ECONOMIC RESEARCH INSTITUTE

2016 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, Ministry of Labor and other government organizations
- ◂ World Bank, Asian Development Bank, United Nations, JICA and other donor organizations

Research projects implemented in 2016

Gold market study

In Mongolia, gold is one of the major export commodities and an important source for Central bank's accumulation of international reserves as well as for government budget revenue. This study, partnered with JICA, aims to investigate the current and past factors influencing world demand and supply of gold as well as developments in the prices of this commodity.

This study centered around three main discussions for the period since 2010. In the first discussion we examined factors influencing world demand for gold. In it, we argue that jewelry demand for gold, which is the major component in the total demand, significantly weakened in the last three years and remains weak for the year 2017. In particular, shift in preferences towards gold in China and temporary economic difficulties in key regions in India weakened demand for gold. We noted that two usages of gold, Central bank purchases and purchasing of gold as an investment tool, are increasingly becoming volatile making predictions about future gold demand difficult. We also highlighted that gold use for technological purposes are increasingly becoming insignificant with development of alternatives to gold for the sector use.

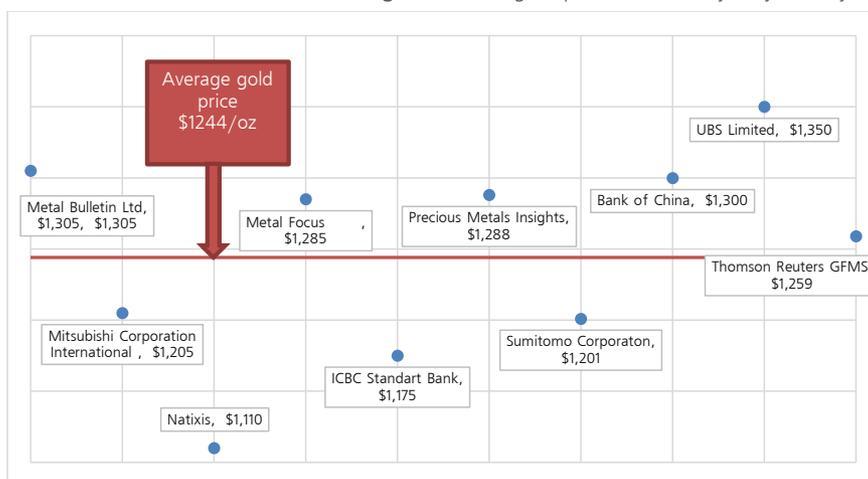**Figure 1.** Total demand by countries 2010-2016, tons
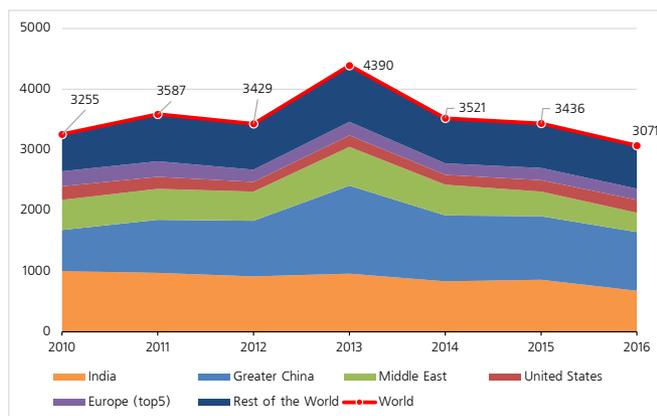
Source: World Gold Council

The second main discussion centered around world supply of gold. In this section, we identified key developments in the production of gold. In particular, we highlighted that although production of gold has seen increasing trend despite some volatility, companies are increasingly curbing their operational costs. Moreover, gold companies are also spending less on explorations. In fact, in the last two years, only 2 major gold deposits of over 6 million ounces were developed. Therefore, we conclude that despite the total production of gold is increasing as of now, supply in the longer run is becoming increasingly unpredictable with fewer projects in the pipeline. However it should be noted that recycling of gold could be another source of supply which has been stagnated at current levels for the last few years and this trend is expected to continue in the foreseeable future.

The last discussion in the report is on the prices of gold. Gold price decreased by almost 30 percent since 2012. In contrast to this decreasing trend, in 2016 gold prices rebounded. We argued that this is due to increasing uncertainties in economic and political spheres in major gold producing and consuming countries, which makes gold an attractive investment to Each section in the report contains discussion about Mongolian gold production and its exports. Since Mongolia is a price taker in this market, we extensively discussed what factors determine the production of gold in the country and how the Bank of Mongolia, which is virtually the sole buyer of gold

Figure 2. 2017 gold price forecast by major analysts

Average gold price $1244/oz

UBS Limited, $1,350

Metal Bulletin Ltd, $1,305, $1,305

Bank of China, $1,300

Metal Focus, $1,285

Precious Metals Insights, $1,288

Thomson Reuters GFMS, $1,259

Mitsubishi Corporation International, $1,205

Sumitomo Corporaton, $1,201

ICBC Standart Bank, $1,175

Natixis, $1,110

Source: The London Bullion Market Association

Each section in the report contains discussion about Mongolian gold production and its exports. Since Mongolia is a price taker in this market, we extensively discussed what factors determine the production of gold in the country and how the Bank of Mongolia, which is virtually the sole buyer of gold in the country, makes its purchases. In particular, we noted that although, in the past, changes in windfall tax and regulatory policies negatively affected the production of gold in the country, now the sector itself is moving towards developing quartz vein gold deposits rather than placer gold deposits. This means companies will need more capital to operate in the future. Also, we noted Oyu Tolgoi will be a major producer of gold, but it will not play a major role in accumulating international reserves.

Copper market study

This research aims to review the current situation and future prospects of the copper market. Copper is a very flexible, durable and recyclable metal which resists and conducts electricity and heat very well. It is also mixed with other metals to create different kind of alloys - i.e. brass and bronze. Equipment was the largest copper end-use sector accounting for over 50% of total consumption, followed by building construction (29%) and infrastructure (15%) in the last decade. The world demand for refined copper has more than tripled in the last 50 years. This expansion is mainly due to Chinese industrialization and economic growth. According to World Bureau of Metal Statistics, world total consumption of refined copper reached 23 Mt and almost half of it is used by China while the combined share of consumption by other 8 countries, namely the United States, Germany, Japan, Korea Republic, Italy, India, Turkey and Taiwan, is around 30 percent.

Figure 3. Mongolian total, mining and copper concentrate exports (1995-2016)
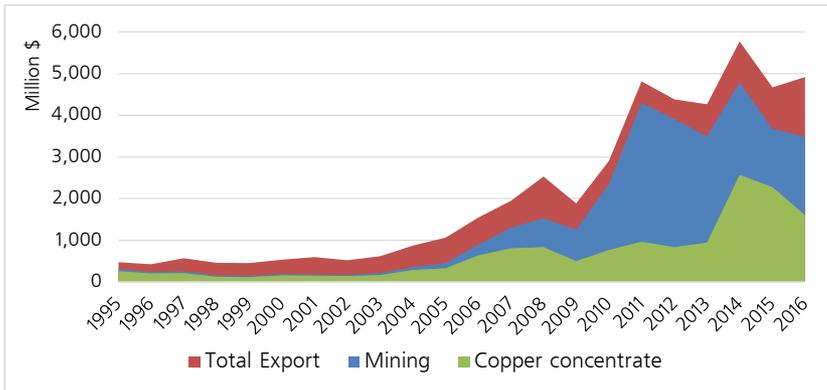

Source: Mongolian Customs

Mongolia has rich copper resources and has started producing and exporting copper concentrate since 1980s. Copper refining industry, on the other hand, has developed only for the past 10 years and refined copper capacity has reached 13000 ton per annum since 2014.

As shown in Figure 1, due to the increase in the world market prices, Mongolian exports increased sharply to 4.8 billion USD in 2011 of which 47 percent and 20 percent were coal and copper ore concentrate respectively. Since 2014, the export of copper concentrate has accounted for over 40 percent of the total exports because of the Oyu Tolgoi operation. Although, in 2016 the Mongolian export volume of copper concentrate increased in compared to last years, export value declined to 1.6 billion MNT due to the decrease of market price.

Main findings:

• All copper industry analysts expect that global copper demand may continue to be supported further by a moderate expansion in China, continued solid growth in other emerging markets, such as India and ASEAN, and modest growth in more industrialized regions such as the USA and Europe. For instance, the total demands in non-OECD and OECD countries will be expected that annual growth will be at around 3.6 per cent and -0.6 per cent, respectively. In 2017 and 2018, the total demand of copper will be at a same level as in 2016 and annual average growth in the future will reach around 1-3%.

• China is one of the main players in the copper market and consumes about 50% of total copper production. It is anticipated that it will remain the main player in the future. Although Chinese economy has slowed down in recent years with the shift towards service and consumption from manufacturing in the 13th 5-year plan, the fundamental factors for the demand for copper are still in effect, according to analysts. In particular, it is expected that the demand for copper will be strong because increasing population and urbanization will lead to more demand for electronics, equipment, infrastructure, electricity, maintenance, construction and automobiles.

• The top three producer countries of copper are Chile, China and Peru. Chile, world's largest copper producer, produced around 30% of world mine production. Mongolia was one of the top 20 producer countries of copper in 2015 and the third largest supplier of copper concentrate to China after Chile and Peru. If the underground mine of Oyu Tolgoi starts its production in 2022 as planned, Mongolia will be exporting 2.4-2.6 million tonnes of copper concentrate with 600-800 thousand tonnes of copper content per year, on average. In relation to the underground mine of Oyu Tolgoi, 4.6 billion USD is expected as FDI.

• The copper price has declined since 2012 and the average price in 2016 is 4879 USD per ton. Because of the price decline, some mines reduced their production, some stopped their production temporarily and some delayed their planned extensions which has had a negative impact on the supply. Analysts expect that there will be a shortage in the market from 2019 onwards because of the worldwide decline in copper content and changes in some government policies. In the near future, specifically in 2017 and 2018, the stock of copper will run down and hence the demand and supply of copper will be in balance.

• Based on global outlook of copper supply/demand and other factors, IMF, WB and OT has made their copper price forecasts (Figure 2). IMF, WB and OT has assumed that copper price will start to increase from 2017.

  ◄ In the next 2-3 years, the price will increase modestly due to copper market rebalancing.

  ◄ In the long term, the price will start to increase more due to supply shortage.

**Figure 4.** Copper price forecast (2015-2019)
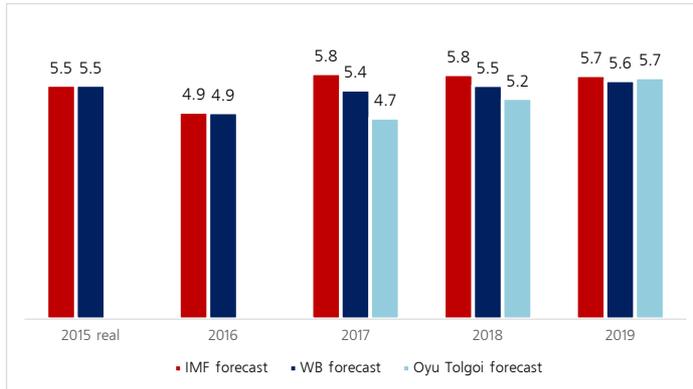
Source: IMF (Dec 2016), WB (Jan 2017) and OTTR (Oct 2016)

Coal Market Study

The Mongolian economy has become heavily dependent on mining sector in recent years. Therefore we need to conduct some researches assessing opportunities and risks in the mining sector which can help us to build long-term strategy for Mongolia.

Figure 5. Mongolia's coal sector revenue and share
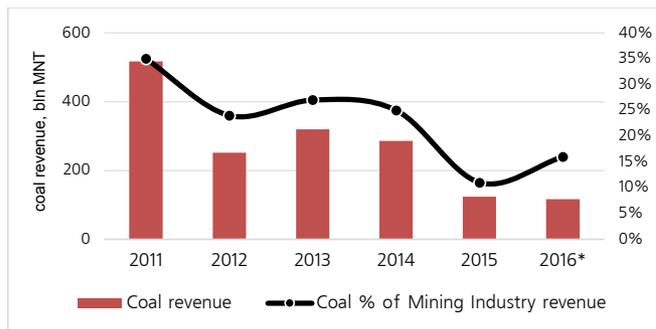
Source: Mongolian Customs

Even though the research doesn't cover mining sector as a whole, coal[1] is one of main commodities of the sector. Our research about coal consists of three main sections-demand, supply and price. Also the research studied coking and thermal coal markets separately instead of considering them under coal broadly. This is because demand, supply and price of these two types of coal are not similar to each other. For instance, coking coal is one of the raw materials in producing steel whereas thermal coal is primarily used for electricity generation, heat and steam production. In addition, each section of the research contains detailed information and statistics about past and current state of coal as well as some significant changes which can occur in the future.

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1   In 2015, mineral commodities as a share of the exports was 78.8 percent, and coal constituted 11.9 percent of the exports whereas in 2016, the coal's share increased by 8 percent (NSO and the research team's calculations).

Main findings:

Demand side:

◀ Currently, there are 17 thermal power plants in Mongolia. These plants constitute approximately 85 percent of domestic demand with households and entitites constituting 14.1 percent. Domestic demand was relatively stagnant for the last 10 years, and it is due to the fact that there was not much capacity expansion in the electricity sector in Mongolia.

◀ Generally there is no reconstruction plan for the next 2 or 3 years. But after 5 years, maybe domestic demand will grow rapidly because around 18 thermal and power plants are planned to be built by 2025 through public and private investment. These plants will dramatically increase domestic consumption by 12.6 million tons making the domestic consumption of coal 3 times higher than current level.

◀ At international market, demand for thermal coal will be relatively weak compared to that of recent years. Clean Power Program (CPP) will play a key role for declining demand. But demand for coking coal will be slightly higher in comparison with thermal coal because we expect that a several giant reconstruction projects will be implemented in China for the next few years.

Supply side:

◀ In 2015, 32.6% of coal production was supplied to domestic consumers such as thermal power plants, households and so on, and remaining 67.4% was exported to foreign market, especially China. Coking coal constituted approximately 90 per cent of total coal exports.

◀ Mongolia was ranked at 9th among top coal exporters. According to Budget statement of 2017, Mongolia will export 23.9 million tons of coal (coking and thermal coal). As a result, the rank of Mongolia could rise.

◀ In 2016, China's government imposed several decisions and regulations which can directly influence supply of Mongolian coal. For instance, Gants mod port applied new fee to Mongolian mining commodities, especially coal and copper. Another regulation is about one-third of steel mills in China to be closed temporarily during winter of 2017.

Basically the prices of both coking and thermal coal will, in the future, be lower compared to now. In late-2016, prices of coal increased dramatically due to supply shortage. However, the trend cannot last or the prices cannot remain at current level. Specifically, many coal-fired plants have been closed since 2010 because of the CPP in Asia, notably China, Europe, and the USA. Thus it will adversely affect price of thermal coal. In the future, a few giant reconstruction projects will be implemented, but it is not sufficient to increase coking coal prices.

Iron ore study

Mongolia is rich in iron ore and total reserves of crude ore is around 1700 million tons (Mt) as of 2016, according to Mineral Resource Authority of Mongolia. In total, 63 deposits (16.5% - 55.6% Fe, magnetide type) are registered, and of which 6 deposits have more than 50 Mt of ore. Mining of iron ore was started in 2005. Since 2011, 6 Mt of iron ore on average has been exported annually to China.

**Figure 6.** Mongolia's export of iron ore and other products, USD billion
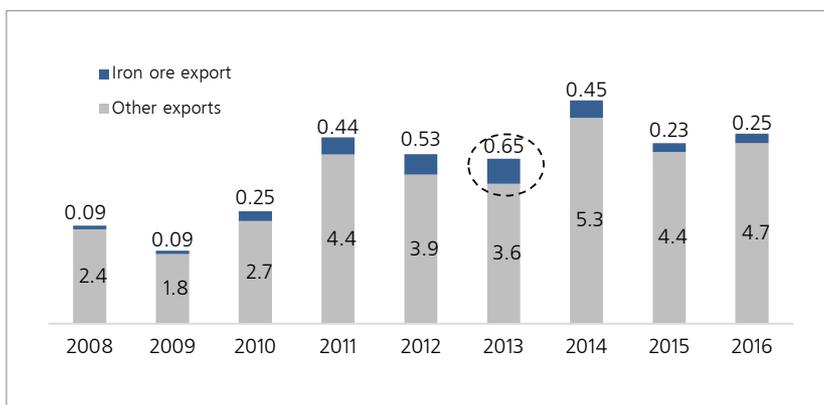
In 2013, iron ore export reached to a record level, constituting 15% of total export of Mongolia, but since then the amount of export decreased because of the fall in the world price and the decline in the production. In 2016, the share of iron ore export in total export was 5%.

Main findings:

- Iron ore reserves are among the highest in Australia with 24 billion metric tons of iron content and 54 billion metric tons of crude ore, as of 2015, following Russia has 25, Brazil-23, China-23 and U.S.-11.5 billion tons of crude ore reserves respectively.

- The iron ore production reached 2 billion tons in 2015. Top producers of iron ore are Australia (40%), Brazil (21%), India (7%) and China (6%).

- Demand for iron ore is influenced by the steel market because almost all of the mined iron (98%) is used to produce steel. The world crude steel production in 2015 reached 1,623 Mt. It showed 41% growth from 2005 production level. Of this growth, 95% came from China. Between 2005 and 2015, global steelmaking capacity increased by 72%. As a result, overcapacity has reached to 741 Mt in 2015.

- During this period, world apparent steel use (finished steel products) increased by 43%. The increase in China's steel use accounts for 72% of the growth and other Asia (mostly India) - 20%. Half of the steel produced globally was used in the building and infrastructure sector, 16% in mechanical equipment, 13% in automotive sector, 21% in other sectors.

- China's total steel production in 2015 was 803.8 million tons. Out of that, 34 % was produced by China's top 10 steel mills. To meet this demand, China imports more than 950 Mt of iron ore from 55 countries. Australia's and Brazil's exports account for 63.7 % and 20.1 % of China's total iron ore import respectively while Mongolia's export accounts for only 0.6 %.

- Recycled steel is an important factor that decreases iron ore demand. In 2015, 650 Mt of scrap was recycled which constituted 40% of total steel making. The supply of scrap will continue to grow in the future. Another factor that decreases iron ore demand is technological advances in steel making. In the 1970s and 1980s, modern steel plants needed on average of 144 kg of raw materials to produce 100 kg of steel, today it uses 115 kg of inputs.

- According to Rio Tinto, iron ore demand will grow moderately in the long run because China's transition toward high-income status leads to slower growth. In contrast, the demand for the commodity in other emerging markets such as India and ASEAN will grow dramatically mainly because their process of urbanization and industrialization will be highly steel intensive.

- World total import of iron ores was 1420 Mt in 2015 and total import value was USD 90.3 billion. The share of only 3 countries, China, Japan and Korea, is 80 % of total import. In comparison, the share of Australia and Brazil is 80 % of export market.

- The price increase of iron ore since 2000 can mainly be explained by the rapid industrial development of China and other countries, and the increasing demand for iron ore.

Figure 7. Iron ore price, USD per ton
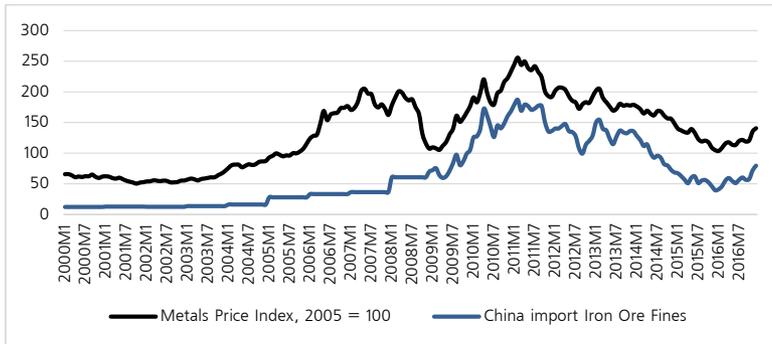
The following key factors influence iron ore price:

◄ Overall economic situation: Infrastructure development, urbanization

◄ Investments and innovations in the mining capacity

◄ Energy costs: Shipping prices are falling

◄ Oligopolistic market: Vale, Rio Tinto and BHP Billiton control 50% of the market, but the China Iron & Steel Association became an important player

◄ Speculation on the market

◄ For Mongolian iron ore, few steel mills in Inner Mongolia set price

Price projections:

◄ World Bank: $55-$56.2 per ton in 2017-20

◄ Morgan Stanley: ~$58 in 2017-18 due to surplus

◄ Bloomberg: In the short-term, prices won't rise due to oversupply. However, by 2020, prices will rise due to deficit of 50 Mt per year.

"Economic Structural Changes: General Equilibrium Model"

Using Computable General Equilibrium (CGE) model, the research aims to assess observed and unobserved changes in the Mongolian economy from 2005 to 2012. After estimating these changes, CGE model can be used to make forecast. The database used for the CGE model is based on the Supply Use table (SUT) compiled by NSO, and the "MN-CGE model"[2] which includes the main characteristics of the Mongolian economy. It was prepared for working on GEMPACK modelling as well.

Main findings:

‹ Demand curve of Mongolian exports, especially of mineral commodities, moved outward considerably. In fact it had been driven by the industrialization and urbanization of Mongolia's neighbor and trading partner, China rather than by internal factors.

‹ Also ratio of capital and labour had significantly changed. This is due to the growth of mining sector which is very capital intensive sector.

‹ One of the unobserved change is the shift in household preferences between 2005 and 2012. Specifically, in 2005 household purchasing constituted 0.8 per cent of the total leather products sales, whereas in 2012 it markedly grew and reached at 40.4 per cent. This change of household preference was also observed on other commodities. That's why we conclude that households are preferring domestic products instead of imported ones.

‹ The changes in technological advances is a bit lower compared to other countries. For instance, technological advances in mining and service sectors were 4.5% and 0.2%, respectively. But there were no technological advances in agriculture and manufacturing sectors.

‹ Some modifications in the economic structure reveals Dutch disease, and therefore Mongolia needs to undertake a series of economic micro reforms.

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2 Эдийн засгийн судалгаа, эрдэм шинжилгээний хүрээлэн (ЭЗСЭШХ) бие даан 2014 оноос хөгжүүлж буй загвар юм

A Survey on SMEs' Transaction Cost

It is important to calculate transaction cost faced by SMEs in Mongolia that arise out of the relationship between private and public sector by using micro data from surveys as it constitutes big share in the total cost of the SMEs. Transaction cost is divided into market and non-market cost. In developing countries, non-market transaction cost is found to be high. Non-market transaction costs include direct and indirect costs related to regulatory barriers to SMEs such as costs in terms of time, human resource and money to get business license and permits from government agencies and to overcome bureaucratic barriers.

This study, commissioned by the Bank of Mongolia, overviewed theoretic and empirical studies on policies and best practices for SME development, and reviewed the regulatory framework for operating small and medium businesses in Mongolia. Most importantly, the survey investigated in detail the non-market transaction costs faced by SMEs in Mongolia through sampling survey of 1541 SMEs operating in Ulaanbaatar city and Darkhan-Uul and Orkhon aimags. The data collection method was a structured face-to-face interview with directors, top managers, and finance officers. We also conducted in-depth interviews with experts and officials of government agencies, international and non-government organizations responsible for SME development to evaluate transaction costs that exist in each step of business activities listed below:

- Formal registration,
- Licensin,
- Examination of specialized inspection,
- Enforcement of contract,
- Tax compliance,
- Getting customs service,
- Connecting to infrastructure,
- Other relation with governmental organization including SME policy implementation,
- Getting finance.

Main findings

- Researchers emphasize that non-market transaction cost is a major factor that hinders socio-economic development because its size is relatively high in developing countries.
- SMEs were bearing MNT9 million as non-market transaction cost for above mentioned procedures. This is about 4.4 percent of their annual turnover on average. Specifically, 4.5 percent of SMEs faced transaction cost of more than 20 percent of their annual sales turnover while 58.3 percent of SMEs encountered the cost less than 2 percent of turnover.

Figure 8. Transaction cost burden, by groups (%)
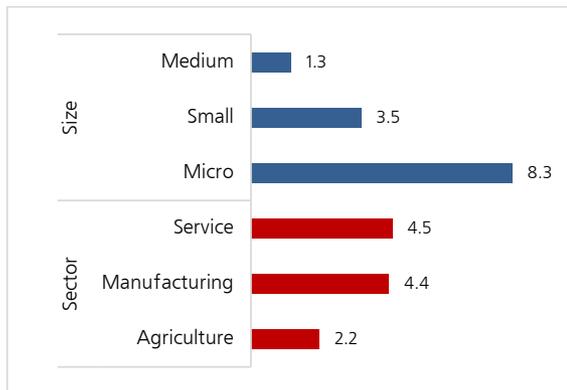
- As shown in Figure 8, micro businesses and service and manufacturing sector bear considerably more burden of transaction cost.
- The combined share of transaction costs of tax compliance and collecting custom documents is 73 percent in total transaction cost.
- Indirect transaction cost accounts for 51 percent of total transaction cost.
- Of all interviewed enterprises, 12 percent paid bribe and gift to government officials to run their business that is 3 percent of total transaction cost.

A model for stress testing household sector in Mongolia

This study has developed a simulation-model for stress-testing the household sector in Mongolia. The data from the Household Socio-Economic Survey in 2012 and 2014 are used to assess the financial resilience of households to macroeconomic shocks.

The model is characterized by specific features of Mongolian households and the banking sector, and fits with major components of the HSES data. The model not only quantifies the households' financial resilience to shocks but also is able to estimate the banking sector's exposure to households that are more likely to default.

◄ The pre-stress result shows that the share of households with negative financial margins is 14.4 per cent on average. In accordance with income distribution, the lowest quintile has the highest value of 38.1 per cent.

◄ The pre-stress debt-at-risk ratio is estimated at 7.2 in 2014 implying that lender's exposure to households with negative financial margins appears to be significantly large in Mongolia.

◄ The stress-testing results suggest that the household sector is vulnerable to scenarios involving interest rate, basic consumption price, asset price, and unemployment rate shocks.

◄ The associated increases in household loan losses due to interest rate and basic consumption price shocks are considerably large. In particular, a 5 percent rise in prices of all basic consumption items leads to 0.7 percentage points increase in the debt-at-risk ratio while a same change in interest rate causes the debt-at-risk ratio to rise by 1.22 percentage points. With the pre-stress debt-at-risk ratio of 7.2 which is quite high compared to other countries, these will have significantly large impacts on the financial sector.

◄ The research finding shows that herder households and pensioners are the most vulnerable groups to financial risks. Overall, the result demonstrates that a substantial rise in household indebtedness has increased the household sector's financial fragility.

This study provides a useful starting point for the development of a more holistic stress-testing framework for the Mongolian banking system and the model can further be improved with the availability of data on household balance sheet.

Study on Middle Class

Although the government has run policies to support economic growth and reduce poverty in Mongolia since 1990s, there is a sharp criticism that those policies did not have any effect on living standard of the population. However, in the last decade, the economy grew faster and poverty level decreased substantially. Specifically, the average growth rate of the economy was 10% between 2010 and 2015 and, consequently, the official poverty rate decreased from 38.7% in 2010 to 21.6% in 2014 (NSO, 2015).

This study measured the changes in the size of middle class in Mongolia between 2002 and 2014 by using multiple definitions. Then one relative definition was selected and socio-economic characteristics among low, middle and high income households were compared. This study was conducted using quantitative data from Household Socio-Economic Surveys in 2002-03, 2007-08 and 2014 by National Statistics Office of Mongolia.

Researchers use various definitions to determine who are the "Middle class", depending on their research purpose. It is very difficult to define the middle class with a single indicator. The most common measurements among economists are definitions based on household income and expenditure per person in absolute and relative terms.

Absolute definitions use various thresholds in household income/expenditure. In an Asian Development Bank's study in 2010, the middle class is defined as being a household with expenditure per person per day between $2 and $20 in purchasing power parity. By this definition, Mongolia's middle class share was around 70%. In contrast, a study of World Bank in 2010 defines middle class as being a household with expenditure per person between $2 and $26.5 (2005 PPP) a day. To measure the middle class of the world, Kharas and Gertz (2010) defined the world middle class as being a household with income/spending per person between $10 and $100 a day.

Relative definitions compare households. In an approach, economists divide households into five equal income groups (quintile) according to income distribution, and define II-IV or III-IV quintiles as the middle class. However, in this type of definition, share of the middle class is always a constant. Other relative definitions identify middle class as being household with income between 67% and 200% (or 75%-125%) of the median household income.

In our study, regardless of the definition we used, between 2002 and 2014, the size of middle income group expanded (Table 1).

Table 1. Share of middle-income group between 2002 and 2014, by selected definitions

Middle class definition	2002	2008	2014
Household income per person per day $2-$26.5 (PPP)	88.7%	85.5%	84.8%
Household income per person per day $10-$100 (PPP)	27.3%	26.6%	68.6%
67% to 200% of the median household income	50.9%	49.5%	61.0%
75%-125% of the median household income	26.3%	24.9%	32.8%

The main reason behind the expansion of the Mongolian middle class is that the income of low income class increased rapidly allowing them to transit to middle class in high numbers.

Since 2002, Mongolian household income in real terms have increased substantially and income distribution curve have shifted rightward (Figure 9). For example, between 2002 and 2008, real median income of household per person has increased by around 10%. Since 2008, real income of households per person increased rapidly making the median income to double.

Figure 9. Household income distribution, in 2002 prices
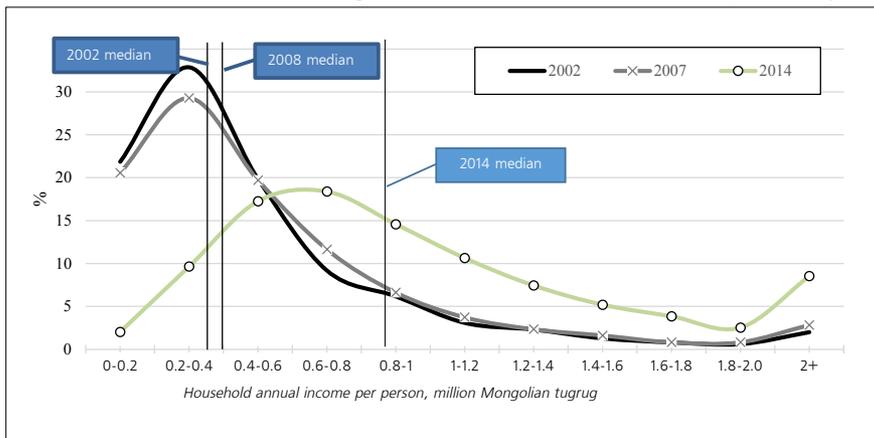
However, according to NSO statistics, there have been significant income discrepancies among rural and urban households in recent years. Income for rural and urban households were fairly close in 2002 at 1.8 million MNT per year per person for both urban and rural household, but in 2014, income of urban households became 28% higher compared to income of rural households. Due to this fact, size of the middle class is lower in rural areas by 3 percentage points.

One of the main reasons behind income discrepancies between rural and urban households is the relative increase in the wage and pension that makes up main source of income for urban households. In 2002, for urban areas, income from family business and for rural areas consumption from own production constituted 27% and 38% of total household income respectively. However, the share of these sources decreased substantially by 2014, to 13% and 18% respectively.

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

Short and Mid-term Forecast of the Mongolian Economy

ERI conducted research on short and mid-term macroeconomic forecasting funded by Golomt bank between 2015-2016. Methodologies used by the Bank of Mongolia and other international organizations were applied in the forecasting. As for the demand side of GDP, private consumption, investment, government expenditure, import and export are projected, whereas agriculture, mining, manufacturing, construction, wholesale and retail trading, service, electricity and net taxes on products are projected in terms of supply side of GDP. Seasonal Autoregressive Integrated Moving Average (SARIMA) and Bayesian Vector Autoregressive models are the main forecasting models for economic growth in the short term. More precisely, Bayesian Vector Autoregressive model was used to forecast following sectors and the variables of expenditure side of GDP.

- Construction
- Service
- Whole and Retail Sales
- Manufacturing
- Mining
- Private Consumption
- Investment

As for current account, exports (coal, copper, iron ore, oil and others), imports (manufacturing input, construction materials, machinery and vehicles, fuel and consumption) transfers, service (transportation service and tourism) and revenue (such as production planning of Oyu Tolgoi) were forecasted, while capital account, foreign direct investment, portfolio investment and other investment were forecasted in terms of capital account. The forecasting of balance of payment was based on the forecasting of current account and capital account.

In bayesian vector autoregressive model, endogenous variables were chosen based on the balance of payment, budget of central government, forecasting of GDP, monetary policy and situation for the foreign sector, and then macroeconomic main variables such as economic growth, inflation and exchange rate were forecasted for the short and midterm.

Financial programming were used in making the short to mid term (2017-2019) forecasting and comparing the forecasting of demand and supply sides for the GDP.

Annual performance assessment of soums' local development fund

ERI, under the "Sustainable Livelihood-3" project, assessed the annual performance of Local Development Fund (LDF) in the third quarter of 2016. The assessment covered 113 soums of 9 provinces namely Govisumber, Darkhan-Uul, Dundgovi, Dornogovi, Dornod, Umnugovi, Selenge, Sukhbaatar and Khentii.

In relation to the implementation of an incentive program based on good governance results, 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 get some reward. We used specially developed assessment indicators and assessment methodologies when evaluating soum governance level. Assessment indicators are defined within following 6 areas of soum governance related to implementation of law and regulations on implementation of LDF. These are:

1. Whether ensuring citizen's participation in prioritization of projects, programs and activities that are to be implemented in 2017 by financing from LDF
2. Status of 2016 budget planning and preparation
3. Whether informing public about 2015 and 2016 budget transparently
4. 2015 budget execution
5. Status of monitoring, evaluation and auditing made on 2015 budget performance
6. Status of capital ownership and its use that is created by budget of 2015.

Evaluation has been done using special methodology based on reports and documents related to projects, programs financed by the fund as well as on reports prepared by the soums regarding how the funds between 2014-2016 including transfers from the state budget and other sources are spent in line with relevant law and regulations. Following legal documents are used as source for the auditing indicator for operation of local development fund. 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 of the Minister of Finance in 2012 with number 244, 290 and 264
- Decree of the Minister of Finance in 201 with number 43
- Other related legal documents