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## **Increasing USA Dependence on Foreign Sources of Metals and Minerals**

S&P Global Market Intelligence has the world's largest database of exploration and mining activity. In addition to this comprehensive database, which covers some 30,000 projects and 3,000 mining companies, the Metals & Mining division offers a news service and consulting business on the extractive sector.

We previously conducted an independent study to quantify the impact of permitting delays on mine development in the USA. The report demonstrated, empirically, the destruction of value that results from increases in project risk, particularly delays in the permitting process. For example, the Kensington gold mine in Alaska was plagued by permitting issues during development, and commenced production in 2010, fully 17 years after the originally planned start date. Similarly, the Rosemont copper project in Arizona has still not secured its mining permit seven years after the originally mooted commencement of production in 2010.

New mines can typically lose over one-third of their economic value as a result of even relatively small delays in reaching production. Extended delays can render the investment unviable for less robust ventures. In such circumstances, even apparently large mineral deposits can become uneconomic to mine.

Mining is a business where certainty is important as building mines is a capital-intensive process. Uncertainties do exist as geology and mineral endowment are extremely difficult to assess accurately in advance. Also, and more than for most other sectors, mining companies are subject to the vagaries of global markets – they are generally price 'takers' rather than being able to enjoy the benefit of setting prices. Because of this extra risk, the industry requires financial returns in excess of most other business sectors. As such, the industry looks to the business climate of potential investment nations to help minimize project risks.

The USA offers some key advantages to miners, such as a stable political and economic environment. However, most countries with comparable mineral resources offer a much more certain permitting process. Like companies in all industries the world over, mining executives simply seek certainty in the legal and fiscal processes that they face. Miners have enough uncertainty in their hunt for resources without the extra burden of over-complicated, or unclear, routes to development once a mineable resource has been identified.

It takes on average seven to ten years to secure the permits needed for mines to reach production in the USA. In contrast, Canada and Australia (countries with similarly rich natural resources and equally stringent environmental regulations), have average permitting periods of barely two years. In the USA, multiple agencies and stakeholders are involved, with a requirement for multiple permits and rather undefined roles for indigenous groups, the general public and nongovernmental organizations. This necessary process is much better defined in Canada and Australia, with a shorter timeline for the various agencies to respond, and the responsibility for preparing a stringent environmental review lies with the mining company, not the government.

S&P Global Market Intelligence's latest annual Corporate Exploration Strategies report identified almost 1,600 companies that had spent at least US\$100,000 on exploration for minerals last year. The total amount spent by these companies in 2016 fell 21% from the previous year to US\$6.9 billion, which is barely one-third of the amount spent on exploration in 2012 after four years of falling expenditure. In the USA, exploration investment dropped by 30% in 2016. The total amount spent globally on non-ferrous exploration last year was an estimated US\$7.2 billion.

Of the global total, only US\$500 million was spent on exploration last year in the USA, compared with US\$897 million in Australia and US\$971 million in Canada (14% of the global total). The USA exploration expenditure has averaged 7% to 8% of the global total in recent years, and the amount has fallen from the record US\$1.7 billion spent on exploration locally in 2012.

Our independent research has previously established why a healthy exploration and mining sector is important for the USA economy. There is a clear mismatch between the country's mineral consumption and the local supply of these metals and minerals. The USA still boasts the world's largest economy and, according to the Minerals Education Coalition, each citizen born last year is expected to consume almost 3.13 Mlb of metals and minerals over their lifetime.

Despite a decline in work on infrastructure in the USA over the past decade, this per capita consumption by today's Americans still includes nearly 21,300 lb of iron ore and 950 lb of copper over their lifetime. This is far in excess of the consumption of metals and minerals by the citizens of every other country. In contrast, the USA ranks as only the seventh largest mining nation by value of its production.

Another key finding of S&P Global Market Intelligence's earlier research was that manufacturing activity was returning to the USA, driven by manufacturers' desire to reduce the risks in their supply chains and of consumers' increasing concerns regarding corporate accountability. Consumers want to see evidence of sustainable production processes, the use of recycled materials and of sound environmental practice. We found that, relative to their global peers, USA miners are highly efficient, and generally apply best practices with regard to productivity, sustainability and safety.

The USA remains highly prospective, from a geological point of view, with abundant mineral resources that are of high quality. Unfortunately, the country's duplicative, inefficient and uncertain permitting system presents a formidable barrier to American companies' ability to deliver on their skills and access to local minerals. This has left the USA unnecessarily dependent on local mines whose remaining life is declining, or on foreign sources of metals and mineral resources.

The solution is relatively simple. The USA has abundant resources of metals and minerals, and it has the companies and people with the skill to extract these natural resources efficiently and cleanly. Rigorous permitting will always be required to ensure appropriate exploitation of a nation's wealth, and to monitor the application of best practice. What the country, and its mining industry, needs is to adopt those more streamlined permitting processes that are already being applied by the world's leading mining nations.