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gold mining
THE WORLD'S CHEAPEST JURISDICTIONS

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When it comes to the selection of investment targets which factors are uppermost in the minds of potential investors?

Naturally, the top consideration is the overall quality of the asset where the right combination of cost-efficient mining methods and mineral processing technologies will generate the greatest profit and return on investment.

However, growing resource nationalism around the globe has pushed the location of assets near the top, and sometimes as the number one factor, when assessing investment potential.

Potential investors should scrutinize a range of important jurisdictional factors which are not directly related to the quality of the asset itself.

This list includes but are not limited to: protection of investments and repatriation of funds, the local legal system, taxation, regulations and policies, the quality of infrastructure, cost of social license to operate, physical security, overall predictability and stability of local governments, and many other factors.

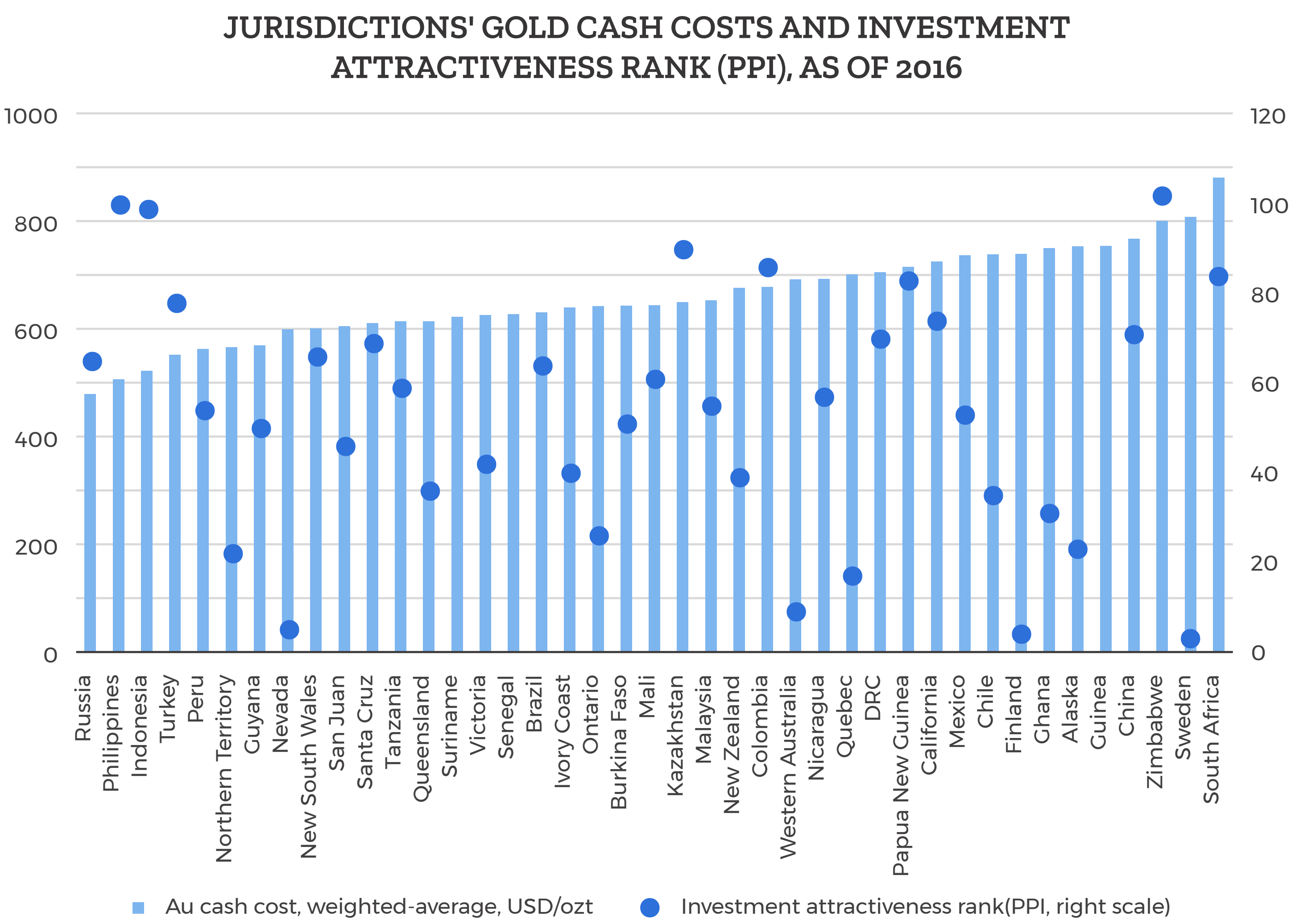
It may have become something of a cliché in the industry that the best quality mining assets are located in higher-risk jurisdictions, and vice versa. But is there any truth to this view? This report aims to shed the light on this issue, and gold – the favoured investment commodity around the globe – has been selected as the target metal.

First, let's isolate the quality of an asset from jurisdictional variables. To do this, weighted-average cash costs for gold mining operations across jurisdictions have been calculated, with weights assigned to gold production volumes. Then, selected jurisdictions were ranked from the lowest- to highest-costs environments.

Why cash costs? Because production cash costs are the main indicator of the quality of existing mining operations, and have been the dominant measure of gold-mining cost structures for a long time. Cash costs are actual costs to mine each ounce and allow analysts and prospective investors to focus on the mining asset itself as well as operating decisions management makes, while excluding the impacts of non-direct factors and non-operating decisions like interest expenses, depreciation and amortization, tax rates and other jurisdictional factors.

The ranking excludes gold operations where cash costs were reported only on a by-product basis (where through some clever accounting, gold can be mined at negative costs). The ranking is based on annual costs for 2016. To bolster the validity of the data, only jurisdictions where cash costs for at least two gold mining operations reported by owners/operators, have been included into the ranking.

Secondly, jurisdictional factors are taken into account. The best way to do it is to use the closely-followed Fraser Institute's Annual Survey of Mining Countries that provides an overall Investment Attractiveness Index based on the Policy Perception Index and the Best Practices Mineral Potential Index. For the purposes of this research, the Policy Perception Index (PPI) has been used alone in investment attractiveness ranking, because it provides a comprehensive assessment of the attractiveness of mining policies in a jurisdiction and reflects essential policy factors such as onerous regulations, taxation levels, the quality of infrastructure, and the other policy related issues. Overall, 104 jurisdictions were analyzed in this survey. All figures are in US dollar and troy ounces.



More than 280 gold mining operations throughout the world have been analyzed to develop this ranking. All gold production and cash costs data are based on companies' reports and retrieved from www.miningintelligence.com.

1 Russia $479/oz

Under assumptions set out above, Russia has the world's lowest weighted-average cash costs across local gold operations at $480/oz in 2016. This is hardly a surprise, keeping in mind that five out of the Top 10 lowest cost gold mines are located in Russia. Polyus Gold, Russia's number one gold mining company, is also the lowest cost gold producer among the global Top 10. Russia is the third largest gold producing country in the world and boasts both high-grade and high-tonnage gold deposits.

Russian rouble devaluation continues to support the local gold mines cost profiles. On the other hand, Russia has unfavourable 65th investment attractiveness rank. Increased tendency to resource nationalism, de-privatization processes and recently imposed Western sanctions make potential investors highly cautious when they consider investment in Russia's mining sector.

2 Philippines $506/oz

With weighted-average gold cash costs of $506/oz Philippines is the second lowest cost gold jurisdiction in 2016. However, country's extremely unfavourable 100th investment attractiveness rank (out of 104 jurisdictions) will likely to deteriorate even further in 2017. The Philippines toughened up its already hard-core stance on mining by banning in April of this year open-pit mining in the country ostensibly to reduce the environmental damage caused by the industry.

The current ban on open pit mining only affects projects, not mines currently in operations. Nevertheless, should the ban stay in force it threatens major planned mines including Philex Mining's $2bn Silangan copper-gold project in Surigao del Norte and Sagittarius Mines's $5.9bn Tampakan gold-copper project in South Cotabato, which has the potential to become the Philippines' biggest foreign investment. Lack of physical security is also a major concern for foreign companies investing in Philippines.

3 Indonesia

$522/oz

Indonesia is third among lowest cost gold jurisdictions and home to the iconic Grasberg copper-gold operation, as well as a number of other notable gold producing centers, including copper-gold Batu Hijau and gold-silver Gosowong mines.

Requirement to process ore in-country and to divest 50% of projects within 10 years of commencement of operation is a major deterrent to foreign investment in Indonesia. As such, Indonesia has one of the worst - 99th - investment attractiveness rank in the world.

US-based Freeport-McMoRan recently agreed to give up majority ownership in Grasberg to the state, increase payouts to Indonesia, build a smelter and to invest up to $20 billion in the mine by 2031. Arrangements like these are unlikely to add to the investment attractiveness of the Asian nation in future.

4 Turkey

$552/oz

Turkey is a home to large gold deposits amenable to low-cost mining and processing methods. Tethyan Mineral Belt that crosses Turkey from west to east is historically under-explored and has excellent mineral potential that attracts many international gold players into this region.

On the other hand, investors express greater concern over political stability in Turkey, uncertainty concerning the administration, interpretation, or enforcement of existing regulations, and the taxation regime. These are reasons Turkey ranks 78th in the world's investment attractiveness ranking.

5 Peru

$563/ozt

Peru is the fifth lowest cost gold jurisdiction and is well known for large-scale prime gold deposits, such as Yanacocha and Lagunas Norte.

Peru ranks 54th for investment attractiveness and investors in Peru's mining sector have serious concerns over an environment where where local governments do not enforce established access agreements or deal with mine disruptions and protests.

6 Northern Territory

$566/oz

Australia's Northern Territory has a long and unbroken history of gold mining, from three main goldfields – Pine Creek, Tennant Creek and the Tanami. Significant undeveloped gold resources occur in all three metallogenic districts. The flagship local gold mine is Newmont's Tanami operations, where expansion project is ongoing. Northern Territory sits at number 22 in terms of investment attractiveness and continues to be a sought-after location to invest in mining industry and so is Australia as a whole.

7 Guyana

$569/oz

Guyana is an emerging gold mining jurisdiction and contains one of the most highly prospective and under-explored gold districts in the world. The greenstone belt of the Guiana Shield is a home to various multi-million ounce gold deposits. It has a long history of alluvial gold production, but only recently declared itself open to foreign investment and mineral exploration after enacting the Land Tenure Act in 2004.

Guyana is a stable British common law based democracy, and part of the British Commonwealth.

Guiana's still unfavourable 50th investment attractiveness rank achieved in 2016 shows an impressive improvement compared to its 67th place in 2015.

8 Nevada

$599/oz

Nevada is the eighth lowest cost gold producing region in the world. The US state would also rank as the top gold jurisdiction in the world in terms of gold output at a sub-sovereign country level. Nevada is home to such gold behemoths as Barrick's Goldstrike and Cortez mines, as well as Newmont's Carlin Trend and Twin Creeks operations. Nevada is one of the most investors' friendly jurisdictions in the world and boasted the 5th investment attractiveness ranking in 2016.

To wrap up briefly, the following observations can be made:

Out of top 10 lowest gold production costs jurisdictions only one – Nevada – sits in the list of the top 10 investor's friendly jurisdictions, while majority of cheapest gold producing jurisdictions are investors' unfriendly ones

Nevada's weighted-average gold cash costs are just 15% higher than Indonesia's cash costs, but there is a wide gap in investment attractiveness. Nevada ranks fifth while Indonesia only just makes the ranking of the top 100 jurisdictions.

That begs the question whether a wise investor would select a safe jurisdiction as an investment target over an unsafe one with only slightly lower gold production costs. Keep in mind that production costs are manageable to a certain extent, but the majority of jurisdictional risks are out of management's control, hardly predictable even within a short-term planning horizon and can have devastating consequences for the business.