

2015 WHERE TO INVEST IN MINING

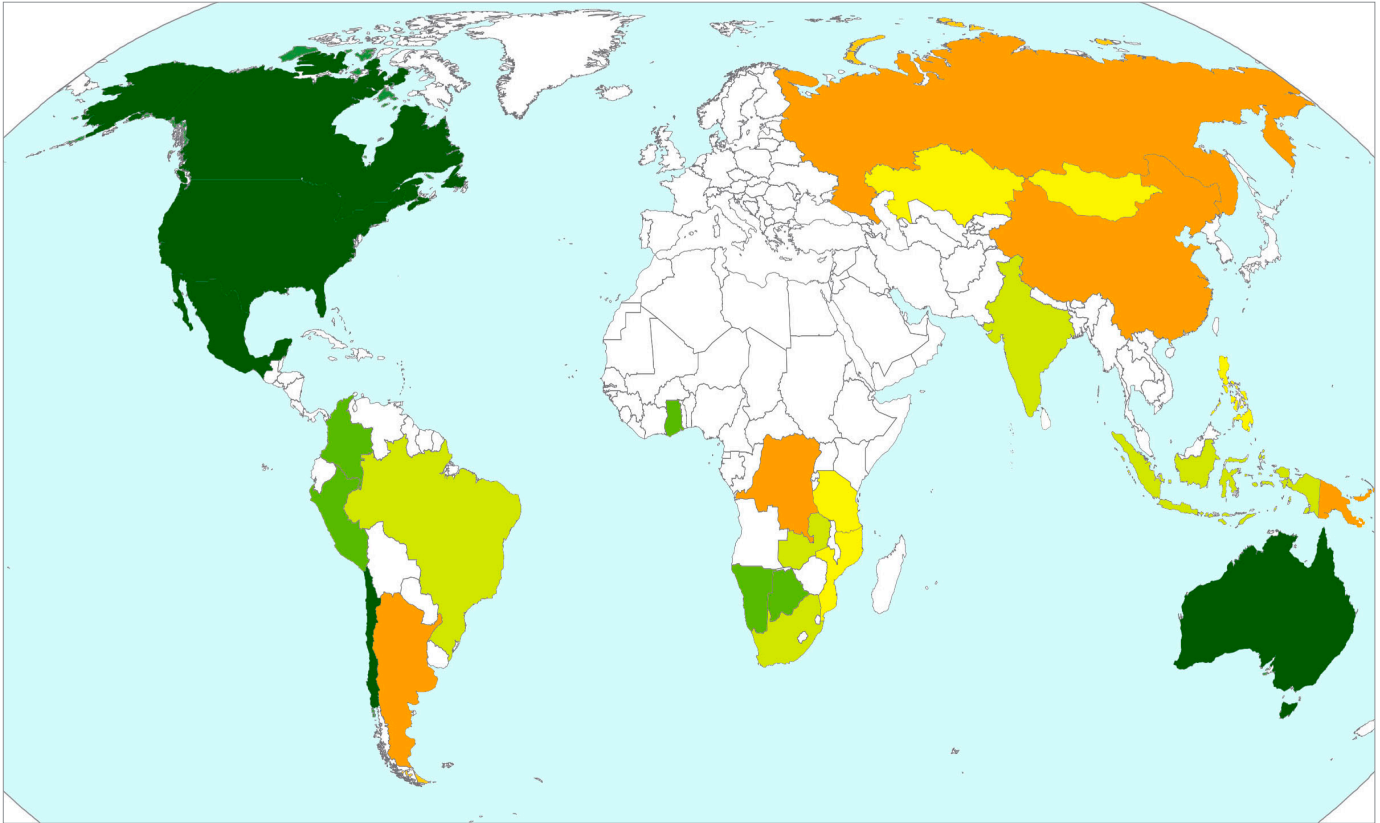
BD

BEHRE DOLBEAR

MINERALS INDUSTRY ADVISORS

WHERE TO INVEST 2015

RANKING OF COUNTRIES FOR MINING INVESTMENT



1	Canada	6	Peru	11	Brazil	16	Philippines	21	China
2	Australia	7	Namibia	12	Zambia	17	Mozambique	22	Argentina
3	United States	8	Botswana	13	South Africa	18	Kazakhstan	23	Russia
4	Chile	9	Colombia	14	India	19	Mongolia	24	Papua New Guinea
5	Mexico	10	Ghana	15	Indonesia	20	Tanzania	25	D.R. Congo

SINCE 1999, Behre Dolbear has annually compiled political-risk assessments in the global mining industry. Over time, our efforts have revealed a positive correlation between the growth of a nation's wealth and

the prosperity of its mining industry. We have observed that when a country recognizes its critical need to adapt and restructure burdensome policy, it begins to optimize its economic potential.

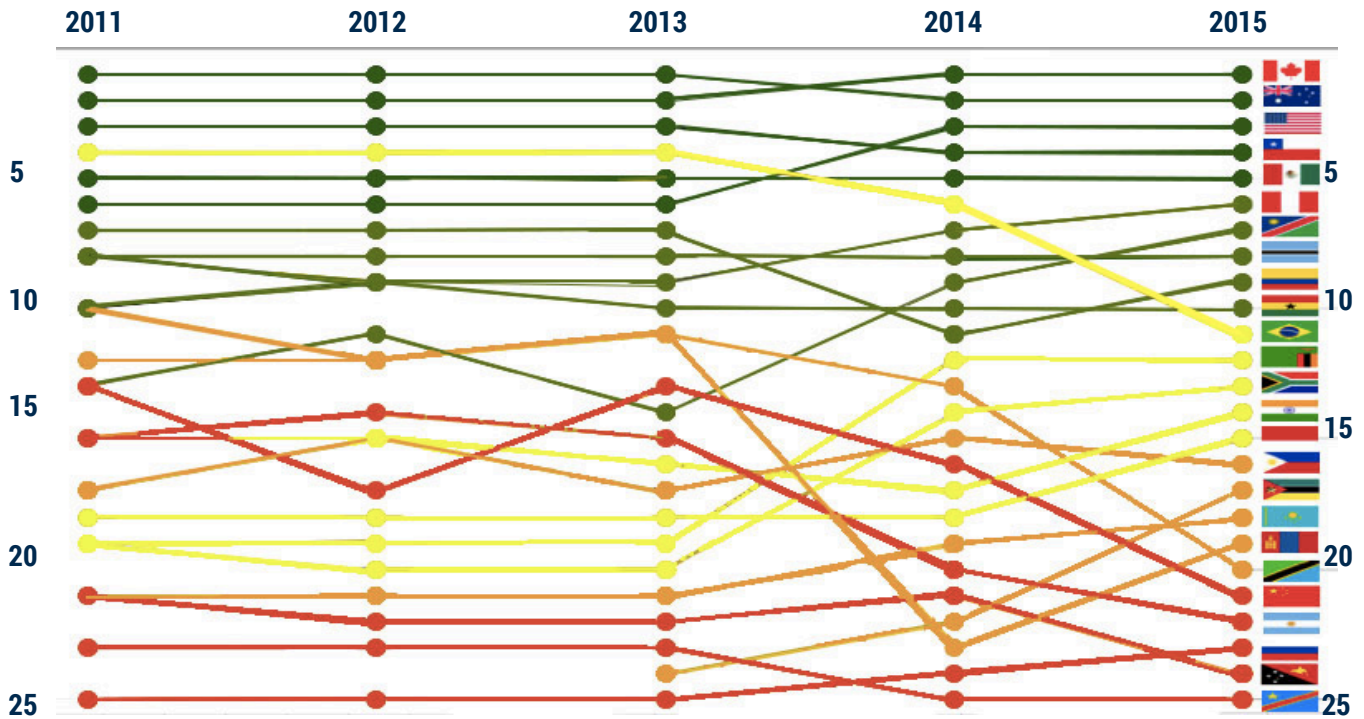
INVESTMENT RANKINGS



	2015	2014	2013	
1	Canada	Canada	Australia	1
2	Australia	Australia	Canada	2
3	United States	United States	Chile	3
4	Chile	Chile	Brazil	4
5	Mexico	Mexico	Mexico	5
6	Peru	Brazil	United States	6
7	Namibia	Peru	Colombia	7
8	Botswana	Botswana	Botswana	8
9	Colombia	Namibia	Peru	9
10	Ghana	Ghana	Ghana	10
11	Brazil	Colombia	Mongolia	11
12	Zambia	Zambia	Tanzania	12
13	South Africa	Tanzania	China	13
14	India	South Africa	Namibia	14
15	Indonesia	Philippines	Argentina	15
16	Philippines	China	India	16
17	Mozambique	India	Philippines	17
18	Kazakhstan	Indonesia	Indonesia	18
19	Mongolia	Kazakhstan	Zambia	19
20	Tanzania	Argentina	South Africa	20
21	China	Papua New Guinea	Kazakhstan	21
22	Argentina	Mozambique	Papua New Guinea	22
23	Russia	Mongolia	D.R. Congo	23
24	Papua New Guinea	Russia	Mozambique	24
25	D.R. Congo	D.R. Congo	Russia	25

WHERE TO INVEST

RANKING OF COUNTRIES FOR MINING INVESTMENT



RANKING CRITERIA

The 25 countries considered in this year's survey, as in the past, were ranked based on seven criteria. Each criterion was rated on a numeric scale that reflects the relative conditions that impact investment growth. A score was calculated from the collective results of all seven criteria; this led to our relative rankings. The lower the numerical ranking, the lower the risk.



Political System



Currency Stability



Permitting



Economic System



Social License Issues



Competitive Taxation



Corruption

CURRENT SITUATION



TODAY

it takes **10 years** to discover, define, and determine the feasibility of a project and an additional **6 years** or more until investors can expect returns from a greenfield mining construction project.

Markets have taken a volatile downward trend in recent months creating concern for host country governments and miners alike. Mineral prices have dropped over the last year. For example, iron ore and coal prices have fallen by half. The market correction has led to a sharp decline in foreign direct investment, forcing the governments of countries hosting new production to reassess their recent goals of extracting more benefit from the industry. There is now a realization that governments must be more accommodating to remain

competitive internationally. Lower export-related tax receipts are putting pressure on governments to adapt more austere budgetary measures. Today, it takes six years or more until investors can expect returns from a greenfield mining construction project. It typically takes ten years to discover, define, and determine the feasibility of a project. Long lead times heighten a project's overall risk profile, making it difficult for companies to achieve the level of return required to compete with alternative asset classes for investment. Mining companies are facing

difficult challenges adapting to softening markets as their margins are squeezed and they dispose of non-core assets to conserve cash.

Minerals markets continue to react to robust supply and moderating demand while also being negatively impacted in US Dollar terms by the relative strength of the currency. Political and economic stability concerns in China and within the Russian sphere of influence are leading to changing perceptions and expectations for future mineral demand.

INCREASINGLY, GOVERNMENTS ARE FOCUSING ON THE STRATEGIC SIGNIFICANCE OF NON-RENEWABLE RESOURCES...

The adverse impact that more restrictive U.S. monetary policy places on minerals prices (denominated in USD) adds to the current uncertain outlook. Nonetheless, supply disruptions are likely to buffer this negative price trend as the production risk-profile for maturing mines increases. Ever since the 2008 financial crisis, investment in exploration has declined as surviving firms consolidated. Industry merger and acquisition served to build the resource base of surviving firms. Economic stimulus fueled competition for assets inflating values until more restrictive monetary policy reversed this trend. We expect to see a prolonged market correction that will continue until supply concerns begin to influence markets. The post-stimulus



...Nonetheless, supply disruptions are likely to buffer the negative price trend...

recovery period might prove to be very taxing on the sector.

Governments of resource-rich countries continue to question foreign investment precedents, risking investor confidence given the increasing strategic significance of nonrenewable mineral resources. Behre Dolbear believes that a sustainable minerals industry requires a substantial amount of on-going, as well as, new capital investment. The opportunity cost incurred by countries that sought greater

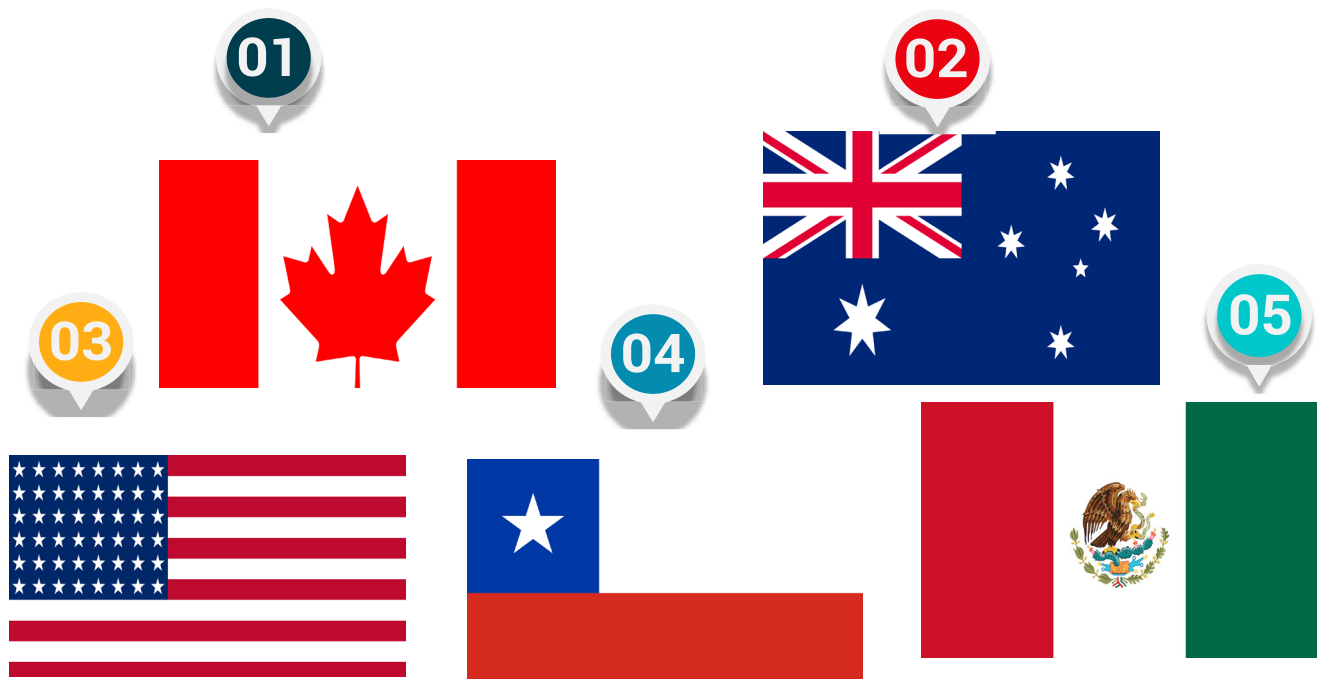
participation in the returns of internationally financed mining development grew throughout the commodity super cycle. This exacerbated political risk concern and limited investment demand. We believe that political stability is derived from personal freedom and quality of life. Political stability is essential to assure the availability of affordable mineral resources – a key requirement to improve the world's standard of living.



**EVEN WITHOUT IMPROVING DEMAND,
SUPPLY CONSTRAINTS WILL MATERIALIZE**
due to the lack of new discovery and the declining quality of maturing mine operations.

FAQ: Since 1907, Behre Dolbear has provided independent advisory services in the technical, financial, and managerial aspects of the mining industry. Our aim is to create sustainable value for clients while adhering to the highest ethical and professional standards. Our global reach, through the depth and diversity of our work, builds our perspective on the industry.

THE ENDURABLE TOP FIVE



CANADA AUSTRALIA UNITED STATES CHILE MEXICO

Reflecting on our past surveys, Canada, Australia, the United States, Chile, Mexico as well as a few others, share a common high ranking. These countries (with the exception of the U.S.) rise to the occasion as their mining sectors represent a relatively large component of their overall economies. They have long-dated mining histories and they have leading expertise within both the private and government sectors.

DIGGING DEEPER

2015
3

UNITED STATES

The U.S. is a bit of a paradox. Its experienced governmental and financial

sectors contribute to high investor confidence. However, the public's worry over environmental legacy, combined with the incremental concern that new production capacity represents, leads to an onerous permitting process that creates sufficient uncertainty to sometimes destroy the viability of new projects.

VOLITILE MID-TIER COUNTRIES This is a group of countries whose governments and mining policies are in transition, resulting in considerable volatility year to year.

2015
11

BRAZIL

Brazil, for example, fell from grace over the last three years as its

changing political climate led to investor uncertainty. Brazil's current permitting difficulty, political instability, and corruption has become a deterrent for mining. Political instability is manifested in Brazil due in part to the excess influence yielded by state agencies. National mining regulations often conflict with those of individual states, resulting in a difficult and sometimes corrupt permitting environment.

2015
14

INDIA

India's ranking has improved after the election of a moderate

president. In order to meet the needs of its fast growing economy and improve productivity, India has focused on expanding the private sector's role in mining by priority government-held concessions. The political and economic demands of India's growing population require regulatory reform to support its expanding role in global minerals trade.

*The Public's worry over **ENVIRONMENTAL LEGACY**, combined with new production capacity concerns, can destroy the viability of new projects.*

MID-TIER RANKINGS

2015
17

MOZAMBIQUE

Mozambique has been rising in the ranks due to greater political continuity, which has been a stabilizing factor in addressing the country's inadequate infrastructure. Changing markets have reversed the fortunes of increased direct foreign investment. Nonetheless, the government is doing a good job dealing with the impact that volatile commodity markets have had on the value of its mining concessions and production. There has been a lot of courage displayed by its coping with the drop of coal prices in particular.

2015
18

KAZAKHSTAN

Kazakhstan's economy, once dominated by the mining sector, is benefiting from recent reforms facilitating foreign investment in mining. The government is privatizing its holdings and supporting the growth of the private sector.



2015

19

MONGOLIA

Mongolia is recovering after a period of resource nationalism that drastically reduced its level of direct foreign investment. The government is working to better manage the country's mining sector on many fronts from taxation and permitting to security of title, thus helping to restore investor confidence.



2015

20

TANZANIA

Tanzanian social issues have adversely impacted investor confidence, as depicted by its rank depreciation over the last three years. Modern, mechanized operations compete with small-scale artisanal efforts while foreign investors have had difficulty with training locals to work in modern, industrial settings. Inadequate infrastructure also places notable limitations on the expansion of the sector. Frustration has manifested itself in violent incidents at foreign-owned mines, such as Bulyanhulu.

CHALLENGING INVESTMENTS

**AT THE MOST CHALLENGING END OF THE LIST LIE THE COUNTRIES
WITH AUTOCRATIC AND COMMUNIST GOVERNMENTS**



2015
21

CHINA

China remains a difficult consideration as its domestic mining sector is essentially closed to foreign mining investment. However, China's drive to secure supply by acquiring mineral assets offshore has led to both success and failure as measured by international standards. In certain cases, asset overvaluation has been attributed to China's increasing presence in the markets. Nonetheless, growing mineral demand, tied to China's emerging economy, can be expected to continue to underscore market trends and impact investor confidence throughout the sector. A relative lack of transparency contributes to market uncertainty and lower returns.



2015
22

ARGENTINA

Argentina continues to disappoint foreign investors. The Argentinian national government's fiscal budget crisis has had a costly impact on its currency, politics, and international standing, which has led to a complete loss of investor confidence. Therefore, as a result of the national budget crisis, some provinces demonstrate greater discipline and keep the door open for the future.



2015
23

RUSSIA

Russia remains low in the ranking; however, many Russian firms with domestic operations have tapped into foreign sources of capital. These firms are seeking greater transparency and are adapting international standards to improve their access to international markets. While this is positive, Russia's overall standing is penalized by its on-going lack of international accountability.

2014 RETROSPECTION

Low investor confidence has interrupted mineral exploration and development.



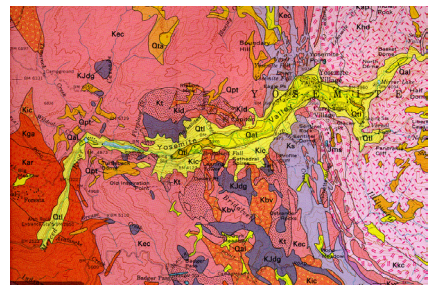
Participants in the mining sector are becoming disheartened by the severity and the length of the economic downturn. As we pull this report together, mineral commodity prices continue to move downward. There are many contributing factors leading to the negative market sentiment. We sense that the markets continue to recover from the general loss of government stimulus following the 2008 financial crisis. Government intervention helped promote high commodity prices, high asset values, and fostered new supply capacity. As tighter U.S. monetary policy is changing U.S. market sentiments, moderating Chinese economic growth is adversely impacting the global economy.

Low investor confidence has interrupted mineral exploration and development. In particular, junior companies have not had access to funding, while large firms have adapted austere budgets that aim to lower operating costs. Ultimately, even without markedly improving demand, supply constraints will materialize due to the lack of new discovery and the declining quality of maturing mine operations.

Governments are taking a more strategic view on mineral resource ownership, not just regulation. The relative lack of experience in managing a capital intensive mining industry risks future supply.

The best solutions for our clients

Our associates bring practical knowledge to the market with first-hand planning, operating, and management experience.



Behre Dolbear is committed to improving the sustainability of the world's resource sector through expertise, experience, innovation, and excellence.

MARKET REVIEW

China's drive to secure supply by acquiring mineral assets offshore has led to both success and failure as measured by international standards. In certain cases, asset overvaluation has been attributed to China's increasing presence in the markets.



Richly Endowed North America

North America's well-defined mineral endowment, existing infrastructure, and human capital resources allow it preferential access to capital. Regulatory hurdles can serve to limit mineral development and create greater dependence on foreign production.



Eyes on Central & South America

In Central and South America, select countries with established mining industries are receiving increasing international interest as growing consumers, such as China, have had mixed success working in frontier settings. Countries that sought to increase mineral taxes and impose other restrictions on mining operators are finding that these policies are now limiting growth and resulting in drastically lower government receipts.



Middle East Seeks Balance

The Middle East region continues to see growth in mining as the region's nations look to diversify their economies. Abundant petroleum will continue to promote energy intensive industries, such as fertilizer, aluminum, and steel. In turn, these sectors consume construction materials, aggregates, and ferro-alloys.



Infrastructure in Africa

African countries that have remained stable from addressing corruption and social issues have benefited from increased investment in infrastructure and mineral production. More money from mineral development is going into infrastructure, social services, and better governance. In sub-Saharan and West Africa, mineral deposits continue to attract interest from a variety of large and small listed public mining companies and private capital providers such as private equity funds, state-owned enterprises, and sovereign wealth funds. Sub-Saharan Africa continues to be relatively stable by avoiding despotic or totalitarian regimes, with the exception of Zimbabwe. South Africa is proving challenging for investors as infrastructure constraints grow amidst increasing political uncertainty.



Australasia Reliance on China

The mining sectors of both Asia and Australia have become overly dependent on Chinese investment. The new assertive Chinese regime scrutinized and audited many SOEs, which lead indecisive management to table many discussions. While China's heightened interest was initially welcomed throughout the region, it has come under increasing concern sometimes resulting in foreign ownership and export restrictions.

CONCLUDING REMARKS

Investment returns are heavily influenced by political risk. A lower risk profile invariably attracts preferential investment and is key to sustaining operations in this capital-intensive sector.

Moderating mineral consumption, on the back of declining government stimulus, has led to lower trading ranges for most minerals. Producers have re-evaluated capital project pipelines, re-valued assets under lengthened development time frames, increased capital budgets, and lower market-price expectations. While exploration activity slowed considerably, non-traditional investors stepped up to play larger roles in financing mineral development and production. Governments, multilateral and export credit agencies, sovereign wealth funds, private equity, trading companies and off-takers supported new, albeit limited investment as traditional lenders and equity markets took a back seat in providing financing. The supply and demand fundamentals for key minerals remain relatively strong due to

As economies rebound, we will revisit a ramp-up of commodity prices.

supply constraints highlighted by declining resource quality and falling rates of new productive capacity. Increasing competition for mineral resources favors investment in

countries perceived to have the lowest political risk. Investment returns are heavily influenced by political risk and a lower risk profile which invariably attracts preferential investment and is key to sustaining operations in this capital-intensive sector.

Long-term minerals market fundamentals remain strong, driven by demographic trends resulting from population growth and the growing political expectation that wealth should be more equitably distributed. As economies rebound, we will revisit a ramp-up of commodity prices.



Behre Dolbear wishes to recognize interns, Alyssa Lindsay Hom and Jessica Davey, for their help in researching, writing, and editing this report.

BD

BEHRE DOLBEAR

MINERALS INDUSTRY ADVISORS

6430 S Fiddler's Green Circle Phone +1 303.620.0020
Suite 250 inquiry@dolbear.com
Denver, CO 80111 www.dolbear.com

