



# Mongolia Monthly Economic Update

## World Bank

### December 2009

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The World Bank's *Mongolia Monthly Economic Update* provides an update on recent economic and social developments and policies in Mongolia. It also presents findings of ongoing World Bank work in Mongolia. The *Mongolia Monthly* is produced by a team from the World Bank's Poverty Reduction and Economic Management (PREM) Sector Unit in the East Asia and Pacific Region Vice-Presidency, with key inputs from other members of the Mongolia country team. Questions and feedback can be addressed to Altantsetseg Shiilegmaa ([ashiilegmaa@worldbank.org](mailto:ashiilegmaa@worldbank.org)). Copies can be downloaded from <http://www.worldbank.org.mn>.

## Contents

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Executive Summary.....	4
IMF Board completes third review under Mongolia’s SBA.....	5
Real Activity .....	5
Labor Markets and Poverty.....	10
External sector .....	11
Fiscal developments.....	14
Inflation .....	18
Banking sector.....	19

## Figures

Figure 1 Impact of “dzuds” on livestock mortality rates.....	6
Figure 2 Agricultural GDP growth and livestock losses from 1991 to 2009.....	6
Figure 3 Industrial production spiked in November and December .....	8
Figure 4 ...while GDP growth in the fourth quarter rebounded strongly .....	8
Figure 5 GDP growth and fiscal revenue forecasts .....	9
Figure 6 Impact of the scaling up of mineral production on value-added by sector.....	9
Figure 7 Growth in employment by sector during copper price boom (2005-08) .....	10
Figure 8 Registered unemployment* has decreased in recent months.....	11
Figure 9 ...although employment in the manufacturing sector is still falling .....	11
Figure 10 Continued rebound in Chinese industrial output and imports.....	12
Figure 11 ...is supporting the recovery in Mongolia’s export sector .....	12
Figure 12 Copper prices continue to increase while gold prices are at record levels... ..	12
Figure 13 ...yet gold exports have remained depressed.....	12
Figure 14 The contraction in imports continues to moderate.....	13
Figure 15 The trade deficit has narrowed further .....	13
Figure 16 The exchange rate remains stable .....	14
Figure 17 BoM international reserves reached a record high level in December 2009 .....	14
Figure 18 The 12 month rolling fiscal deficit has improved significantly.....	16
Figure 19 ..although revenue intakes still remain depressed compared to previous years.....	16
Figure 20 Commodity prices in recent years subject to large swings.....	17
Figure 21 Large errors in forecasting copper prices .....	17

Figure 22 Inflation has picked up recently due to the colder than expected winter .....	18
Figure 23 Lending rates remain extremely high .....	18
Figure 24 Total lending growth remains flat while purchases of Central Bank bills are slowing .....	19
Figure 25 MNT and FX deposits continue to rise .....	19
Figure 26 Slight fall in total non-performing loans in December.....	20

## Tables

Table 1 Budget projections and outturns 2008- 2009 .....	15
Table 2 Mongolia: Key Indicators.....	21

## Boxes

Box 1 Near and medium-term outlook for Mongolia .....	9
Box 2 Forecasting copper prices .....	16

## Executive Summary<sup>1</sup>

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The Board of the IMF completed the third quarterly review of Mongolia's economic performance under the 18-month Stand-By Arrangement (SBA), leading to a US\$24.1 million disbursement. The Fund emphasized the good progress on the macroeconomic stabilization made thus far and the positive economic growth outlook for 2010, driven by the spillover effects of the Oyu Tolgoi (OT) mining investment. However, the IMF also stressed the need for continued fiscal adjustment and discipline, adherence to the flexible exchange rate and a monetary policy geared towards maintaining low inflation, and for the authorities to deal proactively with problems in the banking sector. Box 1 of the Update analyses the near- and medium-term economic outlook including the fiscal financing risks, the potential structural shifts associated with increased mining revenues, and the appropriate fiscal policy framework required to manage such flows.

Mongolia is experiencing winter conditions that are even more severe than usual, with over half of the country's provinces estimated to be experiencing "dzud" conditions (severe winter conditions leading to large livestock losses). Livestock losses are already sizeable and are likely to have a significant impact on the well-being of vulnerable households. If current weather and mortality trends continue, there is potential for the disaster to place considerable strain on the existing relief system, fodder supplies, and donor resources.

While the harsh winter conditions are likely to have an adverse impact on agricultural GDP in the first quarter of 2010, GDP growth rebounded in the fourth quarter of 2009 according to initial estimates. The growth of 3.9 percent year-on-year follows three consecutive quarters of contraction, with Q3 down 4 percent. As a result, GDP contracted by 1.6 percent as a whole in 2009. A particularly strong recovery in Q4 was seen in the transport and communication sector. Construction and wholesale and retail trade sectors continued to contract.

The recovery in the external sector continues, with annual export growth turning positive in November and December, supported by strong growth in China and buoyant commodity prices. In 2009 as a whole exports fell 25 percent. This was less than the level of import contraction, down 34 percent for the year as a whole, and as a consequence the 12-month trade deficit has improved to around US\$230 million, down from over US\$1 billion in late 2008 and early 2009.

Preliminary fiscal data show a full-year deficit for 2009 of 5.4 percent of GDP, below the 5.8 percent target in the June 2009 budget amendment. Revenues in 2009 were down 7.5 percent on 2008 in nominal terms with expenditure restraint leading to a 5.7 percent lower figure than in 2008. Capital expenditures and subsidies contracted particularly sharply relative to 2008. The fiscal stability law, a key component in improving the policy framework for managing future fiscal revenues associated with Mongolia's mineral wealth, was submitted to Parliament in early January by Cabinet.

In the banking sector, total lending growth remains flat. The ratio of non-performing loans to total loans stabilized in December but remains at almost 23 percent. A sustained proactive approach from policy-makers to the ongoing solvency problems in the sector is required in order to ensure a timely recovery in the provision of credit, which is a key pillar in supporting the recovery in economic activity, and in order to limit the potential fiscal cost associated with any government support.

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<sup>1</sup> The analysis is based on the most recent data (December 2009) from the Bank of Mongolia (monthly bulletin and monthly consolidated banking system balance sheet), the National Statistical Office and the Ministry of Finance.

## **IMF Board completes third review under Mongolia's SBA**

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### **The IMF's third quarterly review under the SBA noted progress on macroeconomic stabilization but also highlighted areas of concern**

On December 22, 2009, the Board of the International Monetary Fund (IMF) completed the third quarterly review of Mongolia's economic performance under the 18-month Stand-By Arrangement (SBA). This successful review triggered the immediate disbursement of US\$24.1 million, bringing total disbursements under the arrangement to US\$168.6 million. The SBA covers the period April 1, 2009 until October 1, 2010, for a total amount of US\$240.9 million. In terms of amounts disbursed, Mongolia is about two-thirds through the program.

In its accompanying press release<sup>2</sup>, the IMF emphasized the good progress on the macroeconomic stabilization made thus far and the positive economic growth outlook for 2010, driven by the spillover effects of the OT mining investment. However, the IMF also stressed the need for continued fiscal adjustment and discipline. The latter would benefit from the adoption of the Fiscal Responsibility Law, soon to be discussed by Parliament. The flexible exchange rate and a monetary policy geared towards maintaining low inflation have worked well to stabilize the economy and they should be kept in place to facilitate the adjustment of the economy to the large expansion of the mining sector in the coming years. The IMF urged the authorities to deal proactively with problems in the banking sector, and tie public financial support to improvements in governance and other structural reforms at the recipient banks. Existing owners should be required to either inject new capital or be the first to absorb losses. Progress on social welfare reform is also essential to provide a better, but fiscally sustainable, safety net for the poor during the inevitable economic downturns.

## **Real Activity**

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### **Livestock mortality and rural livelihoods are being severely impacted by "dzud" conditions in many areas of the country**

As in much of Asia, Mongolia is experiencing winter conditions that are even more severe than usual. With strong snowstorms and temperatures in many parts of the country dropping below -40C, the government estimates that more than half of the country's provinces are experiencing "dzud" conditions (severe winter conditions leading to large livestock losses).

The latest official reports<sup>3</sup> indicate 1.2 million head of livestock (out of a herd of more than 40 million) and 21,560 people (7,303 households) are migrating to look for pasture. This is particularly worrisome given that livestock mortality typically peaks later: in the spring. Livestock account for 63 percent of rural household assets and thus the losses will have a significant impact on poverty. If current weather and mortality trends continue, there is potential for the disaster to place considerable strain on the existing relief system, fodder supplies, and donor resources. As it is, according to the latest official reports, between 7-10,000 households are reporting food and fuel shortages while 52,000 households are experiencing fodder shortages.

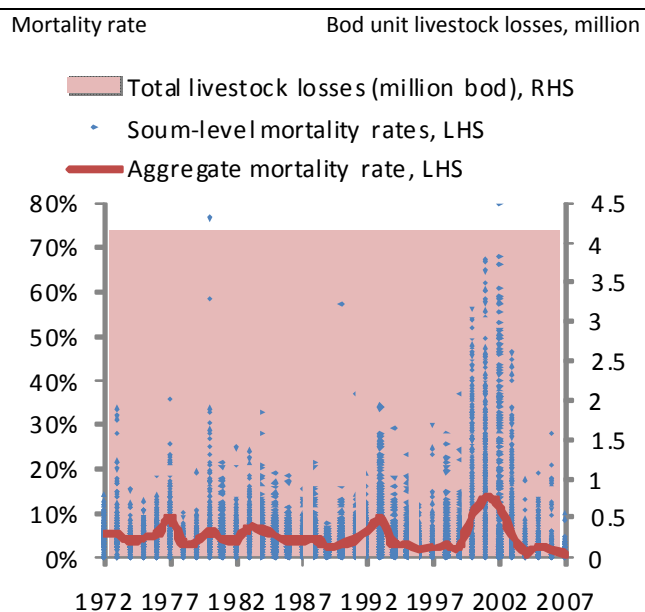
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<sup>2</sup> <http://www.imf.org/external/np/sec/pr/2009/pr09475.htm>

<sup>3</sup> Emergency Committee at Ministry of Food, Agriculture and Light Industry, January 24, 2010 and bi-weekly report by the National Emergency Management Agency, January 19, 2010.

As an illustration of the potential magnitude of the adverse impact of dzuds on livestock mortality and the economy, the series of harsh winters from 1999 to 2002 killed around 11 million animals (Figure 1). The UNDP (2008) estimates that the successive dzuds of 1999-2000 and 2000-2001 cost the economy MNT413.8 billion (US\$369 million). While it is too early to assess the overall economic impact of the current weather conditions, recent experience points to the strong negative association between mortality rates and the growth rates of agricultural GDP (Figure 2).

**Figure 1 Impact of “dzuds” on livestock mortality rates**



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.

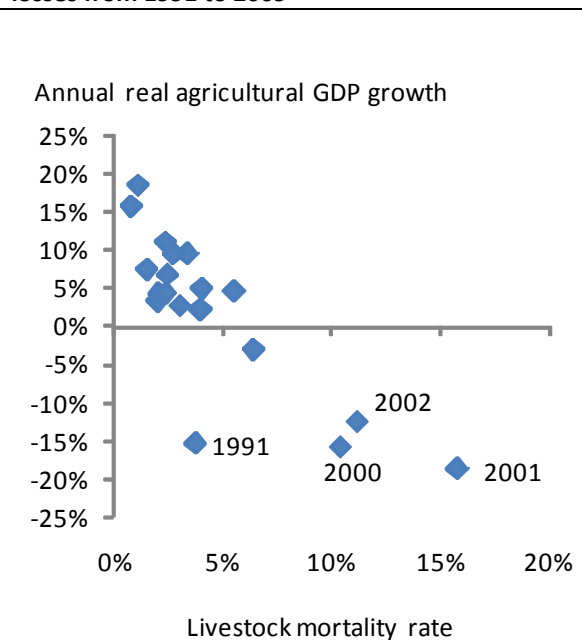
Source: Mongolian authorities, World Bank.

The impact of dzuds on livestock losses is affected by not only winter weather conditions, including wind, snowfall, duration and depth of snow cover, but also the ability of herders to provide for fodder and shelter for their herds. Fodder levels are dependent upon the conditions of previous summers with the combination of a drought in the summer and a subsequent dzud leading to markedly higher mortality rates<sup>4</sup>. Similarly, conditions in subsequent summers also matter: those animals remaining in the herds after a winter dzud are also likely to be weakened.

Mortality rates usually vary markedly across regions (see the variation in soum-level mortality rates in Figure 1). 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.

<sup>4</sup> For example, a study of livestock mortality in the Gobi Three Beauty National Park over the period 1939-1983 and 1990-1997 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).

**Figure 2 Agricultural GDP growth and livestock losses from 1991 to 2009**



Note: Mortality rate is aggregate rate on bod basis. Source: National Statistical Office, World Bank.

The negative impact of rising mortality rates on agricultural value added, and herders' wealth and livelihoods, is not only caused by the decline in the numbers of animals, but also by the decline in prices. During dzuds, herders are being forced to sell their animals into local markets with falling prices. And these price declines are especially severe if local markets are not integrated with international markets through open trade arrangements. This is because the inelastic demand for meat on the local market will lead to a sharp price drop, if no export outlet is available. Increasing the openness of the economy to livestock trade is thus an important policy instrument to deal with the negative impact of dzuds. Similarly, openness to trade is also key to ensure that, during normal years, improvements in livestock productivity do not simply lead to falling domestic prices, thus reducing producers' incentives to invest in productivity-enhancing measures.

Institutional arrangements, such as for hay storage and the setting aside of fodder reserve pastures during normal years, also play a key role in determining mortality rates during dzuds. Unfortunately, the transition from the socialist economy removed a number of key institutional arrangements to successfully deal with dzuds, such as hay storage at the local government level and the setting aside of pasture reserves during normal years<sup>5</sup>. Although winter preparedness by herders and authorities has improved in recent years, the government says that even at this early stage of the winter, the country does not have sufficient reserves of hay to address current needs. The government is currently exploring the ways to import hay from bordering provinces of Russia and China.

In response to the particularly severe cold weather that Mongolia has faced, and the impact on livestock mortality, and herder livelihoods, the government is providing 4,000 tonnes of hay and 5,000 tonnes of fodder from state reserves to be sold to the herders at a 50 percent discount and is also providing vehicles from the state reserve to hospitals. However, the required volume of hay and fodder supply until April is estimated at 20,000 tonnes and 15,000 tonnes respectively. In addition, MNT 1,088.37 million is being allocated from Government Reserve Fund to fodder reserves (MNT 870.97 million), fodder transportation (MNT 60 million) and medical and social welfare services transport (MNT 60 million). The Government is also coordinating fodder recovery from 30,000 tonnes of non-food grade wheat for distribution and lending 32 defense vehicles to emergency units for road clearing and delivery of goods.

In addition, the Ministry of Foreign Affairs called a donor meeting to discuss the situation and key needs, which are likely to be for fodder supplies, trucks and equipment to transport fodder across Mongolia's vast territory, and possibly to strengthen coordination of disaster relief efforts, which was a challenge in previous dzuds. Development partners are currently closely coordinating with government counterparts, including the national emergency management agency, and with the UN, which is the lead agency working on disaster preparedness and disaster response.

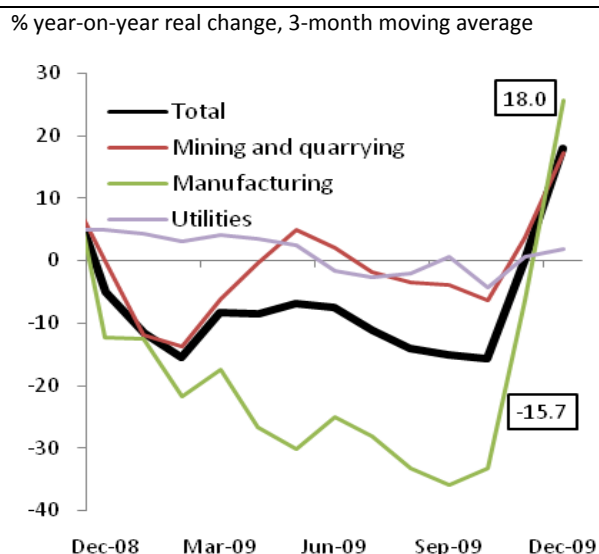
### **Industrial production and GDP growth rebounded sharply in the last quarter of 2009**

Industrial production (on a three-month moving average basis to smooth fluctuations) increased by 18.0 percent year-on-year (yoy) in December 2009 fueled by a sharp increase in manufacturing activity. Textiles and food products were important contributors to this improvement, up by 129 and 51 percent yoy respectively. Following a lengthy deterioration, mining and quarrying also rebounded strongly, mainly due to the increase in coal mining and extraction of crude (Figure 3).

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<sup>5</sup> "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.

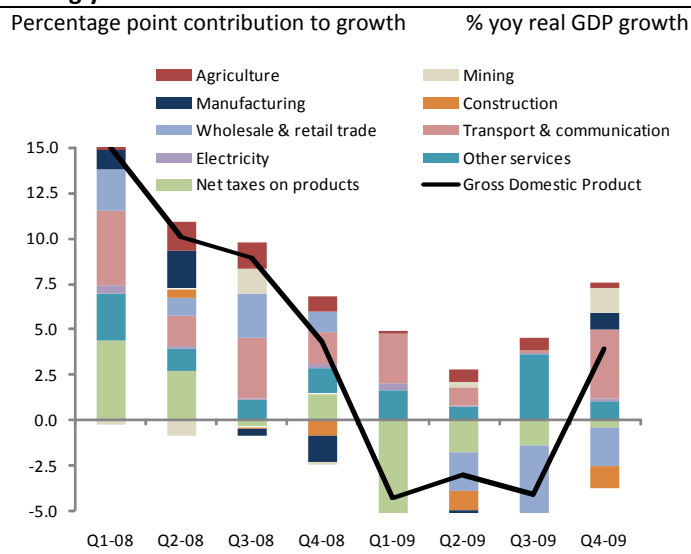
**Figure 3 Industrial production spiked in November and December**



Note: Numbers in boxes are October and December growth.

Source: National Statistical Office, World Bank.

**Figure 4 ...while GDP growth in the fourth quarter rebounded strongly**



Source: National Statistical Office, World Bank.

Meanwhile, preliminary NSO data indicate real GDP growth of 3.9 percent yoy in Q4 2009, a significant rebound from the 4.0 percent contraction in Q3. An extremely strong recovery was seen in the transport and communication sector, up by 29.8 percent yoy in Q4, its highest rate of growth since Q1 2008 and up from 0.5 percent in Q3. This sector also made the largest contribution to overall GDP growth, 3.8 percentage points (pp), with 1.4 and 1.0 pp also added by the mining and manufacturing sectors respectively. However, offsetting these rises were the construction and wholesale and retail trade sectors, which contracted by 46.8 and 16.5 percent respectively on the year (Figure 4).

Despite the positive outturn for Q4, the economy contracted by 1.6 percent as a whole during 2009, following growth of 8.9 percent in 2008. The depth of the downturn reflects the shock to the economy due to the collapse of global commodity prices at the end of 2008 and which undermined growth in key sectors, notably, transportation, storage and communication (due to mining sector weakness), agriculture (due to falling prices of cashmere and other livestock-related products) and manufacturing. In addition, banking sector instability led to a sharp contraction in credit, further adding to the drag on real economic activity.

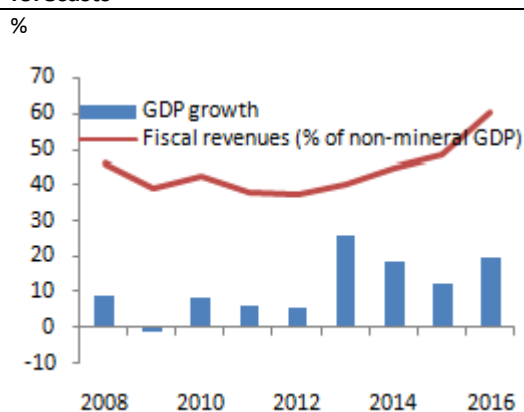
The Q4 data provide tentative signs of recovery. In fact, with the signing of the OT agreement at the end of 2009, the economic outlook has improved considerably. Significant spillovers from large OT-related investment expenditures are expected to boost GDP growth to an average of 7 percent in the near term. That said, despite the improvement in the near term outlook, there remain considerable fiscal pressures in the near term. Furthermore, the scaling up of mining output poses the risk of the adverse economic consequences of Dutch Disease over the medium- to long-term, unless mining revenues are managed properly (see Box 1).



## Box 1 Near and medium-term outlook for Mongolia

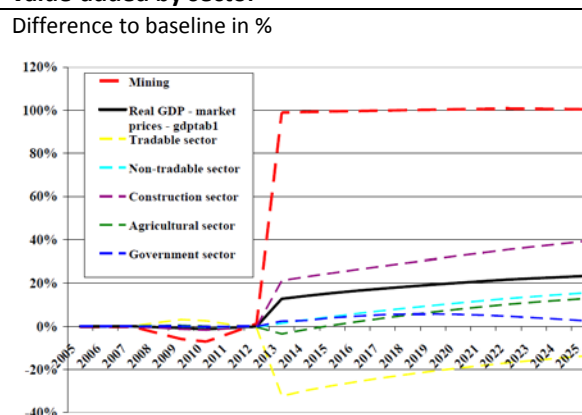
Mongolia's medium and long-term economic prospects are favorable, buoyed by the outlook for the mineral sector. A key development in this regard was the signing of the Oyu Tolgoi (OT) investment agreement at the end of 2009, and other big projects are also likely to be developed in the future. Although production from the OT copper and gold mines is expected to start in 2013-14, even in the interim period GDP is expected to grow by about 7% (following a contraction of 1.6% in 2009) due to an increase in mining-related investment. Once mining output scales up in 2013, overall GDP growth is projected to surge to about 25% in 2013 and around 17% on average between 2014-16. Meanwhile fiscal revenues are expected to rise from around 40% as a share of non-mineral GDP currently to about 60% in 2016 (Figure 5).

**Figure 5 GDP growth and fiscal revenue forecasts**



Source: IMF

**Figure 6 Impact of the scaling up of mineral production on value-added by sector**



Source: IMF

However, fiscal financing pressures are expected to be significant in the period ahead as it is still some years before the budget will start to receive fiscal revenue from the OT mine. In particular, the expiration of the Windfall Profits Tax in 2011 is expected to yield annual revenue losses of about 3.5 percent of GDP over the medium term. In the meantime, financing options are limited with donor budget financing set to be phased out over the next few years.

In addition, the upcoming boom in the mining sector is expected to lead to significant structural shifts in the economy and raises concerns about Dutch Disease. Simulations with a multi-sector computable general equilibrium model calibrated to Mongolian data suggest that the real exchange rate would appreciate as a result of the surge in mining exports. This in turn will hurt the competitiveness of the non-mineral traded sector (comprising exporting firms and firms exposed to import competition) causing it to contract.

Meanwhile, the simulations also show that increased spending, including by the government, will put pressure on wages and prices in the non-tradable sector. This exacerbates the decline in relative profitability in the non-mineral traded sector, because firms in this sector cannot raise prices (due to foreign competition) in response to higher input costs. As a result, this sector will be further undermined while non-traded sectors will expand (Figure 6).

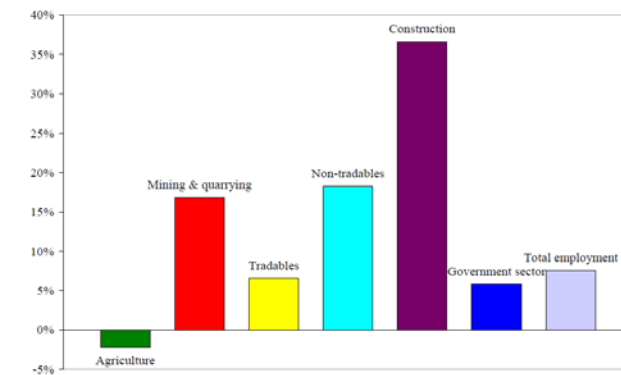
A similar pattern, including strong wage and price pressures, was evident during the copper price boom in 2005-08. In addition, employment in the non-traded sectors and construction sectors thrived, growing at a much faster pace compared to all other sectors (Figure 5). The traded sector performed better than projected by the MAMS simulations (Maquette for Millennium Development Goal Simulations). This likely reflects imports expanding by much more than in the simulations, which points to large expenditure-switching effects of the real appreciation: the decline in the relative price of tradables on account of the appreciation shifts demand from non-tradable and agricultural to tradable goods, thereby boosting demand in the tradable sector while simultaneously increasing imports and reducing demand pressures in the non-traded and agricultural sectors. These import substitution effects seem to have been particularly pronounced in the agricultural sector, given the employment decline in this sector.

Finally, as dependence on natural resources increases, the economy's vulnerability to commodity price shocks will

also increase. Sharp fluctuations in natural resource prices can impose heavy costs in terms of income, investment, and economic development.

Adoption of the planned fiscal responsibility law, and in particular strict adherence to its fiscal rules, will be critical for managing the huge influx of mineral revenues. The structural balance rule will reduce the pro-cyclicality of fiscal policy by shielding the budget from mineral price fluctuations, and therefore help to insulate the economy from excessive economic volatility associated with commodity prices. A second rule will limit expenditure growth when mineral revenue surges, thereby reducing the risk of economic overheating. In addition, such fiscal prudence will help contain the appreciation of the real exchange rate by channeling the foreign exchange inflows into higher savings and reserve buildups, thereby minimizing Dutch Disease effects on the non-mineral economy. Furthermore, fiscal consolidation is also crucial in the near term until revenue from OT starts to enter the budget (around 2015) given the country's fiscal financing needs.

**Figure 7 Growth in employment by sector during copper price boom (2005-08)**



Source: IMF.

Source: Prepared by Julia Bersch (IMF), Jan Gottschalk (IMF), Tehmina Khan (World Bank), Hans Lofgren (World Bank), and Satoshi Tanaka (University of Minnesota).

Note: The views expressed herein are those of the authors and should not be attributed to the IMF and the World Bank, their Executive Boards, or their management.

## Labor Markets and Poverty

### The rural poor and vulnerable are most exposed to the adverse impact of the harsh winter

Increases in livestock size in recent years have been a driving factor for poverty reduction among the rural poor in Mongolia<sup>6</sup>. The flip-side is that increases in livestock mortality have sizeable negative impacts on household well-being. Indeed evidence suggests that a 1 percent rise in livestock mortality for a household is associated with a reduction in household per capita consumption of 0.3 percent<sup>7</sup>. Such effects were a motivation for the Index-Based Livestock Insurance Program (IBLIP) adopted by the government with the support of the World Bank. Particularly vulnerable in the current situation in the near-term are those families which are migrating due to livestock losses incurred during the harsh winter, with over 21,560 people or 7,303 households are on the move while 52,071 households are experiencing fodder shortages.

<sup>6</sup> According to initial World Bank analysis, see World Bank November 2009 Mongolia Monthly Update.

<sup>7</sup> World Bank (2006), "Mongolia Poverty Assessment", <http://go.worldbank.org/ZDS4YQSS10>

## Registered unemployment has declined slightly in recent months

The official unemployment rate, which includes only those who are registered with the Labor and Social Welfare Service Center, has been gradually trending downward since July 2009, falling to 3.3 percent in December (Figure 8). However, the overall number of registered unemployed has continued to increase, up almost one-third compared to December 2008. Meanwhile, employment in the manufacturing sector is still contracting, despite the rebound in output in Q4 2009 (Figure 9).

However, as explained in previous Updates, these numbers likely grossly underestimate the impact of the economic downturn on both the level of unemployment and real wages. According to the 3Q Labor Force Survey, which also takes into account those who are not officially registered as unemployed with the Labor and Social Welfare Service Centers, the unemployment rate stood at 10.5 percent in September 2009 with some 119.0 thousand people unemployed from the total labor force of 1137.1 thousand.

**Figure 8 Registered unemployment\* has decreased in recent months**

% of labor force

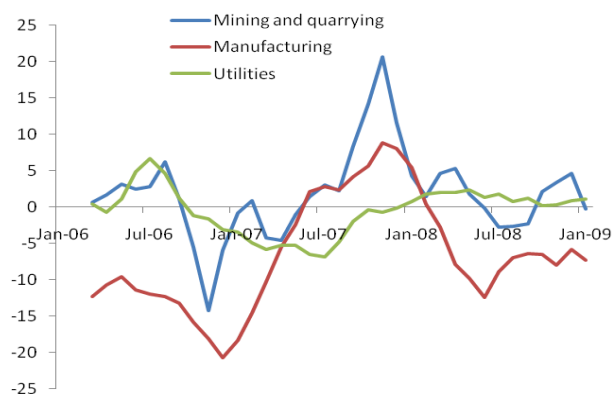


Note: \* Defined as working-age population currently not working in a paid job and not self-employed, actively looking for job and registered at the Employment Office.

Source: National Statistical Office, World Bank

**Figure 9 ...although employment in the manufacturing sector is still falling**

Employment % yoy change, 3 month moving average



Source: National Statistical Office, World Bank

## External sector

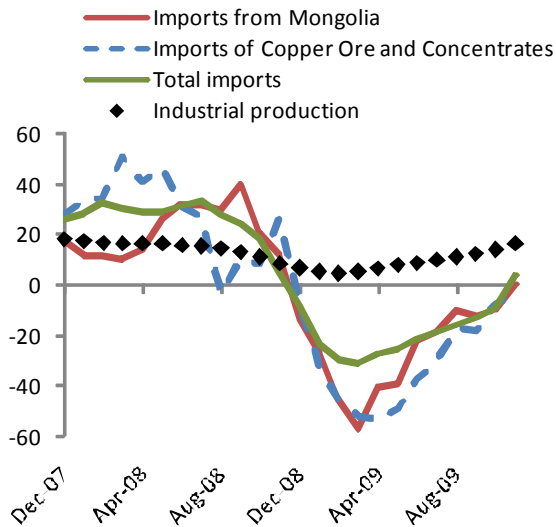
### Mongolia's export sector is recovering, supported by strong growth in China and buoyant commodity prices

The outlook for Mongolia's export sector, particularly for commodities such as copper, continues to improve, supported by strong economic growth in China, which is its largest trading partner<sup>8</sup>. Indeed, a closer look at China's December trade data show a rise of almost 15 percent month-on-month in seasonally adjusted imports. China's imports of copper ore and concentrates continued their recovery, almost level on a three-month moving basis, after an annual contraction of almost 60 percent in early

<sup>8</sup> Exports to China generate 65% of Mongolia's export revenues, half of which is copper.

**Figure 10 Continued rebound in Chinese industrial output and imports**

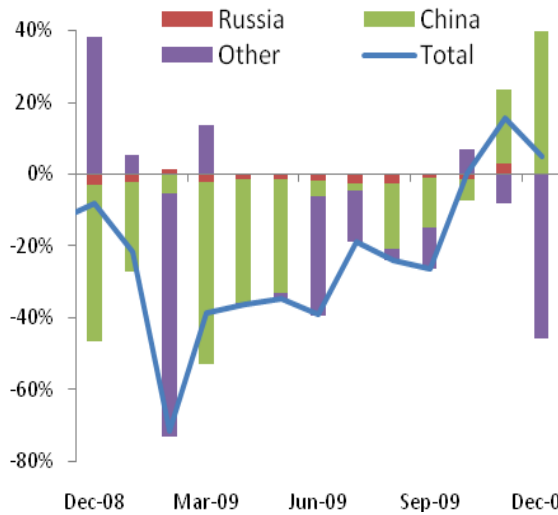
Annual growth of Chinese imports and industrial production (3 month-moving average), percent



Source: Haver Analytics, Bank staff calculations.

**Figure 11 ...is supporting the recovery in Mongolia's export sector**

Exports by destination, percentage contributions to year-on-year growth



Source: Bank of Mongolia, monthly bulletin, World Bank

**Figure 12 Copper prices continue to increase while gold prices are at record levels...**

US\$/tonne  
US\$/ounce

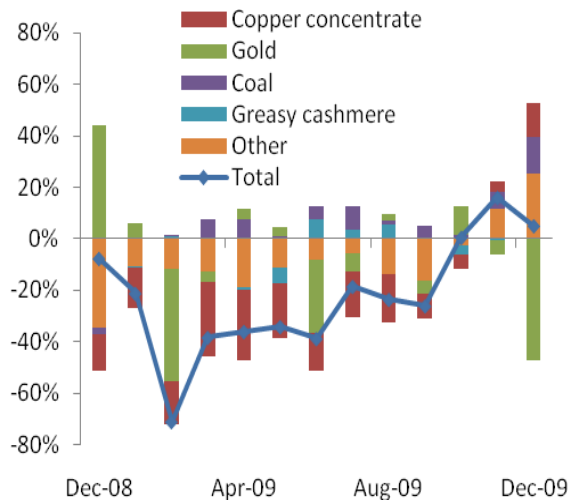


Note: the dashed lines indicate the US\$2600/tonne and US\$850/ounce thresholds for copper and gold respectively for the WPT. Last observation: January 11, 2010.

Source: London Metal Exchange, World Bank.

**Figure 13 ...yet gold exports have remained depressed**

Percentage point contributions to year-on-year growth



Source: National Statistical Office, World Bank

2009. Chinese imports from Mongolia have closely tracked this trend (Figure 10). Accordingly, Mongolia's trade numbers show exports recording positive year-on-year growth during the third and fourth quarters buoyed by growing coal and copper shipments to China (Figure 11). In December, export

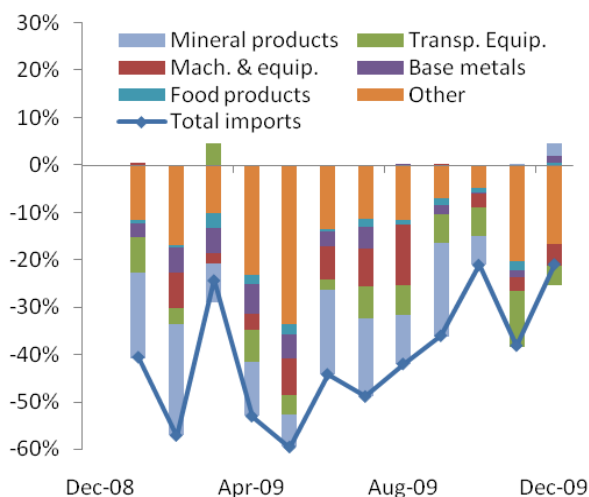
to China increased by 27 percent compared with November. Mongolia's mineral exports have also benefitted from a recovery in commodity prices. For instance, copper prices at the start of January were only about 17 percent below their peak in August 2008. Gold prices have also continued upwards, reaching US\$1135/toz in December (Figure 12). China's estimated gold consumption stood at approximately 450 tonnes, rising by nearly 14 percent over the past 12 months. However, the dollar value of gold exports has continued to decline (Figure 13), with the volume of exports almost halving in 2009 compared to 2008 in spite of the provision of government-financed credit directed to support gold producers. A number of factors may have influenced the reduction in volume of gold exports<sup>9</sup>, including the WPT (Windfall Profit Tax) and decreased gold production by a major gold exporting company in Mongolia.

**In 2009 as a whole, exports fell sharply but, with imports contracting even more, the trade deficit narrowed**

For 2009 as a whole Mongolia's total exports reached US\$1,902.6 million, down 25 percent on their value in 2008. The main contributors to the reduced export value over the year include gold exports (down 44 percent), copper (down 40 percent) and combed goat down (down 30 percent). These three commodities together represent half of total exports in 2009. With the exception of gold, the main driver of the decline in export values was sharp decrease in unit prices of the major commodities rather than reduced volumes. The contraction in the value of goods imports in 2009, 34 percent, was even more severe than that of exports.

**Figure 14 The contraction in imports continues to moderate**

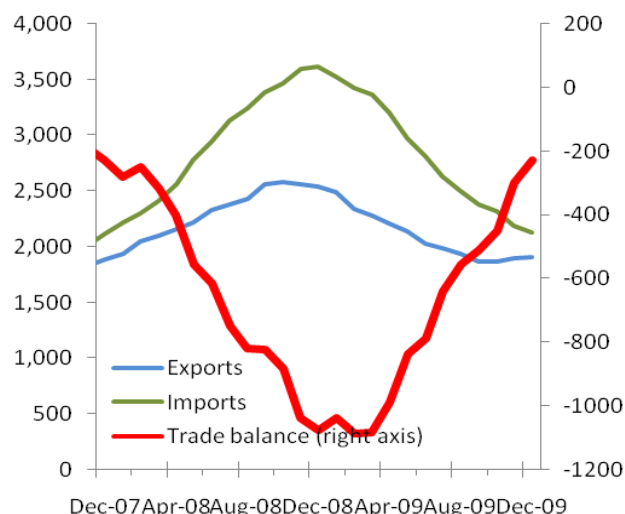
Contributions to monthly year-on-year growth



Source: National Statistics Office, World Bank

**Figure 15 The trade deficit has narrowed further<sup>10</sup>**

\$ million, 12-month rolling sum



Source: National Statistical Office, World Bank

In December the dollar value of goods imports was down by around 20 percent year-on-year, compared with contractions of over 50 percent in the first half of 2009. The latest numbers show

<sup>9</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 it, until this tax abolishes in 2011.

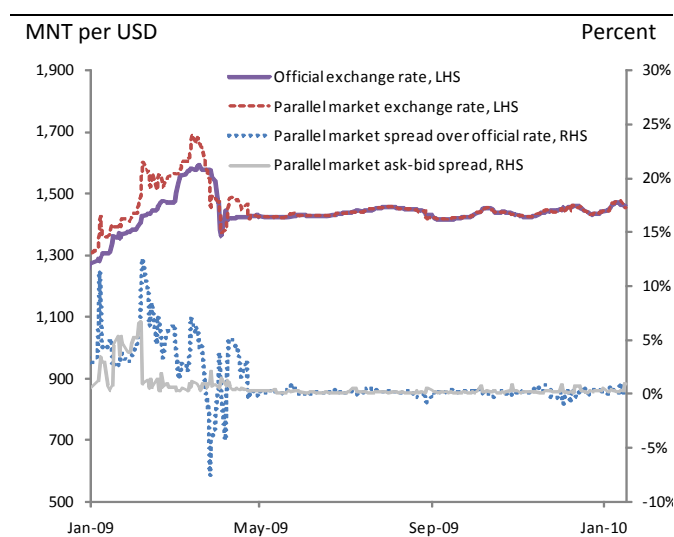
<sup>10</sup> Monthly trade data is strongly affected by the seasons in Mongolia, and has strong month-to-month fluctuations. For this reason, 12-month rolling sums are illustrated.

positive trends in imports of minerals products, base metals and food products (Figure 14). Overall, the 12-month rolling trade deficit declined to US\$228.7 million in December (Figure 15), up from US\$1076.6 million 12 months previously.

### The exchange rate against the USD remains stable

The exchange rate against the US dollar has been stable since April 2009 (Figure 16), when the Bank of Mongolia (BoM) raised its policy rate substantially and introduced an auction system. In addition, the spread between the ask and bid rates in parallel and commercial bank foreign exchange markets, which is often a good indicator of the liquidity, has remained low, after the sharp spikes in late 2008 and early 2009. In December, the average monthly exchange rate against the USD depreciated slightly, by 1.0 percent, compared with November. The stabilization of the exchange rate has allowed the Bank of Mongolia to raise its international reserves to a record high level of US\$1,145 million as of the end of 2009. However, since November the BoM has not made any foreign exchange purchases. Instead, reserves were boosted by an increase in monetary gold, project funding from International Fund for Agricultural Development (IFAD)<sup>11</sup> and an SME Development Project from Japan, and deposits from commercial banks.

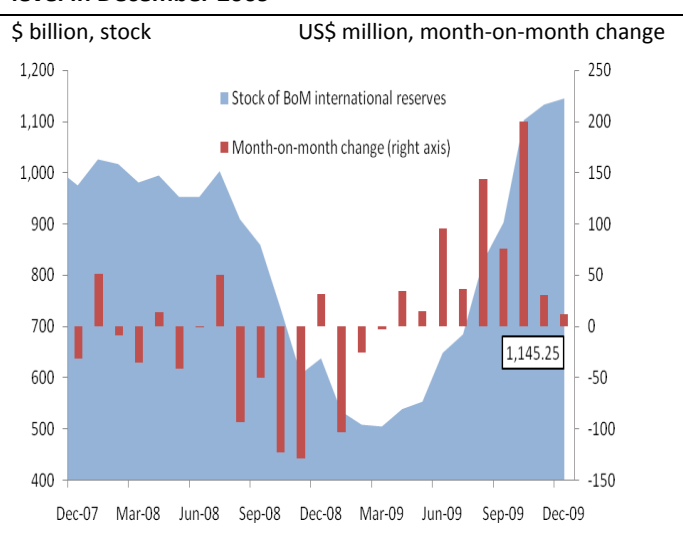
**Figure 16 The exchange rate remains stable**



Note: Parallel market rate is mid-point of bid and ask rates. Positive spread over official rate indicates relative depreciation. Ask-bid spread measured as percentage of mid-point of the two. Last observation: January 20, 2009.

Source: Mongolian Financial Association, World Bank.

**Figure 17 BoM international reserves reached a record high level in December 2009**



Note: Number in box is end-December stock of BoM international reserves in US\$ million.

Source: Bank of Mongolia, World Bank.

## Fiscal developments

<sup>11</sup> Since 1996 the International Fund for Agricultural Development (IFAD) has helped rural poor people in Mongolia by funding development projects in the livestock sector, the key to the livelihoods of rural Mongolians.

## The overall fiscal deficit in 2009 of 5.4 percent of GDP was below the budgeted target, reflecting expenditure restraint in an environment of declining revenues

Preliminary data show that the fiscal deficit for 2009 came in at 5.4 percent of GDP, an improvement on the 5.8 percent of GDP deficit targeted in the June 2009 Amended Budget (Table 1). The revenue intake in 2009 was only some 7.5 percent lower than in 2008 in nominal terms and 13 percent lower in real terms (Table 2). This decline reflected the fall in mining revenues due to the fall in copper prices (although these have recovered in recent months). The revenue performance of the government suffered towards the end of the year as service centers temporarily closed down due to the spread of swine-flu. As a result of these factors, along with the overall decline in economic activity, corporate income tax, the Windfall Profit Tax, VAT and trade tax revenues were all lower than in 2008. However, revenues from personal income tax, along with social security contributions and property taxes were up on a year-on-year basis. With the 2008 dividend payments of the Erdenet plant coming through in 2009, the government's dividend income increased by 229 percent year-on-year helping to keep non-tax revenues relatively buoyant.

**Table 1 Budget projections and outturns 2008- 2009**

Data in MNT billion, except for parentheses in which case it is as % of GDP

	2008	March 09 Budget Amendment	June 09 Budget Amendment	2009 Actual
Total revenue & grants	2156 (35.2)	1973 (31.3)	2055 (32.6)	1993 (32.9)
Total expenditure & net lending	2462 (40.2)	2314.2 (36.8)	2418.9 (38.4)	2322 (38.3)
of which:				
Wages & salaries	543 (8.9)	932.8 (14.8)	932.8 (14.8)	579 (9.6)
Domestic investment	477 (7.8)	366 (5.8)	423.2 (6.7)	385 (6.4)
Purchase of goods & services	488 (8)	347.1 (5.5)	347.1 (5.5)	391 (6.5)
Overall fiscal balance	-306 (-5)	-341.2 (-5.4)	-364.2 (-5.8)	-329 (-5.4)
Nominal GDP (MNT billion)	6130	6293 <sup>a</sup>	6304 <sup>a</sup>	6055

Note: <sup>a</sup> refers to budget assumptions.

Source: Mongolian authorities, World Bank.

With the government also cutting back on spending in order to maintain fiscal sustainability and meet the fiscal deficit targets supported by the IMF SBA, total government expenditure was some 5.7 percent lower in nominal terms than in 2008. The largest cuts were made to overall capital expenditure which was some 26 percent lower in nominal terms and 30 percent lower in real terms than in 2008. Spending on capital repairs was less than half the level in 2008 while subsidies also fell sharply, falling 46 percent in nominal terms relative to expenditures in previous years.

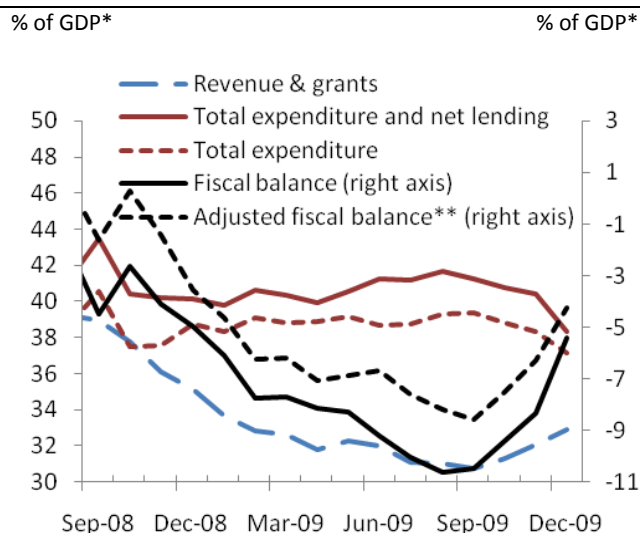
Offsetting these expenditure cutbacks was a 6.6 percent nominal increase in wages and salaries, which contributed to an increase in overall current expenditures of 2.4 percent on the year. In addition, the government also had to bear the cost of some unpredicted expenditures such as repairing infrastructure damaged by floods (bridge, roads), procurement of gers for flood survivors, containing the flu virus and procuring required vaccines, relief efforts related to the severe winter conditions discussed above and, finally, there are the substantial fiscal costs associated with the blanket guarantee law and the failures in the banking sector. For instance, for the depositors of the Anod Bank, the Bank of Mongolia paid MNT 127 billion while for the restructuring of Zoos Bank, the Parliament approved the issuance of MNT 100 billion of bonds. With all these adding to the funding pressures on the state budget, the government's reserve expenses were found to be inadequate with a reallocation required out of the Finance Minister's portfolio. Overall, MNT 8.6 billion was disbursed<sup>12</sup> out of the government reserve fund and MNT 8 billion out of Finance Minister's portfolio to fund the unpredicted contingencies

<sup>12</sup> 2009 Outturn of the Government Reserve Fund, Ministry of Finance.



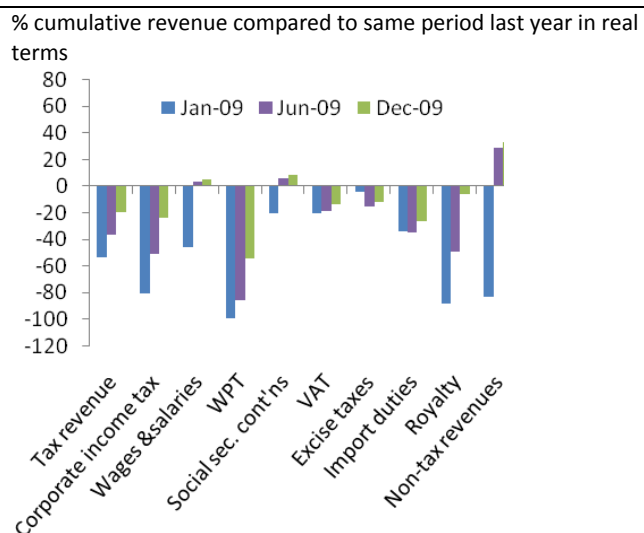
out of which MNT 5.6 billion was spent on natural disaster relief efforts and containing the spread of infectious diseases.

**Figure 18 The 12 month rolling fiscal deficit has improved significantly**



Note: \*GDP interpolated using actual 2008 and 2009 GDP data. \*\* Adjusted fiscal balance excludes net lending from expenditure, leaving current and capital expenditure only  
Source: Ministry of Finance, World Bank.

**Figure 19 ..although revenue intakes still remain depressed compared to previous years**



Source: Ministry of Finance, World Bank.

During 2009, the government developed a draft Fiscal Sustainability Law 2009, benefiting from a series of stakeholder consultations with civil society organizations, policy makers and the public. The objective of the law is to better manage the mining boom and bust cycles. As explained in earlier updates, three complementary fiscal rules are the pillars of this new fiscal framework: a “structural balance” target for the budget to ensure predictability in the budget and insulate it from year-to-year swings in the price of copper; a ceiling to public debt (as a share of GDP) to avoid over-borrowing against an uncertain future; and a ceiling on annual increases in public expenditures to avoid sudden large increases in public expenditures beyond the capacities to prudently manage these. One important ingredient on 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 2).

### Box 2 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 (Figure 20).

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

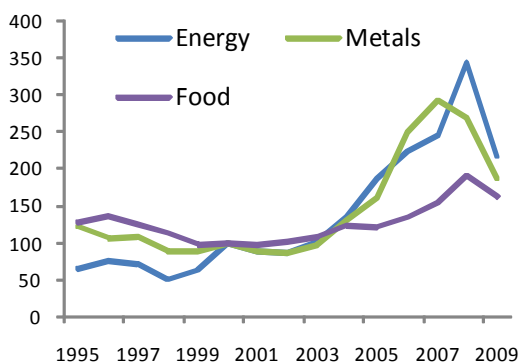


macroeconomic policy planning and formulation. For example, under the proposed fiscal stability law currently being considered, Mongolia would adhere to a ceiling on the “structural budget deficit”. This adjusts budget revenue projections for swings in copper prices using a “smoothed” price projection and thus is aimed at preventing copper price shocks 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 Figure 21. 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.

**Figure 20 Commodity prices in recent years subject to large swings**

Commodity price indices, rebased 2000=100



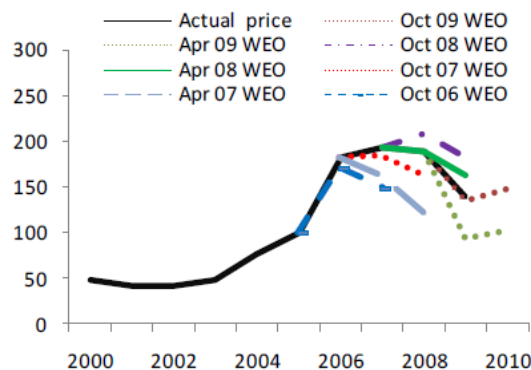
Notes: The energy index includes crude oil, natural gas and coal price, metals includes copper, aluminum, iron ore, tin, nickel, zinc, lead, and uranium while food index includes cereal, vegetable oils, meat, seafood, sugar, bananas and oranges.

Source: IMF, Bank staff calculations

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 which are based on an analysis of the factors that impact commodity prices e.g. demand and supply conditions; 2) model-based forecasts which utilize historical price information and 3) those that rely on all available information including futures prices.<sup>13</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

**Figure 21 Large errors in forecasting copper prices**

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



Notes: += depreciation.

Source: IMF, Bank staff calculations

<sup>13</sup> 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.

assessment. The predictive power of futures prices can be highly unreliable, with commodity price increases in recent years having been under-predicted by futures markets.<sup>14</sup>

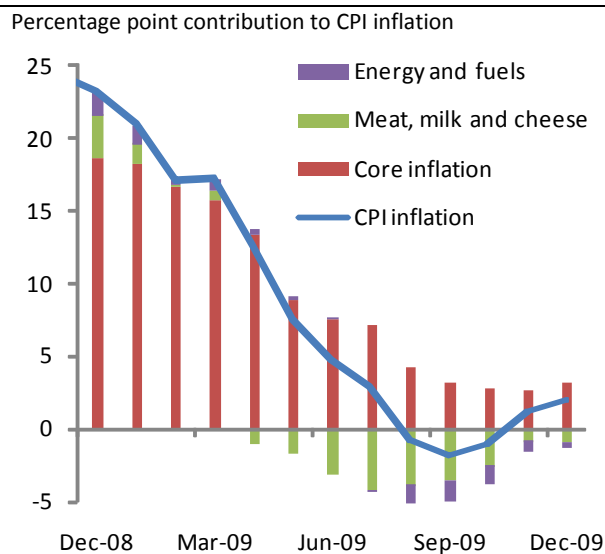
What are the lessons from this for policy makers? For a start, commodity prices cannot be predicted accurately, irrespective of whether sophisticated statistical models are used or not, although those using futures prices which are forward looking may perform relatively better. Accordingly, ideally policy 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.

## Inflation

### The CPI inflation rate fell sharply in 2009 but has started picking up recently due to rising fuel and energy prices

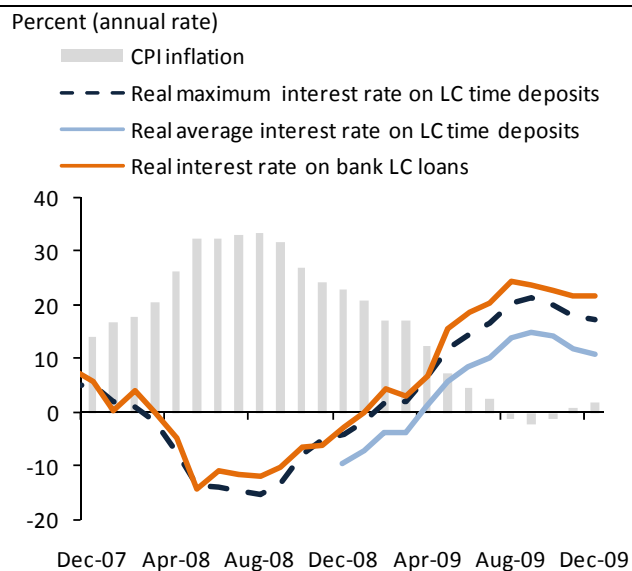
With the economy in the grip of a severe downturn, the headline CPI inflation rate fell sharply in 2009, briefly turning negative from August to November. It has since turned positive driven by rising energy prices (due to increased demand during a colder than expected winter) and also a slight rise in the rate of core inflation. However, at 1.9 percent yoy the headline inflation rate in December 2009 was much lower than the 23.3 percent rate seen in December of 2008 (Figure 22). The BoM cut the official policy rate three times in 2009 as inflation fell as global food and fuel prices eased and the domestic economy slowed down.

**Figure 22 Inflation has picked up recently due to the colder than expected winter**



Note: This is the UB city CPI.  
Source: National Statistical Office, World Bank

**Figure 23 Lending rates remain extremely high**



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

<sup>14</sup> 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 US Federal Reserve Bank on June 9, 2008

## Banking sector

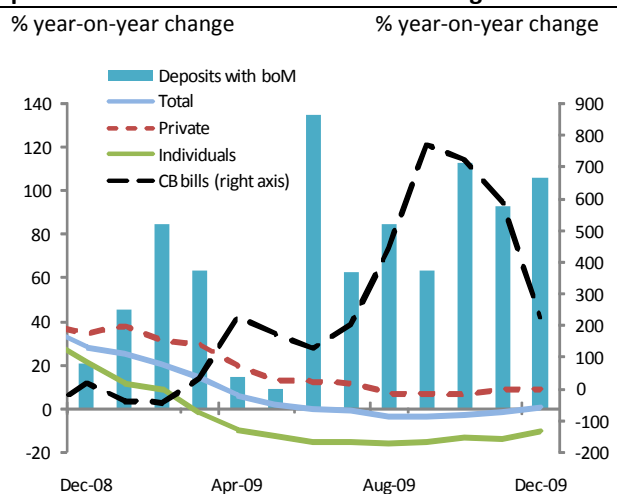
### Monetary policy response to the banking crisis

Throughout 2009, the central bank of Mongolia has been taking measures to stabilize the exchange rate, restore confidence in the local currency, and control inflation. For instance, the central bank increased the CBB rate to as high as 14 percent in March 2009, but once the foreign exchange market conditions stabilized and inflation was subdued, it gradually reduced it to 10 percent in September 2009. The central bank also increased the capital adequacy ratio of banks, reduced credit risk fund rates, and introduced a foreign exchange auction/trading system. In the first quarter of 2009, the BOM also injected 91.6 billion tugrug of capital provision to the banks in order to provide system-wide stability. In addition, the government supported local gold operators with USD89.5 million of directed credit, financed by foreign borrowing. Finally, the central bank has developed amendments of the Banking Law and the Central Banking Law and submitted them for the legislature's approval.

### Real interest rates on loans remain extremely high

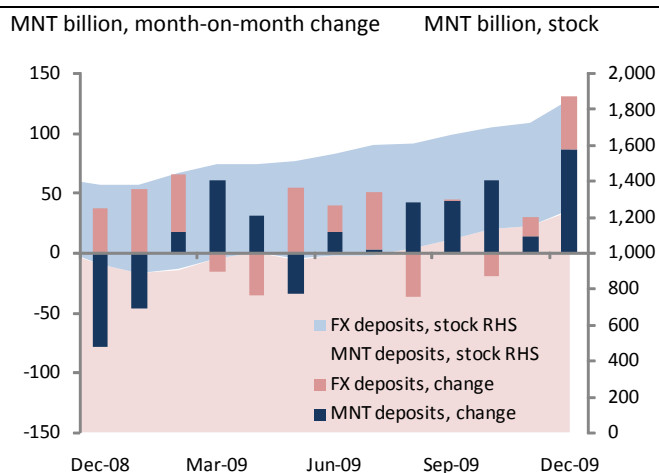
Despite the Bank of Mongolia having cut its official policy rate three times since May, from 14.0 percent to 10 percent in September, nominal interest rates on both local currency deposits and loans barely moved in 2009. Hence, due to the sharp decline in the CPI inflation rate over 2009, real economy-wide borrowing costs have soared posing a constraint to the recovery in private sector activity. The recent upward trend in inflation brought down real interest rates only on deposits (Figure 23 above) while average lending rates actually increased to 19 percent in December from 17 percent in November on local currency. Overall lending growth remains flat although the rate of growth of banks' purchases of central bank bills is decreasing (Figure 24).

**Figure 24 Total lending growth remains flat while purchases of Central Bank bills are slowing**



Source: Bank of Mongolia, World Bank .

**Figure 25 MNT and FX deposits continue to rise**



Source: Bank of Mongolia, World Bank

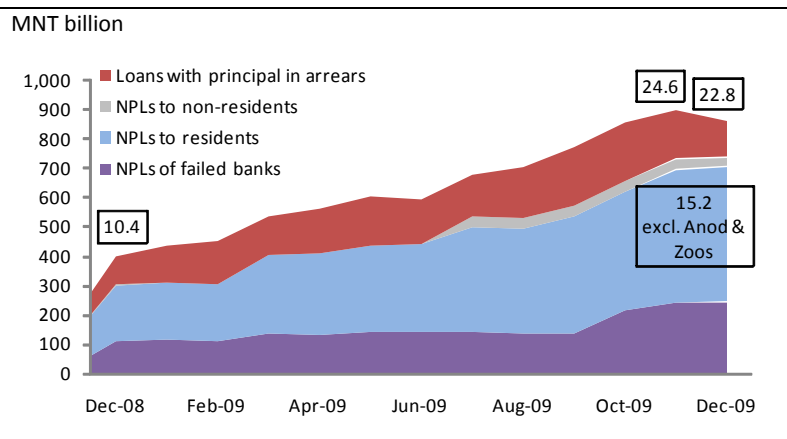
The high real interest rates strongly contribute to the rising MNT and FX deposits (Figure 25). Indeed, at MNT 1,234 billion in December 2009, local currency deposits are now well above the recent peak of MNT 1,149 billion in March 2008. Foreign currency deposits have also risen to a new peak at

end-December, 41.3 percent higher than corresponding level in December, 2008. Both MNT and FX deposits increased from 2008 to 2009.

### The latest data indicates tentative signs of stabilization in the recorded level of non-performing and past due loans

The weakness in banking sector balance sheets were clearly exposed in 2009 as two major banks failed. Aggregate losses of commercial banks reached MNT 143 billion from an aggregate loss of MNT 67 billion a year ago<sup>15</sup>. Loan quality, in particular to the private sector, deteriorated markedly. Non-performing loans (NPLs) to residents and nonresidents reached MNT 492 billion or 18.3 percent of outstanding loans in December, up from just over 10 percent a year earlier. Loans with principal in arrears were MNT 121.7 billion in December<sup>16</sup>. This is down from MNT 201 billion in September (7.7 percent of outstanding loans) as a result of loan classifications and contraction in new loans issuances. As a result, non-performing loans and loans with their principal in arrears now stand at 22.8 percent of total outstanding loans. Excluding Anod and Zoos banks that have been taken into receivership by Bank of Mongolia, the NPLs and loans with principal in arrears as a percent of total loans outstanding are 15.2 percent as of end-December, 2009.

**Figure 26 Slight fall in total non-performing loans in December**



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.

Source: Bank of Mongolia, World Bank.

<sup>15</sup> Consolidated Loan Report, October, 2009, Bank of Mongolia

<sup>16</sup> These are loans of which the principal is 1 to 90 days in arrears. After 90 days, they become non-performing loans.

**Table 2 Mongolia: Key Indicators**

	2003	2004	2005	2006	2007	2008	2009
<b>Output, Employment and Prices</b>							
Real GDP (% yoy change)	7.0	10.6	7.3	8.6	10.2	8.9	-1.6
Industrial production index	..	..	..	100.0	110.4	113.4	..
(% yoy change)	..	..	..	..	10.4	2.7	-3.3
Unemployment (%)	3.4	3.6	3.3	3.2	2.8	2.8	..
Consumer price index (% yoy change)	4.6	10.9	9.6	5.9	14.1	23.2	1.9
<b>Public Sector</b>							
Government balance (% of GDP)	-3.7	-1.8	2.6	3.3	2.8	-5.0	-5.4
Non-mining balance (% of GDP) <sup>(1)</sup>	-5.9	-5.8	-1.3	-7.3	-13.4	-15.5	-12.9
Domestic public sector debt (% of GDP)	3.1	1.4	0.1	1.0	0.5	0.0	6.3
<b>Foreign Trade, BOP and External Debt</b>							
Trade balance (\$ mn)	-199.6	-99.2	-99.5	136.2	-52.4	-612.6	-183.0f
Exports of goods (\$ mn)	627.3	872.1	1066.1	1543.9	1950.7	2539.3	1902.6
(% yoy change)	19.7	39.0	22.2	44.8	22.4	34.4	-24.9
Copper exports (% yoy change)	..	..	14.7	94.8	27.7	3.0	-39.9
Imports of goods (\$ mn)	826.9	971.3	1165.6	1407.7	2117.3	3615.8	2131.3
(% yoy change)	21.6	17.5	20.0	20.8	42.5	70.8	-34.3
Current account balance (\$ mn) <sup>(2)</sup>	-102.4	24.1	29.7	221.6	264.8	-721.9	-291.0f
(% of GDP)	-7.1	1.3	1.3	7.0	6.7	-13.9	-6.9f
Foreign direct investment (\$ mn)	131.5	128.9	257.6	289.6	360.0	585.5	517.0f
External debt (\$ mn)	1240.3	1311.8	1360.0	1413.9	1528.7	1600.5	1860.0f
(% of GDP)	87.3	73.7	59.7	44.3	38.9	33.1	46.5f
Short-term debt (\$ mn) <sup>(3)</sup>	0.0	0.0	0.0	0.0	0.0	0.0	..
Debt service ratio (% of exports of g&s) <sup>(3)</sup>	13.4	9.4	7.6	5.9	6.5	4.4	4.5
Foreign exchange reserves, gross (\$ mn)	203.5	207.8	333.1	718.0	1,000.6	656.7	1145.2
(month of imports of g&s)	2.3	1.8	2.5	4.6	5.0	2.1	5.1
<b>Financial Markets</b>							
Domestic credit (% yoy change)	157.3	25.8	18.8	-3.1	78.4	60.6	..
Short-term interest rate (% per annum) <sup>(4)</sup>	..	15.8	3.7	5.1	8.4	9.8	..
Exchange rate (MNT/USD, eop)	1168.0	1209.0	1221.0	1165.0	1170.0	1267.5	1446.6
Real effective exchange rate (2006=100) <sup>(5)</sup>	94.2	93.9	99.6	102.8	104.8	127.4	..
(% yoy change)	-4.8	-0.4	6.1	3.2	1.9	21.5	..
Stock market index (2000=100) <sup>(6)</sup>	151.5	120.8	203.6	382.0	2048.0	1181.6	..
<b>Memo:</b>							
Nominal GDP (MNT bn)	1,660	2,152	2,780	3,715	4,600	6,130	6,055
Nominal GDP (\$ mn)	1,448	1,814	2,307	3,156	3,930	5,258	..
GDP per capita (\$)	583	722	900	1,214	1,491	1,960	..

Notes: (1) Non-mining balance excludes revenues from corporate income tax and dividends from mining companies, the Windfall Profits Tax and royalties. (2) The 2008 data for the balance of payments are based on the final revision. (3) On public and publicly guaranteed debt. (4) Yield of 14-day bills until 2006 and of 7-day bills for 2007. (5) Increase is appreciation. (6) Top-20 index, end of year, index=100 in Dec-2000.

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