Tungsten: A National Security Issue?

The little known metal Tungsten (chemical symbol W), has slowly been making its way to the forefront of the ‘strategic metals’ discussion, perhaps not in North America, but most certainly in China and other Asian countries. The importance of this is that China produces roughly 85% of the world’s Tungsten, and has recently begun to restrict foreign access to the Tungsten it produces. The increase in export taxes on Tungsten by the Chinese Government has made it much less attractive for producers of Tungsten in China to export their production. This measure was deemed necessary since production is just barely meeting demand as the rapidly growing Chinese economy consumes large amounts of materials that can only be produced by using Tungsten as a component. China has also recently imposed foreign investment restrictions in the mining industry that bars foreigners from investing in non-renewable mineral resources, such as Tungsten and Molybdenum. Companies seeking to enter into Joint Ventures with Chinese firms for exploration, production or processing capacity can no longer do so. Together, these two measures severely limit outside access to China’s 85% of global Tungsten production.

Global Tungsten Mine Production by Country (2005)

So, what types of problems does this present for the rest of the world, particularly for the United States? Well, since Tungsten is used in specific steel manufacturing including jet engine manufacture, tank construction and high temperature resistant alloys, and in most applications is not substitutable, it is in fact a strategic metal that a developed economy such as the US cannot operate without. To exacerbate the problem, the US has zero primary Tungsten production, and so is heavily dependent on foreign imports of Tungsten. Observing the current American attitude towards national security and the control of strategic assets such as oil, it is clear that sooner or later the US will most likely declare Tungsten a strategic asset and deem it vital for the country’s national security. Based on the already precarious nature of the supply side of Tungsten economics, such a measure would surely send the price of Tungsten ‘through the roof’, as the US would need to secure Tungsten from the 15%
global production that occurs outside of China (or structure a Tungsten import deal with the Chinese at much higher than current market prices).

When we look at the supply and demand numbers for tungsten over the next few years, a drastic supply deficit emerges. If we assume a growth rate in demand for Tungsten of 10% per year for China, and 4% per year for the rest of the world, the supply deficit grows from 4,791 tonnes, or 9% of annual production in 2005, to 17,416 tonnes, or 27% of annual production in 2010. If the world were to require 27% more tungsten than it produces, there is significant upward pressure on the price of Tungsten, with companies and even countries that require the metal for strategic manufacturing, willing to pay elevated prices at potentially several multiples of today’s price.

![Playfair Mining Supply/Demand Scenario](image)

All these factors point to the key fact that this data has not been incorporated into the current market price for Tungsten, and that when it does, those companies with high quality Tungsten deposits outside of China stand to be handsomely rewarded. As China continues to hoard national production for its own growth, those outside of China who really need the metal (ie. Governments and multi-nationals in the US and Europe) will be looking for production to meet their manufacturing needs.

This situation presents a blaring opportunity for Tungsten exploration companies outside of China to take advantage of the upcoming global Tungsten shortage. **Playfair Mining Ltd (TSX.V - PLY)** has four high grade Tungsten deposits, and an exciting blue sky exploration property all in Canada. Playfair is positioning itself with a pipeline of projects ranging from grassroots exploration to near term production. The price economics of Tungsten are favourable, and the metal’s price is poised to make a move past all time highs. The benefit of investing in Playfair over other Tungsten exploration companies is that Playfair is uniquely situated in all stages of the exploration pipeline, and offers shareholders an all-in-one Tungsten exploration company.