## ECONOMIC RESEARCH INSTITUTE

# 2017 ANNUAL REPORT

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# Economic Research Institute

## Introduction

Economic Research Institute (ERI) was established in 2010 as an independent policy studies center at the School of Economic Studies of the National University of Mongolia (NUM) in collaboration with IRIS center of the University of Maryland. ERI aims to ensure flow of high quality, peer reviewed analysis on policy issues, and methods for conducting research and to provide research information to a broad range of audience. We look for useful ways to identify and understand the demand for policy research and develop ways to tie academic skill and fundraising together, with the support of potential contributors by our rigorous operations and high quality works in key areas of interest with independence and focus.

The think-tank recruits researchers from existing staff of the National University of Mongolia and provides opportunities and funding for research works it has commissioned through temporary research fellowships.

## Partners:

- ◄ Bank of Mongolia, Ministry of Finance, Mining and Heavy Industries other government organizations
- ◄ World Bank, Asian Development Bank, United Nations, JICA and other donor organizations

# Research projects implemented in 2017

## Gold Market Study

This study, completed in partnership with JICA, is an update of the previous in-depth Gold Market Study done in March 2017. This update focuses on recent changes in both the global and domestic markets in order to provide projections about the future gold market. As in the last study, this update looks into the demand, supply, and price of gold for both the world and Mongolian markets.

**World Market:**

◄ Gold demand for jewelry and investment purposes still make up the largest portions of overall global demand. World demand for gold decreased in the first half of 2017 compared to the first half of 2016. Looking forward, gold demand is expected to be sluggish as jewelry demand is expected to decrease in line with global trends while gold for investment decreases from its inflated 2016 volumes. The overall volume of gold demanded for technology and by central banks are expected to rise but as the amount is only a small portion of total gold demand, overall demand is expected to decrease.

◄ World supply of gold decreased in the first half of 2017 compared to the first half of 2016. The world supply for gold is determined by mine production, recycled gold and net producer hedging with a particular reliance on mine production. Mine production in the first half of 2017 stayed essentially unchanged from 2016 while the level of recycled gold decreased and there was a shift from gold hedging to de-hedging. Looking forward, global supply is expected to decrease as the circumstances suppressing production continue and China, the world's largest producer of gold, is expected to systematically reduce production as it revamps its mining sector.

◄ Gold prices are determined by overall gold demand and gold supply. World gold price is expected to remain high in 2018 as overall gold supply is expected to drop more than global gold demand. Prevalent instability in the world economy, particularly in the US is expected to drive and keep the price of gold up in coming years.

## Mongolian Market:

◄ In accordance with the government's Gold-2 program, the Bank of Mongolia is expected to increase its purchase of gold, keeping Mongolian demand at a relatively high level.

◄ Mongolian production is largely based on Oyu Tolgoi's production and is expected to be muted until 2020 when Oyu Tolgoi's phase 2 underground mine expansion is slated to be complete. Gold production is then expected to sharply increase and peak in 2025. This increase in production may be sustained as several new smaller gold projects are being implemented.

◄ Mongolian gold prices are fully reliant on world gold prices and will follow the worldwide trend.

# Copper Market Study

This research is an update of copper market study conducted by ERI in March 2017. We studied the factors which affects the supply, demand and price of copper in the world and local markets since the beginning of 2017.

## World Market:

◄ Copper demand was weaker in the first half but it is likely to recover in the second half of 2017 mainly due to the steady growth of the Chinese economy. Copper industry analysts forecasted that the global demand for copper is likely to increase in 2017 and beyond. In particular, the apparent Chinese copper usage is expected to grow in 2017 and 2018 due to the fact that Chinese economic growth was higher than expected. Modest growth from the USA and Europe and solid growth in emerging markets such as India will support global copper demand further.

◄ Globally, copper concentrate supply decreased significantly in first half of 2017 due to the strike at the Escondida and Cerro Verde mines in addition to the Indonesian government's temporary ban on copper concentrate exports. On the contrary, refined production remained essentially unchanged. Analysts expect that mining copper production will decrease in 2017. The copper market to be roughly balanced to the end of the decade, with solid demand growth met by existing and committed supply. In the long run, grade decline and availability of power and water will constrain the copper supply globally. As a result, a structural deficit is expected to open up in the early 2020s.

◄ In the first eight months of 2017, the price of copper rose due to the changes in global supply and demand. The price projections from international financial and banking institutions have been changing significantly from the former ones since the beginning of 2017. Analysts expect the copper price per tonne to continue to grow in next 5 years and beyond due to the lack of supply and the solid increase in demand.

## Mongolian Market:

◄ For the Mongolian copper market, local demand is flat in short term and could increase in the long run depending on economic growth, especially on the expansion of the infrastructure sector. On the supply side, copper concentrate production is expected to decrease in the upcoming 2 years due to the average grade decline. However, annual copper output is expected to grow over 2017-2026. The Oyu Tolgoi underground mine as well as the Tsagaan Suvarga mine operations are the key drivers of the growth.

# Iron Ore Market Study

This study, completed in partnership with JICA, is an update of the previous in-depth iron ore market study done in 2017. This update focuses on changes in both the global and domestic market in order to paint a clearer picture of the current iron ore market and provide projection estimates about the future iron ore market. Similar to the last study, this update looks into the current global demand for and supply of iron ore and then utilizing the collected information to make an informed projection of global iron ore price.

## World Market:

◄ Global crude steel production increased in 2016. World crude steel production is predicted to gradually increase from 2017 to 2019. The Australian Department of Industry, Innovation, and Science forecasts that annual growth of production will grow in 2017 and 2018. China's crude steel production growth is projected to decrease in over the next few years as the Chinese government is pursuing a strategy to reduce crude steel production due to technological and environmental factors.

◄ Global iron ore production grew year-on-year in 2016. This was primarily driven by an additional shipping of ore from Australia. Supply of iron ore is expected to increase in the near future. According to Bloomberg Intelligence, iron ore production of the top four producers will increase in 2018 as major iron ore producers in Australia and Brazil are planning to expand production and reduce operational costs.

◄ The iron ore price has increased since last quarter of 2016. Prices then declined by September 2017. The price of iron ore in the world market is expected to decline further in 2018 to 2021 as the world iron ore markets is expected to experience a supply surplus leading up to 2020.

## Mongolian Market:

◄ Mongolia's steel production increased in 2016. In the next few years, Mongolian steel production is expected to increase as the Government of Mongolia is pursuing a strategy to develop its metallurgical production by implementing the metallurgical plant project in Darkhan and Selenge region, which relies upon the Darkhan Metallurgical Plant.

◄ Currently, only 65 percent of Mongolia's total iron ore production capacity was used in 2016. It is expected that Mongolian iron ore miners will operate at full capacity between 2017 and 2020 as the metallurgical plant project in Darkhan and Selenge region is implemented.

# Coal Market Study

As around 70-80 percent of Mongolian coal exports is coking coal, a large portion of the research is focused on coking rather than thermal coal. Similar to the Coal Market Study March 2017 report, this report consists of three sections: demand, supply and price of coking coal. Within the three sections, the Mongolian market is separated from the world market to better highlight the factors influencing each market. The aim of this research is to provide an update of the coking coal market, internationally as well as domestically, since the March 2017 report.

## World Market:

◄ Coking coal demand is determined by trends in demand for and output of steel as well as its production methods. As more countries turn towards renewable or cleaner energy, electric arc furnaces could replace blast furnaces as it requires less coal. This trend is not prevalent in China currently, where blast furnaces are used in over 90 percent of crude steel production. In March 2017, China announced that it would cut total coal production by 150 million tonnes in 2017. Part of the initiative entails the closure of small-scale township mines due to inefficient operations and poor safety and environmental records. Due to China's cutback, demand for coking coal from Mongolia, Australia, and Russia will significantly increase.

◄ Cyclone Debbie caused a supply disruption in Australian coal exports as it damaged several mines and rails, forcing some companies to declare force majeure. This caused a significant increase in prices, which had other mines advancing productions to take advantage. The supply outlook for coking coal is forecasted to spike in 2017, followed by a decline as operations return to normal.

◄ As world crude steel production is expected to decrease, demand for coal will also decrease. The decrease in coal demand will decrease prices in the long-term. However, prices will experience temporary surges during short term supply shocks such as a natural disaster disrupting transportation.

## Mongolian Market:

◄ Mongolian mines increased production to operate at almost full capacity due to the strong, short-term demand from China as well as to take advantage of high coal prices like other nations.However, since July, coal exports have decreased as border control congestion stretched over 100 kilometers.

◄ As Australian coal price forecasts account for decreases in crude steel production, Mongolian coal prices will move relative to Australia — price spike in 2017, followed by a steady decline before leveling in 2019 as operations return to normal and demand from China decreases as climate change targets and goals are fulfilled.

# Mining Development Strategy

Mongolia's development strategy for the mining sector is reflected on following three major pieces of legislations.

Main development goals of the country is reflected in Sustainable Development Goals (SDGs) document that was adopted in 2016 by the Parliament of Mongolia, which sets out socio-economic policy targets for the country.

The next major piece of legislation of the mining sector's development strategy is a policy document entitled "State Minerals Policy (SMP) 2014-2025", which was adopted in 2014 by the Parliament. This minerals policy document is a more detailed long term view of the sector's development in the country.

The next level piece of legislation in the development strategy of the mining sector is the Government action plan for 2016-2020. In this document near term goals and programs are stipulated.

We assess firstly in terms of cognizance of the reality. In other words, the country has to have realistic expectations about the role of the mining sector in the economy. Moreover, strategic documents should clearly reflect these expectations. Too optimistic or too pessimistic view of the sector regularly leads to overestimation or underestimation of the mining sector's effect on the economy.

It is expected that major strategy and policy documents should be based on realistic assumptions about the reserves and prices of commodities. However, these documents does not directly reveal the country's estimations of resource reserves and assumptions on pricing. Specifically, these documents does not provide specific guidance on its resource wealth.

Supporting policy documents of major pieces of legislation does not reveal much about the estimation or assessment of the resource reserves. The official estimation of resource reserves is primarily described in the "Annual bulletin of mining and geology". Therefore, we can see that the consensus can be further improved by conveying estimations and potential scale of the mining sector and natural resource endowments more clearly and reflect it in policy documents.

The strategic and its follow up documents does not convey commodity price scenarios and therefore it is not clear from these documents what impact the sector will have on the economy in the long run.

Cognizance is also assessed in terms of how the country addresses its issue of heavy dependency on the mining sector. As of 2016, the mining sector accounted for approximately 20% of Mongolia's GDP and 71% of gross industrial output. Moreover, it was also estimated that indirect contribution of the sector is approximately 10% of GDP.

Development strategy documents clearly acknowledge this dependency and promotes the diversification of the economy.

The Government of Mongolia is aiming to achieve diversification by conducting series of policies by reducing costs of production and formulating and implementing heavy industry development plan. In particular, the government is aiming to support the production sector through tax policies to enhance the non-mining export and through reduction of costs of downstream value added production by stabilization of and reduction of tariffs for water, heat and electricity, promotion of fair competition, creation of "loan of trust" for small and medium enterprises and adjusting fuel prices to the world market prices.

Although SDGs, SMP and the Government Action Plan specify goals for sectorial developments, it unfortunately does not specify how priorities are decided and what are the costs associated with programs that promotes development of non-mining sectors. In other words, there is a lack of clarity how prioritization of programs will be done and at what cost. exhaustive

Secondly, since natural resources are exhaustive, the strategy should maintain the long-term view of the country in terms of developing and maintaining the mining sector in order for future generations of citizens can continually benefit from natural resources.

The national strategy documents such as "Sustainable development goals" and "State minerals sector policy" are clearly designed with the long term view.

"Sustainable development goals" envisions high growing economy with no poverty and drastic reduction in income inequality by 2030 among other long term goals. Goals in the mining sector are designed to promote comprehensive research in geology and geophysics and to create a favorable investment environment for explorations, conduct in-depth explorations of deposits, develop infrastructure with suitable power plant and water supply and transportation network and start developing large mining projects.

"State minerals policy" document specifically promotes policies whose positive effect should benefit all citizens. In fact, the very first principle of the minerals sector policy is directed at maintaining policies in the sector in the long run.

Long term impact of the sector on future generations is dependent not only on developing and benefiting from current known resource deposits and projects, but also on how the country handles pace of exploration and mining licenses, state's fiscal terms with mining companies on projects, the management of revenue from the sector and the promotion of private sector.

The administration of the licensing process is regulated by the "Minerals Law "of Mongolia. This law is directed at regulating how the license will be processed and is not addressing the issue of pacing the licensing. In fact, there are no follow ups to the SMP document on pacing the licensing.

In order to benefit from the sector in the long run, it should also be assessed

how the country benefits from the sector and how it will be benefiting in the future. Mongolia benefits from the mining sector by imposing royalties, taxes, tariffs on exports and dividends from the state ownership. Indeed, this is one of the highly discussed topics in the public.

"Minerals law" also identifies deposits that are deemed strategically important that can have significant impact on national security and on society and economy or deposits that can contribute more than 5 percent of GDP per year as strategically important. However, it is not entirely clear what criteria constitutes "strategically important deposit" and it needs to be clarified.

Experience with Oyu Tolgoi project indicates that policymakers declared that in the long term the country will be benefitting from the mining sector through its state owned mining companies. However, inefficiency and profitability of state owned enterprises are widely believed to be lagging those of private mining companies and regular turnover of management team at the state owned companies indicate that there is a strong incentive for politicians to yield influence in these companies.

Long term benefit also depends on how the country manages its mineral revenue. Mongolia made great strides in terms of regulating the revenue from the mining sector. In particular, "Fiscal stability law" was adopted in 2012 and went in full effect in 2013 and the law on "Future heritage fund" in 2016.

It should be noted that although rules for revenue management was set out in exemplary fashion, the Government found it hard to follow it through at the implementation level. In particular, major parameters such as budget deficit and debt level had to be amended every year to accommodate ever expanding government expenditure and debt level. This practice of revising major parameters of this law shows lack of commitment form the Government to the fiscal discipline.

In general, throughout this assessment we emphasized that there is a lack of detailed vision on how the government intends to implement and achieve these strategic visions and policy actions.

# Revenue management

Over the last decade, the Mongolian economy has dealt with numerous booms and busts. Economic indicators reveal that the booms and busts are caused by changes in the mining sector; specifically, changes in mineral commodity prices with investment playing a key role. The mining boom brought with it economic fragility, notably vulnerability to commodity price drops and decreases in FDI inflows. Mongolia began to experience economic slowdown following the boom in 2012, when mineral commodity prices fell significantly on the world market. The public foreign debt grew substantially in the last few years as budget expenditure increased and revenue fell. The decrease in public revenue is due to the overestimation of mineral commodity prices by the Parliament of Mongolia (PoM).

Fiscal and monetary policies are utilized to minimize economic fluctuations and as seen internationally, the policies are more effective when they are counter cyclical. Mongolia's past fiscal and monetary policies have not reduced economic fluctuations, instead seeming to amplify it as observed in the figure below.

**Figure 1.** GDP, budget expenditure and M2, nominal changes %
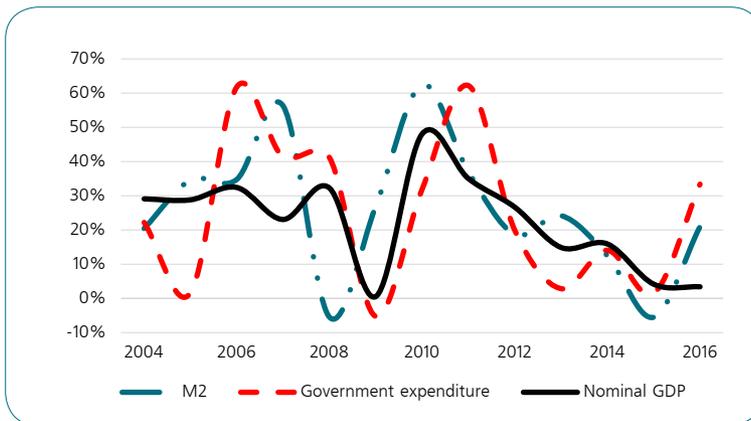


*Source: NSO, Bank of Mongolia*

In 2010, the Government of Mongolia (GoM) and the PoM approved the "Fiscal Stability Law" (FSL). The purpose of the law is to help restrain fluctuations in the government budget and thereby reduce uncertainty. The FSL also aids in stabilizing the economy when mineral commodity prices are fluctuating on the international market. However, due to economic difficulties, the PoM amended the law, postponing the implementation of the articles related to government expenditure growth, foreign debt to GDP ratio, and budget balance to GDP ratio to 2017, 2021 and 2023, respectively. As the government budget is expected to

experience repayment pressures from foreign debt, the implementation of these key articles of the law will become more significant in the future.

This research looks into Mongolia's budget revenue management in order to study the economic effects of implementing the FSL. When analyzing the current state of revenue management in Mongolia, the research team used historical data from the Ministry of Finance, the Bank of Mongolia, and other organizations to ensure that the study is comprised of comprehensive information. In order to assess the impact of the FSL, the research team utilized an in-house Computable General Equilibrium Model (CGE).

Main findings:

◂ The growth of the non-mining sector is higher under FSL, emphasizing the mitigating impact of the negative effects from mining development, also known as de-industrialization.

◂ The FSL implementation does not have a significant impact on the means of select macroeconomic variables. However, with the help of the FSL, the magnitude of the variances of select variables are significantly reduced.

The main finding from this study is that with the implementation of the FSL, the Mongolian economy remains stable during times when mineral commodity prices fluctuate. Based on the results of this study, the research team puts forth the following recommendations:

◂ The GoM needs to implement the key articles of the FSL mentioned above promptly, as it will help the GoM hold a counter cyclical fiscal policy and reduce fluctuations in the economy caused by the mining sector due to changes in mineral commodity prices.

◂ The GoM needs to focus on increasing savings accumulated in the Fiscal Stability Fund (FSF) which plays a considerable role in stabilizing the economy when economic difficulties related to the mining sector occur.

◂ The GoM needs to improve fiscal discipline, making sure its expenditures do not exceed its planned budget.

# Marketing and Trading

The mining sector in Mongolia has been the main growth engine and source of international currency over the last decade. However, there are still worse bottlenecks in the existing commodity export activities. Similar to the exporting process of other goods, mineral commodity exporting consists of the following steps: (i) finding sales outlets, (ii) making sales contract, (iii) financing, (iv) transporting, and (v) closing deal. This study aims to identify the burdens and problems associated with every stage of the trading process of mineral commodities and define ways to addressing those problems.

Each commodity has its own market where pricing and selling mechanisms are different. To gather an insight into specific market issues, the research team conducted interviews with mining companies,  association representatives, and sector experts. According to the experts interviewed, coal and iron ore exporters are facing more severe problems in comparison to other mining commodities. As such, the study focused more on the issues faced in the coal and iron ore sectors.

Mongolia's coking coal exporting activities are concentrated at the Tavan Tolgoi and Nariin Sukhait basins with Northern China as the main exporting destination. In addition, the Khushuut mine in Khovd province exports its coal to Northwestern China. Most companies sell their coal through small and medium Chinese traders such as Winsway Holdings as traders are responsible for transport and logistics and offer flexible conditions. There is no problem finding and getting into contact with buyers especially during periods of high commodity prices. Most trading contracts are one-off contracts due to the market risk and limited orders involved. There have only been a few cases of disputes over a breach of contract in the coal sector. For large companies, their contract prices are set to be equal to market prices, but small companies tend to sell at lower prices. Recently, Erdenes Tavan Tolgoi (SOE) started open bid sales at their mining site.

The coal is mostly transported through a network of roads to the Chinese border. For Tavan Tolgoi basin, the distance to the border is 270 km and the railway project has been postponed for long period, leading to higher transportation cost. As traffic is heavy and the capacity of China's border control is limited, it takes a considerably longer time to cross the border. Additionally, the border port is of local status, allowing the Chinese local authorities to arbitrarily put limitations or fees on border crossing and transportation. As for the other basins, the mines are located closer to the border and there are no traffic or major border crossing issues.

For iron ore exporters, transportation and logistics issues are also the main problems. Bold Tumur Eruu Gol is the biggest exporter of iron ore and ships its commodities via railroad (having built a 70 km railroad from its mine site to the main railroad). The sales target is the steel factories in Northern China. The distance

from the mine to the Chinese border is around 1100 km, but tariff rates for long distances and cross-borders are set higher by the Ulaanbaatar Railway, the only carrier operating, to cover its loss from passenger and other domestic freight. Furthermore, the railway from the Chinese border to Bautou, the main consumer steel mill, takes a roundabout route that covers 908 km. An alternative railroad project (~ 318 km shorter) has been planned but the proposal has not been approved.

Depending on the specific characteristics of the commodities and their market development, coal and iron ore exporters face other difficulties such as taxation issues. In particular, there are neither commodity trading platforms nor any commodity exchanges. Additionally, trading contracts are not reliable nor transparent for tax authorities. On the other hand, according to the Law on Minerals, royalty rates for coal and iron ore depend on their benchmark prices at Chinese sea ports and the level of ore processing. The companies interviewed pointed out that the complex tax rate calculation lead to some difficulties regarding tax compliance.

As copper and zinc are traded at global commodity exchanges, copper concentrate from Oyu Tolgoi and Erdenet, and zinc concentrate from Tsairt Mineral are traded by standardized contracts (though not transparent). Erdenet and Tsairt Mineral ship concentrates via railway, while Oyu Tolgoi uses paved road. In general, the trading issues of these commodities are relatively lower than that of coal and iron ore. For zinc concentrate, the main problem is extra time and cost spent at Sainshand station waiting while sending a mandatory sample of the concentrate for examination to the Customs Central Laboratory and Central Geological Laboratory located in Ulaanbaatar.

There are some common issues in most mining companies. Due to their limited research capacity and business model, most mining companies don't conduct any detailed marketing analysis. Another problem is that export financing services including payment and insurance are not well developed in Mongolia. As a consequence, for instance, coal exports prefer to sell the commodity directly at the mining source for up to a 30% advance payment before transporting. However, this practice of preferring advanced payment may lower the incentive of traders and buyers and limit the competitiveness of exporters.

Based on the research findings, the following suggestions are made:

◄ A commodity exchange or trading platform should be established. Exploratory studies and preparations were already done to some extent by the Ministry of Mining and Heavy Industries.

◄ At the policy level, traders' activities should be supported. A Law on Trade may be needed to regulate and support trading activities.

◄ Companies in the mining sector, in particular state-owned companies, should make all contracts including sales contracts transparent.

◄ Export financing mechanisms should be developed. Establishing a Mongolian Export Import Bank could be a potential solution. Detailed policy research is needed.

◀ Capacity strengthening projects like regular training on contracting, trading, taxation and mining governance issues for mining companies, government agencies and sector specialists should be implemented.

◀ The participation of mining associations in the policy making process should be increased. Mining associations should also play a crucial role in raising awareness for the industry.

# Foreign Direct Investment Inflow into Mongolia

◀ To a small economy like Mongolia, foreign direct investment (FDI) is a key catalyst in promoting economic growth. Thus, our research aims to estimate the impact of FDI on the Mongolian economy, identify the main factors influencing FDI, and how to attract more FDI.

◀ In analyzing the impact of FDI on the Mongolian economy, the Input-Output table (IOT) of 2010 and 2015 were used. The IOT consists of the balance between sectors and as this balance shows the economic structure and resource flows between sectors, it is widely used in this field of research. In 2010, FDI trends were upwards whereas in 2015, it was downwards. The IOT was used to calculate the impact of additional FDI inflow invested into the mining sector on the economy. As determined by the simulations ran by the research team, FDI positively impacts the Mongolian economy and has a positive investment multiplier. Additionally, the effect of FDI on the economy depends greatly on whether it was invested into the domestic market or used to purchase imported goods. In other words, the more the additional FDI was absorbed into the domestic market, the higher the investment multiplier.

◀ To better understand the fluctuations in FDI inflows, we examine the exogenous and endogenous factors influencing it. During the research, it was determined that changes in mineral commodity prices are an exogenous factor as Mongolia is a small player within the commodity market and has limited control over price fluctuations.

**Figure 2.** Commodity price index and FDI inflow, 2009-2016
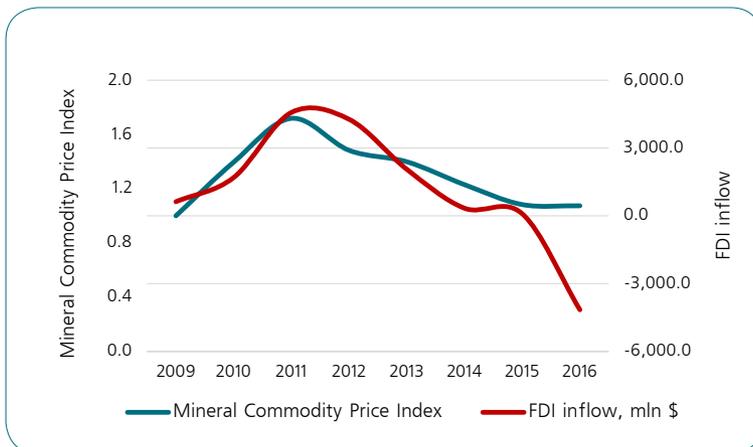


*Source: Bank of Mongolia, NSO, World Bank, and the research team's calculation*

◄ On the other hand, the investment climate is determined to be an endogenous factor. The Fraser Institute conducts an annual survey among mining and exploration companies around the world to determine what influenced their decisions to invest. The Investment Attractiveness Index (IAI) is constructed from two other indices – the Mineral Potential Index (MPI) and the Policy Perception Index (PPI). The main constraints to FDI inflow into Mongolia are disputes with foreign investors and ill-conceived policy decisions. Thus, if Mongolia can improve its investment climate, its IAI ranking could rise, making Mongolia an attractive investment destination.

**Table 1.** Indices of Mongolia and Chile, 2015-2017

|  | Investment Attractiveness Rank | Policy Perception rank | Mineral Potential Rank |
|---|---|---|---|
| *Mongolia* | | | |
| **2015** | 85/109 | 94/109 | 59/109 |
| **2016** | 81/104 | 101/104 | 50/104 |
| **2017** | 53/91 | 70/91 | 36/91 |
| *Chile* | | | |
| **2015** | 11/109 | 26/109 | 11/109 |
| **2016** | 39/104 | 35/104 | 49/104 |
| **2017** | 8/91 | 25/91 | 7/91 |

*Source: Fraser Institute*

◄ In the comparative analysis, Chile was chosen to be compared to Mongolia as FDI inflows into both nations are heavily dependent on their respective mining sectors. Relative to Chile's rankings on the indices, Mongolia still has long ways to go before being categorized as one of the top investment destinations. As such, countries such as Chile provide valuable experiences to learn from in order to better Mongolia's investment attractiveness.

◄ The research also examines how to attract FDI based on the best practices of other nations. As Mongolia cannot influence exogenous variables such as mineral commodity prices, the most suitable way to increase FDI would be to focus on improving Mongolia's investment climate. For example, countries such as Singapore, Switzerland, and Hong Kong were ranked among the top ten countries for investing and doing business in despite being countries without natural resources. These countries are able to attract large amounts of foreign investment due to their favorable investment climates. They tend to be transparent, politically stable, have easy access to well-established financial markets, world class infrastructure, and have a highly skilled and educated workforce.

◄ The government of Mongolia (GoM) plans to start and implement numerous projects as outlined in their Government Action Program 2016-2020 and the Sustainable Development Vision 2030 with the aim to attract more FDI; however, these plans are not complete as the sources of financing are still unclear. Mongolia's current FDI outlook of supply cannot sustain its demand if these big projects are going to be financed by FDI.

**Table 2.** Indexes and rankings in 2017

| Measure | Rank | | | |
|---|---|---|---|---|
| | **Singapore** | **Switzerland** | **Hong Kong** | **Mongolia** |
| Corruption Perception Index | 6/180 | 3/180 | 13/180 | 103/180 |
| Economic Freedom Index | 2/180 | 4/180 | 1/180 | 125/180 |
| Doing Business Index | 2/190 | 33/190 | 5/190 | 62/190 |
| Global Innovation Index | 7/127 | 1/127 | 16/127 | 52/127 |

*Source: Transparency International, Heritage Foundation,*
*World Bank, Cornell INSEAD WIPO*

◄ Based on the research conducted, the research team puts forth the following recommendations. First, a larger percentage of FDI inflows should be absorbed into the domestic market instead of being exported back out. As more FDI is absorbed into domestic sectors, the greater the benefit for the Mongolian economy and greater the investment multiplier. Second, Mongolia should not rely on stable high mineral commodity prices for FDI inflows as it has limited to no control over price fluctuations. Third, Mongolia has a considerable amount of mineral potential but its low policy perception is hindering its investment attractiveness. Chile serves as a good role model for the Mongolian economy as their mineral potential levels are similar but the perception of Chile's government policies is considered better. Thus, the policy reforms undertaken by Chile over the years to reach its current level could be modified and tailored to improve Mongolia's investment climate and economy. With more transparency and clearer legislation and regulation, Mongolia could become a very attractive destination for foreign investors.

# Impacts of Fiscal Consolidation on the Mongolian Economy

This work was carried out in the context of an Institutional Support Project, with financial and scientific support from the Partnership for Economic Policy (PEP).

Mongolian economy is highly dependent on the mining sector as it contributes around 94 percent of exports and over 20 percent of budget revenue, on average, according to the National Statistical Office (NSO). Historically, the economy thrived amid the commodity boom in 2010-2013. Since 2013, however, economic growth has slowed that caused by the decrease of the prices of mining commodities and foreign direct investment.

**Figure 3.** Budget deficit (% of GDP)



Source: Country report No. 17/140, Article 4, IMF

The government reached an Extended Fund Facility (EFF) agreement with IMF to avoid economic crisis. Under the EFF program, the government will receive USD 5.5 billion but will also cut its expenditures and increase taxes with the aim of achieving debt sustainability and stable growth. According to the IMF, the overall budget deficit will fall to 1.5 percent of GDP by 2022, down from 11.3% of GDP in 2014, if the Mongolian government stays committed to the fiscal consolidation.

A team of local researchers examined how decreased government expenditure (spending on goods and services, transfers to households and capital expenditure) is likely to impact the Mongolian economy under different economic conditions determined by environments in the international commodity markets such as coal and copper markets. The research team used s static Computable General Equilibrium (CGE) model calibrated to a 2014 Mongolian Social Accounting Matrix (SAM) to simulate three scenarios.

In the first two scenarios, we assume that government capital expenditure decreases by 18.6% to capture its rough share in the total government expenditures. In the optimistic scenario, capital expenditure is adjusted as it allows the government to reach its deficit target relatively easily.

| Baseline scenario | Pessimistic scenario | Optimistic scenario |
|---|---|---|
| The budget deficit decreases 72.4% from 2014 to 2022, to reflect the IMF's projection, and the world prices of copper and coal remain at their 2014 values. | The budget deficit decreases 72.4%, as above, but the copper price decreases 29% (reflecting its lowest price between 2000 and 2016) and the coal price decreases 13.4% (reflecting its lowest price between 2010 and 2016) in comparison to their 2014 values. | Compared to their 2014 values, the price of copper increases 29% (reflecting its 2011 price) and the price of coal increases 76% (reflecting its expected 2017 price). The budget deficit decreases 72.4%, as above. |

## Main results

The impact on the economy of fiscal consolidation varies depending on the world prices of Mongolia's export commodities. As government revenue changes in the optimistic and pessimistic scenarios, government expenditure adjusts differently to the baseline scenario to decrease the budget deficit to the target level.

◄   Baseline scenario:

Fiscal consolidation has a negative impact on many macroeconomic indicators. To decrease the budget deficit to the target level, the government should reduce its spending on goods and services by 25.8% (3.7% decrease/year over eight years), reduces transfers to households by 24% (3.4% decrease/year) and reduces its capital expenditure by 18.6% (2.5% decrease/year) in this scenario.

As the government is the main user of education, health, public administration, art and sewerage, as demand falls in these sectors, so do production and employment. At the same time, total investment increase which has a compensatory effect on employment. The net effect on employment is a decrease of 6.4% and household income, consumption and savings by 4.1%. Real GDP also falls by 1.9% in the baseline scenario.

◄   Pessimistic scenario:

As export commodity prices are low, the negative impacts of fiscal consolidation are much worse for the economy than in the baseline scenario. Production decreases in almost all sectors — the most in the sectors that are highly dependent on government spending. GDP falls by 7.9%.

◄   Optimistic scenario:

Given the high international prices for coal and copper, fiscal consolidation can be much softer. The impacts of the positive price shocks are more than offset the negative impacts of fiscal consolidation and real GDP increases by 3.9%.

To reduce the budget deficit to the target level without changing the total government expenditures from their 2014 values, the international prices for coal and copper would need to increase a further 8.6%.

# Impact of an Increase in the Price of Imported Fuel on the Mongolian Economy

This work was carried out by ERI in the context of an Institutional Support Project, with financial and scientific support from the Partnership for Economic Policy (PEP).

Mongolia imports 100% of its domestic demand for refined petrolium products (auto gasoline, diesel etc.) mainly from Russia. Thus the price of domestic fuel is directly dependent on global fuel prices. This implies that the economy is highly dependent on global fuel price, which has fluctuated significantly in recent years.

**Figure 4.** Change of autogasoline price, %
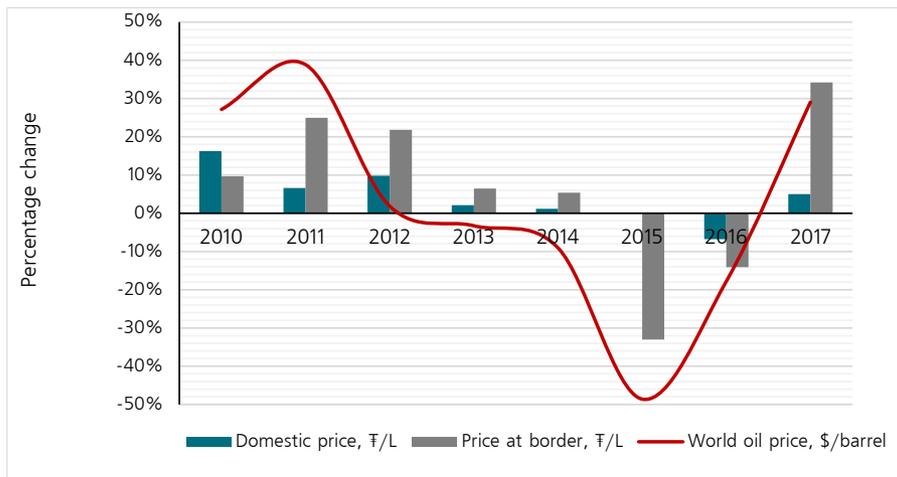


Source: Mongolian customs ofiice, UB statistics office, World Bank

Figure 1 shows that the border oil price has been following the global oil price. The domestic price has been more stable compared to the border and prices. This is due to the Government of Mongolia's (GoM) interventions concerning the excise taxes on fuel to mitigate the impact of the fluctuations. In other words, the GoM have been adjusting the excise tax in the opposite direction of the fuel price changes at the border.

The GoM agreed with the International Monetary Fund's (IMF) Extended Fund Facility (EFF) program arrangements recently and increased the excise taxes on fuel in July and October 2017 to comply with the fiscal consolidation requirement under the EFF program. However, further increases in the global oil price has made it hard for the government to maintain a stable domestic price while complying with its commitment to fiscal consolidation. In this context, the govern-

ment could either stay committed to fiscal consolidation or keep the local price stable by decreasing the excise taxes.

The research team examined how an increase in the import price of fuel is likely to impact the Mongolian economy under 3 different scenarios of possible government actions related to fuel taxation.

1. The government does not change the excise taxes on fuel and lets the domestic price of fuel adjust — i.e., there is no government intervention.

2. The government adjusts the excise taxes as before and keeps the domestic price stable.

3. The government adjusts excise taxes as in scenario 2. The cost of this intervention is financed through foreign borrowing since it is assumed to be difficult for the government to increase taxes or cut its expenditures on goods and services to maintain the same budget deficit while it is possible to access foreign capital as the government is enrolling in the IMF's EFF program.

In order to assess the impact of an import fuel price increase, the research team developed a static version of the PEP standard Computable General Equilibrium (CGE) model. The team utilized the 2014 Social Accounting Matrix (SAM) as the main database for the analysis.

Key findings:

◄ In the first scenario, producers lose due to the increased production cost and as a result, unemployment increases. Consumers' real purchasing power decrease due to the CPI increase and decreased income. Overall, domestic demand as well as production shrink and the increased fuel price has a negative effect on economic growth.

◄ If the government conducts an excise tax intervention, the government is required to issue an estimated subsidy of 164 billion tugrugs and finance it by reducing investment. Reduced government investment causes lower total investment as well as lower demand in the economy. This results in lower production followed by more unemployment. As such, the welfare of producers and consumers decrease. However, the overall negative impact on the economy is relatively smaller in comparison to scenario 1.

◄ In the last scenario, the increase in the fuel price at border does not have an effect on the domestic market. However, the government debt increases significantly and in the long run, could be harmful for the economy.

Additional simulation: Poverty analysis

The purpose of this simulation was to analyze the impact of a fuel price increase at the household level, focusing especially on its impact on poverty indicators. The research team implemented a top-down approach based on Mongolian household survey data (HSES 2014).

Main findings:

◂ If the government does not conduct any interventions when the import price of fuel increases, poverty would increase and become more severe, especially for rural households;

◂ If the government subsidizes the price of fuel, it could reduce the harsh negative impact on households;

◂ If the government finances its deficit caused by the implicit subsidy through foreign borrowing, it could even eliminate the negative impact on poverty;

◂ Poverty is more prevalent among households with a low-educated head of household and among rural households. These households are also more sensitive to the negative shock.

The full report of this study was published on the ERI website (www.eri.mn)

# Impact of Monetary and Macroprudential Policy on Resource-Rich Economy: **Mongolia**

Since the financial and economic crisis in 2008-2009, the importance of the role of financial stability in economic stability increased significantly. In particular, the role of macroprudential policy instruments in financial efficiency and sustainability has become more prominent.

Macroprudential policy is a set of policy instruments aimed at correcting externalities that create systematic risk or financial instability. Globally, the use of macroprudential policy has been increasing in recent years with a variety of instruments being successfully implemented by central banks and governments. The instruments can be divided into the following groups:

‹ *Capital-related instruments;*
‹ *Liquidity instruments;*
‹ *Credit instruments;*
‹ *Taxation instruments;*
‹ *Resolution procedures instruments.*

These instruments can be utilized to diminish the following three types of negative impacts or risks:

‹ Strategic complementarities — where an action chosen by an agent strengthens the incentives of other agents who act in the same way

‹ Pecuniary externalities — fire sales by some financial firms spillover, which may adversely affect the balance sheet of others financial firms

‹ Interconnectedness externalities — stems from the interconnected nature of the financial sector business, especially the banking sector

Implementation of the appropriate macroprudential policy is an effective method of diminishing the negative effects of the risks faced by the financial sector.

In the case of Mongolia, the implementation of macroprudential policy may be static; in order words, the policy seems to not have any effect on the changes in the financial sector or the economy. However, it is necessary to implement the policy to diminish the vulnerability of the financial and banking sector.

Dr. Gan-Ochir built a small structural open economy model, augmented to include labour market, the credit market, monetary policy with sterilized intervention in the foreign exchange market, macroprudential policy as capital and reserve requirements and commodity price shocks. He estimated the the impact of capital and reserve requirement with the model using Bayesian techniques with quarterly data for Mongolia from 2005 to 2016. The main findings of the study were:

◂ Shocks from the foreign market and government expenditures have significant impact on economic cycles; however, the impacts of the monetary and macro-prudential policies are weak.

◂ Adjusting the leverage ratio and the reserve requirements are more efficient in restricting the credit growth (or adjusting the lending rate) than policy rates of central banks.

◂ Monetary policy is a more effective tool for decreasing the fluctuations of exchange rate as well as inflation than macroprudential policy.

Consequently, appropriate combination of monetary and macro-prudential policies will mitigate adverse economic and financial cycles.

The policy-making institutions such as Bank of Mongolia, Ministry of Finance and Financial Stability Council play a key role in implementation of the macroprudential policy. The role of the institutions at each of implementation phase must be clear and the operations of financial and policy-making institutions must be coherent. An efficient legal environment is the one of the most important factors to successfully implement the policy.

# Pastureland Degradation and Livestock Taxation

In recent years, Mongolia's pastureland has been shrinking due to overgrazing and a rapid growth in the number of livestock. Pastureland capacity is commonly classified further into ecological carrying capacity and economic carrying capacity. In the case of Mongolia, there has not been any research done on this topic despite its recent saliency.

As shown in international research studies, the ecological carrying capacity is usually less than the economic carrying capacity. In order to reduce the difference between the two, livestock taxation and quotas are used. The main purpose of our study is to define both the ecological and economic carrying capacities of Mongolia's pastureland and to assess the impact of implementing a livestock tax on the economic carrying capacity.

The research team estimated a pasture use index (PUI) consisting of the ratio of biomass consumption to potential biomass using the long-term normalized difference vegetation index (NDVI) in order to assess the pastureland degradation of 330 soums.

The figure below highlights the pastureland degradation across the country. Yellow indicates that the biomass consumption is 1 to 3 times greater than potential biomass, while light red and bright red indicate a PIU index between 3-5 and over 5, respectively.

**Figure 2.** Mongolia's pasture use index by soums
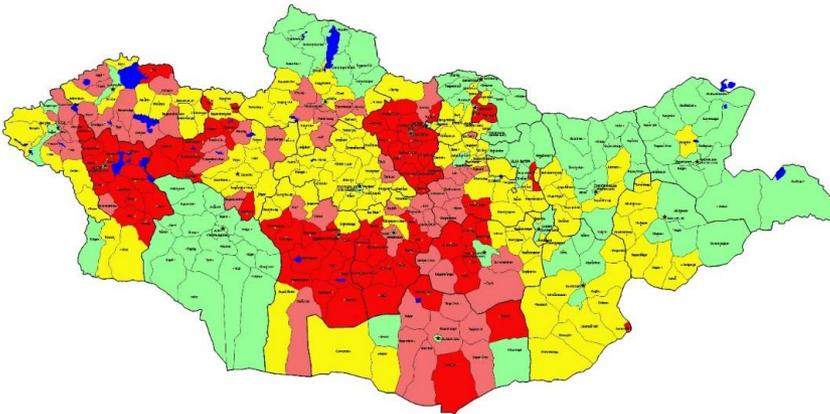


*Source: Author's calculation*

In this study, the researchers selected 71 soums with a PUI value over 5, and calculated their ecological and economic carrying capacities. Following this, the study aimed to calculate the optimal level of livestock tax which would reduce the difference between the two capacities. When calculating the economic car-

rying capacity, income and expenditure of herder families, the researchers used data from the Household Socio-Economic Survey 2016 (HSES). Estimates for the herder families were classified into deciles based on the number of livestock, and converted into sheep units. According to the eating units associated with each type of livestock, the biomass consumed are the following: 1 goat-2 sheep, 1 camel-3 sheep, 1 cow-4 sheep, 1 horse-8 sheep (Enkh-Amgalan, 2013).

The main results of the study were:

◂ 80-95 percent of total income from livestock is income earned from slaughtering livestock. For the herder families, the smaller the number of livestock, the higher the share of meat income as a part of total income.

◂ For the 4 smallest groups based on the amount of livestock, it is more cost-effective to slaughter livestock than to keep livestock for another year. For the larger groups, it is more profitable to keep their livestock as the income from livestock (from wool, cashmere, milk etc.) is enough to offset the associated costs of increases in the amount of livestock. This provides little incentive for herders to control the amount of livestock they have. In these instances, a livestock tax should be implemented to reduce the difference between ecological and economic carrying capacities.

◂ As such, a tax on herders with a large number of livestock should be effective in preventing pastureland degradation.

◂ The implementation of a livestock tax of 200 togrogs in soums where the pastureland usage exceeds 500 percent of potential biomass will result in sustainable pastureland usage by 2038. Increasing the tax to 500, 800, and 1000 togrogs will result in sustainable pastureland usage by 2032, 2025, and 2022, respectively.

This study focused on the case where a constant tax was applied to the 10 groups of households classified by amount of livestock. However, this study suggests that an incremental livestock tax rate would be more suitable for Mongolia.

# Impact of Mining on Local Households' Living Standards: **Mongolian Case**

Mongolia's economic growth has been fluctuating greatly between 2010 and 2016 due to its strong dependence on the mining sector. During this period, the poverty rate in rural areas decreased substantially, decreasing at a faster rate than in the capital city. The purpose of this study is to see if this improvement in rural households' living standards is related to mining activities.

Studies done on the impact of the extractive sector have emphasized several negative effects at the local level. First, mining development may lead to Dutch disease as mining activities crowd out other economic sectors (Aragon, Chuhan-Pole, & Land, 2014; James & Aadland, 2011; Papyrakis & Gerlagh, 2007). Second, it may lead to Peruvian disease as public investments funded by mining taxation crowds out other economic sectors (Cust & Vaile, 2016). Third, while mining sector developments could lower the local poverty rate (Gamu, Billon, & Spiegel, 2015), it may also increase intra-region and inter-region inequalities, weaken local governance capacities, and activate rent seeking (Loyaza, Mier y Teran, & Rigolini, 2003; Aragon & Rud, 2013).

In this study, data from following three different sources were combined: The Extractive Industries Transparency Initiative of Mongolia's open database on taxes and licensing of all mining companies at the district level from 2009 to 2015; the National Statistics Office's Household Socio-Economic Survey data from 2010 to 2016; and the National Statistics Office's open database of socio-economic data at the district level from 2010 to 2016.

**Figure 6.** Nominal household income per person, thousand MNT
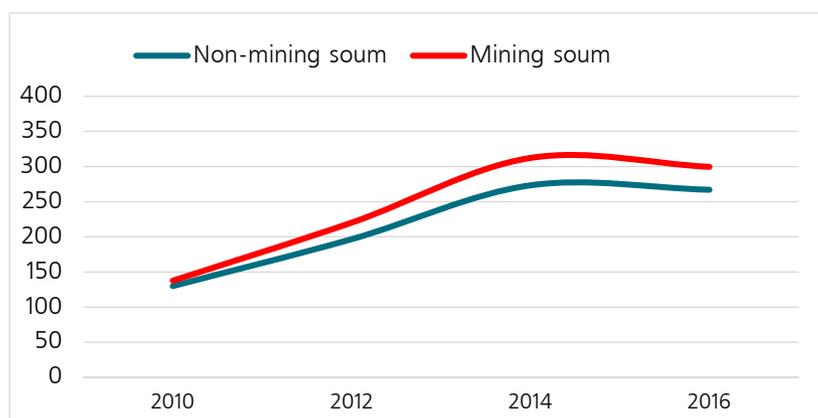
As shown in the figure above, the average household income seems to be considerably higher in mining districts. However, to calculate the difference more accurately, a pooled cross-sectional data set consisting of 42 thousand households was analyzed using a regression that took into account district level and household level specific characteristics. The detailed estimation suggests that nominal and real household incomes were 7% higher in mining districts than those in non-mining districts. Accordingly, consumption was 11% higher and the probability of being poor was 7.5% lower in mining districts. These positive associations are mainly derived from household wage income. Specifically, household wage income was on average 7% higher in mining districts. In contrast, other income sources such as welfare, livestock income, consumption from own household production, and household business income were not significantly different between mining and non-mining districts.

Mining activities tend to increase the aggregate demand in the local economy, but this effect is weak in Mongolia. As a result, prices of daily household consumption goods and the price of renting do not differ between mining and non-mining districts. However, some well-being indicators such as employment and health of household members were estimated marginally lower in mining districts.

The effects of the mining sector could be explained through the following factors:

◀ The mining sector contributes more at the national level rather than at the district level as the sector has a positive effect for all households in both mining and non-mining districts through state tax redistribution. This makes the difference between living standards negligible.

◀ Non-mining sectors did not face any input cost burden due to mining sector activities as resource usage was still low in rural areas.

◀ Mining sector employment is lower in rural area as formal mining is not labor-intensive.

◀ Mining companies do not make a significant amount of purchases from rural producers.

◀ There is a potential negative impact on living standards through pollution and pastureland restriction.

◀ The lack of development of rural governance and institutions may reduce the benefits of the mining sector to local communities.

Therefore, the following measures should be implemented to increase the positive impact of the mining sector on rural households' living standards.

✓ Focus on inclusive growth by increasing transparency in the extractive sector, strengthening local institutions and governing capacities, combating corruption, increasing citizen participation and reducing negative environmental and social impacts.

✓ Reduce the gap between local development by focusing on better managing mining resource revenue, continue to support local development and provide fiscal support while preventing Peruvian disease.

✓ Prevent the crowding out of non-mining sectors by improving rural infrastructure and creating conditions for the free movement of labor and resources between rural areas.

✓ Place more importance on the positive impacts of mining on the overall economy rather than just focusing on rural interests. It is important to note that requiring mining companies to use local labor, make local purchases and donations may have an impact on the sector's productivity and result in a reduction of total tax revenue.

# Impact of Mortgage Loan on the Economy

This study aims to measure the direct and indirect economic impacts of the mortgage loan program that has been in effect in Mongolia. The impact will be measured using comparative analysis utilizing a large Bayesian auto-regressive model.

The economic impact of mortgage loans can generally be divided into two categories: economic growth and employment. These categories can then be further divided into subcategories and explained in detail. Overall, the study found that mortgage loans have a positive impact on the economy, leading to the development of the housing market with further effects on capital expenditure, savings, tax revenue, and housing stock.

In Mongolia, prior to 2013, commercial banks offered mortgage loans funded by their own sources and, in some cases, funded by international organizations through low-cost loans. However, following the introduction of the 8 percent mortgage loan as a part of the Government of Mongolia's (GoM) "Construction Sector Support and Residential Housing Price Stabilization Program" (CSSRHPS program), the demand for housing in Mongolia grew drastically. According to statistical data, in 2013, the mortgage balance rose by an unprecedented 129.4 percent. On the other hand, as of the third quarter of 2017, the mortgage balance reached 4.2 trillion MNT with the total number of borrowers reaching 92,616. The declining growth rate of the mortgage balance indicates a slowdown of the housing market. In particular, the price of housing increased drastically in the second quarter of 2014 as a result of the new government policy and has since steady declined, reaching the level it was in the first quarter of 2013 in the third quarter of 2017, showcasing a hedonic price change. The change in the household debt and income ratio from 39 percent in the first quarter of 2013 to 83 percent in the third quarter of 2017 can also be explained in part by the mortgage loan program. Moving forward with the government program, it is important to take into consideration questions such as "What was the income level of people getting mortgage loans in the past?", "Who can get a mortgage loan now?", and other salient questions that arise.

In this study, the methodology used is based on the Bayesian vector auto-regression model used by Banbura et al. in their 2010 study. The use of a large Bayesian auto-regression, as opposed to a simple auto-regression, allows for the opportunity to use endogenous variables without number limitations, avoids omitted variable bias, and provides the means to reduce the variance of point estimation errors. This methodology was first used in Mongolia by Gan-Ochir and Davaajargal in their 2017 research paper on the economic impact of external shocks on the Mongolian economy using two large Bayesian auto-regressions with 16 and 24 variables, respectively.

In this study, the following 11 variables were selected: mortgage loans issued, the real GDP of the construction sector, employment in the construction sector, loans taken out by the construction sector, wages of the construction sector, construction material imports, household average expenditure, housing production, bank capital and total asset ratio, the price of copper, and the price of coal. The data spanned from the first quarter of 2008 to the fourth quarter of 2017. Based on the study by Banbura et al. the researchers selected the Wishart distribution prior hyper parameters to be $\lambda=0,3125$ and $\tau=3,125$.

In order to analyze the response of non-external variables to mortgage loan shocks, the study looked into the variance breakdown of the variables. The results are shown in the table below.

Looking at the variance breakdown, mortgage loan shocks explain 5.3 percent of the variance in the real GDP of the construction sector, 2 percent of the variance in construction sector employment, and 12.3 percent of the variance in construction sector wages. The results of the study above were relatively stable when the Bayesian autoregressive model stability tests were done with different time lags and number of variables.

**Table 3. Mortgage loan effect**

| No. | Variable Name | Mortgage loan shock |
|---|---|---|
| 1 | Construction sector real GDP | 5.3 % |
| 2 | Construction sector employment | 2.0 % |
| 3 | Construction sector loans taken out that quarter | 3.9 % |
| 4 | Construction sector wage | 12.3 % |
| 5 | Construction material imports | 8.0 % |
| 6 | Household average monthly expenditure | 3.8 % |
| 7 | Housing production | 9.7 % |

*Source: Author's calculation*

The main findings of the study show that the GoM's CSSRHPS program that has been in effect since the second quarter of 2013 has had a positive effect on the construction sector as well as related subsectors. The effect is shown through the effect of mortgage loans on the construction sector's real GDP, housing production, and the manufacturing sector's production of key products. The variance breakdown of the mortgage loan shock analyzed by the large Bayesian auto-regression model supports this outcome. Based on the comparative analysis, the CSSRHPS program greatly influenced the housing price hike in the second quarter of 2013, with the price subsequently dropping steadily from the second quarter of 2014, reaching the same price level it was in the first quarter of 2013 in the third quarter of 2017. Moving forward, in order to continue the government mortgage policy effectively, we must consider the question of who mortgages are catered towards now and who can realistically get a mortgage. The fact that, as of the third quarter of 2017, the household debt and income ratio reached 83 percent further supports the need to look into this line of questioning.

# Annual Performance Assessment of Soums' Local Development Fund, **2017**

ERI, under the "Sustainable Livelihood-3" project, assessed the annual performance of the Local Development Fund (LDF) in the third quarter of 2017. The assessment covered 119 soums of 6 provinces including Arkhangai, Bayankhongor, Bulgan, Govi-Altai, Tuv, and Uvurkhangai.

In relation to the implementation of an incentive program based on good governance results, the level of governance in all Mongolian soums that are implementing LDF activities will be assessed on an annual basis. Based on these assessment results, soums that satisfy certain conditions will be rewarded. The research team used specially developed assessment indicators and assessment methodologies when evaluating the governance level of soums. Assessment indicators are defined within following 6 areas of soum governance related to the application of laws and regulations on the implementation of the LDF. These are:

1) Status of ensuring citizen participation when deciding on and prioritizing the projects, programs and activities to be implemented in 2018 with LDF financing.
2) Status of 2017 budget planning and preparation
3) Status of informing the public about the 2016 and 2017 budget transparently
4) 2016 budget execution
5) Status of monitoring, evaluation and auditing of the 2016 budget performance
6) Status of capital ownership and its use created by the 2016 budget.

The evaluations were done using a specialized methodologies based on the reports and documents related to the projects and programs financed by the fund as well as on the reports prepared by the soums regarding how the funds were spent between 2015-2017. These documents included performance reports entailing how transfers from the state budget and other sources were spent in line with relevant laws and regulations.

The following legal documents were used as sources when evaluating the auditing indicator of LDF operations. These are:

‣ State monitoring and inspection standard
‣ Law on state auditing
‣ Law on accounting
‣ Law on budget
‣ Law on general budget
‣ Law on state and local property
‣ Law on procurement of goods and services by state and local property
‣ Decree number 244, 290 and 264 of 2012 by the Minister of Finance
‣ Decree number 43 of 2014 by the Minister of Finance
‣ Other related legal documents