construction of the mine is US\$758 million, and similarly large amounts are expected to be spent in the next few years with significant knock-on effects expected for the economy.

*(Box continues on next page)*

**Box 3.2 (continued)**

Production is expected to commence in 2013 and to produce 500,000 tons of copper and 500,000 ounces of gold per year for at least 35 years. The life of the mine is estimated to be about 60 years. Revenues—corporate income tax, royalties and VAT and dividends—from OT are expected to flow into the budget from 2013 onwards. From 2016 there will be net revenues, after the amortization of prepayment and equity share loans (see below) enter the budget. The key terms of the agreement are as follows:

**Ownership and financing arrangements:** In accordance with Mongolia's Minerals Law the government will own, through the state-owned Erdenes MGL, a 34 percent equity/investment share in Ivanhoe Mines Mongolia Inc (IMMI) LLC which is the license holder of the OT project. Ivanhoe will retain a controlling 66 percent equity share in OT (with Rio Tinto owning a 22 percent share in Ivanhoe). Ivanhoe will arrange financing for the construction of OT within two years of the Investment Agreement taking effect. Production must begin within five years of financing being secured.

Ivanhoe will also fund the government's 34 percent share of initial capital costs. This will be achieved through a domestic but US\$-denominated loan estimated at approximately US\$870 million loan. This is expected to be repaid starting around 2014 onwards on redemption of the equity, dividends, and interest at a rate of 9.9 percent, adjusted to the U.S. CPI. The government has the option to purchase an additional equity interest of 16 percent of IMMI. This can be done one year after the expiry of the initial 30-year term of the agreement and following the start of the permitted 20-year extension. However, Ivanhoe will continue to hold management rights over the project and hold a deciding vote at board and shareholder meetings.

Ivanhoe has also agreed to make advance payments of US\$250 million to the government in three tranches for budgetary support. These will be secured by government bonds that will mature after five years and pay annual interest of 3.8 percent. Of this US\$250mn, an initial US\$100 million was transferred to the government in 2009. Within 14 days of the OT Investment Agreement taking full effect, which happened at the end of March 2010, a further US\$50 million will be transferred. The final US\$100 million will be transferred within 14 days of the successful raising of funds required to build the open-pit mine and complete shaft and tunnel access to the initial underground deposit at the site (expected in 2011).

**Taxation:** Other important terms include a stable operational and tax environment. Ivanhoe will receive a 10 percent investment tax credit on all capital expenditures and investments made throughout the OT construction period. Any future taxes introduced will not be imposed on the project unless the legislation is more favorable. If Mongolia enters a treaty that provides greater benefits to another investor, Ivanhoe may request the benefit of this to help ensure that a stable taxation environment is maintained.

**Employment:** The agreement also includes specific commitments regarding the hiring of Mongolian workers and contractors<sup>a</sup> and scholarships.<sup>b</sup> A comprehensive, five-year OT Training Strategy and Plan will be submitted to the government for the training of Mongolians. The government will also support the introduction of international mining education and training courses within 90 days and six months respectively of the agreement taking effect. Ivanhoe will ensure payment of fair wages and equal remuneration for work of equal value.

**Business development:** In response to the government's interest in adding value to Mongolian concentrate, Ivanhoe must prepare within five years a report on the economic viability of building a copper smelter in Mongolia. Any smelter, if built, must be located within Mongolia and the government may request preferential access, on agreed terms, to Rio Tinto's proprietary flash-smelting technology for use at the smelter. OT concentrate would be supplied to such a smelter, in which the government may have an interest, on commercial terms and at international pricing.

*(Box continues on next page)*

**Box 3.2 (continued)**

Ivanhoe and Rio Tinto have also agreed to give priority, where possible, to buying and using services provided by Mongolians. Equipment and materials made in Mongolia and local businesses will be also given first priority. Priority will be given to residents of local communities for training assistance and jobs. Support will be given to help develop local businesses capable of supplying OT and also to help businesses diversify. Nomadic herder families impacted by the OT Project will continue to receive compensation.

Ivanhoe will support and participate in the Southern Gobi Regional Development Council, to be established by the government, which will formulate a development strategy for the region. This consultative council will consider issues relating to governance, in-migration, urban planning and development, and educational and vocational training among others.

**Best-practice environmental management and water resource use:** Ivanhoe will apply modern extraction and processing technology, which meets Mongolian and international environmental codes and standards, in an efficient manner that minimizes environmental impacts to an economically feasible extent. An independent report on the progress of the project's environmental protection plan and monitoring program will be submitted every three years and made public. The cost of eliminating material, adverse impacts on air, water, soil, animals, and plants will be borne by the project.

OT has the right to use water resources that Ivanhoe has discovered for any purposes connected with the project, during the life of the project. Surplus water may be made available to other economic entities provided Ivanhoe is compensated for its exploration costs. Water discovered by Ivanhoe will be made available to herders and local communities for household purposes and for livestock. Water surplus to household requirements will be made available for local, non-commercial agricultural uses.

Modern technology and procedures will be applied to minimize water usage and water will be recycled where practicable. Areas closed to further mining will receive environmental rehabilitation and potential hazards will be addressed to protect the public. A mine-closure plan will be financed through funds allocated to an escrow account beginning seven years before actual closure.

**Energy and transport infrastructure:** With the supply of reliable electricity critical to the project, Ivanhoe has the right to obtain power from inside or outside Mongolia, including arranging the construction of a high-voltage line from OT to the Mongolia-China border to connect with Chinese supply. It also has the right to build or subcontract construction of a coal-fuelled power plant at an appropriate site to supply the project, which could be supplemented by renewable wind or solar power. However, within four years of the start of mine production, all power requirements must be sourced from within Mongolia, either from a coal-fuelled plant or from the national distribution grid.

Ivanhoe may build an international road from OT to the Gashuun Sukhait crossing on the Mongolia-China border, with costs to be deducted from annual taxable income, with government responsible for road maintenance and user fees collection. The government may construct, or permit a third party to construct, a railway in the vicinity of OT to the Mongolia-China border, to be made available to OT on competitive commercial terms with Ivanhoe consulted on the route.

Source: Rio Tinto, Government of Mongolia, World Bank staff.

a. At least 90 percent of the project's employees will be Mongolian citizens. During construction and any expansion periods, at least 60 percent of the contractors' employees will be Mongolian citizens; and for mining and mining-related work, at least 75 percent of contractors' employees will be Mongolian citizens. Within five years, at least 50 percent of engineers will be Mongolian citizens, increasing to at least 70 percent within 10 years.

b. A total of 120 scholarships will be given over six years to Mongolian students studying in Mongolia and 30 to study at international universities

## Notes

<sup>1</sup> The SBA is a nonconcessional loan to be repaid in four years (with two years grace), but gives Mongolia exceptional access to IMF resources. This agreement, approved by the IMF at its April 1 Board meeting, recognizes the extraordinary external shock coming from the collapse of copper prices. The total amount of the IMF resources made available under the arrangement equals 300 percent of the country's quota. Mongolia, which joined the Fund on February 14, 1991, has a quota of SDR 51.1 million (about US\$76.4 million).

<sup>2</sup> World Bank (2009), *Program Document for a Proposed Development Policy Credit*, June (World Bank's Documents and Reports website: <http://go.worldbank.org/ROT5TQLVC0>).

<sup>3</sup> The WPT is a 68 percent tax applies to copper and gold revenues if prices exceed US\$2600/ton and US\$850/ounce respectively. The WPT revenues are deposited in the Mongolian Development Fund (MDF) to finance savings, social programs, and infrastructure investments. In practice, between 2006 and end-2008, about 30 percent of WPT revenue was saved, amounting to 4.9 percent of GDP, and 70 percent of revenue was allocated to social transfers and investment.

## CHAPTER 4

# How Did the Economy Respond?

The economy has recovered substantially since the middle of 2009 supported by the comprehensive and strong macroeconomic policies of the government as well as international and bilateral budget and balance of payments support, and technical assistance. As mentioned, the signing of OT Investment Agreement was also an extremely significant development, which helped to return positive sentiment to the mining sector and transformed the overall economic outlook.

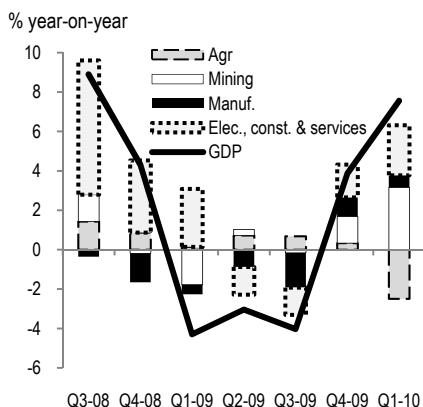
### **Real Activity Recovers**

After slowing sharply in early 2009, real activity has recovered strongly. Mongolia's economic downturn was particularly severe. While the initial shock came from commodity sector prices and mining sector weaknesses, banking sector instability led to a sharp contraction in credit which further added to the drag on economic activity. The economy contracted by 1.6 percent in 2009 following growth of 8.9 percent the previous year. The sector most affected was construction, which contracted slightly more than 50 percent over the year, followed by wholesale and retail trade and manufacturing. These sectors experienced annual declines of 29 and 12 percent respectively in 2009 (Figure 4.1).

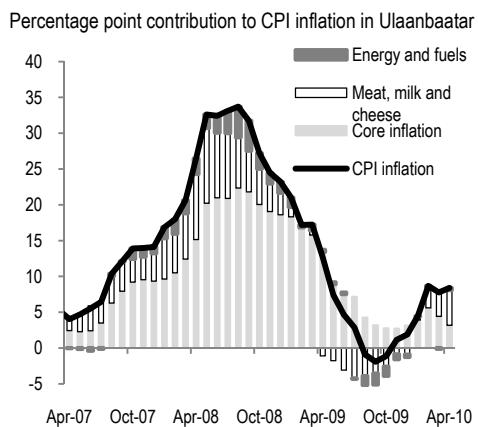
However, growth started picking up in the last quarter of 2009 and reached 7.6 percent (oy) in first quarter of 2010 (Figure 4.1). The recovery in the mining and retail sectors, along with transport and communication sector, led the way. GDP growth for 2010 is projected to rise to over 7 percent of GDP on the back of a huge increase in OT-related infrastructure spending.

### **Recovery, Growth, and Rising Consumer Prices**

The economic recovery and the prospects of continued strong growth in 2010 have contributed to recent rises in consumer prices. As economic activity declined in early 2009, the headline CPI inflation rate fell sharply, briefly turning negative from August to November. This also reflected the unwinding of the global food and energy price shock of 2008 as well the weaknesses in the underlying economy (Figure 4.2).

**Figure 4.1. After Falling in 2009 Real GDP Growth Picked up Strongly**

Source: National Statistical Office, World Bank.

**Figure 4.2. Inflation Fell Sharply**

Source: National Statistical Office, World Bank.

Note: Unless stated otherwise, the chart shows CPI data for Ulaanbaatar.

Inflation turned positive at the end of 2009, and has averaged over 8 percent since February 2010 (Figure 4.2). This was mainly driven by a rise in food prices which (notably meat reflecting large livestock losses due to the recent dzud) and also a pick-up in the rate of core inflation as the recovery took hold. Indeed, in the fourth quarter of 2009 and early 2010 the seasonally-adjusted core and overall Ulaanbaatar consumer price indices showed monthly growth in the range of 2 to 3 percent. The challenge going forward is to ensure that inflation does not accelerate further as during the previous boom period when it reached as high as 33.7 percent (in August 2008).

### Public Finances Improved Substantially in the Latter Half of 2009

Expenditure restraint and a recovery in revenues have helped improve fiscal balances in recent months but continued fiscal consolidation remains a priority. In the final quarter of 2009, the fiscal deficit improved as the decline in revenues stabilized and spending was curtailed (Figure 4.3). Overall, the fiscal balance in 2009 came in at MNT 328 billion (around 5.4 percent of GDP) compared with a full-year budget target of MNT 364 billion (around 5.8 percent of projected GDP).

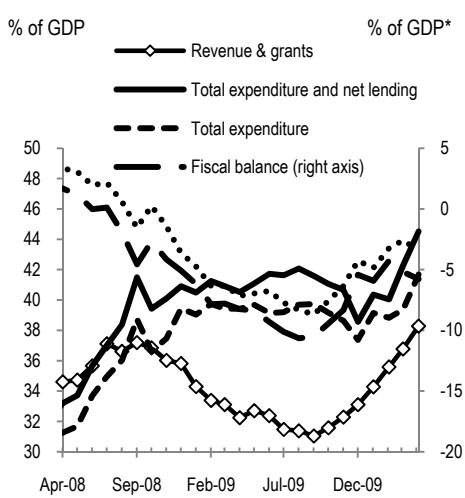
The revenue intake in 2009 was some 7.5 percent lower than in 2008 in nominal terms mainly reflecting the fall in mining revenues due to the fall in copper prices. However, the recovery in copper prices in recent months helped to staunch the decline. Overall, revenues and grants increased by 66 percent year-on-year in the first quarter of 2010, although positive base effects (arising from the sharp drop in total receipts in March 2009) have also helped to strengthen these numbers.

With the government cutting back on spending in order to maintain fiscal sustainability and meet the fiscal deficit targets, total spending was some 5.7 percent lower in nominal terms than in 2008. The largest cuts were made to capital expenditure and subsidies. Offsetting these was an increase in wages and salaries, unexpected

repair expenditures due to flood damage and spending on containing the spread of swine flu and dzud relief efforts. There were also substantial fiscal costs associated with the blanket guarantee law and failures in the banking sector. Overall, MNT 8.6 billion was disbursed<sup>1</sup> out of the government reserve fund and MNT 8 billion out of Finance Minister's portfolio.

In the first quarter of 2010, the trend improvement in the fiscal deficit stalled somewhat as the positive impact on the deficit of improving revenues was offset by expanding expenditures (Figure 4.4). In April, the 12-month rolling deficit deteriorated slightly to 5.8 percent of GDP, despite improved revenue generation. There are growing concerns that rather than an accumulation of fiscal savings in a process of sustained consolidation, expenditures will continue to rise in step with revenues, risking a return to the boom-and-bust cycle of the pre-crisis years. Continued expenditure restraint is necessary given the difficult financing conditions projected for the next few years. In particular, 2011 will be a difficult year for the budget due to the abolished Windfall Profits Tax and the dwindled donor funding for budget support.

**Figure 4.3. The 12 Month Rolling Fiscal Deficit Improved in Late 2009 In Line with Revenues**

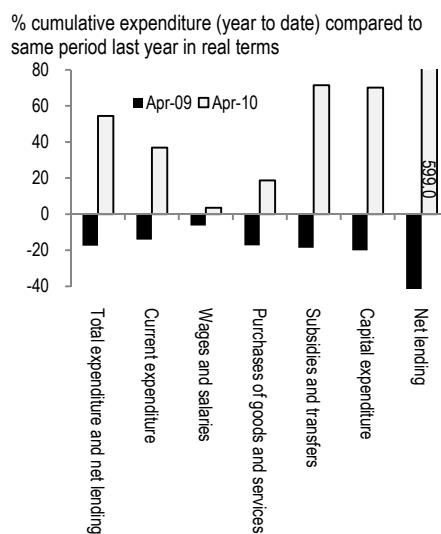


Source: Ministry of Finance, World Bank.

Note: \*GDP interpolated using actual 2008 and 2009 GDP data and GDP projections for 2010.

\*\*Adjusted fiscal balance excludes net lending from expenditure, leaving current and capital expenditure only.

**Figure 4.4. ...But Government Spending Rose Strongly in Early 2010**



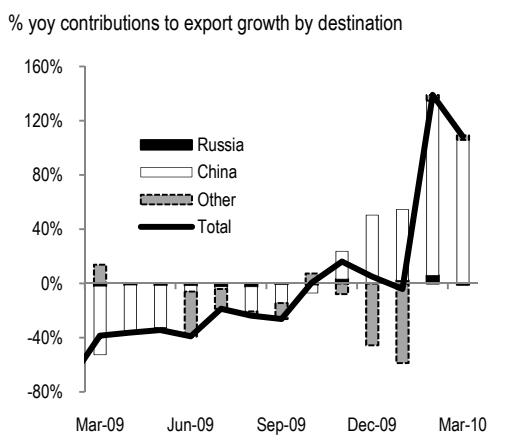
Source: Ministry of Finance, World Bank.

Note: Number in box is the increase in net lending in real percentage terms for April, 2010 compared to April 2009.

## The Current Account Deficit Narrowed

Improvements in external demand and recovery in commodity prices have contributed to the strong current account adjustment in the second half of 2009. China's strong economic activity has had a positive impact on Mongolia's external balances (Figure 4.5). Stimulus policy measures strengthened industrial production, and in turn, the annual growth of Chinese imports including those from Mongolia. These factors have contributed to the revival in Mongolia's copper and coal exports over the last quarter.

**Figure 4.5. Rising Chinese Demand Supported the Recovery in Exports**

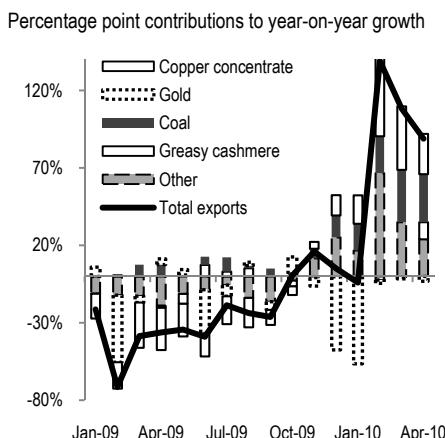


Source: Bank of Mongolia, monthly bulletin, World Bank.

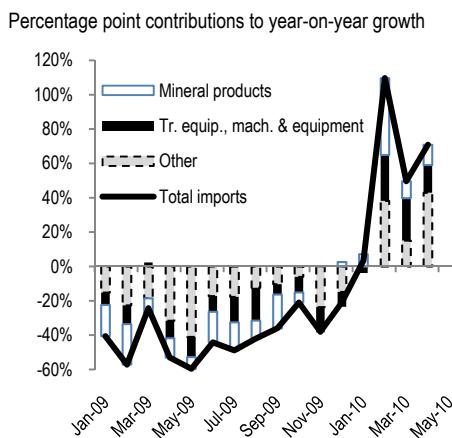
Exports<sup>2</sup> include the WPT (Windfall Profit Tax) and decreased gold production by a major gold exporting company in Mongolia.

Due to both expenditure-switching from the rise in the price of imports following the depreciation and expenditure compression with the fall in economic activity, imports fell by up to 50 percent in the first half of 2009. With the recovery of the domestic economy, the decline in imports moderated. January 2010 saw the first annual increase in total imports since December 2008 (Figure 4.7). Since then imports have also strongly rebounded driven mainly by a surge in shipments from Russia and China (both doubled on the year). However, in light of the extreme weakness in the first half of 2009, when imports plunged sharply, these annual numbers may overstate the current strength of import demand.

The external position has also been helped by rising commodity prices. Copper prices by mid-March were only about 17 percent below their historic peak in July 2008. Gold prices have remained within the US\$1,000-1,200 per troy ounce (ozt) range since December, well above the roughly US\$800/ozt price seen at the end of 2008 as they have been supported by safe-haven buying and central bank purchases. The dollar value of Mongolia's gold exports, however, has continued to decline (Figure 4.6). The volume of exports almost halved in 2009 compared to 2008 in spite of the provision of government-financed credit to support gold producers. Factors influencing the reduction in gold

**Figure 4.6. Overall Export Growth Improved in the Second Half of 2009...**

Source: National Statistical Office, World Bank.

**Figure 4.7. ...With Import Demand Also Recovering**

Source: National Statistics Office, World Bank.

As a result of the improved goods deficit, the current account deficit narrowed to 4 percent of GDP in the final quarter of 2009, after peaking at 13 percent in Q1 (refer back to Figure 1.6). The deficit in services trade has also improved but remains relatively high at 3 percent of GDP (compared with a high of around 4 percent in Q1) as transport and tourism receipts remain depressed.

For 2009 as a whole, the current account balance narrowed by US\$340 million to a deficit of US\$382 million (or approximately 9 percent of GDP). It was primarily financed by net capital inflows in the financial account,<sup>3</sup> which amounted to US\$850 million (20 percent of GDP) in 2009. Foreign direct investment (FDI), mainly in the mining sector, increased substantially over the course of the year, but still remains about 10 percent lower than 2008. Net borrowing from abroad by both government and the private sector jumped in 2009, due to the donor disbursement and loans to the commercial banks.

### The Exchange Rate Stabilized

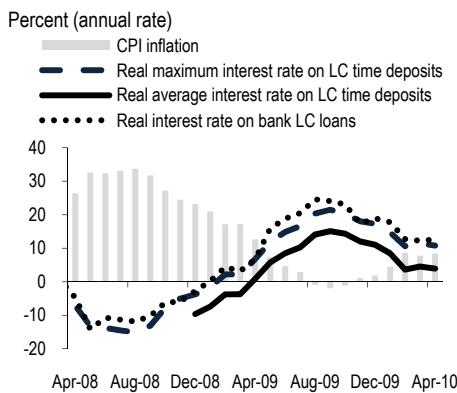
Following its depreciation in early 2009 the nominal exchange rate has remained stable since April 2009. The policy actions on the exchange rate, including abandoning the exchange rate peg and raising nominal interest rates, combined with the narrowing of the trade deficit, resulted in a stabilization of the nominal exchange rate since April 2009. It also enabled the BoM to rebuild international reserves. Reserves have also been boosted by the disbursement of the IMF SBA tranches, the OT prepayment loan, project funding from the International Fund for Agricultural Development (IFAD), an SME Development Project from Japan, and deposits from commercial banks. Reserves reached record levels of US\$1,145 million in December 2009. Meanwhile, the spread between the ask and bid rates in parallel and commercial bank foreign exchange markets has remained low (refer back to Figure 1.7).

## But Banking Sector Problems Lingered

Following the stabilization of depositor confidence the focus of concern shifted to the health of bank balance sheets. Policy measures undertaken by the BoM to stabilize the exchange rate and restore confidence in the local currency contributed to a recovery in deposits in the second half of 2009. The central bank increased the CBB rate to as high as 14 percent in March 2009. Once foreign exchange market conditions stabilized and inflation fell, it gradually reduced the rate to 10 percent in September 2009. It also increased the capital adequacy ratio of banks, reduced credit risk fund rates and introduced a foreign exchange auction/trading system.

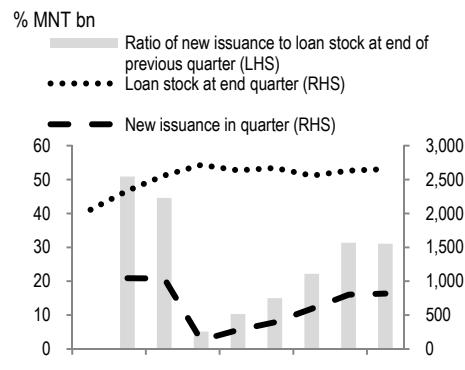
Despite the BoM having cut its official policy rate three times since May, from 14 percent to 10 percent in September, nominal interest rates on both local currency deposits and loans barely fell in 2009, aiding deposit retention. On the deposit side, the search for funds by banks facing liquidity difficulties may have been an important driver of the high rates while the lending rates likely reflected concerns over credit quality, and high funding costs.

**Figure 4.8. Real Deposit and Lending Rates Increased through 2009 but Have Since Fallen as Inflation Rose**



Source: Bank of Mongolia, National Statistical Office, World Bank.

**Figure 4.9. Lending Slowly Recovered...**



Source: Bank of Mongolia Consolidated Loan Report, World Bank.

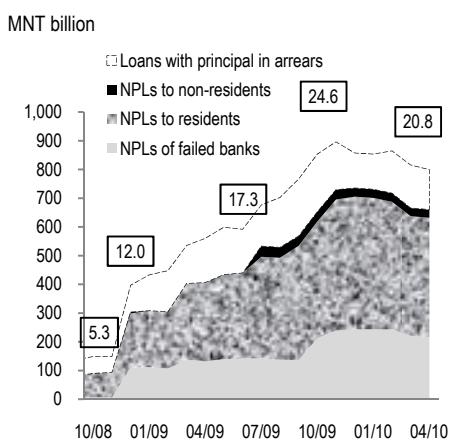
Combined with the sharp decline in the CPI inflation rate over 2009, the trend in nominal rates resulted in rising real economy-wide borrowing costs. This was measured by the ex post real interest rate (Figure 4.8), which posed a constraint to the recovery in private sector activity. However, the recent upward trend in inflation has resulted in falling ex post real rates, although rates for these loans remain high at around 13 percent. With strong growth prospects for 2010 likely leading to higher inflation expectations in recent months, ex ante borrowing costs are likely falling rapidly.

The availability of credit also declined during the crisis period as evidenced by banks choosing to use funds to purchase central bank bills. The overall stock of outstanding loans has remained broadly flat in nominal terms since mid-2008, up only 3 percent from 2009 Q2 through to the end of 2009 Q4. The level of new loan issuance

fell markedly in late 2008 and early 2009 both in nominal terms, down 57 percent year-on-year for example in 2009 Q1, and relative to the outstanding stock of loans. There has been some recovery in new issuance levels in recent quarters, however, in particular in the mining sector (Figure 4.9).

As the immediate threat of a liquidity crisis receded, weaknesses in the quality of banking sector balance sheets became increasingly apparent throughout 2009. Loan quality, in particular to the private sector, deteriorated markedly with nonperforming loans (NPLs) and loans with their principal in arrears<sup>4</sup> as a percentage of total outstanding loans rising to 25 percent in November 2009, a five-fold increase from the previous year (Figure 4.10).

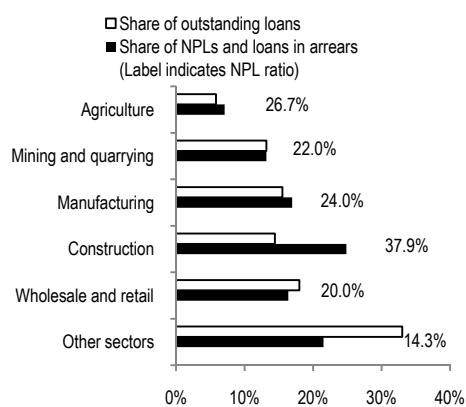
**Figure 4.10. ...But Bank Asset Quality Deteriorated**



Source: Bank of Mongolia, National Statistical Office, World Bank.

Note: The numbers in boxes are the sums of NPLs to residents and non-residents and loans with principal in arrears as a percent of total loans outstanding.

**Figure 4.11. Asset Quality in Construction and Agriculture Remains Poor**



Source: Bank of Mongolia.

Note: "Other sectors" mainly comprise lending to consumers e.g. mortgages, pension and salary advances.

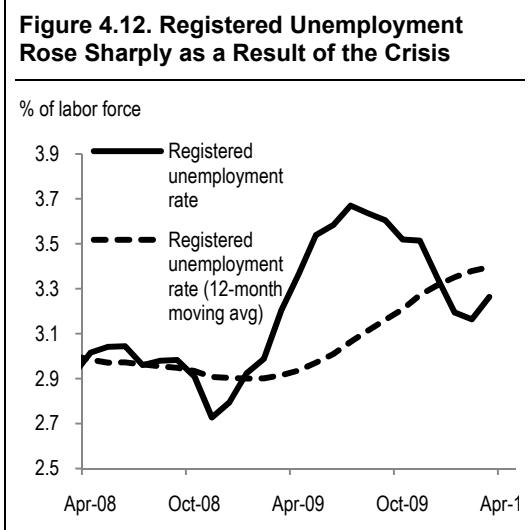
In the banking sector, total NPLs and loans with principals in arrears declined to around 21 percent of total outstanding loans at the end of the first quarter of 2010<sup>5</sup> (after peaking at 25 percent in November 2009), mainly been due to a stabilization in NPLs. Loans with principals in arrears however continue to mount, reaching MNT 139 billion in April, up 23 percent since December. The NPL ratios differ across sectors, reflecting the differential impact of the crisis and underlying credit quality. For example, the construction sector in Q4 2009 accounted for around 14 percent of the outstanding consolidated loan stock but around 38 percent of NPLs and loans in arrears, i.e. an overall NPL ratio of over 35 percent (Figure 4.11). Overall though there are tentative signs that the banking sector is starting to stabilize, with commercial banks earning a profit of MNT 10.4 billion in April compared with a loss of MNT 143.4 billion for 2009 as a whole.<sup>6</sup>

### Informal Sector Workers Hardest Hit by the Crisis

Registered unemployment rose and fell during the crisis and recovery, although the numbers underestimate the impact of the crisis on labor markets. The official unemployment rate, which includes only those who are registered with the Labor and Social Welfare Service Center, rose from 2.7 percent in November 2008 to 3.7 percent in July 2009 (Figure 4.12). Since then unemployment has gradually fallen back to around

3.2 percent in the first quarter of this year. However, it is likely that these numbers grossly underestimate the impact of the economic downturn on unemployment and real wages. According to the 4Q Labor Force Survey, which also takes into account those who are not officially registered, the unemployment rate stood at 12.8 percent. This is up from 10.5 percent in September 2009, with some 142,000 people unemployed from the total labor force of 1,120,000.

The adverse social impact of the crisis was visible in the declining real wages in informal labor markets. The World Bank commissioned quarterly surveys to evaluate the changes in real income in the informal labor markets in Ulaanbaatar. The surveys found that the effects of the economic slowdown were widespread (Table



Source: National Statistical Office, World Bank.

Note: \* Defined as working-age population currently not working in a paid job and not self-employed, actively looking for job and registered at the Employment Office.

4.1). For example, the April 2009 survey indicated real effective incomes had fallen by about 60 percent in some informal urban labor markets as inflation eroded nominal wages and as job losses mounted.<sup>7</sup> Employment conditions also became less favorable for informal workers in the rural regions, and herders and informal mining workers found it hard to cope with the decreasing job availability, falling wages and increasing living expenses.<sup>8</sup> In addition, the World Bank and ADB have also been conducting qualitative surveys to examine the household impact of the crisis. The results of this analysis are summarized in Table 4.1 and Box 4.1.

The survey conducted in late January 2010 indicated an influx of workers. This reflected in large part rural migrants escaping harsh winter conditions due to “dzud”<sup>9</sup> (severe winter conditions leading to large livestock losses, see Box 4.2) but also the increased work opportunities offered by new year holiday celebrations in early February. On average, workers’ real wages, using the CPI as a deflator, have increased by about 68 percent from April 2009 to January 2010. This was due to a rise in nominal incomes and a significant reduction in the consumer price index over this period. Despite this, the overwhelming majority of the workers surveyed stated their earnings were barely adequate to meet daily needs.

**Table 4.1. Daily Wages of Unskilled Workers in Selected Informal Labor Markets in UB**

Informal labor market	Total number of workers in the market (estimated)			Daily wages (MNT thous.)			Average real wage per hour (MNT thous.)		
	Apr-09	Nov-09	Jan-10	Apr-09	Nov-09	Jan-10	Apr-09	Nov-09	Jan-10
Railway cargo unloading in UB "44" area: Triangle bridge district	500	500	750	3.0–7.0	3.0–5.0	3.0–7.0	0.4	0.3	0.7
Container loading and unloading for freight companies	200	200	200	8	6.0–7.0	15	0.9	0.9	1.8
Supermarket shipments loading and unloading at "Bars" market	25	100	215	5.0–10.0	10.0–15.0	4.0–15.0	0.8	1.6	1.5
Merchandise carter Narantuu "Black market" in UB	400	300	520	5.0–6.0	8.0–10.0	5.0–15.0	0.4	1	1.2
Construction materials delivery "100 family" district	30	100	120	5.0–10.0	5.0–10.0	5.0–15.0	0.7	1.1	1.1
Total (estimated)	1,255	1,200	1,805			Average	0.8	1.0	1.3

Source: Data from World Bank-commissioned special surveys conducted in April, September, November 2009, and January 2010.

#### **Box 4.1. Household-Level Impacts of the Economic Crisis in Mongolia: Findings from Three Rounds of Qualitative Research**

The ADB and the World Bank have been collaborating to track household level impacts of the economic crisis in selected rural and urban sites across Mongolia. Between May 2009 and January 2010, research teams have returned three times to the same sites and, where possible, the same households. Using qualitative research techniques, these teams have gathered information on household experiences of the macroeconomic changes that have occurred over the last year, and documented the strategies used by households to cope with income and price shocks.

Migrant households living in Ulaanbaatar have, over the last nine months, consistently described difficulties in finding work that covers subsistence. Those working in the construction sector report that work has been hard to come by and (as of January 2010) had yet to pick up. There has been high competition for work in the informal sector, too, with traders describing reductions in profits and rubbish collectors reporting that so many people were now engaged in rubbish collection that there was no more rubbish available to collect. Those working in small businesses in the private sector have often managed to retain jobs, but report delays in salary payments, receipt of payments below the contracted amount (generally the minimum wage), and lengthened working hours for the same money. Women reported that increased competition for jobs had accentuated discrimination in the labor market, with many jobs specifying that women wanting to apply should have certain physical characteristics.

High fuel prices have aggravated the costs of commuting for workers living on the furthest outskirts of the city, eroding disposable income to such an extent that some reported withdrawing from paid employment to engage in income-generating activities based around the home or garden. Prices of basic consumption goods have remained high over the research period and households routinely mention limiting the purchase of nonessentials (such as soap and shampoo) to be able to maintain levels of basic consumption.

*(Box continues on next page)*

**Box 4.1 (continued)**

Households in rural areas describe the impacts of falling prices of livestock products, sometimes crisis-related, sometimes driven by seasonality. The crash in the price of cashmere last spring caused severe hardship for poorer households, who have fewer savings and are less able to choose when to sell their cashmere. In combination with high prices for basic commodities (such as flour, sugar and oil), this terms of trade shock meant that some poorer households had to then sell livestock for meat in order to cover basic subsistence costs, even though meat was also unfavorably priced. While there were no reports of withdrawals of children from school, there were reports of changed health-seeking behavior for services where charges exist. Less poor herding households, with more animals and a more diversified range of income generating options, have been better placed to cope with the price shocks by reducing purchases of nonbasic goods.

Discussions during the research suggest that there are a number of nonmaterial impacts from the crisis. Increasing abuse of alcohol was mentioned several times by many groups and was linked to under- or unemployment in some instances (particularly with respect to young, first-time labor market entrants). Women reported an increase in tensions, arguments, and violence in the household driven by economic stress, although exceptions were noted when husbands were working such long hours that there was no time left for arguments).

Cash transfers clearly play an important role in helping poorer groups to cope with fluctuations in prices and incomes. This highlights the urgency of the government instituting the poverty-targeted cash transfer program envisioned under the social welfare reform law currently before the parliament.

*Source:* World Bank staff.

**Box 4.2. The Impact of the December 2009 “Dzud” on Livestock Mortality and Rural Livelihoods**

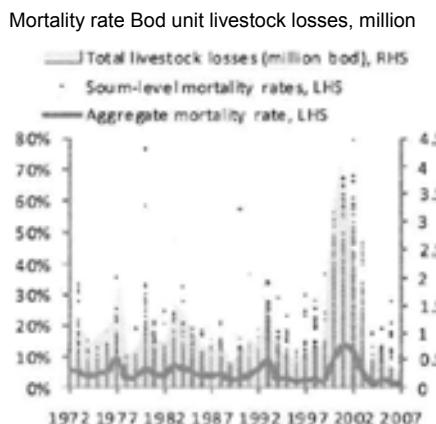
As in much of Asia, Mongolia experienced winter conditions this year that were even more severe than usual. With strong snowstorms and temperatures in many parts of the country dropping below -40C, the government estimated that more than half of the country's provinces experienced dzud conditions.

The recent dzud marked a record disaster affecting over 80 percent of Mongolia's territory, 175 soums and 98 thousand herders. Latest estimates by the Ministry of Food and Agriculture place the total official livestock loss due to the dzud at around 6.9 million or 15.6 percent of the total herd. Based on average livestock prices, herders' losses are estimated at around MNT 360.3 billion just over winter. In order to help dzud relief efforts, the international community, including the World Bank, committed US\$11.9 million.

This is particularly worrisome given that livestock accounts for 63 percent of rural household assets, losses have a significant impact on poverty. Mortality trends continued over the past few months placing considerable strain on the existing relief system, fodder supplies, and donor resources.

To put this dzud into perspective, the series of harsh winters from 1999 to 2002, which killed around 11 million animals (Box Figure 4.2a) cost the economy MNT 413.8 billion (US\$369 million)<sup>a</sup>. While it is too early to assess the overall economic impact of the most recent dzud, previous experience highlights the correlation between mortality rates and the growth rates of agricultural GDP (Box Figure 4.2b).

*(Box continues on next page)*

**Box 4.2 (continued)****Box Figure 4.2a. Impact of “Dzuds” on Livestock Mortality Rates**

Source: Mongolian authorities, World Bank.

Note: Bod unit equivalent to one horse, one cattle (cow or yak), 1.5 camels, six sheep, or eight goats. Mortality rates calculated on bod basis as losses in year divided by stock at end of previous year.

The impact of dzuds on livestock losses is affected by not only winter weather conditions, but herder ability to provide fodder and shelter for their herds. Fodder levels are dependent on the previous summer's conditions. The combination of a drought in the summer and a subsequent dzud leads to markedly higher mortality rates.<sup>b</sup> Similarly, conditions in subsequent summers also matter: those animals remaining are also likely to be weakened. Mortality rates usually vary across regions (see the variation in soum-level mortality rates in Box Figure 4.2a). This reflects not only weather variations but also differences in communication infrastructure, such as roads, and proximity to major urban areas which facilitate access to markets and fodder.

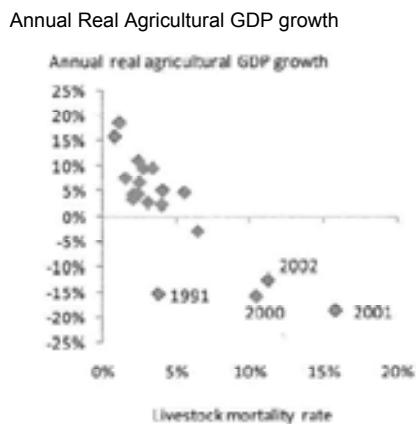
Institutional arrangements, hay storage and the setting aside of fodder reserve pastures during normal years, play a key role in keeping animals alive during dzuds. Unfortunately, the transition from the socialist economy to a market economy removed a number of key institutional arrangements previously used to successfully deal with dzuds. This included hay storage at the local government level and setting aside pasture reserves during good-weather years.<sup>c</sup>

Source: World Bank staff.

a. The UNDP (2008) dzud estimates of 1999–2000 and 2000–2001.

b. For example, a study of livestock mortality in the Gobi Three Beauty National Park over the period 1939–83 and 1990–97 found that mean mortality rates in years with neither drought nor dzud of 6.6 percent, 11 percent in years with drought only, 13 percent in years with dzuds only and 18 percent in years with both drought and dzuds (S Begzsuren et al. (2004)), “Livestock responses to droughts and severe winter weather in the Gobi Three Beauty National Park, Mongolia”, *Journal of Arid Environments* 59, 785–796).

c. “Livelihood Study of Herders in Mongolia”. 2009. Unpublished draft. Green Gold Pasture Ecosystem Management Program and the Mongolian Society for Range Management, funded by the Swiss Agency for Development and Cooperation.

**Box Figure 4.2b. Agricultural GDP Growth and Livestock Losses from 1991 to 2009**

Source: National Statistical Office, World Bank.

Note: Mortality rate is aggregate rate on bod basis.

## Notes

<sup>1</sup> 2009 Outturn of the Government Reserve Fund, Ministry of Finance.

<sup>2</sup> News sources suggest that the actual volume of exports may be higher, as the WPT may have led to gold being smuggled out of the country. Another reason may be that producers are holding on their gold stock rather than exporting, until the tax is abolished in 2011.

<sup>3</sup> The financial account records all transactions between a domestic and foreign resident that involves a change of ownership of an asset. It is the net result of public and private international investment flowing in and out of a country, such as FDI, portfolio investment, and lending and borrowing.

<sup>4</sup> These are loans of which the principal is 1 to 90 days in arrears. After 90 days, they are categorized nonperforming loans.

<sup>5</sup> Excluding the two failed banks, NPLs and loans with principal in arrears as a percent of total loans outstanding currently amount to around 15 percent.

<sup>6</sup> "Consolidated Loan Report," April, 2010, Bank of Mongolia.

<sup>7</sup> Box 2 in World Bank (2009), "Mongolia May Monthly Economic Update."

<sup>8</sup> World Bank (2009) *Study on the Crisis Implications for Household Livelihood, Final Report*, May 20-June 30.

<sup>9</sup> The effects of the dzud conditions in recent months have been significant, not least because it marked a record disaster. Latest estimates by the Ministry of Food and Agriculture place the total official livestock loss due to the dzud at around 15.6 percent of the total herd and herders' losses are estimated at around MNT 360.3 billion just over winter. This is particularly worrisome given that livestock accounts for 63 percent of rural household assets, as losses have a significant impact on poverty. Particularly vulnerable are families from rural areas migrating to cities. This increases the size of workers in informal labor markets for unskilled labor, which will put downward pressure on wages in key markets (although increased demand during the holiday season partially served as an offsetting factor).

## CHAPTER 5

# Promoting Recovery and Growth Going Forward

Mongolia's medium-term growth outlook is certainly very favorable. Capital expenditure on infrastructure and investment relating to the development of the OT mines is expected significantly boost GDP growth rates to close to 7 percent between 2010 and 2012 and over 20 percent in the medium term. But, continued improvements in the policy environment are required. The government's strategy going forward is defined by the twin objectives of continuing the corrective actions necessary to successfully bridge the next few years and putting in place a strong policy framework to manage the upcoming mining boom. For example, addressing the current problems of the financial sector in a decisive and transparent manner will prepare the sector for the upturn in economic activity, investment and capital inflows in the years ahead. In the field of social protection, the medium-term goal of the envisaged reforms is to better protect the poor by targeting the currently untargeted grants.

Of particular concern are the attendant Dutch disease risks of the upcoming mining boom (Box 5.1) and the potential for a return to the "profligate populism" of the past. The recently adopted fiscal stability law aims to restrain expenditures during boom times to limit such risks. The law includes three rules to this effect: one adopts a structural balance similar to the Chile example (see Box 2.1); one sets a ceiling to public debt as a share of GDP; and one restrains the annual increases in public expenditures to a sustainable level (Box 5.2). One important ingredient of this fiscal framework is an estimate of long-run copper prices. This is inherently difficult, which is why it is perhaps more important that the estimation method is defined in a clear and transparent manner than how accurate the estimate eventually turns out to be (Box 5.3).

Improvements to the budget process, including the public investment program, are complementary to other fiscal measures to better manage the boom-and-bust cycle of mineral prices. Not only will the former reforms help Mongolia increase the efficiency with which future increases in mineral revenues are invested, but also they are crucial in effectively and cost-efficiently addressing the infrastructure needs of the country, in particular those related to modern mining infrastructure. This is an important issue since the favorable growth outlook depends heavily on a small

number of major investment projects. One such project is OT. It is imperative that there are no delays in the development of the mine and its associated infrastructure.

However, the current public investment planning and execution process in Mongolia suffers from a number of weaknesses. Box 5.4 examines at the aggregate level the need to improve the efficiency of public investment expenditures. Box 5.5 then focuses in on the current problems in investment planning and execution that are seen in Mongolia through the lens of investment in the road sector. It is important to note that these weaknesses affect not just new investments, but also funding and execution of maintenance and repairs, where gross under-spending has led to disrepair in the energy and roads sectors (Figure 5.1). Finally, Box 5.6 considers another important reform agenda on public investment, namely public-private partnerships (PPPs). Such partnerships are an important potential mechanism for financing Mongolia's substantial infrastructure needs going forward, particularly to support mining sector development. However, it is important that all such projects are still subject to an evaluation as part of the overall public investment program.

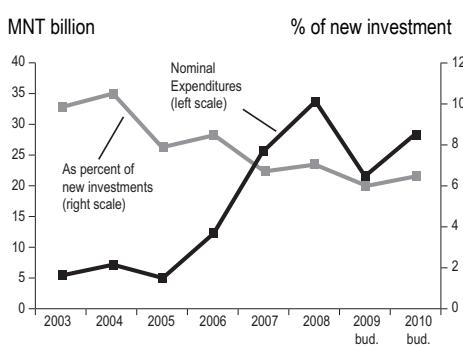
Recent developments in the fiscal sector regarding the public investment proposals for 2010 highlight the challenges Mongolia faces in ensuring that future mineral revenues address key development challenges. The annual budget law for 2010 was approved by parliament in November 2009 despite the presidential veto. The veto included MNT 76 billion of investment projects allocated for each election constituency. While the president's veto questioned parliament for abusing its power and allocating taxpayers' money to the election constituency, from the fiscal point of view there is a more serious concern: that the majority of those newly added projects do not have feasibility studies or technical drawings.

The approval of projects that do not have feasibility studies and technical drawings violates the Construction Law of Mongolia (article 15.2). Since the presidential veto was disregarded by legislature and the budget enacted, a citizen submitted a petition to the Constitutional Court of Mongolia claiming that the 2010 annual budget law violated the constitution of Mongolia. Due to these rising public and constitutional concerns over the investment plan, parliament instructed the Mongolia National Audit Office to conduct an audit of the planning, formulation and development of the public investment program approved under the 2010 budget. The audit found that about 7 percent of projects were not aligned with any of the major strategy documents, while around 180 out of 600 construction and capital repair projects did not have feasibility studies or technical drawings (as required under the Construction Law). In value terms, the audit found that, out a total of MNT 447.7 billion worth of projects in the PIP, around MNT 18.3 billion did not have feasibility studies, MNT 4.5 billion of projects did not have sufficient budget funding, MNT 21.9 billion of projects did not have sufficient capacity (volume or size), MNT 11.1 billion of projects did not have a clear investment purpose and ownership, and MNT 12.4 billion of projects were noninvestment projects (SME promotion, tourism development, herder promotion measures, and so forth). Note that individual projects may fall in more than one of these categories. As a result, pressure is growing for an amendment to the 2010 budget during the parliamentary spring session that started on April 5.

Continued reforms in the mining sector and increasing its transparency will help enhance incentives for new exploration and environmentally and socially sustainable

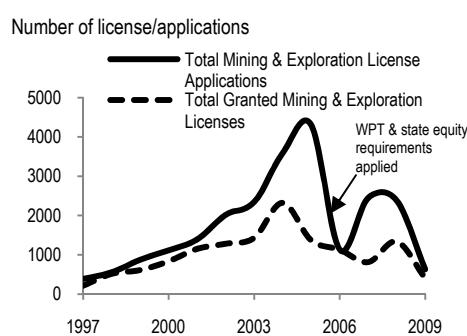
development. Avoiding any rise in uncertainty over the policy framework is crucial. For example, such uncertainty framework in the mining sector during the pre-crisis period, through the introduction of the Windfall Profits Tax, together with new requirements on state equity participation, acted as a deterrent to new foreign investment (Figure 5.2).

**Figure 5.1. Expenditures on Capital Repairs Have Declined Relative to New Investments**



Source: Mongolian authorities and World Bank.  
Note: Road Fund included in capital repairs from 2007-2010.

**Figure 5.2. Trends in Exploration and Mining Licensing Activity Undermined by Policy Instability**



Source: Mongolian authorities and World Bank.

### Box 5.1. Dutch Disease

#### What is Dutch Disease?

Dutch disease refers to the harmful consequences of a large inflow of foreign exchange, for example due to booming natural resource exports or a large increase in foreign aid or remittances. A boom in the natural resource sector increases a country's income, which will lead to increased spending. In response to this, the nontraded sector will raise its prices, but the traded sectors cannot, as they are exposed to foreign competition. As a result, the real exchange rate (the price of nontraded goods relative to traded goods) appreciates: a unit of foreign currency now buys fewer real goods and services in the domestic economy than before. As a result, the relative profitability of the manufacturing sector declines. Note that the size of the spending effect depends on the extent to which the additional income is spent domestically.

#### What Happened in the Netherlands?

The term Dutch disease was coined in the early 1980s when the Netherlands became the first patient diagnosed with this disease. At that time, the Dutch economy was in a state of crisis, with GDP contracting in 1981 and 1982 (Box Figure 5.1a). Gas revenues had been relatively modest since the natural gas fields were first discovered in 1959. In the 1970s, energy prices surged as a result of the oil crises, causing the gas revenues of the central government to increase from 0.1 percent of GDP in 1970 to 4 percent in the first half of the 1980s.

(Box continues on next page)

**Box 5.1 (continued)**

In response to the economic downturn that followed the first oil crisis, the government adopted an expansionary fiscal policy, financed to a large extent by the windfall gas revenues. Nearly all revenues were spent on income transfers to households. This exerted upward pressure on the real exchange rate. The guilder, which in 1974 already had appreciated by 30 percent since 1960, appreciated even further between 1975 and 1979.

The spending effect was not the only reason for the loss in competitiveness of the private sector; wage developments also played a crucial role. Wage indexation prevented real wages from adjusting to the large deterioration in the terms of trade of the nonenergy sector. The combination of high energy prices, upward pressure on the real exchange rate, and the high labor income share squeezed the profitability of the market sector. As a result, employment declined substantially.

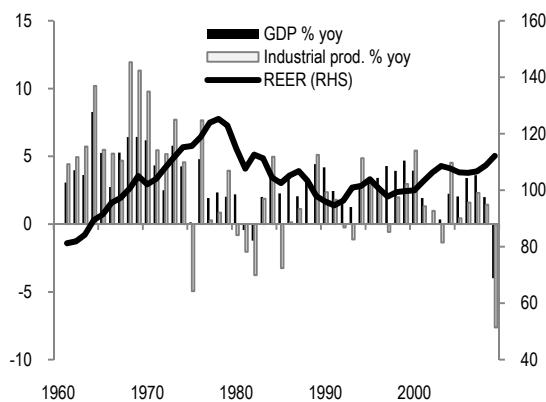
The dramatic increase in unemployment and the introduction of a very generous welfare program resulted in a strong increase in public expenditure. The fiscal situation deteriorated dramatically in the early 1980s when expenditure on social welfare exploded. In 1982, public expenditure was 60 percent of GDP, an increase of 15 percent compared to 1970.

**How Did the Netherlands Recover?**

Drastic measures had to be taken. To restore competitiveness, wage growth was restricted for a number of years—in some years it was even negative in real terms—and the guilder was pegged to the deutschmark. These measures had a strong positive effect on employment. However, restoring the fiscal position and the functioning of the labor market required a drastic restructuring of the social welfare system and other expenditure cuts. It took more than 20 years and a number of very unpopular political decisions before public finances were sound again. The structure of the manufacturing industry also changed, with dramatic declines visible in employment and output in heavy industry notably textile manufacturing and shipbuilding, although that said, the Netherlands has become the leading producer of horticultural goods.

The Dutch experience contains a number of important lessons for other countries on how to manage revenues from natural resources. First of all, it shows that even when revenues from natural resources amount to only 4 percent of GDP, spending them can contribute to a strong decline in competitiveness and employment. Second, spending temporary revenue windfalls is very likely to lead to a structural increase in expenditures. More generally, since the domestic spending of windfall revenues is the main cause of Dutch disease, sound fiscal policy is the key to preventing it. A set of fiscal rules should be adopted to make sure that temporary fluctuations in revenues from natural resources do not affect expenditure, but rather lead to changes in the actual fiscal balance. In other words, excess revenues from natural resources should not be used for domestic spending, but rather should be invested abroad.

*Source:* Prepared by Remco van der Molen (Dutch Ministry of Finance). The views expressed herein are those of the author and should not be attributed to the Ministry of Finance of the Netherlands.

**Box Figure 5.1a. How Dutch Disease in the 1970s Caused the Netherland's Real Exchange Rate to Appreciate and Output to Contract**

Source: AMECO EU database.

### **Box 5.2. Fiscal Stability Law: Smelting Copper into Prosperity**

Mongolia's mineral wealth is an economic blessing that, if well managed, will lead to lasting economic prosperity. But, prosperity is not guaranteed. Indeed, international experience shows this blessing often becomes a resource curse!<sup>a</sup>

A good fiscal policy is critical for turning mineral wealth into economic prosperity. The government, therefore, adopted in July 2010 a fiscal stability law that will promote the needed budget discipline. It will do so by including fiscal rules that put limits on policymakers' discretion. These rules would function much like a fiscal circuit breaker. A set of three complementary rules would, as one example, work together to ensure fiscal discipline: The challenge for Mongolia is to ensure its substantial mineral deposits are exploited to promote strong, sustainable, and equitable growth with low inflation.

*Ceiling on the “structural” deficit.* The structural deficit adjusts the deficit for swings in copper prices. Specifically, revenue projections will be based on a “normal” or smoothed copper price instead of the actual copper price. This helps insulate the budget from copper price volatility, and prevents fiscal policy from transmitting copper price shocks to the rest of the economy. In the past, when copper prices were high, fiscal spending increased in tandem with revenue, leading to overheating and inflation. Then, when copper prices fell, revenue fell, and spending had to be curtailed sharply—making the ensuing economic downturn worse. In other words, fiscal policy was too procyclical. Use of a structural deficit rule will prevent this kind of boom-bust policy. Such a rule has worked well in Chile.

*Debt ceiling.* This will prevent excessive borrowing against future wealth—a common mistake among resource economies. High public debt makes the economy vulnerable to commodity price changes, other shocks, or financing constraints. A debt ceiling also reinforces the government's commitment to fiscal sustainability.

*Ceiling on expenditure growth.* This is another circuit breaker that should generally not kick in. Spending growth that is too fast, however, is bad for the economy (it leads to overheating and inflation) and, from a fiscal perspective, difficult to manage without reductions in quality and efficiency. This rule is a safeguard that would apply when structural revenue is rising fast, such as when Oyu Tolgoi mine comes on line.

In addition to the numerical rules, the fiscal stability law also incorporates procedural and transparency reforms to strengthen budget discipline. This could include, for example, strengthening the role of the medium-term framework in setting aggregate ceilings for the budget process. The government also plans to adopt an organic budget law that will complement the fiscal stability law in promoting sound budgeting.

At the end of the day, the fiscal stability law will only work if policymakers adhere to it. The fiscal rules and the annual budget must become a binding constraint on policy. This means that all new policy initiatives with fiscal consequences would have to be made consistent with the fiscal policy framework before being adopted. So, policies that boost spending, for example, have to be paid for through spending cuts elsewhere or new revenue measures. Policymakers are in effect agreeing to “tie their own hands” to safeguard fiscal discipline. A fiscal discipline, however, that will yield huge benefits in helping to convert Mongolia's substantial mineral wealth into economic prosperity.

*Source:* World Bank staff.

a. Specifically, resource dependent economies often grow slower than other economies—see, for example, Hausmann and Rigobon, 2003, “An Alternative Interpretation of the “Resource Curse”: Theory and Policy Implications”, in *Fiscal Policy Formulation and Implementation in Oil-Producing Countries*, ed. by Davis, Ossowski, and Fedelino, (Washington, International Monetary Fund).

**Box 5.3. Forecasting Copper Prices**

The economic fortunes and (misfortunes) of both commodity producers and importers are closely tied to highly volatile commodity prices. For instance, before they began to fall in 2008, the real prices of energy and metals more than doubled over the previous five years, while food prices rose by around 90 percent. With the onset of the global economic crisis, metals, and energy prices dropped by a third relative to their peak in 2007 while food prices fell by around 15 percent (Box Figure 5.3a).

Given the large impact that commodity price movements can have on overall macroeconomic performance—witness Mongolia’s boom-bust cycle in recent years—commodity price forecasts are a key ingredient in macroeconomic policy planning and formulation. For example, under the proposed fiscal stability law currently being considered, Mongolia would adhere to a ceiling on the “structural budget deficit.” This adjusts budget revenue projections for swings in copper prices using a “smoothed” price projection and thus is aimed at preventing copper price shock from being transmitted into the rest of the economy. A similar “structural balance” rule successfully being followed in Chile derives its forecasts for “structural revenue” from copper price and tax revenue projections made by two independent panels of experts.

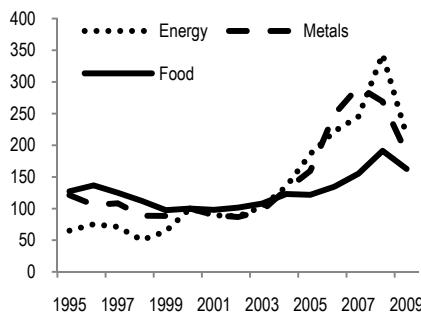
However, the volatility of prices underscores the difficulty of forecasting with any reasonable degree of accuracy the future path of commodity prices. For instance, the IMF provides commodity price forecasts twice a year in the April and October editions of its *World Economic Outlook* (WEO) publication. These are based on expectations of commodity prices for a given year, and also for the year ahead. The accuracy of these against actual price developments is shown in Box Figure 5.3b. One year ahead, forecasts are particularly subject to large errors, tending to under- or overshoot actual prices on average by about 25 percent. Even forecasts made during the course of the year regarding the average price level of copper in that particular year have an absolute average forecast error of about 10 percent.

With forecasting an “inexact science,” any assessment of the actual method adopted depends on how well it performs relative to others. The different methods available can be classified into three groups: (1) judgmental forecasts that are based on an analysis of the factors that impact commodity prices such as demand and supply conditions; (2) model-based forecasts that utilize historical price information, and (3) those that rely on all available information including futures prices.<sup>a</sup> The evidence suggests that in terms of statistical and directional accuracy (the latter is important for identifying turning points in cycles), models which incorporate futures prices tend to outperform forecasts derived from judgmental or historical data based models over longer term horizons (1 to 2 years) while. That said, it remains important to emphasize that this is a relative assessment. The predictive power of futures prices can be highly unreliable, with commodity price increases in recent years having been underpredicted by futures markets.<sup>b</sup>

(Box continues on next page)

**Box 5.3 (continued)****Box Figure 5.3a. Commodity Prices in Recent Years Subject to Large Swings**

Commodity price indices, rebased 2000=100

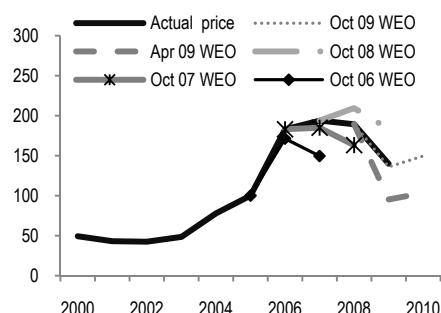


Source: IMF, Bank staff calculations

Notes: The energy index includes crude oil, natural gas and coal price, metals includes copper, aluminum, iron ore, tin, nickel, zinc, lead, and uranium while the food index includes cereal, vegetable oils, meat, seafood, sugar, bananas, and oranges.

**Box Figure 5.3b. Large Errors in Forecasting Copper Prices**

Actual copper prices vs IMF forecasts (rebased, 2005=100)



Source: IMF, Bank staff calculations

What are the lessons from this for policy makers? For a start, commodity prices cannot be predicted accurately, irrespective of whether sophisticated statistical models are used or not, although those using futures prices which are forward looking may perform relatively better. Accordingly, ideally policy makers should try and base their forecasts on data/models that are transparent and relatively easy to understand, for instance by being based on easily available futures price data augmented with other information that they consider relevant. Finally, policy makers should keep in mind that these forecasts are conditional on existing information, and that when underlying conditions change, these forecasts will also need to be revised.

Source: World Bank staff.

- a. A futures contract is a standardized contract to buy or sell a specified commodity of standardized quality at a certain date in the future and at a market-determined price or the *futures price*. A futures price is therefore a forward looking assessment in commodity markets of the path of commodity prices relative to current or spot prices.
- b. See "Forecasting commodity prices: futures vs. judgment" by C. Bowman and A. Husain (2004), IMF Working Paper and "Outstanding issues in the analysis of inflation," speech by B Bernanke, the Chairman of the U.S. Federal Reserve Bank on June 9, 2008.

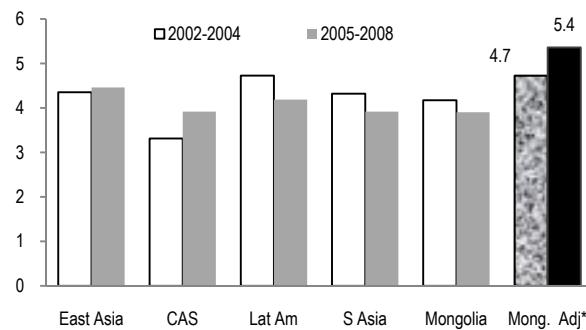
#### **Box 5.4. The Returns to Improved Investment Spending in Mongolia**

Over the last decade, there has been a substantial increase in aggregate investment in Mongolia. It rose from 25 percent of GDP in 2000 to 35–40 percent in 2007–08. The portion of investments funded from the budget has also grown rapidly, financed by the mineral resource boom. Nominal public capital expenditures rose seven-fold to over MNT 620 billion between 2005 and 2008 and amounted to 11 percent of GDP at its peak in 2007.

Ensuring public investment expenditures translate into productive capital assets remains a core development challenge, given growing concerns regarding the low allocative and operational efficiency of Mongolia's significant investments, notably public investment. These problems can be demonstrated using simple rules of thumb for the boom years (2005–08) such as the ICOR ratio (Box Figure 5.4a). These problems. Obtained by dividing the ratio of investment to GDP by real GDP growth, a smaller ratio implies more efficient investment. On average, between 2002–08 Mongolia's ICOR ratio was 4, which is well within the range of 3.5–4.5 observed for developing countries. However in Mongolia's case, given the boost to mineral GDP from copper in recent years, the investment to GDP and, therefore, the ICOR ratio are likely to have been underestimated. Adjusting for this by using non-mineral GDP, the ICOR ratio rises to 5.4 for the period 2005–08, implying that in order to boost growth by 1 percentage point, the equivalent of 5.4 percent of GDP must be newly invested. This is much higher than in other countries, including in the comparator Central Asian region and also an increase from the 4.7 observed in 2002–04.

Another way of looking at this issue is through returns to public investment, which have declined significantly over the past five years. Using the methodology specified in Harberger (2007), the contribution of capital to growth is simply investment as a fraction of GDP times the real rate of return on that investment. As Box Figure 5.4b shows, aggregate investment (public and private) has yielded real returns on average of 18 percent since 2002.<sup>a</sup>

**Box Figure 5.4a. Mongolia's ICOR ratios Are Much Higher than in Other Developing Countries, Indicating Inefficient Investment Spending**



Source: World Development Indicators, World Bank staff estimates.

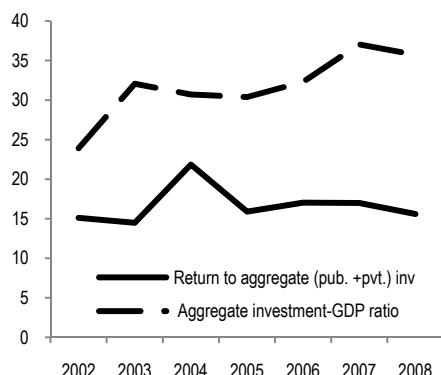
Notes: All ICOR ratio calculations exclude years of extremely high or low GDP growth in order to minimize the effect of the economic cycle on estimates. East Asia comprises China, the Republic of Korea, Thailand, Malaysia, Vietnam, and Indonesia. South Asia consists of India, Pakistan, Sri Lanka, and Bangladesh. CAS comprises the Central Asian states of Kazakhstan, Kyrgyzstan, Uzbekistan, Azerbaijan, Turkmenistan, Tajikistan, and the Russian Federation. Lat. Am comprises Argentina, Brazil, Ecuador, Peru, Chile, and Colombia. \* ICOR ratio for Mongolia calculated using non-mineral GDP.

(Box continues on next page)

**Box 5.4 (continued)**

However, the rates of return on public investment climbed to over 32 percent in 2005 and then sharply fell to 6.5 percent in 2007 (Box Figure 5.4c). These sharp movements reflect the surge in public investment spending which has more than doubled to over 10 percent of GDP in 2007; this would result in a lower rate of return.<sup>b</sup> But there is also a sharp drop in average rates of return—from 25 percent in 2002–05 to 16 percent in 2006–08. This suggests a broader decline in the efficiency of public investment spending. This suggests a growing risk that Mongolia is allocating resources to projects with economic rates of return lower than the cost of capital or what can be earned from other relatively high return projects.

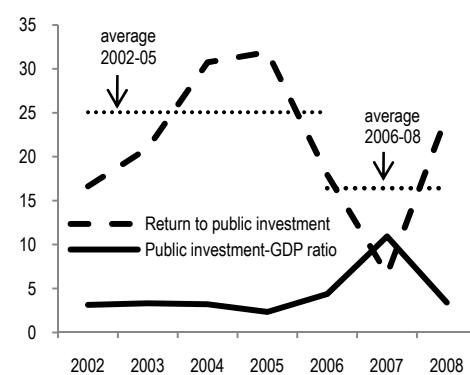
**Box Figure 5.4b. Returns to Aggregate (Public and Private) Investment Have Remained Steady in Recent Years...**



Source: National Statistical Office, World Bank Staff estimates.

Notes: Assuming identical GDP and capital stock growth rates

**Box Figure 5.4c. ...But Returns to Public Investment Have Fallen Sharply since 2005**



Source: National Statistical Office, World Bank Staff estimates.

Notes: Assuming identical GDP and capital stock growth rates.

The benefits from improving public investment spending, e.g. through project rigorous evaluation and redressing implementation issues are huge. For example on average, in 2007–08, public investment amounted to 7 percent of GDP and yielded a return of 15 percent. If, through improved project evaluation, yields rose to 25 percent (the average return observed from 2002–05), this would have the impact of raising GDP growth by 0.7 percentage points (equal to  $(0.25 - 0.15) * 0.07$ ). To quantify this, assume Mongolia's average long term growth rate is 5 percent. Starting off with 2008 GDP of MNT 3.6 trillion (in real terms), the PV of the future stream of GDP with a 5 percent growth rate is MNT 72 trillion<sup>c</sup>. If the growth rate increases to 5.7 percent as a result of the improved investment planning, the PV of future GDP rises to MNT 84 trillion. The difference is roughly 3 times 2008 GDP.

Source: World Bank staff.

a. The numbers are consistent with high real rates of return observed in other developing countries (See Harberger 2005, "On the process of growth and economic policy in developing countries," USAID PPC Issue Paper No 13.)

b. The main assumptions are a depreciation rate of 3%, a capital to GDP ratio of 56 percent and that the capital stock grows at the same rate as GDP (See Harberger, 2007 "On growth, investment, capital and rate of return," mimeo).

c. Equal to  $3.6 / (0.1 - 0.05)$  where 0.1 is the assumed to be the discount rate under the assumption that society's opportunity cost of capital is 10 percent and 0.05 is the GDP growth rate of 5 percent.

### **Box 5.5. Road Sector Problems in Mongolia**

The World Bank recently conducted a case study to investigate the current state of the national road network and determine the weakest links in the life-cycle of road projects. This was done by analyzing a sample of 10 ongoing and recently finished projects. The findings revealed Mongolia's road sector faces a large backlog of maintenance with around 60 percent of paved roads in poor condition (Box Table 5.5a). In addition the planning framework for new investment projects in the sector is weak, with an average time overrun of 2.3 years (or 180 percent).

**Box Table 5.5a. Condition of the National Paved Road Network**

Condition	Km	Share of total classified roads (%)
Good	864.4	17
Fair	1,209.6	24
Poor	2,925.9	59
Total	4,999.9	100

Source: Department of Roads.

The sample of 10 budget-funded roads projects was drawn from the total portfolio of 50 projects implemented since 2005. Of the surveyed projects none included cost benefit analysis during any stage of the planning process. The main reason for this absence is a lack of capacity to conduct economic analysis among both government officials and project implementers. According to officials there is not enough traffic volume on national roads to justify a usage survey due to the low population density in the rural regions. Rather than an economic analysis, social and environmental impacts of a project are considered more relevant for Mongolia. With insufficient traffic the construction costs of new roads may not be economical but paved roads reduce pasture destruction (through off-road driving) and increase the overall development of regional infrastructure. Still, a prioritization based on 'national importance' indicates that only 54 percent of the portfolio is rated as high priority, 38 percent medium, and 8 percent low.

In addition to the lack of feasibility studies, projects were awarded through direct contracting, often with no accompanying technical documentation. Within the sample, four projects were executed through direct contracting while the remainder went through the normal tendering process. The former lacked proper screening of contractors prior to awarding contracts. They also lacked proper field investigations which resulted in costly engineering interventions and increased work scope. While seven of the ten projects had time overruns, with an average completion time of 3.1 years compared to the original plan time of 1.8 years (an overrun of 70 percent), the directly contracted projects were completed with an average time overrun of 2.3 years (or 180 percent).

The significant delays across the whole portfolio of roads, more than doubling the original completion time in some cases, reflect three factors: poor planning and inaccurate cost estimation, procurement problems, and weaknesses in the construction sector. Procurement delays are particularly severe for the projects added by parliament as they usually have no accompanying engineering designs. This problem has been compounded by the decision in the 2010 budget to fund a significant portfolio of new projects by the construction companies on a reimbursement basis.

Source: World Bank staff.

Notes: The findings of this survey provided the background analysis for Policy Note on "Mongolia: Public Investment Planning Public Investment Planning," March 2010, Poverty Reduction and Economic Management Sector Unit, East Asia and Pacific Region, World Bank. Data provided by the Ministry of Road, Transport and Construction (MRTC) and the Department of Roads.

### **Box 5.6. Public-Private Partnerships: No Magic Bullet**

Public-private partnerships (PPPs) are increasingly being used in the provision of infrastructure services, in particular those with large upfront costs such as highways, water and sanitation, bridges, airports, hospitals, and schools. Among advanced countries, the United Kingdom and Portugal stand out as making the largest use of PPPs: around 20 percent of public investment provision is via PPPs. PPPs have also become more widely used in developing countries, with their value peaking at US\$130 billion prior to the Asian Financial Crisis in 1997/98. In the latest crisis, with government budgets under pressure and private sector funding drying up, the use of PPPs has diminished, although they are estimated at around US\$48 billion in the first half of 2009.

The key characteristics of PPPs are that they tend to bundle investment and service provision into a single long term contract. The duration of projects is usually 20–30 years, with the private firm managing and controlling the asset (this typically also includes responsibility for maintenance), usually in exchange for user fees. The fees are its compensation for the investment and other costs. When the contract ends, the project reverts to government ownership.

PPPs can be an important source for infrastructure development in Mongolia's future. However, it is important to underline that PPPs are not "free money"—the investors will expect a return on their investment and financiers will require certain collateral assurances that they will get their money back. The majority of these transactions convert capital expenditure today into recurrent spending in future years. They need to be viewed by the government as just another financing option for a "good project," with its associated costs, and not as a means to promote other objectives, such as privatization or spurring private sector activity.

In particular, Mongolia needs to avoid the risk that PPPs develop into a system that is parallel to the budget-financed public investment program, with the true costs of these projects not adequately reflected in the budget. To enable effective planning, the public investment program should allow for the evaluation of all publicly executed projects irrespective of the financing source. Parallel systems run several important risks:

- difficulties in ensuring that all projects are approved within the affordability envelope of the MTFF;
- fragmentation between the capital and recurrent budget, and of projects being approved without adequate consideration of resources to cover subsequent operational and maintenance costs, can lead to asset degradation and a reduced ability to deliver effective infrastructure and services;
- lack of institutional coordination between responsible entities, leading sometimes to double programming; and
- the lack of one institution to provide a single coherent overview of the country's social and economic development activities.

In addition, the fiscal risks can also be considerable. These include:

- state guarantees on the debt raised against the project;
- guaranteed minimum levels of demand (volume of traffic, MW of power through 'take or pay' agreements, and so forth) and other minimum revenue guarantees; and
- termination provisions that require the state to buy back the assets at either 'market value' or write down value and other 'buy back' clauses.

To protect against these risks, a single system of project appraisal for all projects (public and PPP) should be used to ensure consistency in selection and fairness in prioritization. A "bad" project will always remain a "bad" project: using a PPP approach will not magically transform it into a good one. The Ministry of Finance should therefore be able to veto a proposed PPP project at both the concept stage as well as prior to the contract being signed. And all the fiscal risks of the project have to be adequately accounted for, which includes reflecting the expected value of guarantees and other contingent liabilities in the annual budget, and subjecting the stream of expected service payments for PPPs and calls on guarantees to medium-to-long term debt sustainability analysis, with appropriate sensitivity tests.

## CHAPTER 6

# Looking Forward

Mongolia's economic medium- and long-term prospects have been transformed by the signing of the OT agreement. Nevertheless, there remain sizeable risks to the economic and policy outlook. These include signs of overheating in the economy, banking system solvency, and near-term fiscal pressures before the sharp expected increase in mineral revenues associated with OT. The economic outlook fundamentally depends on a small number of major investment projects, particularly OT. It is therefore essential that progress on fiscal adjustment and banking sector supervision and restructuring continues, bridging the period until the start of the mining-induced high revenue growth era in the medium term.

Mongolia's medium- and long-term growth outlook is extremely favorable, driven by the signing of the major OT mining investment agreement in October 2009. A surge in capital expenditure on infrastructure and investment relating to the development of the OT mines is expected to raise GDP growth rates to close to 7 percent between 2010 and 2012 (Table 6.1). The revival in economic activity will lead to a rise in inflation in the near-term. Once copper production actually starts in 2013, GDP growth is forecast to rise sharply, to more than 20 percent, and is projected at around 5.5 percent on average in the long term (2015–30). The growth outlook could improve even further if other prospective mining projects also materialize, notably the Tavan Tolgoi (TT) coal deposits, which could transform Mongolia into a leading global coal producer.

The current account deficit, which improved considerably in 2009, is set to worsen markedly in the next few years as mining-related investment goods are imported for the development of the OT mine. The current account deficit has contracted as the trade balance improved through a sharper compression of imports relative to exports (Table 6.2). Imports supporting capital expenditures on the OT project will greatly enlarge the deficit with total imports projected to increase to US\$2.7 billion in 2010, up almost US\$0.6 billion on 2009. In 2010 the overall deficit including the impact of OT is projected at 11 percent of GDP and is expected to rise even further until 2012. However, these near-term deficits are expected to be fully financed through FDI inflows and private loans. Once the OT mine becomes operational, the current account balance is expected to shift into surplus from around 2014 onward.

**Table 6.1. Medium-term Baseline Projection**

	2008	2009	2010f	2011f
<b>Real sector</b>				
Real GDP growth (percent yoy)	8.9	-1.6	7.3	7.1
CPI inflation (end-period, percent yoy)	23.2	1.9	7.5	5.5
<b>Monetary sector</b>				
Broad money growth (percent yoy)	-5.1	26.9	19.9	17.2
<b>Public sector</b>				
Government revenues and grants (percent of GDP)	36.1	32.9	34.5	30.6
Government expenditures and net lending (percent of GDP)	41.0	38.3	38.5	35.0
Government balance (percent of GDP)	-4.9	-5.4	-4.0	-4.5
Total public sector debt (percent of GDP), of which:	33.8	56.4	62.7	65.0
Domestic public debt <sup>a</sup>	0.1	9.3	22.7	30.4
External public debt <sup>b</sup>	33.7	47.1	40.0	34.6
<b>Balance of payments</b>				
Current account balance (percent of GDP)	-13.9	-5.6	-11.0	-21.0
Gross official reserves (US\$ million)	658	1,327	1,492	1,646
in months of next year's imports of goods and services)	3.8	3.0	4.9	4.0
Memo:				
Nominal GDP (MNT billion)	6,020	6,055	7,221	8,055

Source: Mongolian Authorities, World Bank, IMF (2010).

Notes: a. Includes expected fiscal cost of bank restructuring, the financing of the government's equity share in OT and the OT prepayment. b. Includes prospective IMF credit under the SBA.

**Table 6.2. Balance of Payments Outlook**

US\$ million unless otherwise specified

	2008	2009	2010f
<b>Current account balance</b>	-722	-235	-566
(As percent of GDP)	(-13.9)	(-5.6)	(-11.0)
Trade balance	-613	-158	-456
Exports	2,534	1,902	2,223
Imports	-3,147	-2060	-2,689
<b>Capital and financial account, of which</b>	546	745	662
FDI	836	426	422
Loans, net	189	119	1,025
<b>Errors and omissions</b>	-161	0	0
<b>Overall balance</b>	-337	510	96
<b>Financing, of which</b>	337	-510	-96
Gross official reserves (- increase)	342	-670	-165
Use of IMF credit (+)	-5	160	68

Source: IMF (2010).

According to the recently undertaken Joint IMF-World Bank Debt Sustainability Analysis, risks to public and external debt sustainability remain low. The assumption of new debt in 2009–10 related to the OT agreement is expected to cause public sector debt relative to GDP to roughly double from 2008 levels to 65 percent in 2011.

Although, this will be more than offset in the medium to long term by the enhanced outlook for growth and fiscal and export revenues, in the near term, debt service-to revenue ratios are projected to peak at 34 percent in 2014 (up from 6.4 percent in 2009 before falling rapidly thereafter.

Accordingly, in the period prior to the OT operation coming on stream, fiscal pressures are expected to be significant. As a result of the OT project, fiscal revenues are expected to rise from around 40 percent as a share of current nonmineral GDP to 60 percent in 2016 (or 30 percent of GDP). However, until then, revenues will remain under pressure. In addition to rising debt service ratios, revenues will also be squeezed by the expiration of the Windfall Profits Tax in 2011, which could entail net revenue losses amounting to around 2 percent of GDP.<sup>1</sup> Meanwhile once the OT project becomes operational, dividend income from it will be offset against the domestic loan received from the mining company (for acquiring the government's 34 percent equity). Meanwhile, the government will need to repay in 2010 a US\$75 million loan it borrowed in 2009 to finance gold mining operations, while advance payment loans from the OT agreement will also become due from 2014 onwards (refer back to Box 3.2 for financing arrangements related to OT). On the expenditure side, preliminary estimates of bank restructuring costs, pending the development of bank-by-bank plans based on the audits, indicate that these amount to roughly 8 percent of GDP.

A new banking law passed in January 2010 strengthened the BoMs intervention powers and resolution techniques. Banking sector audits using internationally reputable auditors began in December 2009, with seven banks assessed and audits have commenced for another three. The BoM has also drafted a banking sector strategy that includes, as a last resort tool, a stand-by bank recapitalization facility with proper covenants to protect the public funds, which is expected to be submitted to parliament soon. Given the expected costs of bank restructuring, it is imperative to agree on the principles and conditions for the use of public funds for possible bank bailouts.

Meanwhile, options to finance the fiscal deficit are limited. Donor financing is expected to dry up (with program loan financing falling from 3 to 0.8 percent of GDP from 2009 to 2010). Increased domestic debt financing could further crowd out the private sector, or there may be the risk of inflationary financing. And, with Mongolia rated as sub-investment grading, borrowing on commercial terms is likely to be costly (Box 6.1). Accordingly, continued fiscal restraint in the near term is necessary to reduce further the deficit in order to avoid both near-term financing pressures prior to the increase in fiscal revenues associated with OT and potential risks to debt sustainability through increased non-concessional external financing.

Other sizeable risks, in addition to near-term fiscal financing pressures and those relating to banking system solvency, include the fact that the economic outlook fundamentally depends on a small number of major investment projects, in particular OT. Accordingly, changes in the scale and timing of their progress would have large implications for macro outcomes in individual years. On the external front, Mongolia's economic fortunes are closely tied to continued buoyancy in commodity prices, which tend to be highly volatile, and strong growth in China. For instance, with the monetary policy stance being tightened in China, economic growth is likely to slow there, undermining some of the support to Mongolian exports seen over the past year. Furthermore, with the debt solvency crisis in Europe currently showing no signs of

being resolved and G-20 countries indicating a shift in policy towards fiscal tightening, there is a risk that global growth could slow in the near term, which in turn could bear down once more on commodity prices including copper.

Meanwhile, recently approved budget amendments in July envisage a 4.5 percent of GDP increase in spending on the originally approved 2010 budget, while the Mid-Term Budget Framework (MTBF) for 2011-2013 projects another 12.1 percent of GDP increase in spending in 2011. The main driver for the increases is the execution of promises made by both coalition parties to distribute MNT 1.5million (around US\$1000) to each citizen in the form of cash and non-cash handouts and large public sector wage increases planned for October of this year. If these public spending plans materialize, they will set the stage for a renewed bout of high inflation and a possible return to the macroeconomic vulnerability characteristic of the boom-and-bust cycle of the recent past. According to the government' own estimates, the additional spending will add to overheating pressures in the economy, and will likely result in inflation rising from 11 percent as of May to 20 percent by end-year.

Given uncertain domestic and foreign financing conditions, continued fiscal consolidation remains crucial for Mongolia. The adoption of, and adherence to, the Fiscal Stability Law—which was passed in July by the Parliament—will be key in Mongolia's efforts to constrain fiscal spending to prudent and sustainable levels. The new law will also manage the huge revenue inflows expected from the Oyu Tolgoi (OT) mine from 2016 onward. Under the fiscal stability law, the fiscal deficit is projected to fall to around 2 percent of GDP by 2013. If this process of fiscal consolidation is adhered to, it will firstly allow Mongolia to successfully bridge the next few years, until the OT mine becomes operational. Second, it will provide fiscal space for Mongolia to cope with any unexpected external shock. Finally, it will be an essential component of putting in place a strong policy framework to manage the upcoming mining boom and use these revenues to promote equitable, sustainable growth going forward.

It is also important to press ahead with other structural reforms, e.g. those aimed at minimizing unproductive government spending through better targeting of social transfers that ensure that the poor are protected from future mining boom-and-busts in a fiscally affordable manner and through improved public investment planning. Finally it is also necessary to resolve banking sector problems in a manner that reduces potential cost to the tax payers, while at the same time ensuring a healthy, well-capitalized banking system emerges that is able to function well in the upcoming upturn.

In conclusion, the current macro framework is satisfactory for a budget support operation. Going forward, a few difficult years lie ahead with respect to the financing of the fiscal deficit until the structural increases in mining revenues materialize. To minimize the risks, continued fiscal adjustment and strong action on banking sector restructuring are essential. Finally, the appropriate macro and fiscal management policies need to be put in place to enable the country to reap the greatest economic benefits from the structural increase in mining resource flows and avoid the Dutch disease (viz. high inflation and strong currency appreciation, coupled with high unemployment).

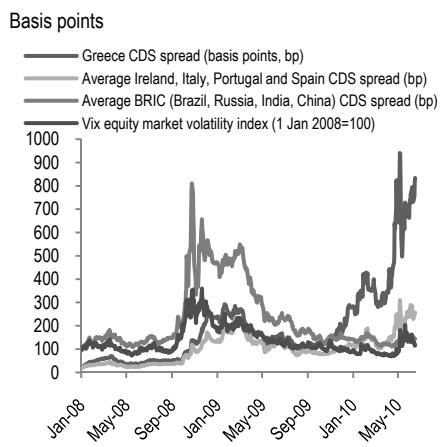
### Box 6.1. Sovereign Bond Spreads in 2009

In recent months market concerns over the scale of public debt and fiscal deficits have heightened and spread from Greece to other countries in the euro area, and beyond. The price of protection against the default of sovereign bonds of such countries, as measured by credit default swap (CDS) spread, has risen markedly and financial market uncertainty increased (Box Figure 6.1a).<sup>a</sup> However, the rise in the CDS spreads for major emerging market economies has been relatively limited, particularly compared with the market turmoil in late 2008 and early 2009. The average secondary market sovereign bond yield for emerging markets has also risen over the past few months. From April 1 to June 29 the yield on the overall Emerging Markets Bond Index Global (EMBIG) rose by 8 basis points, with a rise of 20 basis points for B rated credits and a fall of 2 basis points for investment grade credits (Box Figure 6.1b).

As well as these price movements, capital flows to emerging markets dried up in May (Box Table 6.1a), particularly for bond issues (Box Figure 6.1c) and equity placements, and remained subdued in early June. Moreover, there are growing fears of a looming liquidity crunch in international financial markets in the near term as banks facing funding pressures, notably in Europe and the United States, compete with sovereign borrowers for funds in international financial markets. According to the Bank for International Settlements (BIS), globally banks owe around \$5 trillion to bondholders and other creditors, which will come due through 2012. The significant refinancing needs of these financial institutions will likely add to the difficulties that first time, sub-investment grade rated sovereigns such as Mongolia<sup>b</sup> face in raising funds. Only Malaysia placed an international sovereign issue in May, a US\$1.25 billion Islamic dollar bond at a spread of 180 basis points over Treasuries which was rated A- by S&P. Many other developing countries have decided to delay their sovereign issuance plans. For example, Indonesia has reduced the amount of Islamic bonds it plans to offer to \$650 million from \$750 million, and has delayed the timing to October from July.

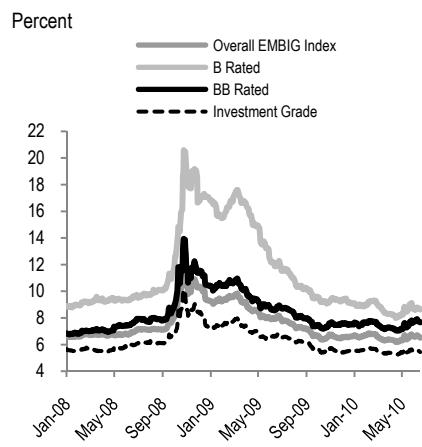
The experience of recent months has highlighted once again the sensitivity of capital flows to emerging markets to swings in risk aversion in global financial markets and also ongoing problems in the global financial system. If market appetite for emerging market assets particularly for more risky credits remains weak, then this will influence the likely demand for, and hence pricing of, the large-scale international sovereign bond that Mongolia's government has indicated it intends to issue. The pricing of any such issue would be at a yield well above that of recent concessional financing from bilateral and multilateral donors. Although Mongolia's fiscal revenues are set to be boosted by the mining revenues from OT from 2013 onwards, the scale and yield on any international bond would have important implications for the burden of interest payments and debt dynamics going forward.

**Box Figure 6.1a. Rise in Credit Default Swaps in the Euro Area**



Source: Datastream, World Bank.

**Box Figure 6.1b. Emerging Market Bond Yields Have Risen, but Not to the Heights of Late 2008 and Early 2009**



Source: Datastream, World Bank.

(Box continues on next page)

**Box 6.1 (continued)****Box Table 6.1a. Capital Flows to Emerging Economics Fell Sharply in May, Particularly Emerging Market Bond Issuance**

Capital flows to emerging economies, US\$ billion

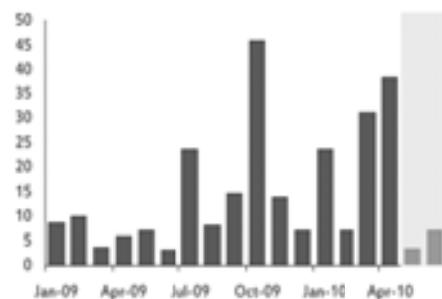
	2008 Q1	Total	2009 Q1	Total	2010 Q1	Apr	May
Total	103	390	48	353	94	45	15
Bonds	12	65	18	115	48	26	3
Banks	71	257	22	129	19	8	6
Equity	20	68	8	109	27	11	6
Asia	38	98	18	122	33	11	10
Bonds	3	7	5	16	9	3	2

Source: Dealogic and World Bank DEC Development Prospects Group.

Source: World Bank staff.

a. A CDS can be viewed as a form of insurance—it is a financial derivative contract designed to transfer credit risk in a defined credit product, for example a sovereign bond, between two parties. Over the tenure of the contract, say five years, the purchaser of the CDS, that is, the protection buyer, pays a spread, or premium, to the protection seller. For example, if the CDS spread is 500 basis points (that is, 5 percent) then for a contract with principal of US\$1 million the buyer of the CDS contract pays US\$50,000 per period to the seller of the credit protection. In return for this payment, the buyer of the CDS receives a payment if there is a credit event for the referenced product, for example, if there is default on the sovereign bond. The payment compensates the CDS buyer up to the par value of the referenced credit. As markets perceive the risk of default to rise, the premium charged by the seller of protection rises since the likelihood of paying out increases.

b. Mongolia is rated B1 by Moody's Investors Service, four levels below investment grade and on par with Fiji and Papua New Guinea while S&P rates the nation BB-, the third- highest noninvestment ranking.

**Box Figure 6.1c. Emerging Market Bond Issuance, US\$ billion**

Source: Dealogic and World Bank DEC.

**Table 6.3. Mongolia: Key Indicators**

	2003	2004	2005	2006	2007	2008	2009	2010f
<b>Output, Employment and Prices</b>								
Real GDP (% yoy change)	7	10.6	7.3	8.6	10.2	8.9	-1.6	7.3
Industrial production index	..	..	..	100	110.4	113.4	109.6	...
(% yoy change)	..	..	..	..	10.4	2.8	-3.3	...
Unemployment (%)	3.4	3.6	3.3	3.2	2.8	2.8	3.3	...
Consumer price index (% yoy change)	4.6	10.9	9.6	5.9	14.1	23.2	1.2	7.5
<b>Public Sector</b>								
Government balance (% of GDP)	-3.7	-1.8	2.6	3.3	2.8	-5.0	-5.4	-4.0
Non-mining balance (% of GDP) <sup>a</sup>	-5.9	-5.8	-1.3	-7.3	-13.4	-15.1	-12.9	-12.2
Public Sector Debt (% of GDP)	3.1	1.4	0.1	1.0	0.5	0.0	9.3	22.7
<b>Foreign Trade, BOP, and External Debt<sup>b</sup></b>								
Trade balance (\$ mn)	-199.6	-99.2	-99.5	136.2	-52.4	-612.6	-157.9	-158
Exports of goods (\$ mn)	627	872	1,066	1,542	1,889	2,539	1,902	2,233
(% yoy change)	19.7	39	22.2	44.8	22.4	34.4	-25.1	17.4
Copper exports (% yoy change)	..	..	14.7	94.8	27.7	12.1	39.9	32.2
Imports of goods (\$ mn)	826.9	971.3	1,021.1	1,485.6	2,117.3	3,615.8	2,131.3	2,689
(% yoy change)	21.6	17.5	16	25.4	42.5	70.8	-41.1	30.5
Current account balance (\$ mn)	-102.4	24.1	29.7	221.6	264.8	-721.9	-235.1	-566
(% of GDP)	-7.1	1.3	1.3	7	6.7	-13.9	-5.6	-11.0
Foreign direct investment (\$ mn)	131.5	128.9	257.6	289.6	360	836	426	422
External debt (% of GDP)	92.6	76	61.2	45.1	40.1	34.6	50	52.7
of which public & publicly guaranteed (% of GDP)	87.3	73.7	59.7	44.3	38.9	33.7	47.1	40.0
of which private (% of GDP)	5.4	2.4	1.5	0.7	1.2	0.8	2.9	12.7
Debt service ratio (% of exports of g&s) <sup>c</sup>	44.9	7.5	2.7	2.3	2.0	2.0	3.7	5.7
Foreign exchange reserves, gross (\$ mn)	203.5	207.8	333.1	718	1,000.6	656.9	1,327	1,492
(month of imports of g&s)	2.4	2	2.6	4.3	3.8	3.0	4.9	4.0
<b>Financial Markets</b>								
Domestic credit (% yoy change)	157.3	25.8	18.8	-3.1	78.4	52.5	-7.5	46.7
Short-term interest rate (% per annum) <sup>d</sup>	..	15.8	3.7	5.1	8.4	9.8	...	...
Exchange rate (MNT/US\$, eop)	1,168	1,209	1,221	1,165	1,170	1,267.5	1,442.8	...
Real effective exchange rate (2006=100) <sup>e</sup>	94.2	93.9	99.6	102.8	104.8	127.4	102.9	...
(% yoy change)	-4.8	-0.4	6.1	3.2	1.9	21.5	-19.2	...
Stock market index (2000=100) <sup>f</sup>	151.5	120.8	203.6	382	2,048	1,181.6	...	...
Memo:								
Nominal GDP (MNT bn)	1,660	2,152	2,780	3,715	4,600	6,020	6,055	7,221
Nominal GDP (\$ mn)	1,448	1,814	2,307	3,156	3,930	5,258	4,203	5,153
GDP per capita (\$)	583	722	900	1,214	1,491	1,921	1,552	1,885

Source: Bank of Mongolia, National Statistical Office, Ministry of Finance, IMF, and World Bank staff estimates

Notes: a. Non-mining balance excludes revenues from corporate income tax and dividends from mining companies, the Windfall Profits Tax and royalties. b. The 2008 data for the balance of payments are based on the final revision. c. On public and publicly guaranteed debt. d. Yield of 14-day bills until 2006 and of 7-day bills for 2007. e. Increase is appreciation. f. Top-20 index, end of year, index=100 in Dec-2000.

## Notes

<sup>1</sup> The revenue loss from elimination of the WPT in 2011 is estimated at around 5 percent of GDP, given projected copper prices. However the withdrawal of the WPT will mean that mining firms will have higher taxable profits which should lead to an increase of around 3 percent (of GDP) of corporate income tax receipts. This suggests that the 'true' cost of the withdrawal of the WPT will be around 2 percent of GDP per year.



# Eco-Audit

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