

FOCUS IRAN

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Iran Mining Sector Keeping Up with Global Trend



انجمن تولیدکنندگان و صادرکنندگان سنگ آهن ایران
IRON ORE PRODUCERS & EXPORTERS ASSOCIATION OF IRAN

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Iran's Mining Sector

Ranking in Minerals & Commodities

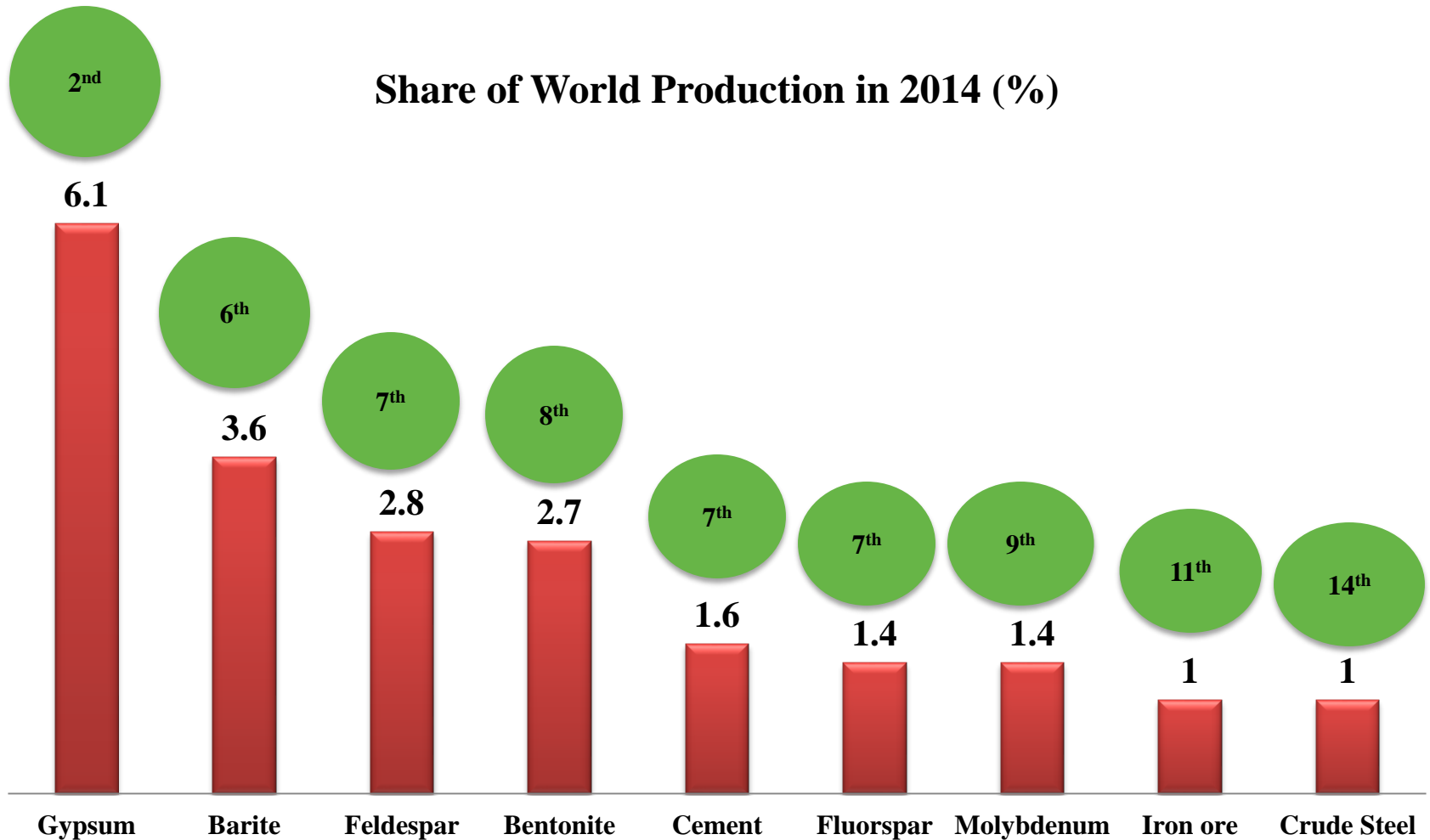


Figure 1: Iran Minerals & Commodities Production

Source: USGS, 2016

Iran Minerals Reserves

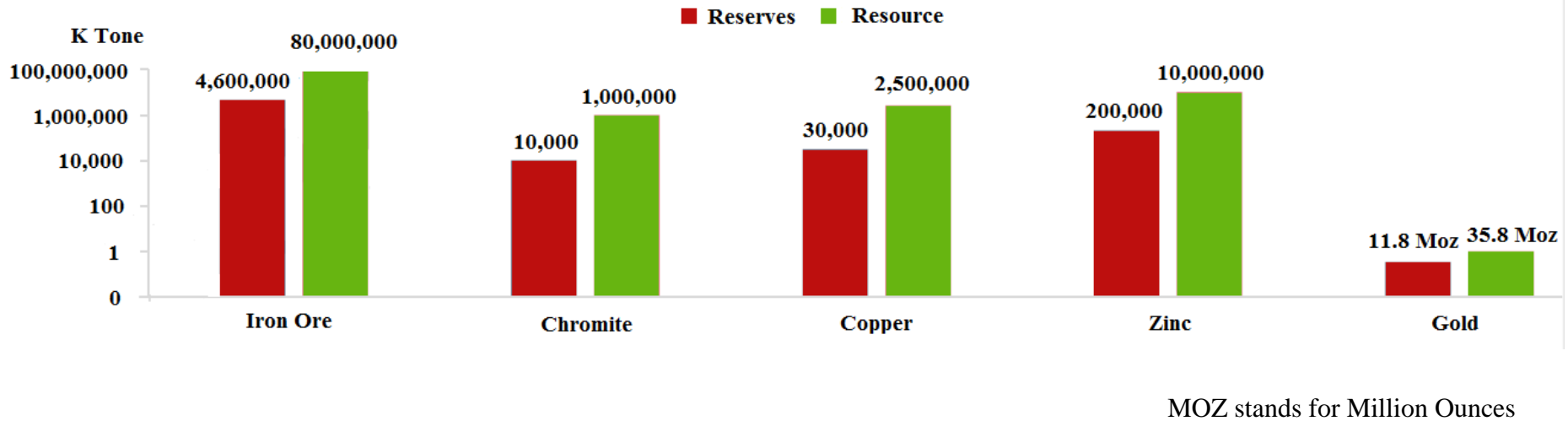


Figure 2: Iran Mineral Reserves and Resources

Source: The Economic Geology of Iran

Top Countries in Production Value

Rank based on 2012 data	2000 production value (US\$bn)	2000 production value (of world total)	Production value as % of 2000 GDP (current US\$)	2010 production value, revised (US\$bn)	2010 production value (of world total)	Production value as % of 2010 GDP (current US\$)	2012 production value (US\$bn)	2012 production value (of world total)	Production value as % of 2012 GDP (current US\$)	Rank based on 2010 data (revised)	Change in ranking
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1 China	10.6	8.2%	0.9%	109.2	16.6%	1.8%	123.1	15.8%	1.5%	1	0
2 Australia	16.4	12.8%	3.9%	87.3	13.3%	7.6%	108.5	14.0%	7.1%	2	0
3 Brazil	7.8	6.0%	1.2%	62.4	9.5%	2.9%	65.9	8.5%	2.9%	3	0
4 Russian Federation	10.8	8.4%	4.1%	43.2	6.6%	2.8%	53.0	6.8%	2.6%	4	0
5 Chile	10.5	8.2%	13.9%	36.3	5.5%	16.7%	42.1	5.4%	15.8%	5	0
6 United States	11.3	8.8%	0.1%	33.2	5.0%	0.2%	41.8	5.4%	0.3%	8	2
7 South Africa	12.7	9.9%	9.6%	33.6	5.1%	9.2%	38.5	5.0%	10.1%	7	0
8 Canada	7.9	6.1%	1.1%	25.5	3.9%	1.6%	32.7	4.2%	1.8%	9	1
9 India	2.9	2.3%	0.6%	35.4	5.4%	2.1%	26.8	3.4%	1.4%	6	-3
10 Peru	4.7	3.7%	8.8%	21.1	3.2%	14.2%	25.1	3.2%	13.0%	10	0
11 Mexico	2.4	1.9%	0.4%	11.0	1.7%	1.0%	17.7	2.3%	1.5%	13	2
12 Indonesia	4.9	3.9%	3.0%	14.7	2.2%	2.1%	14.9	1.9%	1.7%	11	-1
13 Kazakhstan	2.4	1.9%	13.1%	9.7	1.5%	6.6%	12.5	1.6%	6.2%	14	1
14 Ukraine	1.8	1.4%	5.8%	11.8	1.8%	8.7%	12.2	1.6%	6.9%	12	-2
15 Iran, Islamic Rep.	0.8	0.6%	0.8%	6.9	1.0%	1.6%	8.2	1.1%	1.6%	15	0

Table 1: Top Mineral Producers in the World

Source: ICMM

Mining Production Value

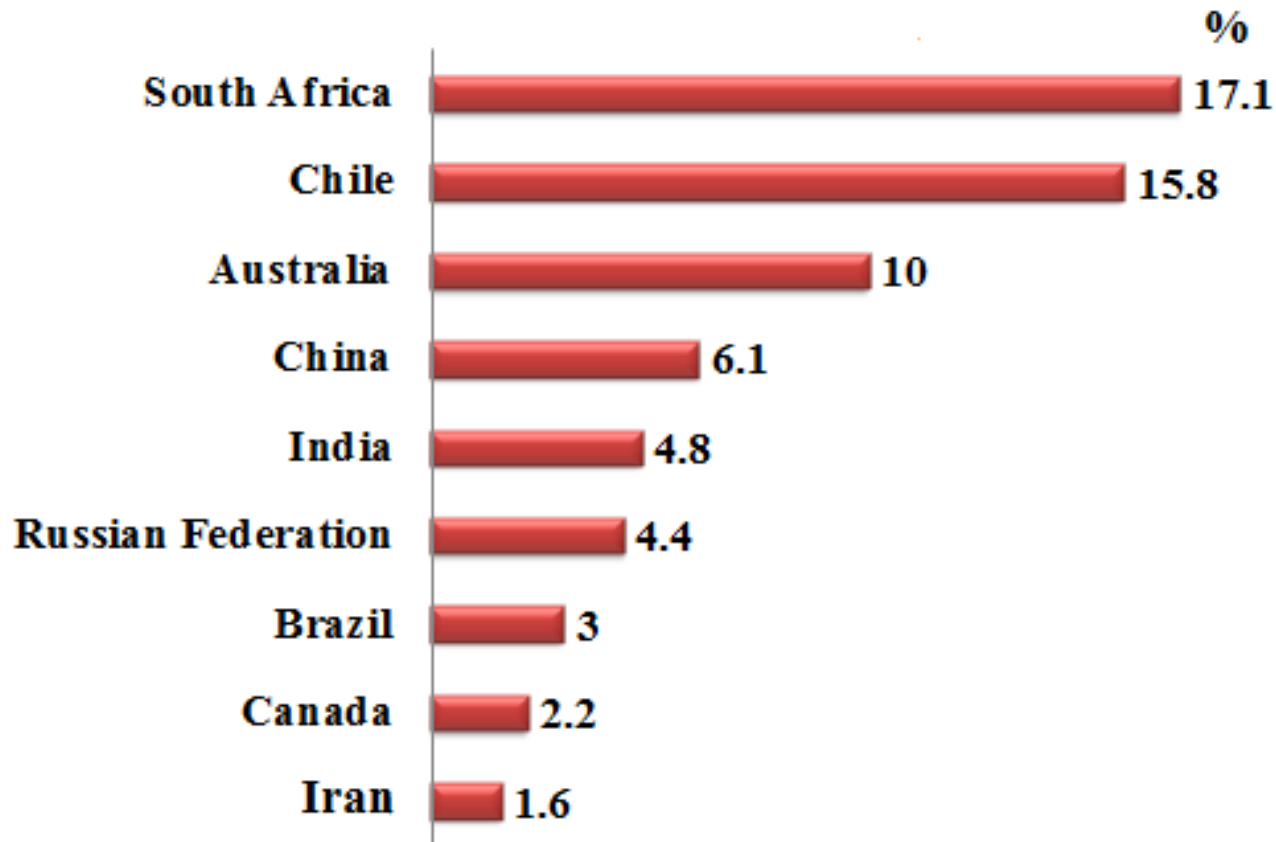


Figure 3: Mining Production Value Contribution in GDP

Source: World Bank - 2014

Iran Iron Ore Production/Reserve

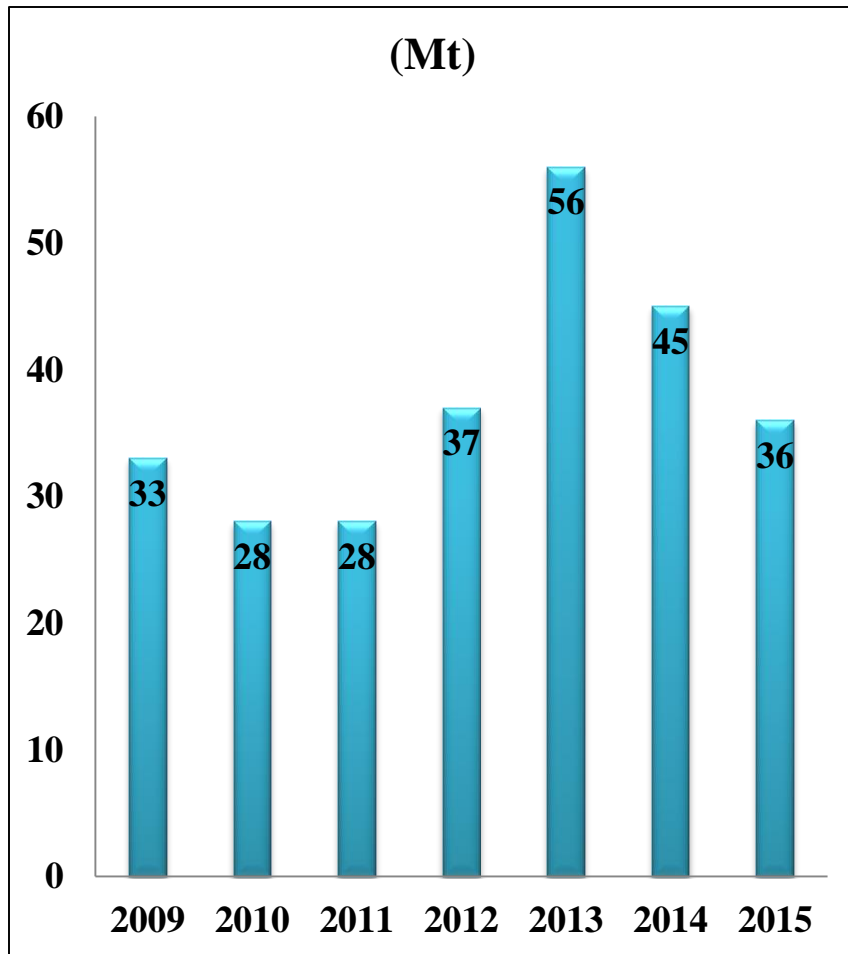


Figure 4: Iron Ore Production

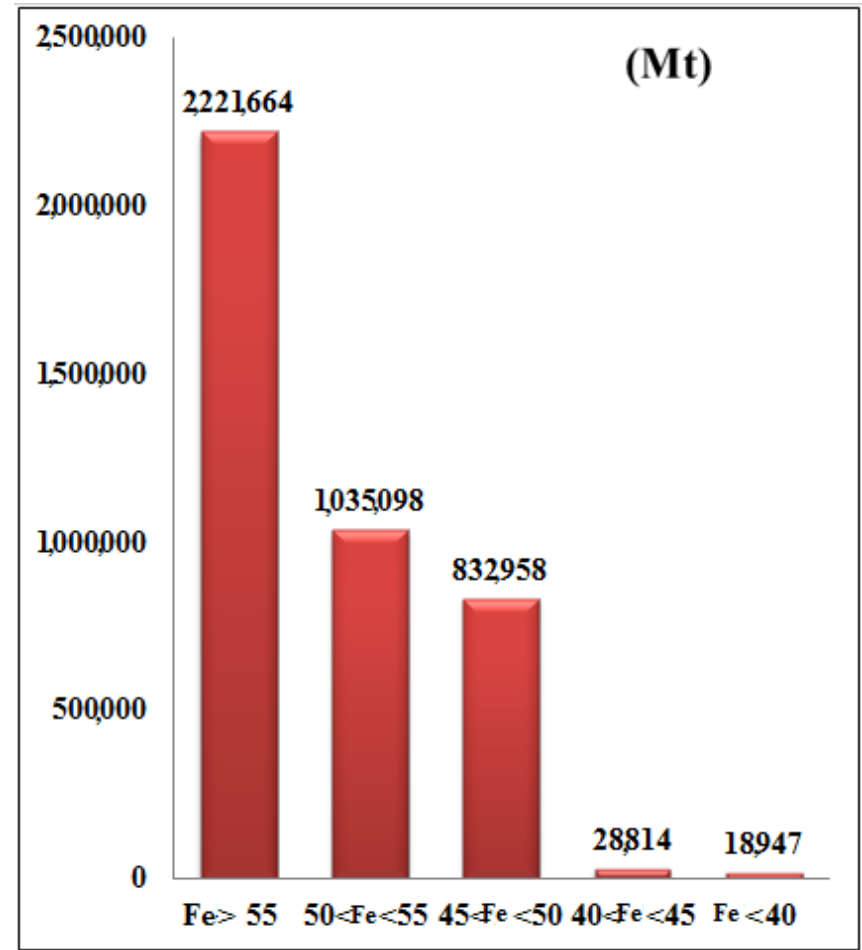


Figure 5: Iron Ore Reserve



Iran Copper Production

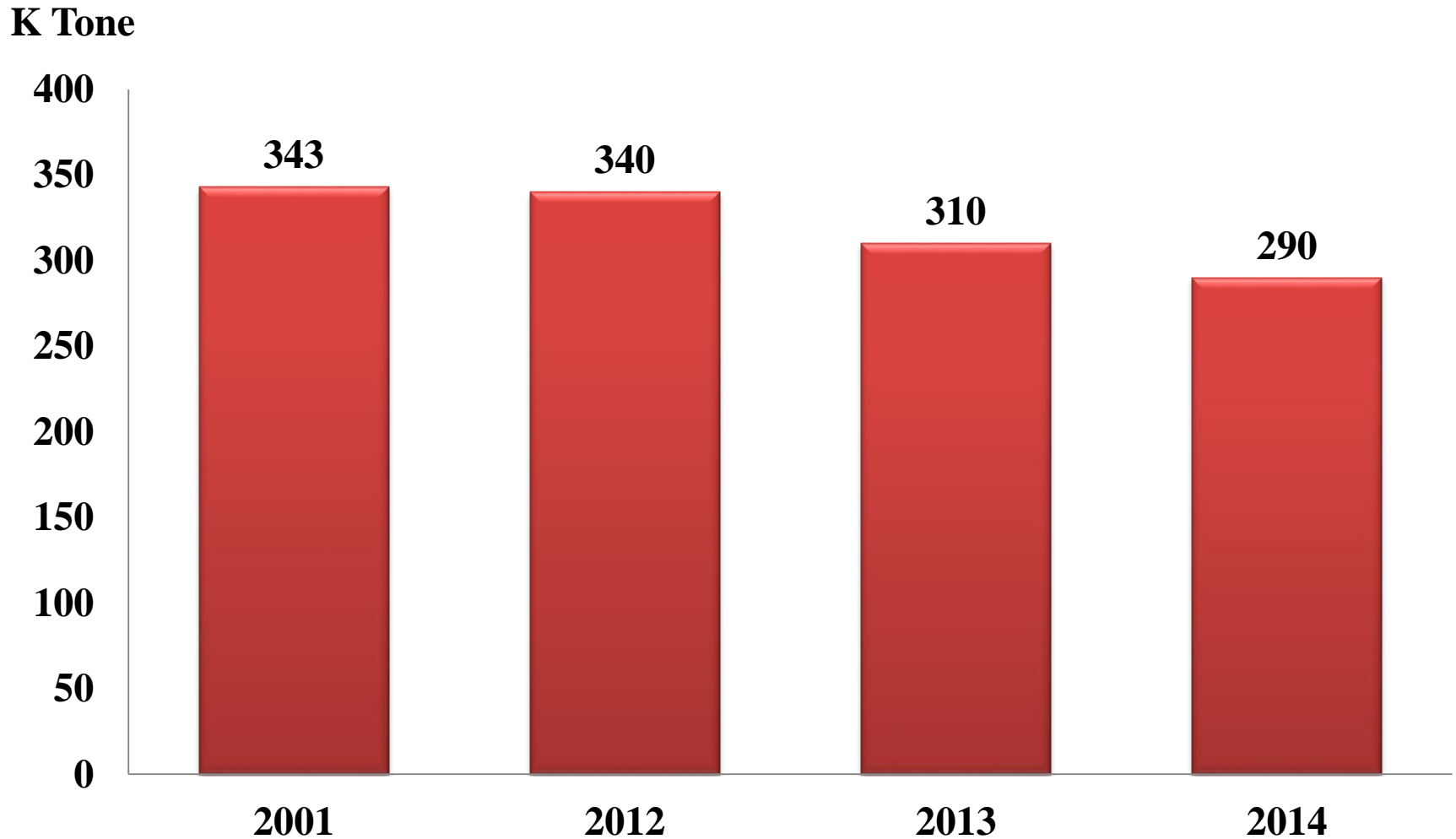


Figure 6: Iran Copper Production

Source: SNL, Copper Production Pipeline 2015 report

Iran Zinc Production

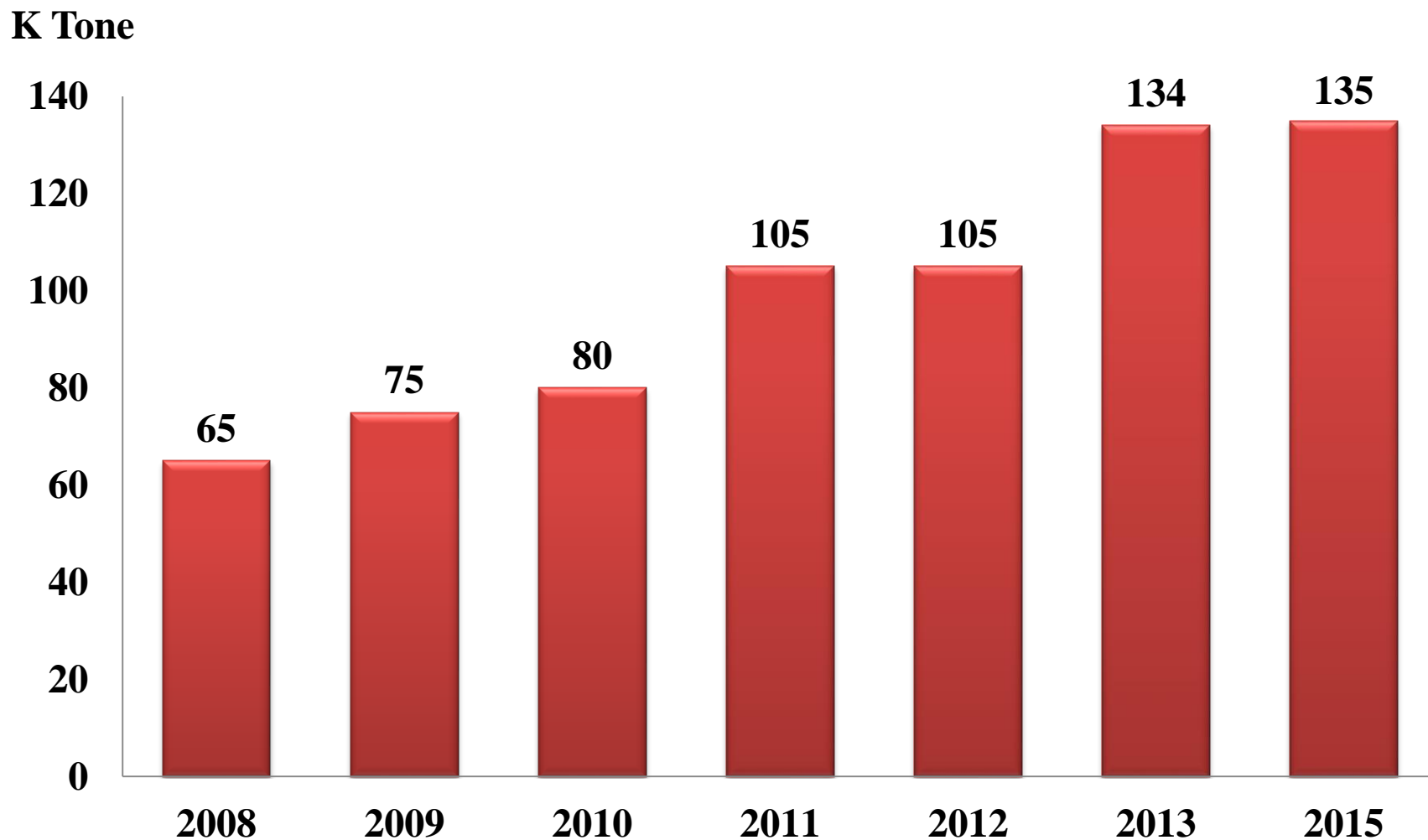


Figure 7: Iran Zinc Production

Iran's Vision Plan 2025

Commodity	Mineral Output		Annual Growth (percent)	
	2014	2025	2004-2014	2015-2025
Aluminum	0.4	1.5	5	14
Cement	66.4	120	8	6
Copper, cathode¹	194	800	2	14
Gold²	3.3	10	33	11
Iron ore, iron content	23.7	66.2	10	10
Steel, crude	16.3	52	7	11
Zinc, refined¹	142	300	3	7

1. Thousand Tons

2. Tons

Table 2: Iran's Commodities Production and Average Annual Growth: Actual and Targeted

Iranian Minerals Export

Commodities	Value	Total Share
Steel	\$938,361,616	47.58%
Copper	\$323,241,608	16.39%
Other Minerals	\$187,744,510	9.52%
Iron Ore	\$164,699,947	8.35%
Cement	\$129,734,731	6.58%
Stone	\$75,152,109	3.81%
Lead	\$45,926,719	2.33%
Zinc	\$35,783,860	1.81%
Aluminum	\$28,316,205	1.44%
Ferroalloy	\$17,831,220	0.90%
Chromium	\$17,525,097	0.89%
Molybdenum	\$6,541,991	0.33%
Coal	\$1,075,722	0.05%
Precious Metals (Gold, etc.)	\$40,162	>0.01%
Titanium	\$27,970	>0.01%
Mica	\$11,010	>0.01%
Total Exports	\$1,972,014,477	

Table 3: Iran Minerals Export During Q1 of Current Iranian Year (Started at March 20, 2016)

Source: USGS

Mining & Minerals Value-added in Iran 6th Development Program

Mining & Industry Value-added in Iran 6th Development Program

- The average of annual mining value-added growth rate: 8.8%
- The average of annual industry value-added growth rate: 9.3%

Investment in Mining & Industry Sector in Iran 6th Development Program

- The average of annual investment growth rate in mining and industry: 18.8%
- Foreign Resources: 22% (US\$ 46 Billion)
- County demand for Investment in mining & minerals: US\$ 15 Billion



Perspective on Global Mining Market

Market Capitalization

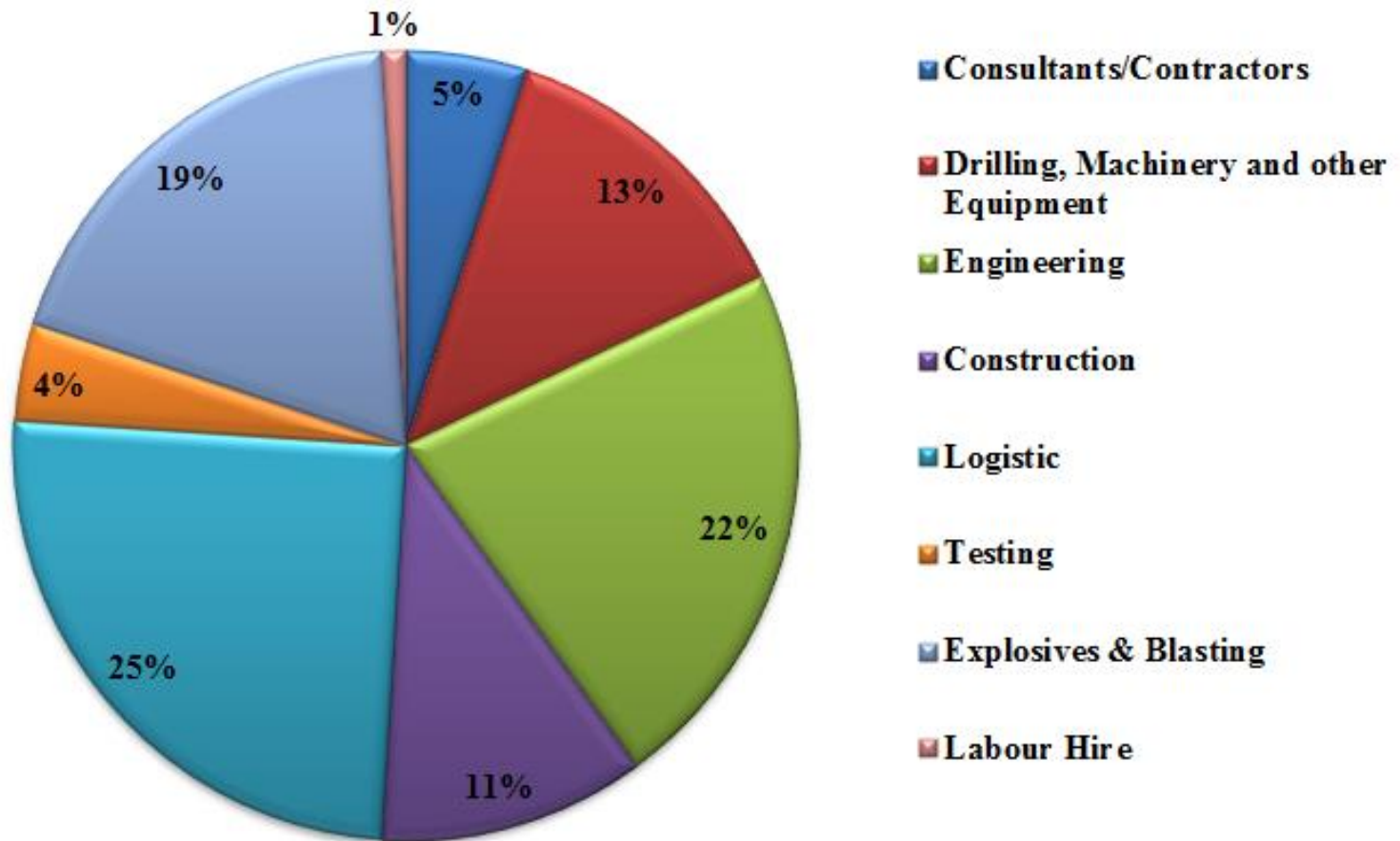


Figure 8: Market Capitalization by Segment

Source: EY

Major Projects Investment

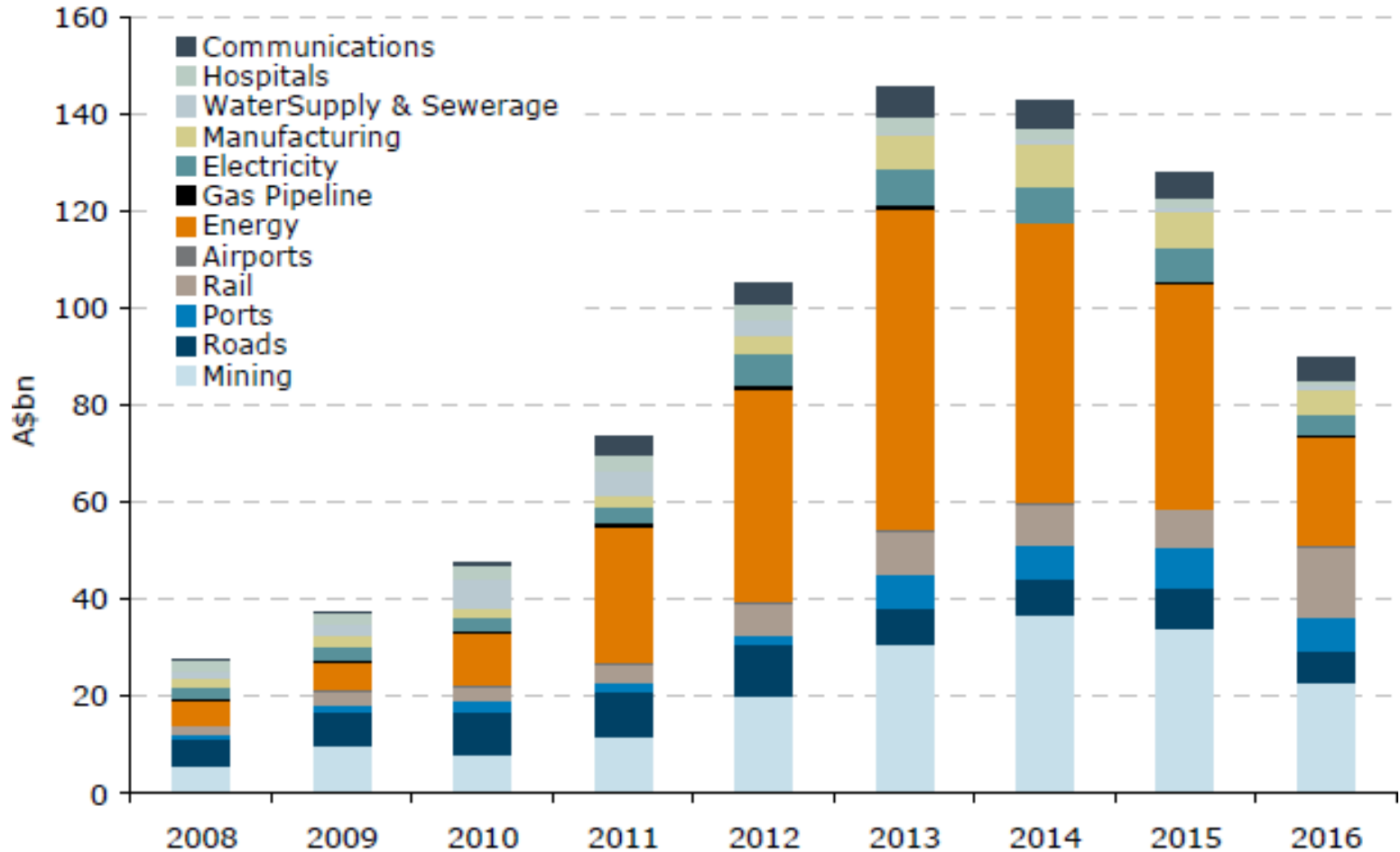


Figure 9: Major Projects Investment by Industry

Source: Access Economics



Mining Opportunities in Iran for Foreign Direct Investment

Iran Mining Industry Value

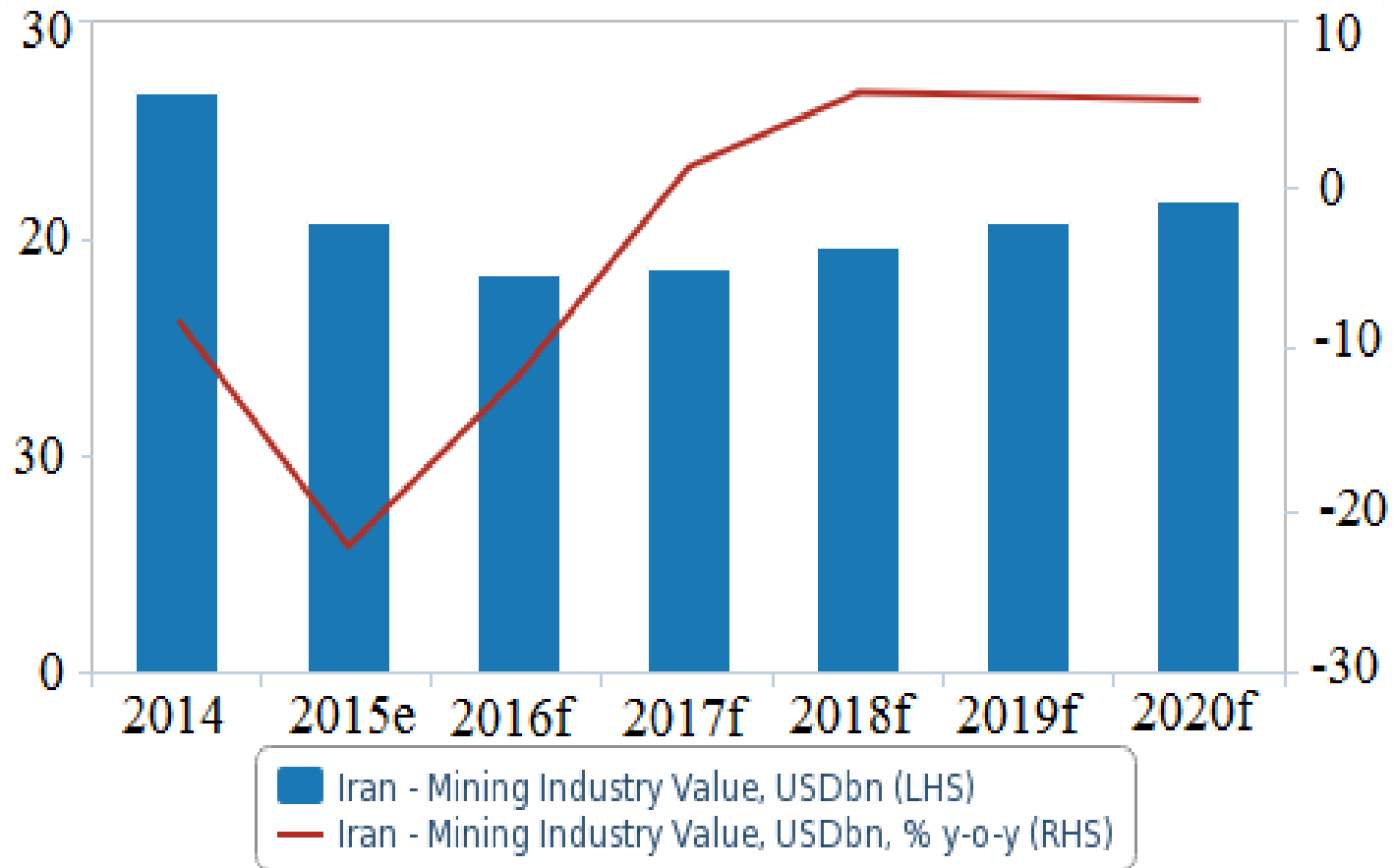


Figure 10: Iran Mining Industry Value

Source: National Sources, BMI

GDP Growth Rate of Iran

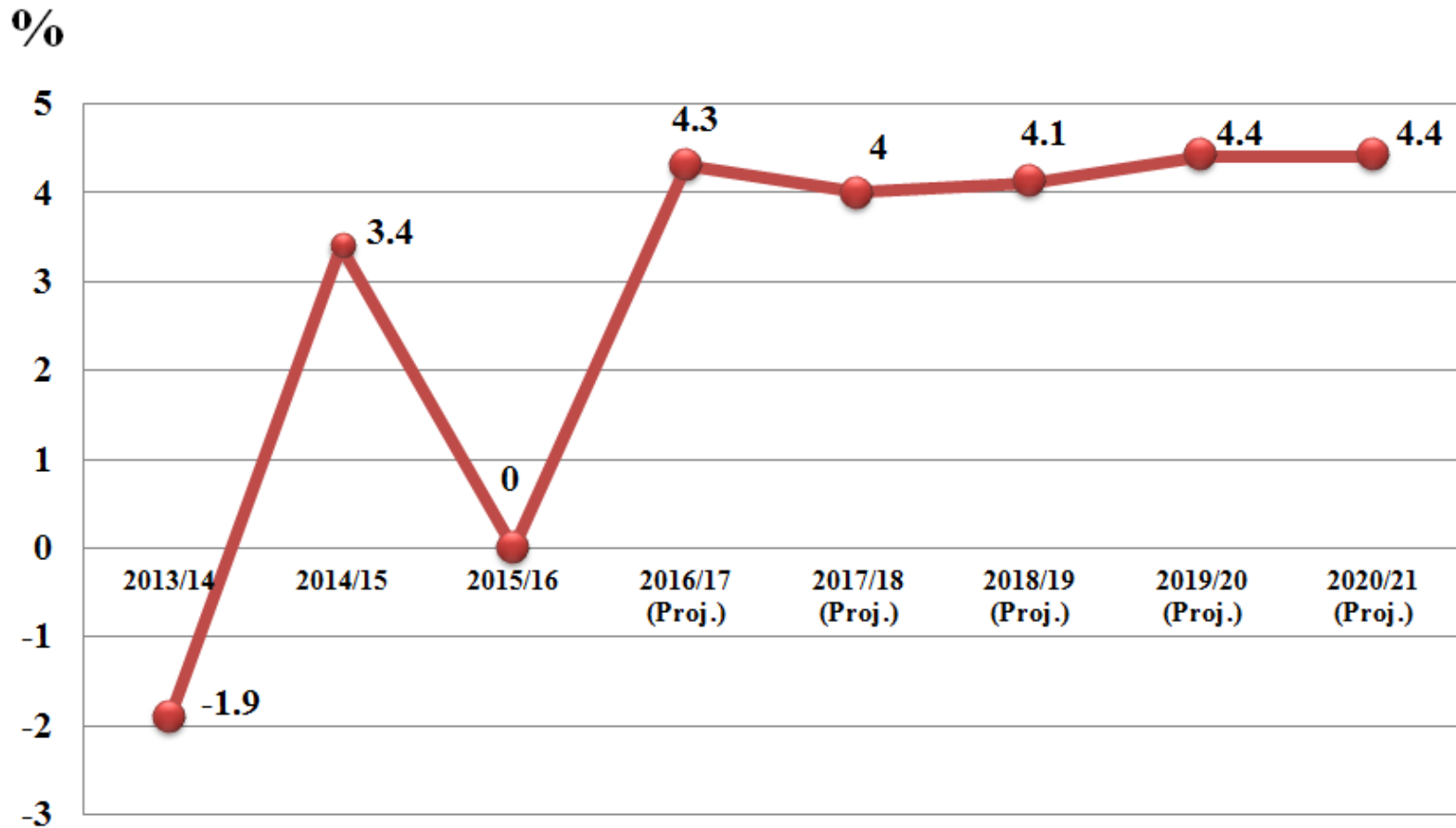


Figure 11: GDP Growth Rate

Source: Statista

Disadvantages of Investment in Mining Industry

- High Capital Cost
- Long Payback Investment Point
- High Risk in Exploration Stage

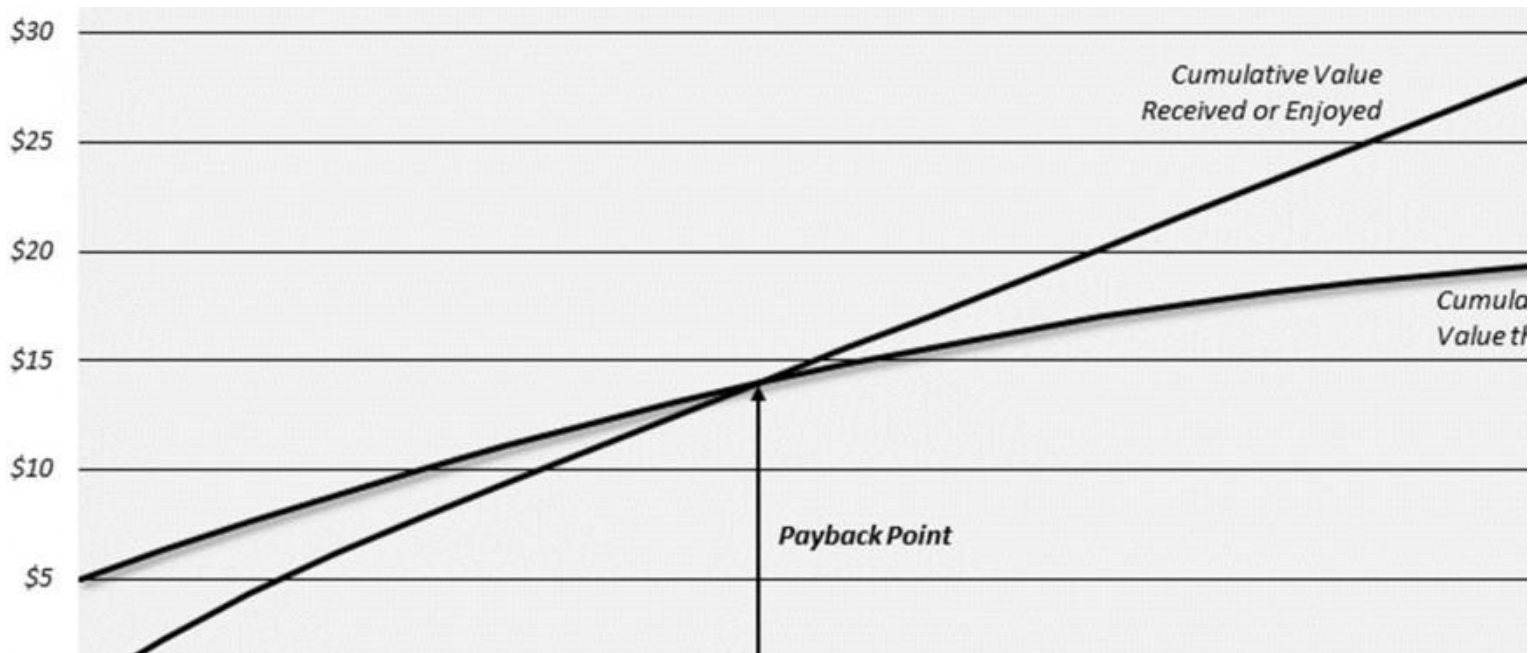


Figure 12: Investment in Mining Industry

Investment Cycle in Mining Projects

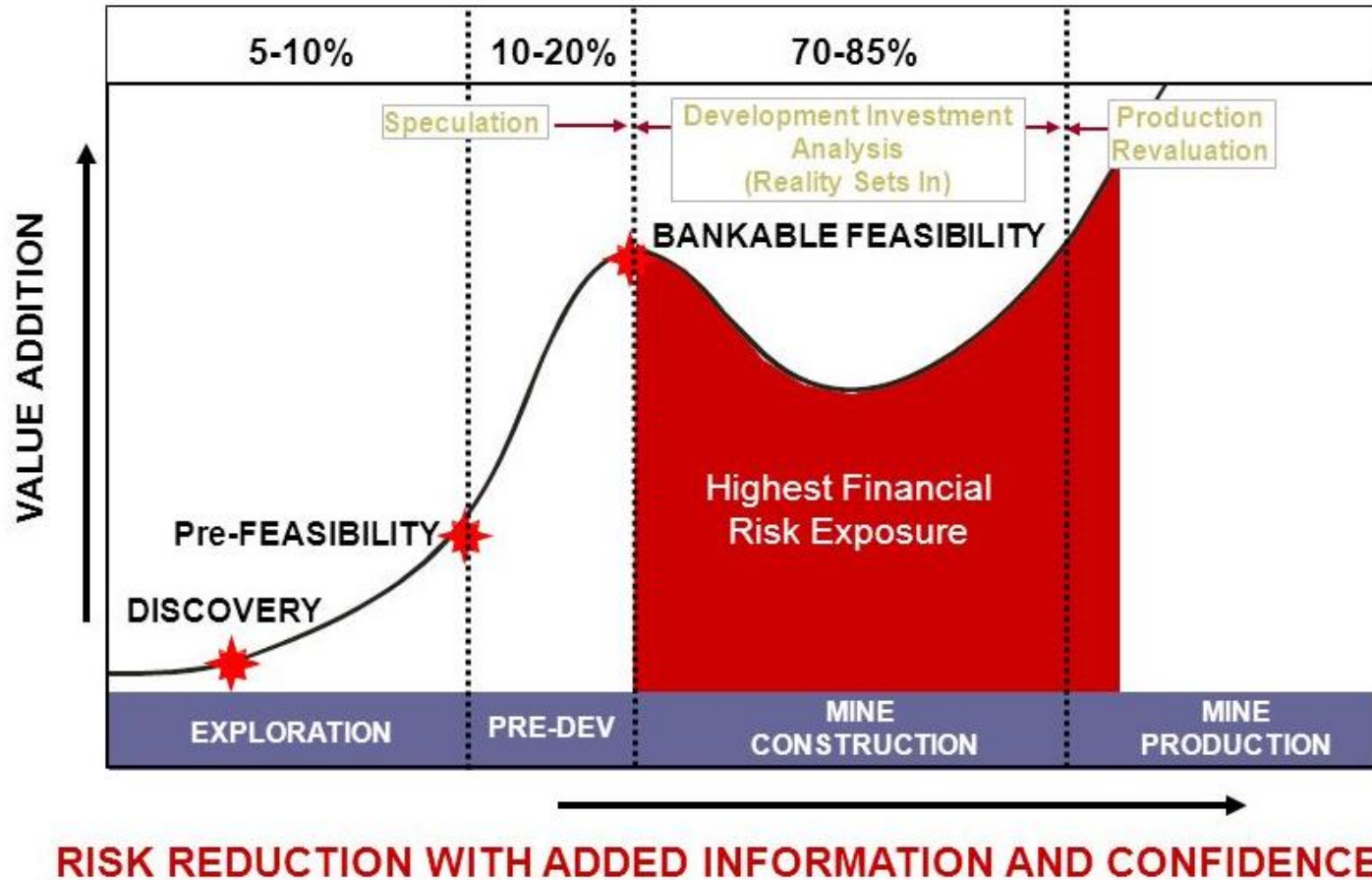


Figure 13: Investment Cycle in Mining Projects

Source: U.S Global Investors

Business Risks Facing Mining & Metals

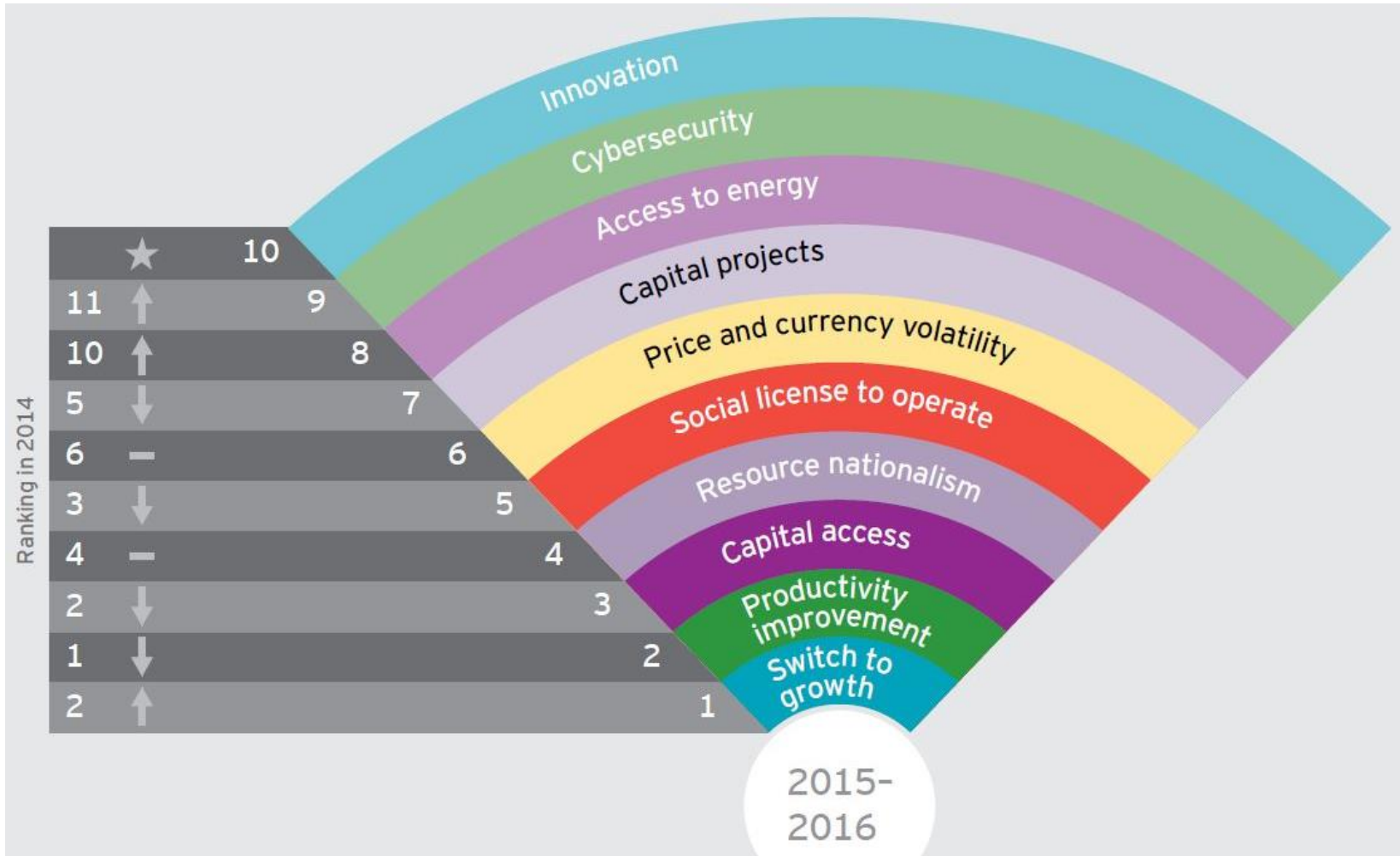


Figure 14: Business Risks Facing Mining and Metals

Source: EY Company

Chain of Mining Activities

Global Mining Activities are divided to 2 Main Stages: Exploration & Excavation/Processing

Exploration:
Commonly, small & medium scale companies may enter to this stage, and after reserve discovery, sell it to the bigger companies.

Extraction and Processing: Only bigger companies are qualified to enter to these stages due to high risk and long payback investment point.

Key Factors in Mining Investment

The following parameters to be considered for whomsoever wish to enter in mining investment:

1. Adequate Ore Deposit or Mine Life Cycle:
 - The best undeveloped deposit in the world class.
 - Grade & Tonnage (Quality & Quantity), Depth of Mining and Geology Parameters.
2. As much as the mining project is developed, numbers of investors interested to be increased due to reduce the mining risk, proportionately.

Key Factors in Mining Investment

Project maturity is attractive to investors

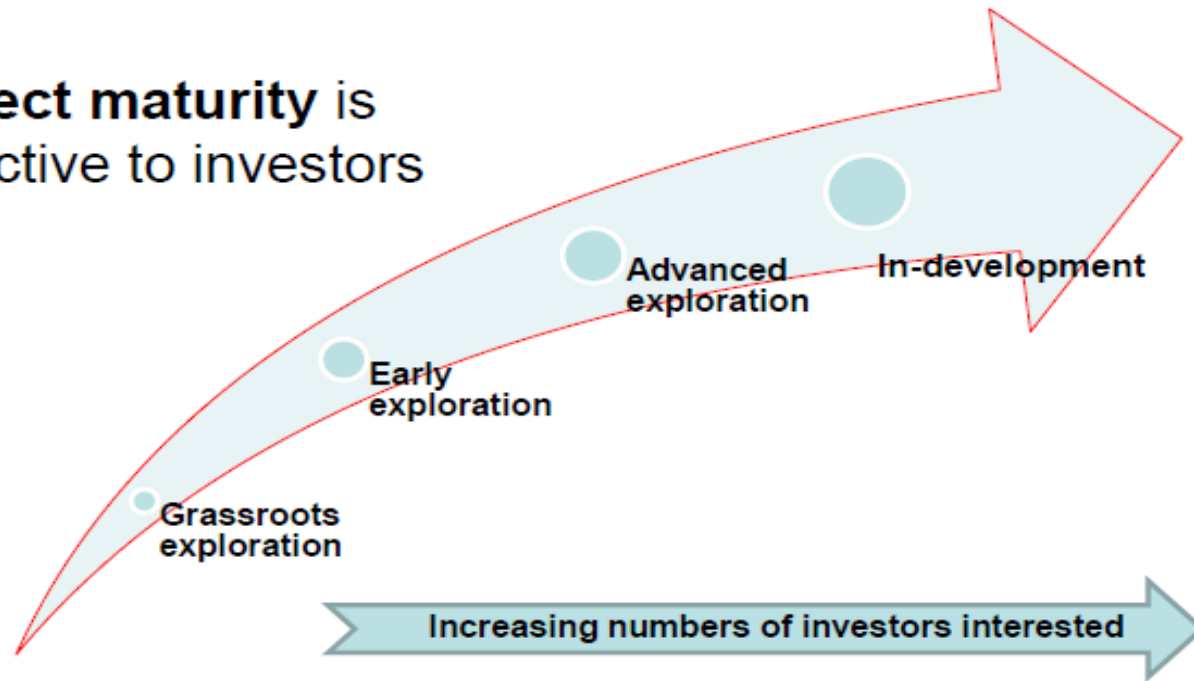


Figure 15: Relation between Mining Development and Investors

Key Factors in Mining Investment

Mining Potential consisting of appropriate policies to be presented to investors by the Government.

Mining Potential

- A framework for Mining Laws
- A framework for Executive Mining Regulations
- An average changes of Mining Royalty and Taxes in a period of 10 years

Preparing a well mining situation for investors to get advantage from that specific mining reserve in the country.

Preparing Mining Factors

- Operational Risk
- Security Risk
- Capital Transfer

Appropriate Business Environment increases FDI.

Business Environment

- Political Risk
- Rules Risk
- Economic Risk
- Devaluation Risk

Important Factors to effect on FDI in Mining

Geology Potential according to Market Demand	Absorption of Foreign Financing
Property Security (Land/State)	Approved Mining Law
The possibility of Money Transfer (Benefit) to Investor Country	Majority Shareholder
Mining Policy Stability in the Goal Country	The possibility of implementing Geological Assessments
The possibility of Management Supervision for erected Plants/Mills	License for Foreign Bank Account
Mining Ownership	Long term sustainability of the National System
Actual Currency Exchange Rate	Modern Mining Laws
The Stability in Mining & Exploration Laws	The possibility of implementing the Geological Surveys & Results
Tax Forecasting	Mining products potential for Domestic Market
Recognition of Environmental Obligations	Trading Policies (Export/Import)
Stable Fiscal Regime	Transfer of Ownership Right

Priority in Mining Investment

- In the 1st priority, all investors have to look after mining projects which meet domestic needs. However these projects have to had export potential too.
- Export oriented projects which their raw materials can be supplied locally.
- Export oriented projects which their raw materials can't be supplied domestically and need to import. However these projects have to meet local demands too.

Conclusions on Iran

- Iran with roughly 1% of the world's population holds more than 7% of the world's total mineral reserves.
- Mining in Iran is underdeveloped, yet the country is one of the most important mineral producers in the world.
- Iran is ranked among 15 major mineral-rich countries, holding 68 types of minerals.
- With 37 Billion Tons of proven reserves and more than 57 Billion Tons of potential reserves worth USD 700 Billion in 2015 (Source IMIDRO & McKinsey Global Institute) .

Conclusions on Iran

- Mineral production contributes only 0.6 per cent to the country's GDP. By add other mining-related industries, this figure increases to just 4 per cent.
- Ranking of Iran in Reserves of Minerals (Source IMIDRO & McKinsey Global Institute):
 - ✓ Zinc (World's Largest)
 - ✓ Copper (World's 7th Largest)
 - ✓ Iron (World's 9th Largest)
 - ✓ Uranium (World's 10th Largest)
 - ✓ Lead (World's 11th Largest)

Conclusions on Iran

- The government owns 90 per cent of all mines and related large industries in Iran and is seeking Foreign Investment for the development of the mining sector.
- The Iranian Government to meet its Vision Plan 2025 (Solar Calendar 1404) is planning to improve the country's mining sector by investing totally USD 51 Billion (USD 30 Billion for Steel Comprehensive Plan + USD 11 Billion for Aluminum Chain Development Plans + USD 10 Billion for Other Mining Projects) which to be absorbed by FDI mostly (Source IMIDRO & McKinsey Global Institute).
- Iran has great potential to promote export of minerals mainly value-added products.

Conclusions on Iran

- To improve the production and export of Iranian minerals a specific branding is a must.
- This brand to be simple and well-known and give good confident to all foreign buyers that the quality to be matched with the highest international standards.
- The best abbreviation to be used is **PMP** (Persian Mining Product). **PMP** to be accepted and confirmed by all countries worldwide.



Thank You



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