

# Mining Investment Climate in the CIS

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*The next stage of gold mining consolidation in CIS countries will likely take the form of alliances with foreign companies that are favourable for both parties – foreign stakeholders will get access to reserves and local companies will gain in experience. Given the wealth of professional and mineral resources, long mining history and future mine lives within CIS countries, the former Soviet Union has the potential to become a new world centre for the financing of gold mining. However, overcoming the legacy of the Soviet regulatory system will take time.*

## History

Commercial gold mining has always been an important activity in the area known as the former Soviet Union. Although there are numerous examples of historical precious metals mining within this vast land, it was only about 300 years ago that mining began to develop and concentrate in those areas that are considered today to be the gold mining centres of Russia and the other CIS countries. The first regular operation was established at Nerchinsk silver mines in the Trans-Baikal region, producing not only silver but also gold from a hardrock deposit. In the late 18th century, it was joined by gold mines in the Urals and in the early 19th century, placer gold deposits in the Urals, the Yenisei range, the Lena river basin, the Amur and the Khabarovsk regions. By the end of the 19th century, gold mining in these areas was significant and expanding at a steady rate.



At the turn of the 20th century, economic operations were bolstered by new technology: flotation and amalgamation followed by cyanidation and processing plants equipped with steam engines. Local small-scale producers began to transform into commercial concerns. However, the Russian Revolution of 1917 and the Russian Civil War prevented them from progressing for the next decade. It was not until the late 1920s and early 1930s that the new authorities began to pay attention to a revival of gold mining, primarily by encouraging redevelopment of alluvial mines in the former mining centres and by actively trying to develop the industry in new areas such as Siberia.

The economic pressures of World War II drove significant development of gold mining in the eastern areas of the country. During the war, progress took place in Kazakhstan, Uzbekistan and Tajikistan, as well as after the war, in the other republics such as Georgia, Armenia and Kyrgyzstan. The late 1950s and early 1960s are characterised as one of the first peaks in intensive growth of gold mining



Doré bars at GV Gold, the first commercial hardrock gold mine in Irkutsk, Siberia.

A Russian 250t bucketladder dredge and 6m<sup>3</sup> walking dragline, waiting for the season to restart in -50°C mist at Kolyma.

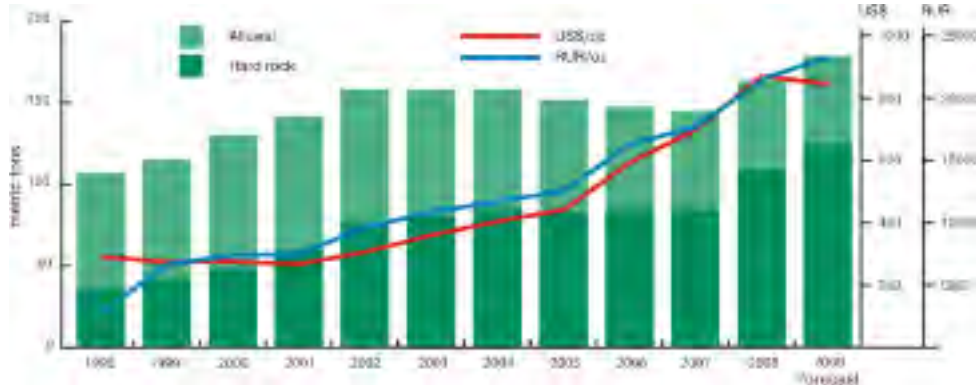
in the USSR: a great number of new hardrock operations were launched at that time together with re-equipped alluvial mines. The second peak in the Soviet period took place in the late 1970s and 1980s: new mines became operational all over the country, from Ukraine and Transcaucasian republics to the Far East and Chukotka.

After the collapse of the Soviet Union, gold mining in many former Soviet republics declined, as new financing schemes took time to emerge. While the local industry lacked initiative and means, foreign companies that had heard about plentiful treasures behind the iron curtain swept in. Numerous joint ventures were established with Canadian, American, South African and Australian companies throughout the territory – from Transcaucasia and the middle Asian republics to Russia itself. Some of those joint ventures were only briefly successful; some are still in business. Nevertheless, many of these companies sharply reduced their activities in the financial crisis of 1998, ceding the initiative to either local or junior companies.

## Current Situation

The years of 1997-1998 were a low point for gold production in most ex-Soviet republics. Russia was no exception, producing about 120 tonnes of gold at that time. Of this, a little over 100 tonnes was from primary sources, the rest was a by-product of copper and nickel operations and from scrap. During that period, about 80% of Russia's primary gold

Figure 1: Alluvial and hardrock gold mining in Russia from 1998–2009



Alluvial gold – still a significant proportion of Russian annual gold output. Khabarovsk region.

output came from placer mines following the early Soviet structure of gold mining.

However, at the turn of the 21st century, the pattern began to change, as the balance shifted towards lode gold mining. It is worth mentioning that this shift concerns an increase in the percentage of hardrock mining rather than a reduction of placer gold, as Russia’s placer potential is still far from depleted. Its vast reserves can sustain the current scale of placer mining for many years to come, although seasonal weather conditions can cause short-term fluctuations (see details on figure 1).

Other former USSR countries did not possess such favourable geology. Even in the Soviet years, the richest placer areas in Kazakhstan and Tajikistan were small compared with those in Russia.

Russian placer mining has always been characterised by the seasonal nature of placer gold operations, their location in extremely remote regions and the relatively small

reserves of individual mines. Although they boost overall gold production, they are not beneficial for the long-term development of economic gold mines. Consequently, as far back as the Soviet period, active and purposeful efforts have been undertaken to explore lode deposits, near placer centres if possible, and to construct large year-round gold mining operations based on such lode gold reserves. During the Soviet period, only a few projects of this kind were fully developed. Nevertheless, the reserves and resources identified at that time still remain the base for development of new and existing mines.

Many of the Soviet mines are still in operation today (see figure 2), with varied success. For example:

- Aldanzoloto in southern Yakutia (now part of Polyus Gold) produced 12 tonnes/year of gold at best during Soviet times (six tonnes from placers and six tonnes from the Kuranakh ore field);

- Soviety mine, which originally started operation at the Sovetskoe deposit and was the first to mine gold ore at the now famous Olympiada deposit in the Krasnoyarsk region;
- Baleizoloto in Transbaikalia, which used to mine the Taseevskoe lode gold deposit over a long period;
- Karamken mine (closed in the 1990s) at a lode gold deposit of the same name in the Magadan region, which maintained its status as the largest mine through its entire life in that extremely abundant gold area;
- A series of other smaller producers not well known outside the region.

Two well-known mines in the Urals were radically modernised and developed in the Soviet period. Regular economic mining has continued for over 250 years at Berezovskoe mine on a lode gold deposit of the same name in the Sverdlovsk region. Yuzhuralzoloto Group began mining ore at the Kochkar gold deposit in the Chelyabinsk region and, in the

Figure 2: Gold mining projects in Russia and the CIS



late 1990s, began its operation at the Svetlinskoe deposit. In the early 1990s, a joint venture was established with RTZ (now Rio Tinto), and since then, it has expanded its assets with a series of projects in the Krasnoyarsk region, Khakassia and Transbaikalia.

The Muruntau mine in Uzbekistan is the largest gold operation in the former Soviet Union, producing 50 tonnes of gold per year. In addition to Muruntau, for almost 20 years, a joint venture comprised of Navoi Mining (the Uzbekistan state company holding the property) and Newmont Mining has been producing up to 17 tonnes of gold from its mine dump with heap leaching.

A further two large-scale joint ventures were launched in the mid 1990s: Kumtor with state-owned Kyrgyzaltyn and Cameco (now Centerra) in Kyrgyzstan; and Kubaka with Geometal and Cyprus Amax (later replaced by Kinross Gold) in Russia.

At the same time, another operation, currently the largest in Russia (and financially assisted by the Government), was launched at the Olympiada deposit by the Polyus mining co-operative. It was acquired by Norilsk Nickel and then restructured into the independent company Polyus Gold. Now Polyus Gold is a major Russian gold mining

company and it is currently acquiring KazakhGold, one of the key gold miners in Kazakhstan (known as Kazakhaltyn before listing on London's AIM market).

Between 1994 and 1998, a future reserves base was developed for several large gold miners within the former USSR, which is described below. Among these miners was the second-largest gold producer in Russia – Peter Hambro Mining, established in 1994 under the name of Pokrovsky Mine when granted a mining licence for its flagship, the Pokrovsky deposit in the Amur region.

Highland Gold originated in 1998 as Mnogovershinnoe LLC, holding a licence to mine the Mnogovershinnoe gold deposit (listed on AIM as MNV). Another key player was SVMC, with a mining licence for the Nezhdaninskoe gold deposit, which was also founded in 1998, and acquired by Celtic Resources and subsequently listed on AIM. However, it later transferred its right to mine at Nezhdaninskoe to Polyus Gold, and recently the SeverStal corporation took over Celtic Resources.

The list continues with Amikan, holding a licence for the Veduga project, which was established in 1997 first as a part of Trans-Siberian Gold and later, when AngloGold Ashanti acquired the company, allocated into a

joint venture with Polymetal. One more producer is Polymetal itself, which took the Vorontsovskoe deposit in the Urals under its control after the financial crisis of 1998, when Cyprus Amax was forced to abandon it. Later Polymetal acquired the giant silver deposit Dukat and a few more mineral properties in the far east of Russia.

Finally, the above-mentioned KazakhGold (ex-Kazakhaltyn) is also included. Having accumulated several interesting mineral projects in northern Kazakhstan and established Charaltyn in the mid-1990s with Newmont Mining, it was later bought out by local businessmen. It was then turned into a large company in 2005-2006, with assets in Kazakhstan, Kyrgyzstan and Tajikistan, which were merged with Kazakhmys in 2007. There are also many more interesting producers that cannot be mentioned in this brief review.

The quantity of gold mined in the top five CIS countries from 1998 to 2008 is shown in figure 3.

With the exception of Ukraine, Armenia and Azerbaijan, all the former USSR republics have relatively large and modern gold mines. The gold prices versus average cash costs in Russian gold mining is shown in figure 4.

### Legal Arena

Since the collapse of the Soviet Union, all of the countries that emerged from the Soviet system have undergone dramatic changes. At first, the regulatory environment and general situation in these countries was very similar, but as they have developed their precious metals markets (a 'sacred cow' in the Soviet system), they have become more open to private business. Many post-Soviet republics swiftly managed to organise more or less effective bullion markets with stable and often very different legislation.

For example, in Kazakhstan, the licensing procedure is on a contract basis while, in Russia, it is governed by administrative law. In those countries where mining played an essential role, the legislation was more developed. Therefore, the mining legislation of such countries as Kazakhstan, Russia, Kyrgyzstan, and Armenia is more elaborate, for example, than in Ukraine or Azerbaijan. But, unfortunately, more detailed does not mean perfect. The development of legislation is directly dependent on its enforcement, and the current changes of the legislative base in the CIS countries are mostly geared toward the protection of state precedence.

For example, oil-based currency inflation forced the Russian Government to limit the inflow of investments and, on 29 April 2008, a new federal law on foreign investment in strategically significant business entities was passed. "Strategic significance" includes companies dealing with geological exploration and the mining of mineral resources. This and

Figure 3: Gold mining in the CIS (1998–2008)

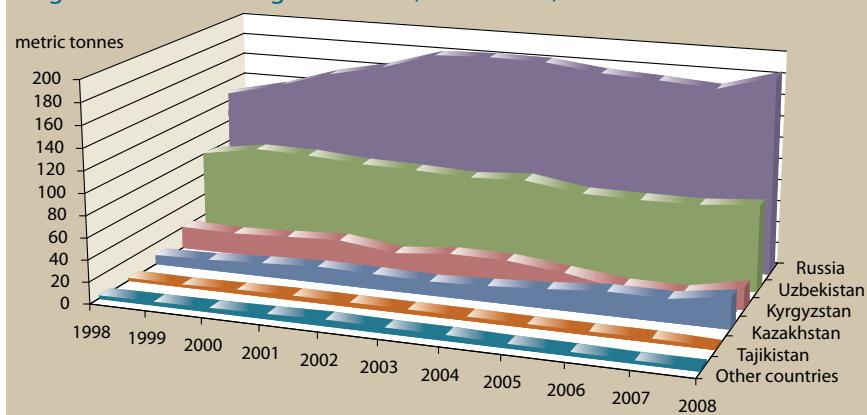
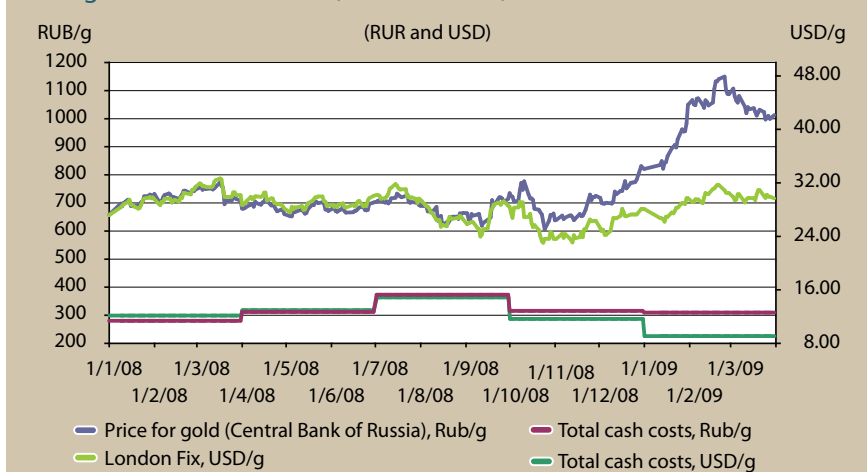


Figure 4: Gold price vs average gold mining cash costs in Russia, weighted from Q1 2008 (RUR and USD)



other current laws will negatively influence foreign investment in Russia. Nowadays, investment opportunities are less attractive all over the CIS, but only in comparison with the situation five to 10 years ago. Post-Soviet republics are as interested in inward investment as any other country, but not in occupation by foreigners.

### Conclusion

The Soviet Union traditionally placed a high value on domestic mineral resources. It was largely its focus on military preparedness that drove the creation of the world's largest mineral resource base. Today, this resource base has been put to work for more civilian purposes, providing gold reserves for the mining industry in all post-Soviet countries.

Those countries with the most developed mining sectors – Russia and Kazakhstan – have the most experience. Elsewhere, gold-copper deposits in Azerbaijan have great potential despite the total absence of gold mining in that country. Also, the Ukraine has become attractive to investors because the market there appears relatively stable. The list of top producers changes frequently due to mergers and acquisitions. At this moment, Russia has more than four hundred producing companies, of which 20 produce more than 30,000 oz per annum. A further 50 companies produce between 5,000 and 30,000 oz, but the majority of these are small and only operate seasonally. It is quite natural that the sector is extremely fragmented.

Before the crisis, the creation of junior companies was highly sophisticated, with companies buying assets in different territories at different stages. This kind of asset portfolio allowed companies to profit from stock trading. The most successful example was the Canadian company Bema Gold (Kupol deposit), purchased by Kinross Gold for US\$2.5 billion. Companies in Russia, Ukraine, Armenia and Uzbekistan have operated in a similar way.

Another model is the acquisition of deposits with reserves: for example, the Kubaka deposit (Kinross Gold) was sold to Polymetal in 2007. Lots of companies use this model, for example, ENRC and Charaltny in Kazakhstan, and GeoProMining in Caucasus republics. The third, classical variant is when the company moves into production stage after exploration, for example, Peter Hambro Mining. It is the most labour-intensive model, but it ensures certain stability and a greater guarantee of success at each stage.

In terms of mergers and acquisitions in the CIS, real mega-deals such as Barrick and Placer Dome are still unknown and not likely to occur soon. In theory, similar mega-deals may be expected when large players temporarily find themselves in a difficult situation and become takeover objects. However, the price for such deals seems to be much less than that of Kinross-Bema.

NBL gold expects mid-sized players to follow a similar trend, but that they will arrange joint ventures with major companies and establish foreign alliances. Small

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companies, depending on their appetite for risk, are expected to merge with or acquire one another, but also to create joint ventures with mid-scale companies, possibly becoming takeover targets. Small producers will frequently be involved in asset merging, in conventional merging with geological exploration properties and, in particular, as mentioned above, in mergers of placer mines and hardrock exploration companies.

Though there remains great potential M&A activity in CIS gold projects, it will be some time before these happen. CIS countries have substantial in situ resources and reserves and, most importantly, large-scale assets with relatively long mining history and future mine lives.

Talking about long-term prospects, the next stage of gold mining consolidation in CIS countries is likely to take the form of alliances with foreign companies that are favourable for both parties – foreign stakeholders will get access to reserves and local companies will gain in experience by working with foreign professionals. The worldwide mining industry is currently facing the problem of a shortage of skilled professionals, including geologists, mining engineers and, most importantly, expertise in exploration and development of deposits. CIS countries are therefore in a unique position, as the personnel reserve of earth science graduates, deriving from the Soviet period will prove to be an asset for the global mining industry as a whole.

Moscow and Astana, although the capitals of mining in the CIS, have not yet turned into world centres for the financing of gold mining, like Johannesburg, London or Toronto. However, recent trends, as well as professional and mineral resources, suggest that in several years this may happen. ■

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