



Japan & Mongolia

Opportunities emerge when
The Land of Rising Sun meets The Blue Sky

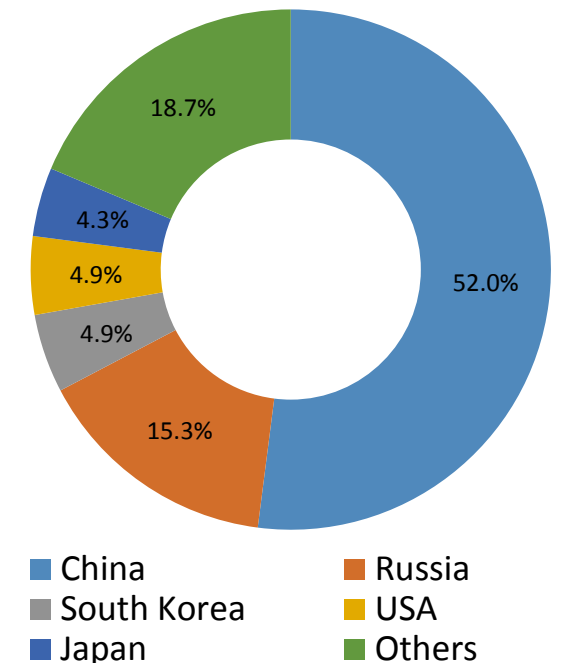
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Mongolia's increasing role in world politics and benefits for Japan



- Mongolia enjoys friendly relationship with most of the countries including but not limited to Russia, China, United States, South Korea, North Korea, India, Thailand, Singapore, Myanmar, Kyrgyzstan, Kazakhstan, Vietnam
- Mongolia offered its relationship with North Korea to host six-party talks (between North Korea, South Korea, China, US, Russia and Japan) in Mar 2013 when North Korea declared state of war
- 63 bilateral and international agreements in 2013, including agreements with the United States, the European Union, Japan, and China
- Mongolia withdrew from race of Non-permanent member seat of United Nations Security Council in 2008 giving way to Japan which was viewed very favorably by Japan
- Prime Minister Abe hopes to resolve abduction issue of Japanese with North Korea within his term and Prime Minister Altankhuyag said that he supports the repatriation.
- Japan is fifth largest trading partner with Mongolia
- With growing tension in Asia and perspective deals of Mongolia with China, Japan is much more eager to strengthen its ties with Mongolia

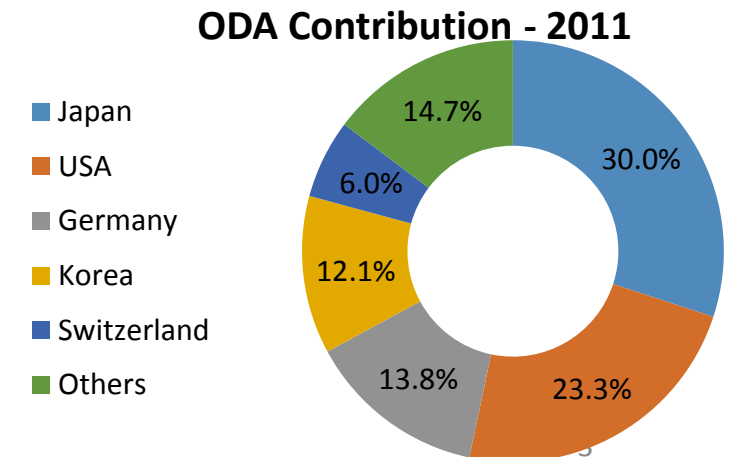
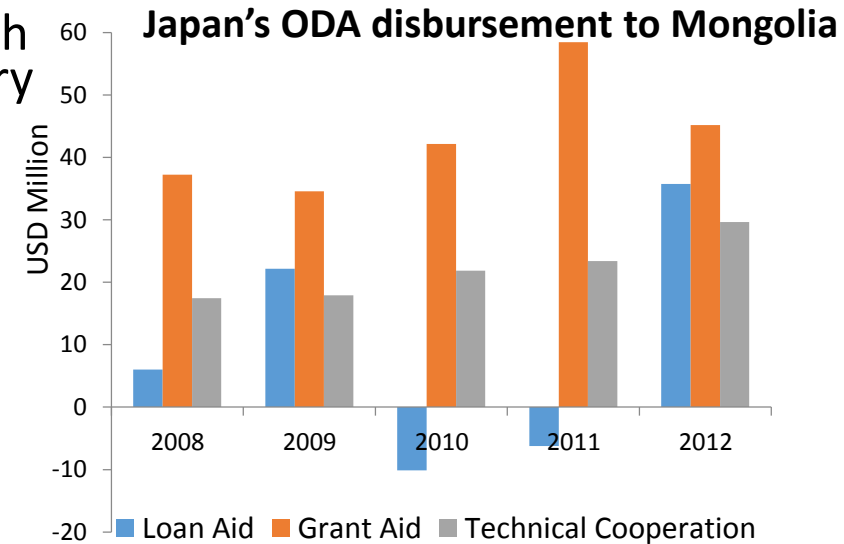
Total Trade Turnover 2013



Japan historically has been major donor to Mongolia and within current tough scenario Mongolia looks for some assistance



- Historically, Japan has been one of the major donor to Mongolia with grants as early as 1977 for the construction of Gobi Cashmere factory
- Japanese assistance peaked in 2000 with assistance of close to 100 million USD including 60 million grants
- Prominent investments include Gobi Cashmere, Mobicom, Khan Bank etc
- Moody downgraded Mongolia's sovereign rating to B2 on 17th July with negative outlook for below three drivers
 - Sharp deterioration in the external liquidity position
 - Expansionary policy stance
 - Continued rise in external debt burden
- With fallen FDI, mounting external debt and maturity of Chinggis bond in 2 years, Mongolia is currently in dire need of funds and it not leaving any stone unturned
- Even with all the history with China, Mongolia is at the verge of signing several deals with the country. Mongolia will be more comfortable working with Japan if have to choose between the two
- Japan and Mongolia is in final round of discussion of an EPA

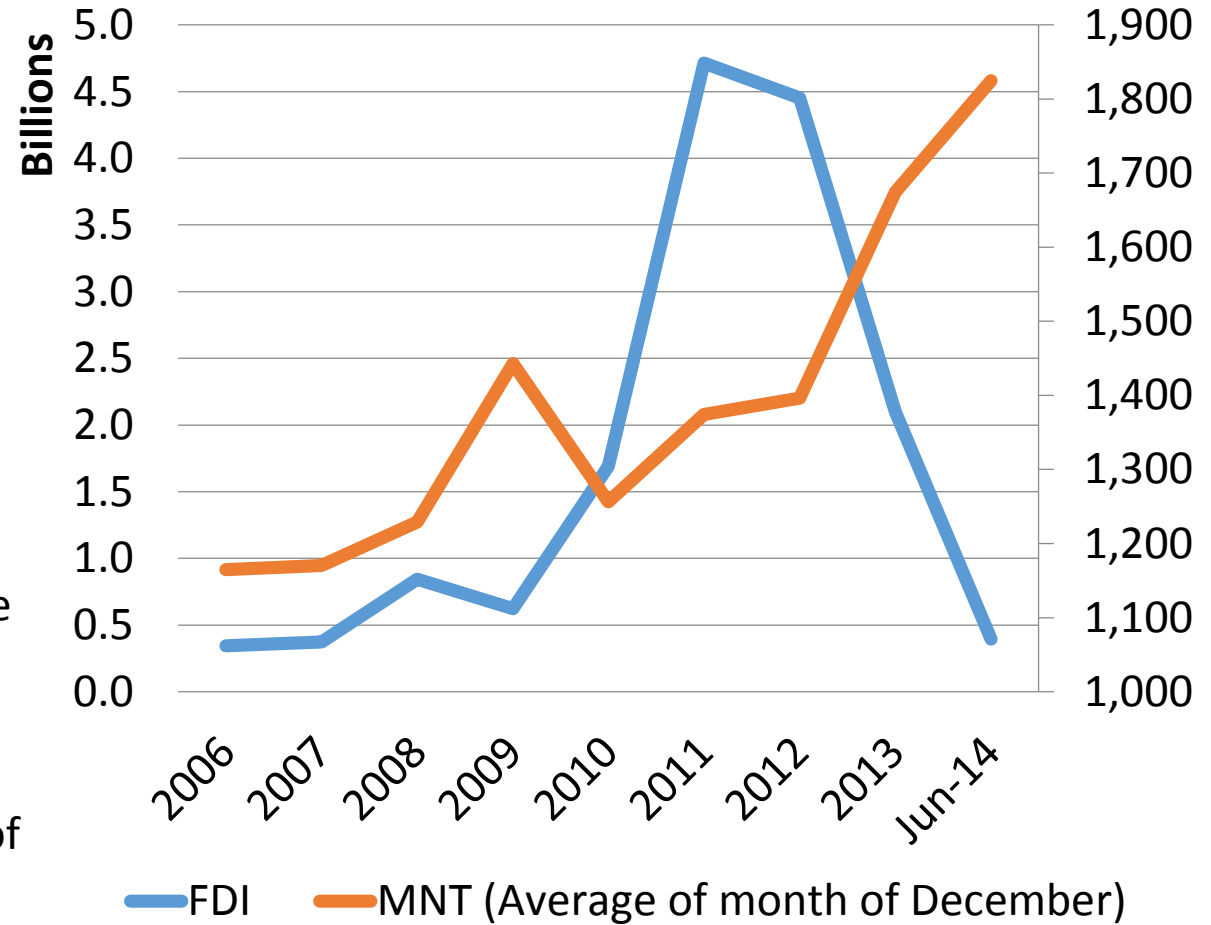


Source : Ministry of Foreign affairs - Japan

Declining FDI and MNT exchange rate has forced government to take favorable steps for investors



- In October 2013, Mongolian government void controversial SEFIL. No approval required for foreign investment by private companies. It also ensures no differentiation between foreign and Mongolian investors.
- President Elbegdorj launched “From big government to smart government” program in November 2013.
- President publically admitted Mongolia made mistake – Nov 2013 in Singapore
- In January 2014, the Mongolian government reduced the gold royalty from 10% to 2.5% for gold sold through the government
- In April 2014, Prime Minister Altankhuyag Norov’s launched 100-day action plan,” that will seek to revive the economy. 50-point agenda promises to boost infrastructure, mining, manufacturing and the development of small and medium-sized businesses.
- July 2014 - Mongolia’s parliament approved changes to the nation’s 2006 Minerals Law, increase the proportion of Mongolia’s area available to mining and exploration to 20 percent from about 8 percent, by lifting a 2010 ban on new licenses. The period of exploration will also increase to 12 years from nine years.



Mining – Fuel that is running Mongolian Economy



- Adoption of new minerals policy in January 2014 is expected to guide all future amendments
- With Mineral products forming 82% of Exports in 2013, Mining is running Mongolian economy
- Most of the coal is transferred through trucks. Rail road projects with China / Russia will bring down transportation cost (40% of total production cost)
- Investments in coal washing and cleaning facilities would allow higher margins as well as will open new markets
- Conflict between Oyu Tolgoi and government has destroyed investor's confidence and has to be sorted out before any FDI can flow into the country
- Categorization of strategic deposits has to be made more transparent. In 2013, Seven deposits were added in original list of 15
- With Uranium deposits expected to reach 1.47m tonnes, Uranium mining can provide much needed diversification from Coal

| Type of Mineral (Proven Reserve) | As of 2013 |
|---|------------|
| Primary & Placer gold deposits (tonnes) | 2,459.5 |
| Silver (tonnes m) | 27,918.5 |
| Copper (tonnes m) | 83.55 |
| Molybdenum (tonnes 000) | 972.4 |
| Zinc (tonnes 000) | 36,576.48 |
| Iron (tonnes m) | 1,088.9 |
| Tungsten (tonnes 000) | 333.15 |
| Tin (tonnes 000) | 50.92 |
| Lead (tonnes 000) | 2,039.83 |
| Coal (tonnes m) | 20,789.8 |
| Fluorite (tonnes m) | 1,013.3 |

Source : MRAM

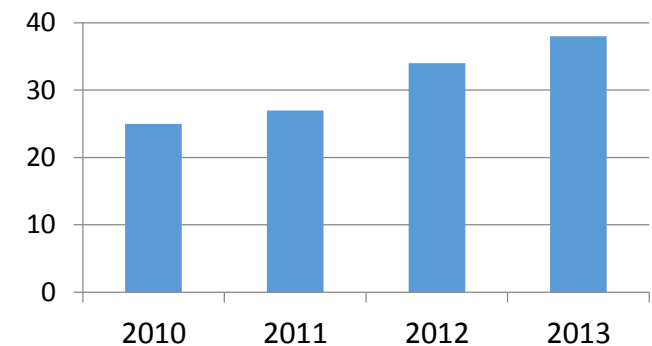
Real estate is expected to benefit from increasing government investments in housing and infrastructure



- Construction output increased from MNT 94.3bn (USD 56.5m) in first half of 2012 to MNT 330.6bn (USD 198.4m) in first half of 2013, attributed largely to Price Stability Program
- Another source of construction finance was government's MNT 1.13trn (USD 678m) mortgage finance program
- Around 55-60% of capital's total population still lives in gers and still not connected to power, water, sewage and heating grid
- Due to extreme weather construction is put on hold from November/December to April/May. Pre-cast and pre-fabricated units can be explored as an option
- Most of the construction materials is still imported and have serious constraints due to underdeveloped infrastructure
- National labor regulations and small size of workforce poses severe capacity constraints to real estate companies
- Most commercial projects are pre-financed either via previous capital, international developer or pre-sales and hence activity tends to start and stop with public sentiments and economy
- Among others Peace tower, Shangri-La building, Mak towers, International finance center will add 44% of total office supply by 2017

| Origins of selected construction material, 2012 | |
|---|-------------------|
| Wall Material | Domestic |
| Glass | Entirely imported |
| Window frames and doors | Domestic |
| Roofing Materials | Majority Imported |
| Water Pipes | Majority Imported |
| Paint | Entirely imported |
| Concrete and brick | Domestic |
| Electric Cabling | Limited Domest |

Source : M.A.D. Investments Solutions



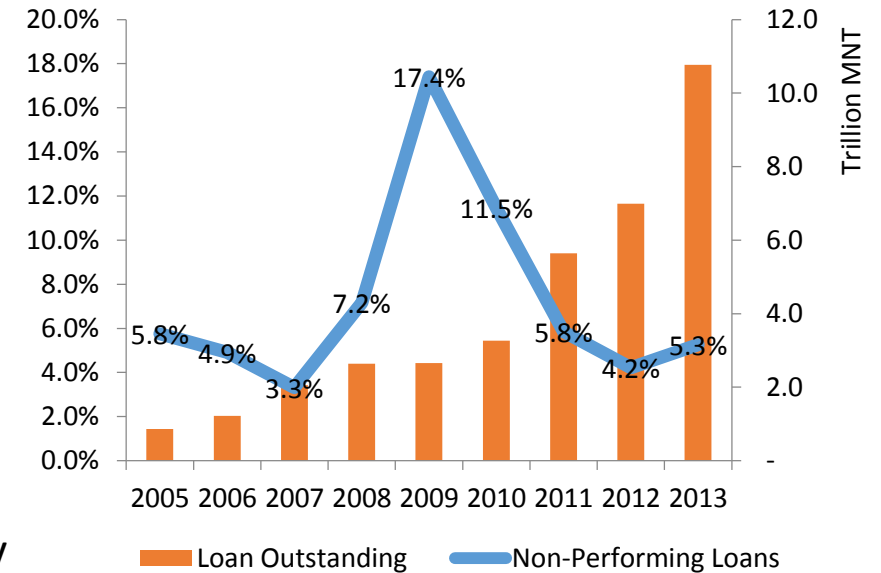
Outstanding Commercial lending to construction (% of total)

Source : Oxford Business Group

Banking sector remains the major source of financing



- 78% of population have an account with a financial institution. Mid-2011, 80% of people had access to some sort of card for transaction
- Provides 95% funding for economic activity in country
- Estimated MNT 718 bn (USD 422.3 m) was disbursed through price stabilization program
- Bank of Mongolia provided MNT 1.1 trn (USD 647m) at a 4% interest rate for mortgage scheme with interest rate of 7-8%
- MNT 900bn (USD 529.4m) of special support for banks and loans to constructions sector outside the PSP program
- These policies led to sharp rise in credit resulting in increase of central banks loans to commercial banks (from MNT 181bn (USD 106m) in Nov 2012 to MNT 3.6 trillion (USD 2.1b) in Sep-13)
- Troubles at OT, ETT and several other projects are cancelled, leading to mining supply chain to come under pressure
- Industry is seeing consolidation, number of banks dropped from 17 in 2005 to 13 now
- SMEs employ 60.9% of people in labor market and still face huge financing challenges and still rely on pawn shops, traders and individuals



Source : National Statistics Office



Women working in a SME

Roads, railways and new airport will help trade and transit in and out of Mongolia

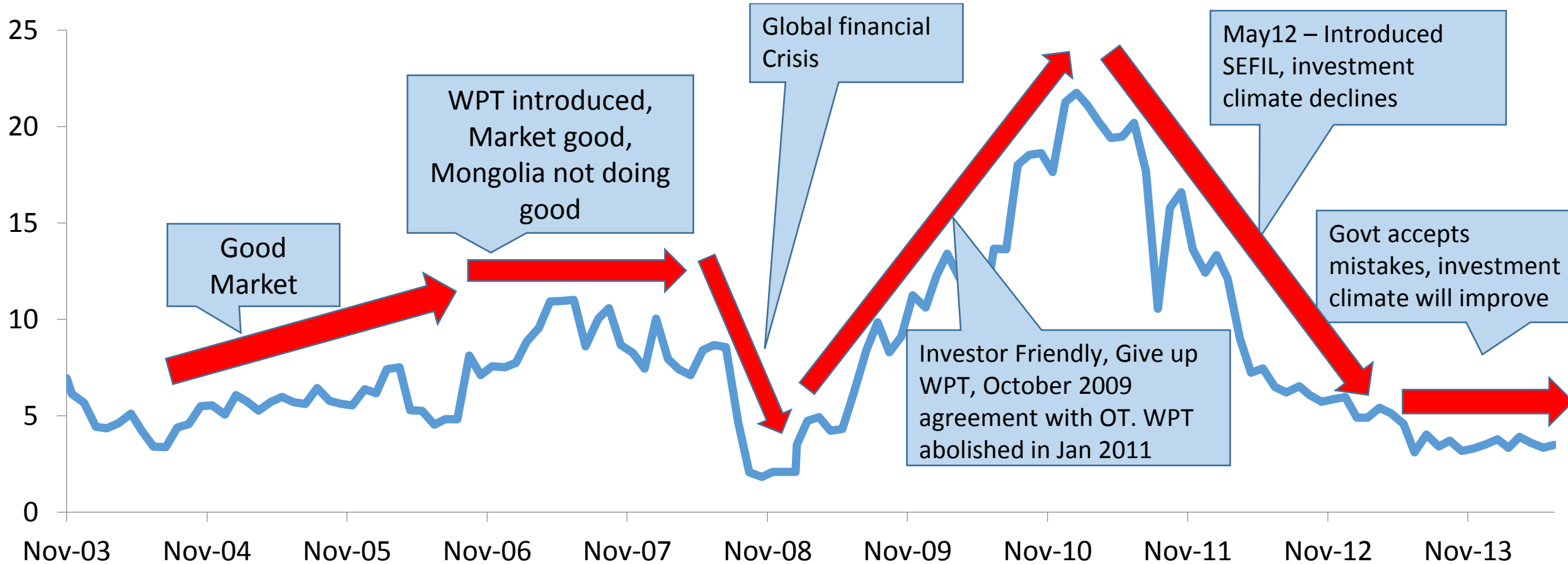


- Government committed USD 200 million from Chinggis bond to the reconstruction of 33 sections in Ulaanbaatar. Talks for both, an underground subway as well a bus rapid transit (BRT) is under consideration
- In Sep-13 Choir to Sainshand road (176km) was completed (funded by US government). In Nov-13, 116 km Sainshand to Zamyn-Uud (at border of China) was completed (funded by ADB)
- A new national rail network will be built in three phase, gauge still remains an issue. Present proposal stands two standard gauge 1) Tavan Tolgoi – Oyu Tolgi – Gashuun Sukhait and 2) Nariin Sukhait – Shiveekhbren and a broad gauge between Tavan Tolgoi - Oyu Tolgoi - Sainshand - Choibalsan
- Tuushin is working with local government to build integrated logistic center in Ulaanbaatar. ADB is supporting logistics center on the border of China at Zamyn-Uud costing USD 71.6m (with ADB providing 40m as loan and 5m as grant)
- New airport is due open in 2016 with a capacity to handle 3m passengers a year (compared to 60,000 today) and six runways (compared to two at present)

Planned Railways in Mongolia



Cheap valuations are providing unprecedented opportunities for investors



Example - **Turquoise Hill Resources Ltd**(NYSE:TRQ)



Investment Opportunity in Mongolia

A 10 M USD Private Equity fund to invest in Gold Exploration License



Fund will be investing in early stage exploration licenses with intention to sell investments to mining companies



- Exploration are done by small companies and once the assets are developed, those are sold to big companies for mining
- Mining companies have lower cost of funding and hence can extract minerals economically
- Fund will be investing in new exploration licenses from MRAM as well as second hand license
- New License does not have any procurement fee but after securing a license, investors are required to invest as per guidelines from MRAM. This is a cheaper alternative with higher risk associated with it. Risk can be mitigate by investing in large number of licenses.
- Investing in second hand licenses can be tricky due to less availability of licenses as well as lengthy negotiation process. However such projects can generate better return provided supported by proper documentation especially mid-term reports
- Example – African Lion fund raised USD 33.7 M in 1999 and returned USD 120+M by 2004

| Company | Type | Market Cap (USD) |
|-------------|-------------|------------------|
| Altan Rio | Exploration | 3.17 M |
| Entrée Gold | Exploration | 46.73 M |
| MMC | Mining | 234.8 M |
| Rio Tinto | Mining | 108 B |

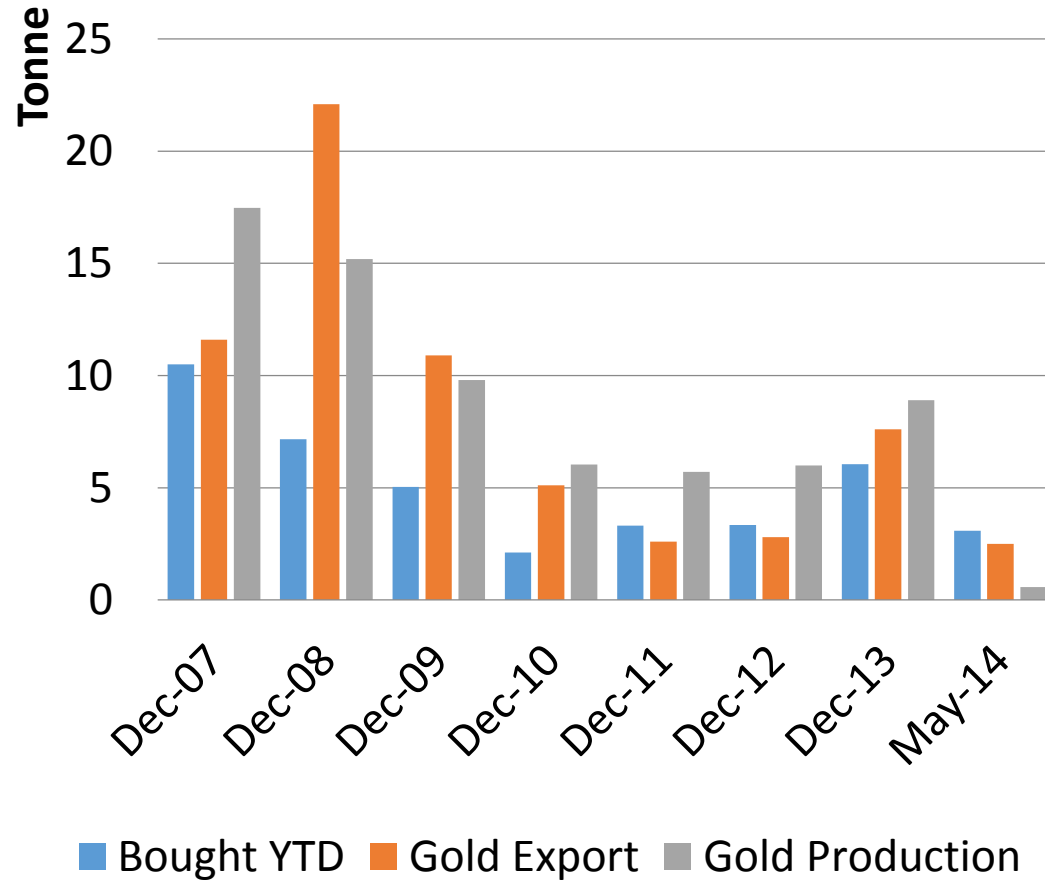


New Exploration Licenses



Second hand Licenses

Mongol Bank needs gold reserves as a guarantee to pay its depositor and secure its currency



| Ranking | Country | Tonnes | % of FX reserve |
|---------|---------------|---------|-----------------|
| 1 | United States | 8,113.5 | 71.7% |
| 2 | Germany | 3,386.4 | 67.6% |
| 3 | Italy | 2,451.8 | 66.5% |
| 4 | France | 2,435.4 | 65.1% |
| 5 | Russia | 1,068.4 | 9.4% |
| 6 | China | 1,054.1 | 1.1% |
| 7 | Switzerland | 1,040.1 | 7.9% |
| 8 | Japan | 765.2 | 2.5% |
| 9 | Netherlands | 612.5 | 53.7% |
| 10 | India | 557.7 | 7.5% |
| 93 | Mongolia | 2.5 | 5.3% |

Source : Mongol Bank, Mongolian Statistical Information Service

7/21/2014

Private & Confidential

Source : World Gold Council

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Gold can be sold at international price; Cost of gold mining is lesser



- Transportation does not form a large part of cost and hence gold can be sold in international market at international price
- Cost of gold mining is less as compared to other metals such as copper. Relatively easy to find mining companies interest.

| Item | Gold Mine | Copper Mine |
|-----------------------|-------------------|--------------------|
| Mining | 4,849,972 | 4,869,053 |
| Processing Plant | 11,392,336 | 85,446,788 |
| Infrastructure | 1,709,935 | 4,990,513 |
| Indirect Construction | 13,813,102 | 51,816,550 |
| Others | 8,142,571 | 20,197,828 |
| Total | 39,907,916 | 167,320,732 |

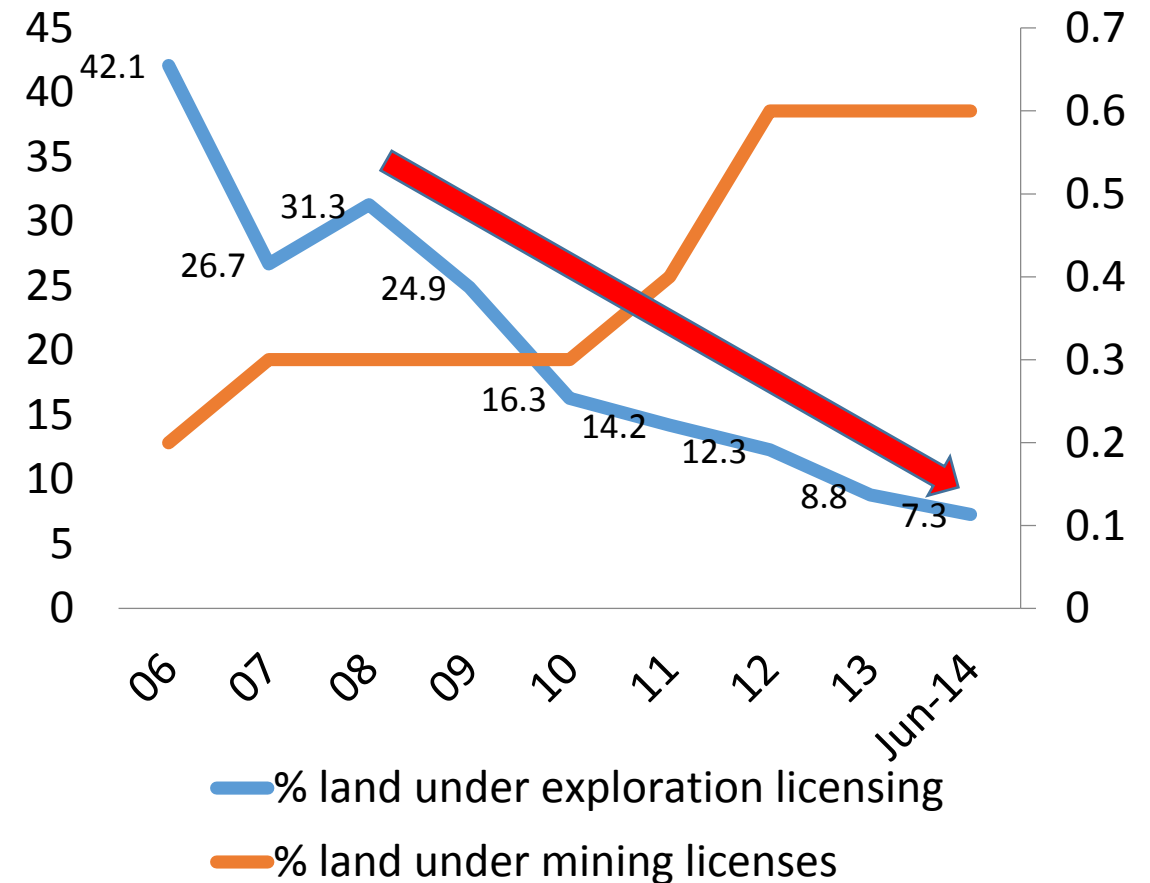


Source: <http://www.visualcapitalist.com/what-is-the-cost-of-mining-gold/>

With only 7.3% of land available for exploration, Mongolia still have huge proven reserves



| Country | Tonne (proven resource) |
|------------------|-------------------------|
| USA | 13,427.5 |
| Canada | 13,367.3 |
| South Africa | 13,228.4 |
| Russia | 9,306.2 |
| Australia | 7,331.7 |
| Chile | 4,182.5 |
| Mexico | 3,872.7 |
| Ghana | 3,460.1 |
| Papua New Guinea | 3,116 |
| Indonesia | 2,994.9 |
| Mongolia | 2,459.5 |



Geopolitical risk is high followed by volatility in commodity prices and Exchange rate



| Risk | Consideration |
|--|--|
| <p><u>Government and Policies</u> Mongolian political scenarios still very fragile with import laws still in development</p> | <p>Use Frontier's extensive network to mitigate this risk</p> |
| <p><u>Gold Price Depreciation</u> Decline in gold price can have negative impact on value of asset</p> | <p>Market risk, very hard to mitigate. Exit value would be very sensitive to price of gold at that time</p> |
| <p><u>Foreign Exchange Risk</u> MNT has declined in value in past few years.</p> | <p>Creating a FX hedge can be expensive, but might be required by investors. If not hedged, can eat away significant amount of profits</p> |



Thank You

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