Precious Metals Report 2019

Everything you need to know about gold, silver, platinum and palladium!

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Vorwort

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Dear Readers,

It is with great pleasure that we present you on the following pages our new special report on precious metals, which follows on from our successful Battery Metals and Uranium Reports. We now regard precious metals as indispensable for our own (crisis) provision. Not to be forgotten is the unconditional use of precious metals as a store of value and money substitute, as well as to protect against extremely bad times. Because if the global financial systems can no longer withstand the money-pressure orgies of the central banks and it comes to collapse, the one who owns gold or silver ounces is clearly at an advantage in order to be able to supply himself and his family with the most necessary food. But we do not want to assume the worst, but physical precious metals reassure me of the possible coming distortions. It is more important to look positively into the future and there you can achieve beautiful returns with precious metal companies. When precious metals march north again, precious metal producers have an enormous leverage on the respective metal price and are excellently suited as investments. In this precious metal report, we present some interesting companies that are suitable for speculation on rising precious metal prices. We also want to give you the necessary basic knowledge by means of our general part, so that you can make your own decisions.

Of particular interest is the interview with precious metals expert Prof. Dr. Dennin, who gives an insight into the processes in the precious metals sector and in a guest article on global debt and the increasing loss of confidence in the stability of the financial system deals with the question of why investors should take precious metals into account in their long-term asset strategy.

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My team and I hope you enjoy reading the Special Report on Precious Metals and that we can provide you with lots of new information, impressions and ideas. Only those who inform themselves in many ways and take their investment matters into their own hands will be able to win and preserve their assets in these difficult times. Precious metals have existed for thousands of years and will continue to do so.

Yours, Jochen Staiger

Precious metals – irreplaceable for the economy and fascinating at the same time! – And no, not all that glitters is gold!

Precious metals – above all gold and silver – have held a high fascination since time immemorial. Already in the early Copper Age, when since about 7,000 BC people valued gold as a status symbol. While many (high) cultures came and went – mostly gold, silver and Co. were one of the main reasons for the respective decline of a society – one remained constant: Precious metals! Even today, people cannot escape the fascination of precious metals, although the industrial benefit has increasingly come to the fore.

What are precious metals?

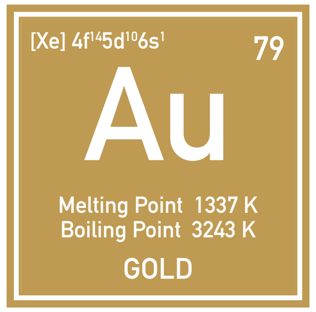
In purely chemical terms, precious metals are metals that are resistant to corrosion, i.e. that are permanently chemically stable in a natural environment under the influence of air and water. The group of precious metals primarily includes gold and silver, as well as the so-called platinum metals platinum, palladium, ruthenium, rhodium, osmium and iridium. Mercury is also a precious metal. There are also a number of so-called semi-precious metals, including copper. A third group consists of the so-called short-lived radioactive precious metals, which play virtually no role in practice. In the following, this report will deal exclusively with the four most common precious metals gold, silver, platinum and palladium.

Gold: Everyone loves it, everyone wants it!

Gold is a chemical element with the element symbol Au and the atomic number 79. It can be machined very well (moderate melting temperature) and does not corrode. Not only is it rare, but it is also heavy, and its yellow shine is resistant, which is why it is regarded as imperishable and is therefore used to a large extent for jewellery or in the form of coins or bars to preserve its value. Gold is also considered easy to alloy, which makes it very attractive as a material.

Most important characteristics: Appearance, corrosion resistance, good workability, good contact

Not only in the form of jewellery or coins, but also in medical applications, gold scores particularly highly with its yellow appearance and corrosion resistance. For example, in dental prosthetics, where additional precious metals such as platinum are added due to the relatively high softness of gold. In industry, gold is used mainly in the construction of circuits as an additive (gold plating) to wires, printed circuit boards, switching contacts and connectors.



Deposits and extraction

Gold is very rare in nature. The earth's crust contains an average of only 4 grams of gold per 1,000 tons of rock. In addition, it occurs on earth predominantly dignified, i.e. in elementary, metallic form. It is found in primary raw material deposits as gold-bearing rock (gold ore) as well as in secondary deposits, including soap deposits. Up to 20% of the gold mined annually is extracted as by-product, mainly from copper, nickel or other precious metal mines.

Supply situation

The main gold mining areas are currently China, Australia, Russia, the USA and Canada, which together account for almost half of the total annual production. The former absolute leader in gold production until 2007, South Africa was in sixth place in 2017 and will soon be overtaken by Peru. Other important gold producing nations are Mexico and Chile, where gold is mined mainly as a by-product from silver mines.

Gold production rises only marginally – Gold peak reached?!

Since the turn of the millennium up to 2017, gold production has been rising every year, but has been declining more and more recently. Whereas around 2,380 tonnes of the yellow metal were extracted from the earth worldwide in 2007, the figure was 2,700 tonnes in 2011 and 3,233 tonnes in 2015. Since then, production has risen only marginally to 3,263 tonnes in 2016 and 3,268.7 tonnes in 2017. Although 2017 represented another record year in gold production, the gold peak, i.e. the annual gold production, is expected to have reached its peak for the time being.

The reasons for a decline in gold production are manifold

Several factors contribute to this.

First, more and more deposits are reaching the end of their lifetime. Those that are not yet fully exploited must be removed more and more elaborately in order to obtain further gold-bearing material. Some mines already reach depths of 4,000 meters and more. A torture for man and machine at temperatures around 50 degrees Celsius. In addition, producers are always having problems with tectonic conditions. Smaller earth tremors often lead to burials and fatalities at such depths.
The gold content continues to fall steadily. Currently, gold deposits are still exploited at an average rate of more than 1 gram of gold per ton of rock (g/t). However, there are already indications that this mark will fall to only about 0.9g/t in a few years' time in the case of deposits that have not yet been developed.
A third point is the (lack of) discovery of new deposits. While more than a billion ounces of gold were discovered in the 1990s, from 2000 to 2014 the figure was just over 600 million ounces. Since then, the new discoveries have again really collapsed. This is mainly due to the fact that gold producers have concentrated primarily on reducing mining prices in recent years due to a persistent slump in gold prices. Particular savings were made on exploration, which meant that virtually no major deposits were discovered in recent years.
This means nothing other than that, as a result of the above points, there is a high probability that production will decline in the coming years.

Gold reserves of the Deutsche Bundesbank (foto: © Nils Thies, 2017, CC BY-NC-ND 2.0)

Goldprice US$/oz

(Surce: JS by amChart)

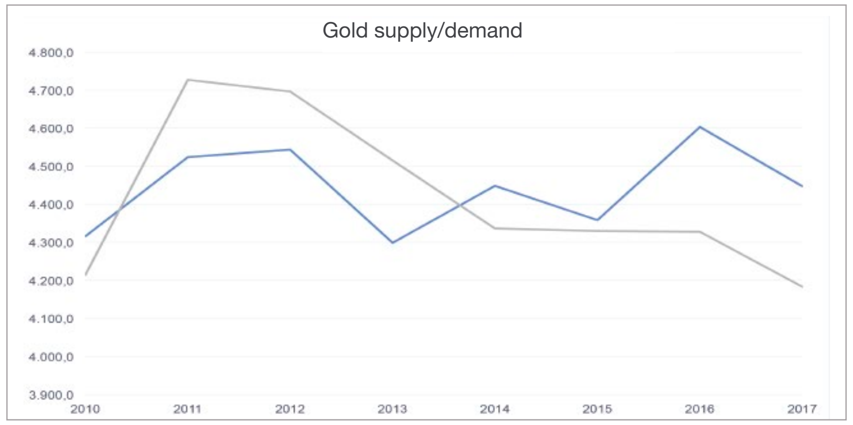
Demand situation

Central banks are back on the buying side

„The central banks are „exacerbating" the situation, albeit only marginally at present. After decades of gold sales, they have been back on the buying side for several years. In 2018, for example, the Polish central bank bought gold again for the first time in 20 years. The official gold reserves were increased by 9 tons. This is, after all, the largest purchase that any EU country has made at any one time in this century. Russia, Turkey and Kazakhstan also bought gold in 2018. By the end of September 2018, the central banks had increased their gold reserves by a total of 264 tonnes of gold. This meant that a lot of supply was taken off the market by the central banks alone, which once again appeared on the demand side and not on the supply side.

Goldsupply (blue) and -demand (gray)

(Source: own representation)



Demand from jewellery sector and investment sector stable – technology sector growing steadily

In the first half of 2018, global demand for gold was around 1,960 tonnes. The lion's share of this came from the jewellery sector, which consumed 1,031 tonnes. In second place were physical investments in gold bars and gold coins, which amounted to about 490 tonnes. Other investments in gold ETFs were weak in the first half of 2018, albeit bottoming out. ETF outflows in the US were more than offset by inflows into European ETF funds. Demand from the technology sector was strong, rising for the seventh time in succession in the second quarter of 2018 to 83.3 metric tons. For the entire first half of 2018, 165.4 tonnes were recorded. This showed that gold is being used more and more not only in smartphones and game consoles, but also in the field of electromobility. This is a circumstance which, in view of the beginning electric (mobility) revolution, is likely to lead to continued strong growth in demand from the technology sector in the future.

Conclusion: Everything depends on the investment sector

Although the technology sector in particular is likely to generate the highest percentage growth in demand for gold in the coming years, everything depends on the investment sector. Assuming that the jewellery industry is likely to remain at the same level of demand as in previous years, it is precisely the inflows into gold-deposited ETFs that have recently been at a very weak level and therefore offer the greatest potential for demand growth. Geopolitical factors played less of a role recently, which scratched the image of gold as a „safe haven in bad times".
It will be exciting on the supply side. A lack of replenishment in the form of high-grade new discoveries as well as an increasingly cost-intensive supply, as more difficult mining is likely not only to lead to a future supply deficit, but also to the necessity of a higher gold price so that demand can be met at all in a cost-covering manner.

Silver: Gold's „little brother" is also the absolute star of the industry!

Silver is a chemical element with the element symbol Ag and the atomic number 47 and belongs to the so-called transition metals. It is a soft, easily deformable heavy metal with the highest electrical conductivity of all elements and the highest thermal conductivity of all metals. It is precisely these properties that make it an indispensable metal for industrial applications.
But silver is much more than that: unlike gold, it is consumed, and the sheer number of possible applications is constantly increasing with technical progress. In addition to being an industrial metal, silver is also a precious metal. Like gold it is in principle money and serves to maintain value. It can also be seen as a kind of hedge against progressive inflation.

Supply situation

Mexico, Peru and China are leading producer nations

In 2015, global silver production reached an all-time high of around 895 million ounces. In 2016, however, production fell by about 0.7%. In 2016 about 889 million ounces of silver were extracted from the earth's crust. In 2017 there was even a real slump to only 852 million ounces! With an annual production of 180 million ounces (about 20% of total world production), Mexico ranks first among the producing nations, followed by Peru and China. Together, these three countries account for about half of global silver production.

Like gold silver is in principle money and serves to maintain value.

(Source: AdobeStock)

Silver is above all a by-product!

Only about 30% of the annual production comes from pure silver mines or from mines in which silver is the primary raw material. The vast majority (70%), on the other hand, comes from mines in which silver is only a by-product, i.e. mainly from zinc/lead mines, but also from copper and gold mines.

Weak base metal prices cause silver production to stagnate and supply to fall overall

This high dependency primarily on base metals such as lead, zinc and copper means that weakening base metal prices and the associated closure of mines or at least a reduction in the corresponding base metal production also have a negative impact on the production of the by-product silver. Thus price declines – above all for copper, but also for lead – in recent years have ensured that silver production only rose marginally and has even been in decline since 2016. Stagnating silver production is to be expected in the coming years, as the output of new mines will only be able to compensate for the loss of zinc/lead mines with difficulty. From today's perspective, it is even to be expected that silver production will decline again from 2019 onwards, as will the total silver supply (including recycling). This is primarily due to the expected closure of several medium-sized to large zinc/lead mines and further to an enormous investment backlog which has accumulated in recent years due to the weak silver price development. Corresponding silver projects were put on hold and developed only inadequately. The consequence of this is that these projects will only be put into production after a long delay. In addition, the recycling rate has been declining since 2011 and in 2017 amounted to only about 138 million ounces.

Silver companies set priorities on cost savings

The development of the mine pipeline has stalled in recent years with weak silver prices, partly because the silver companies had to deal primarily with getting their cost structure under control. The high silver prices, mainly in the years 2010 to 2012, ensured that mines with all-in costs of over US$ 20 per ounce were also put into operation. These quickly became unprofitable after 2012. But instead of closing them, the companies have been trying to reduce costs ever since. There was little time and even less money left for elaborate exploration and development programs. In the meantime, the vast majority of companies have been able to reduce their costs to an acceptable and largely profitable level.

Silverprice US$/oz
(Source: JS by amChart)

Recycling and central bank sales should not contribute to an increase in supply

A further decline in the supply of silver recycling can also be expected. Sales by central banks have hardly played a role since 2011 and are unlikely to lead to a significant increase in silver supply in the coming years.

Demand situation

Silver with hermaphroditic function

While gold is mainly used as an investment, to preserve value and in the form of jewellery (only about 9% of annual demand comes from industry), silver has a kind of hermaphroditic function. This means that about 60% of the total silver demand comes from industry, while the rest is mainly demanded by investors in the form of bars and coins as well as by the jewellery industry.

Main applications: Electronics, Alloys, Photography, Photovoltaics

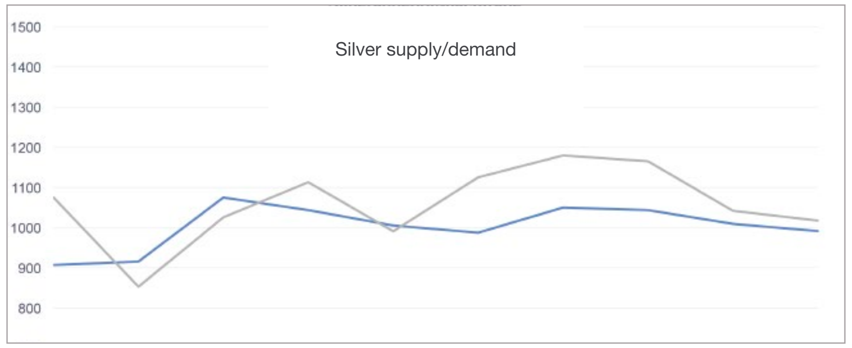
Its peak values for important properties (highest electrical conductivity of all metals, high thermal conductivity and pronounced optical reflectivity) make silver indispensable above all in the fields of electrics, electronics and optics or photography. These sectors also account for a good half of the total industrial demand of about 600 million ounces. In addition, there are applications as silver alloys (with copper, zinc, tin, nickel, indium), which are used in electrical engineering and soldering technology as solder alloys (so-called brazing), contact materials (especially in relays) and conductive materials (such as capacitor coatings). Since 2011, the photovoltaic sector has also played an important role in silver demand. China, in particular, wants to significantly increase the share of photovoltaic capacity. By 2020 alone, the Middle Kingdom wants to achieve 110 gigawatts of cumulative photovoltaic output. This means that more and more silver is bound in corresponding solar modules for at least 20 years!

Recent decline in physical demand

Physical demand for silver reached a record high of approximately 1.165 billion ounces in 2015 and dropped from an extremely high level to approximately 1.042 billion ounces in 2016 and 1.018 billion ounces in 2017. The main reason for this was weaker demand from the investment sector. Between 2015 and 2017, the demand for coins and bars fell by almost half to 151 million ounces. This was offset by a slight increase in industrial demand, which amounted to 599 million ounces in 2017.

Conclusion: Continuing supply deficit

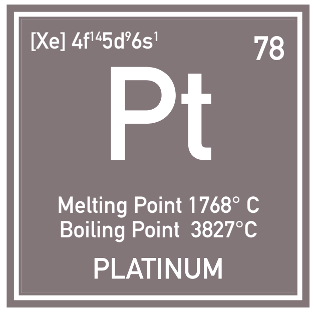
The silver sector has been experiencing a significant supply deficit for several years, culminating in over 162 million ounces in 2016! Since the year 2000, for example, there have only been four years in which global silver producers have generated a surplus in silver supply. Since 2013, a total of 380 million ounces more silver has been in demand than could be produced. All in all, global silver demand is expected to rise again in the coming years. In addition to expected rising ETF inflows and further physical demand, the Asian jewellery industry and several industrial sectors such as photovoltaics, touchscreens and displays in particular are expected to see some drastic increases in demand. On the supply side, the same applies as for gold: most primary silver producers have concentrated in recent years primarily on reducing mining prices due to a sustained slump in silver prices. Particular savings were made on exploration, which meant that virtually no major deposits were discovered in recent years. Price weaknesses in several base metals also caused the development of mines producing silver as a by-product to be postponed for the time being.



Silversupply (blue) and Silverdemand (gray)
(Source: own representation)

Platinum: irreplaceable in the industry, mysterious for many investors!

Platinum is considered by investors to be an absolute rarity and at the same time extremely mysterious. Platinum is a chemical element with the element symbol Pt and the atomic number 78.



Main properties: Forgeable, ductile, corrosion resistant

It has an extremely high density and is at the same time very easy to forge and stretch. Its grey-white colour has always fascinated people, probably also because platinum has a remarkable resistance to corrosion and therefore does not tarnish. Due to its high durability, tarnish resistance and rarity, platinum is particularly suitable for the production of high-quality jewellery.

Almost infinite possibilities of use

Platinum finds its way into a whole range of different applications. By far the most common use of platinum is in the automotive industry, where it is used in the form of automotive catalysts. In addition to the classic diesel oxidation catalysts, platinum is also finding increasing use in catalysts in fuel cells, which could be an enormous demand driver in the future. The second major field of application in industry is the chemical sector. Platinum is also used in alloys, for glass production (crucibles), in electrical resistors and for medical applications and apparatus.
Another large field of application is the jewellery industry, where platinum is often alloyed with other metals, mainly gold. The fourth major area is the investment sector.

Deposits and extraction

Platinum comes in a dignified form, i.e. in elementary form in nature. Metallic platinum (platinum soaps) is practically no longer mined today. Although a large part of the platinum mined in a few places comes from primary deposits, production as a by-product in the production of non-ferrous metals (copper and nickel) is becoming increasingly important. There the platinum group metals are produced as a by-product of nickel refining.

Supply situation

South Africa, Zimbabwe, the USA and Russia are the leading producer nations

Only the South African Bushveld Complex, the Great Dyke Complex in Zimbabwe and the Stillwater Complex in Montana as well as Russia have extensive and significant primary platinum mining. Over 70% of the world's platinum mined in 2017 came from South African mines. Russia followed with about 12%, Zimbabwe with 8% and North America with 6%. Overall, platinum mining is a relatively small sector with only about 6.1 million ounces produced per year.

Platinum nugget (Source: PicClick)

High recycling rate

Although a certain amount of gold and silver is recycled back into the cycle, platinum is recycled to a very high percentage. In 2017, about 1.89 million ounces were recovered from recycling. Recycling thus accounted for 23.5% of the total platinum supply of the year.

Supply stagnates

Overall, the global platinum supply has stagnated in recent years. While in 2013 about 7.8 million ounces of platinum were available (of which about 5.8 million ounces from mining and nearly 2 million ounces from recycling), in 2017 about 8 million ounces of platinum reached the free market (mining: 6.1 million ounces, recycling: 1.9 million ounces). An increase in platinum production, on the other hand, is not in sight, as in South Africa in particular platinum extraction is becoming ever deeper and therefore more expensive.

Demand situation

Platinum has a hybrid function

Like silver, platinum has a kind of hybrid function. This means that about two thirds of total platinum demand comes from industry, while the rest comes mainly from the jewellery industry and from investors in the form of bars and coins.

Main customers: automotive industry and jewellery production

Expressed in figures, it is the automotive sector that has the highest demand for platinum in 2017. 3.34 million ounces, or 41.4% of the total offer, were mainly used for catalyst construction. In second place was the jewellery industry, which demanded 2.46 million ounces or 30.5% of the supply (including recycling). This was followed by demand from the rest of the industry with 1.7 million ounces or 21%. The investment sector accounted for only 3.8% with just 310,000 platinum ounces in demand.

Hydrogen storage technologies as future demand drivers

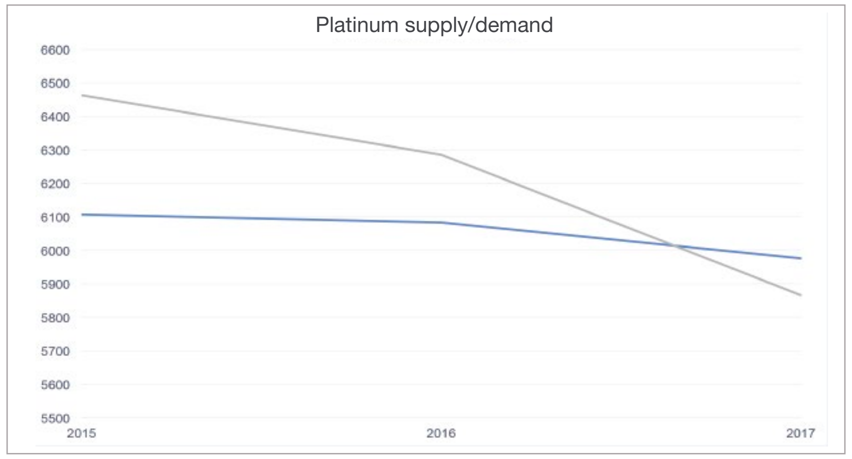
Innovative hydrogen storage technologies are already being researched in South Africa. Power generation with platinum catalysts is the big issue here. Low-cost hydrogen storage systems for fuel cell vehicles and portable applications are still dreams of the future, but China alone plans to produce two million hydrogen fuel cell vehicles by 2030. Germany has just commissioned the world's first hydrogen fuel cell train. A large platinum company is already investing together with Shell Technology in the development of hydrogen compression technology. As the name suggests, these so-called platinum electric vehicles need platinum as the basic raw material.

Platinum price US$/oz
(Source: JS by amChart)

Industry demand increases, jewellery demand decreases, investment demand collapses – current supply surplus

Four things are particularly striking in the platinum sector.
First: Demand from industry is increasing more and more. While demand from the automotive and industrial sectors was still at 4.655 million ounces in 2013, this figure rose to 5.04 million ounces by 2017.
Secondly, the trend in the jewellery sector, on the other hand, is contrary. In 2013, 2.945 million ounces of platinum were still in demand from jewellery manufacturers. By 2017, however, it was only 2.460 million ounces.
Third: Demand from the investment sector, i.e. in the form of bars and coins for investment purposes, is highly volatile, but is declining overall. By 2013, 935,000 ounces were in demand for investment purposes. In 2014 it was only 150,000 ounces, in 2015 305,000

ounces, in 2016 535,000 ounces and in 2017 265,000 ounces.
Fourthly, while there was still a supply deficit of almost 400,000 ounces by 2016, including recycling, this turned into a supply surplus of almost 300,000 ounces in 2017. A similar figure is expected for 2018. The pure platinum production of 6.17 million ounces in 2017 cannot keep up with the demand of 7.7 million ounces.



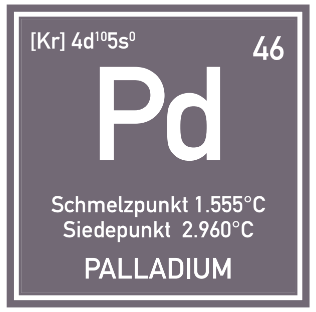
Platinum supply (blue) and Platinum demand (gray) (Source: own representation)

Conclusion: the key lies in recycling, investment demand and car manufacturers

The demand for platinum can therefore only be met because of the very large share of platinum recycling in the total supply. The recycling rate has recently risen again slightly and could accelerate again in view of the millions of diesel vehicles that have been scrapped. If the fuel cell becomes established in automotive engineering alongside the purely electric car, an increase in demand can be expected from there. Much also stands and falls with the investment sector, which should return to its former strength. The supply surplus is not expected to end until 2019 at the earliest.

Palladium: not just a platinum substitute!

Palladium is primarily a chemical element with the element symbol Pd and the atomic number 46. Many experts regard it as a substitute for platinum in several applications, mainly in the production of catalysts, because it is very similar to platinum in chemical behavior.



Most important characteristics: Low melting point, reactive, absorbent

Palladium has the lowest melting point among platinum metals and is also the most reactive. At room temperature it does not react with oxygen. It retains its metallic shine in the air and does not tarnish, which makes it interesting for the jewelry sector and to a lesser extent for the investment sector. The low melting point makes it easier to process than platinum. Palladium also has the highest absorption capacity of all elements for hydrogen. At room temperature it can bind up to 3,000 times its own volume.

Most important applications: Exhaust catalysts, alloys, electrode materials

Finely dispersed, palladium is an excellent catalyst for accelerating chemical reactions, especially for the addition and elimination of hydrogen and for cracking hydrocarbons. By far the most important application for palladium is thus in the field of catalytic converters for gasoline engines. About 83% of the palladium demanded in 2017 was needed for the construction of catalytic converters. Palladium is also frequently used for alloys in jewellery, especially in combination with gold, from which so-called white gold is produced. Palladium removes the golden-yellow colour from the entire alloy. Palladium is also used as an electrode material for fuel cells and as a contact material for relays.

Deposits and extraction

Metallic palladium and palladium-containing alloys are found mainly in river sediments as geological soaps but are largely exploited. Most of it is now extracted as a by-product from nickel and copper mines.

Supply situation

South Africa and Russia dominate palladium production

In recent years, South Africa and Russia have emerged as the clearly dominant palladium producing nations. In 2017 Russia contributed 40.2% of the total production. South Africa followed closely with just under 39%. The remaining palladium production was largely split between the USA and Canada. Only 5% of the world's palladium came from other countries. Overall, platinum mining is a relatively small sector with only about 6.6 million ounces produced per year.

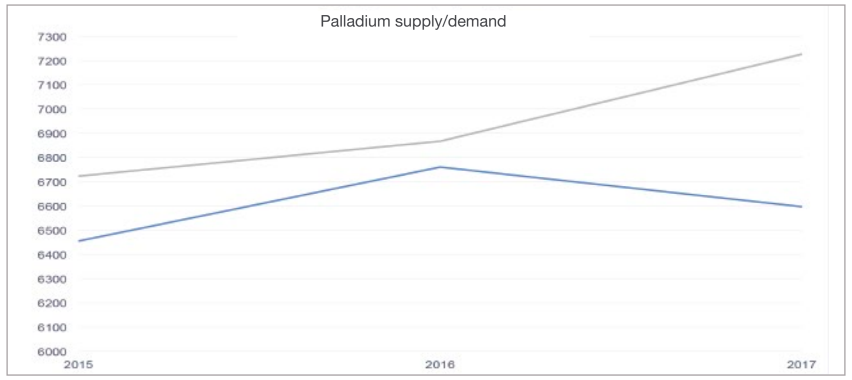
High recycling rate

Similar to platinum, palladium's high recycling rate contributes to (almost) meeting demand. In 2017, a total of 2.9 million ounces of palladium were recycled. This was 29.5% of the total palladium supply.

About 83% of the palladium demanded in 2017 was needed for the construction of catalytic converters. (Source: Shutterstock)

Supply stagnating to increasing

The palladium supply showed stagnating to rising tendencies over the past three years, which was mainly due to two decisive factors. Firstly, increasing recycling. This increased by approximately 85,000 ounces from 2015 to 2016 and by a whopping 420,000 ounces from 2016 to 2017 to 2.9 million ounces.
Secondly, the high returns from the investment sector, mainly from corresponding palladium-backed ETFs. In 2015, 659,000 ounces of palladium were returned to the free market, in 2016 it was 646,000 ounces and in 2017 386,000 ounces. In 2014, global palladium ETFs still held about 3 million ounces, compared to 1.3 million ounces at the end of 2017.
As a result, total palladium supply increased from 9.53 million ounces of palladium in 2015 to 9.91 million ounces in 2016 and remained at the same level from 2016 to 2017.
As with platinum, palladium is also expected to increase its recycling rate in recent years, but at the same time production will tend to decline.



Palladium supply (blue) and
Palladium demand (gray)
(Source: own representation)

Demand situation

Supply deficit in 2017

In contrast to platinum, however, there is a clear supply deficit on the palladium market, which amounted to around 600,000 ounces in 2017.

Car manufacturers demand more and more palladium – investment sector remains weak

The main reason for this is the strong increase in demand in the automotive sector. Whereas in 2015 there was still demand for 7.6 million ounces of palladium, mainly for use in catalytic converters, by 2016 there were already 7.95 million ounces and by 2017 even 8.4 million ounces. The extent to which this trend will continue remains to be seen, although automobile manufacturers are increasingly using palladium as a substitute for platinum. However, if demand for gasoline engines falls, palladium demand will also fall. This can possibly be offset by the use of fuel cell-powered vehicles, but these are still a dream of the future. The second major customer, the industry, has recently remained at a stable level of around 1.9 million ounces with its demand. The jewellery industry hardly plays a role with a demand of around 200,000 ounces per year. The investment sector remained weak recently and is likely to remain a supplier in 2018 rather than a consumer of palladium.

Palladium price US$/oz
(Source: JS by amChart)

Conclusion: Much depends on the price

However, this is mainly because the palladium price has recently risen sharply. This doubled within two years from the beginning of 2016. As a result of the higher palladium price, many investors reduced or liquidated their ETF holdings and realised gains. At the same time, palladium is also becoming increasingly unattractive as a substitute for platinum, which is now much cheaper. Nevertheless, there is still a supply deficit of at least over half a million ounces per year. The extent to which this will continue or dissolve in the coming years depends not only on the price of palladium but also on how the petrol (combustion) engine will continue to perform. Palladium‘s dependence on the automotive industry is unmistakably high, making it a riskier investment than silver, for example.

Special features and dependencies of the individual precious metals on each other

At the end of our remarks, we would like to briefly discuss a few special features of the precious metals sector that are or could be important for the pricing of the individual metals.

The Comex still determines the spot prices

Although the pricing of the four precious metals gold, silver, platinum and palladium is mainly influenced by the market economy, such as supply and demand, it is basically determined by the New York Commodities Exchange (Comex). Contracts for all kinds of metals and other commodities have always been traded on Comex. Theoretically there is a compulsion to physical extradition, but this is almost never demanded. This even makes it possible to trade one billion ounces of silver a day (global silver production in 2016 was „only“ 886 million ounces of silver a year) or more, even if one does not own this almost unimaginable amount of silver. Such actions can keep the price of precious metals artificially low or manipulate it.

Gold and silver have become a substitute currency, yet

In the case of gold and silver, it is important to know that the markets, which have been shaken by debt crises and geopolitical upheavals, have made gold a kind of substitute currency since a long time. That this is the case is shown by the 700 percent increase in gold in the first decade of the 21st century and the large outflows of gold from Europe to China, which have increased in recent years. If gold were made a currency again, the same would happen with silver and the number of gold and silver needed to build such a gold and silver-based currency system would be several times higher than what would be less needed due to a possible dwindling industrial demand due to crises.

Silver hangs on gold, but is much more volatile

Over the past 3, 5 and 10 years it can be said that the price development of silver and gold has been about 80% the same. However, this says nothing about volatility: The silver to gold beta during this period ranged from 1.2 to 1.4, meaning that a 10% increase in the price of gold can be expected to result in an approximate 12-14% increase in the price of silver. As you can see, silver is therefore a riskier, but also potentially more promising investment.

Palladium replaces Platinum – Platinum replaces Palladium

Platinum and palladium are chemically very similar and have therefore been increasingly recognized as substitutes over the past 20 years. In 2010, for example, three researchers received the Nobel Prize in Chemistry for a process that uses palladium as a catalyst to efficiently combine carbon atoms into complex molecules. Substitution, however, is also always a cost issue, which is why the nimbus of palladium as a cheaper platinum alternative is likely to be gone for the time being.

The best precious metal shares promise multiplication potential!

Especially gold and silver have been in a bear market for several years, from which there has been no escape so far. Corresponding share values are therefore strongly undervalued in comparison to the large (standard) indices. There is a supply deficit for palladium which does not seem to disappear in the coming years. We have taken this as an opportunity to present some promising precious metal companies to you below. We are concentrating primarily on development companies with extremely promising projects and on mining companies already producing with established and profitable deposits.

Global debt and the increasing loss of confidence in the stability of the financial system: Why investors should consider precious metals in their long-term asset strategy.

Guest Article by
Prof. Dr. Torsten Dennin

In the first quarter of 2018, the total debt of states, companies and households worldwide grew more than the entire gold market is worth. At the same time, interest rates continue their upward trend, while central banks‘ balance sheets continue to grow – an explosive mix for the global financial system. In this environment, investors should consider precious metals such as gold, silver, platinum and palladium in their asset strategies.

It‘s been almost 50 years.

The collapse of the Bretton Woods system in 1971 initiated one of the largest economic experiments in world history: Currencies that were no longer tied to a leading currency or material values such as gold or silver – the system of flexible exchange rates was born and the principle of incurring debt without consequences (keyword: Greece) became viable.

Debt is rising faster than the economy is growing. Money devalues.

From 1970 to the present, global economic power, measured by global GDP (the value of all products and services manufactured in one year), has risen to nearly $80 trillion. In the same period, however, the debts of private individuals, companies and states grew disproportionately – in the first quarter of 2018 alone by 8 trillion US dollars – and together reached almost 250 trillion US dollars. This corresponds to a global debt ratio of 320%. The International Monetary Fund (IMF) warns in spring 2018 that the mountain of debt is larger today than it was at the height of the financial crisis in 2007. This entails new risks for the financial system. Looking back on the last few years, this also means that not only was ever weaker growth financed with ever more debt, but all currencies suffered massive losses in purchasing power. The US dollar, for example, now only has just under 20% of its original purchasing power of 1971 – a depreciation of 80%! More precisely: 100 US dollars in 1971 had roughly the same purchasing power as 620 US dollars today. In the same period, by the way, the D-Mark and then the Euro lost slightly more than 60% in value[1].

Debts are rising, despite zero interest rate policy.

Despite a historically low level of interest rates, Europe‘s schoolmaster, Germany, only manages a black zero in budget policy. This means that no new debts are taken on, but also no debts are reduced. In the USA, on the other hand, the tax reform and the current budgets are likely to increase the already gigantic debt in the next three years by a further trillion US dollars a year.

Negative effects from rising interest rates.

What happens now in an environment of rising interest rates? The first consequence is an increase in debt service. Public spending is falling, i.e. less money is available for public investment and social services. Companies limit their investments, which has negative effects on the economy and employment. Households have to spend more money on, for example, credit card debts, leasing instalments and real estate loans, and consequently limit their consumption. As you can see at first glance, this is not a pleasant scenario. On the other hand, the massive rise in debt levels is a guarantee that interest rates cannot be reduced to a „normal“, i.e. historically average level.

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1 See FED and ECB data, www. federalreserve.gov, www.ecb.europa.eu), accessed 22.8.2018.

(photo: Gold reserves of the Deutsche Bundesbank © Nils Thies, 2017, CC BY-NC-ND 2.0)

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Central Bank Balances and Target Balances. The risks are rising.

The global economic and financial crisis from 2007 and the sovereign debt crisis in Europe from 2010 have cost much confidence in the financial system and government institutions. The fight against the crisis has taken the policy of cheap money with negative interest rates to the extreme in Europe. The unconventional monetary policy of the central banks has inflated the central bank balance sheets of the largest economic areas like balloons – FED, ECB, BoJ, PboC, BoE or SNB. In Europe, the balance sheet number of the European Central Bank now exceeds the total economic strength of Germany. In addition, the target balances in the Eurosystem have taken on an unprecedented size: the balance sheet requirement of the Deutsche Bundesbank against the Eurosystem, for example, rose to 976 billion euros in the summer of 2018, and the one trillion-euro mark is within reach. For example, if Italy leaves the euro area, half of this amount is at risk.

Can precious metals protect your assets?

In this context, investment advisors often refer to precious metals in strategic asset allocation to hedge risks. The gold market is by far the largest precious metals market, followed by silver and the platinum group metals platinum, palladium, rhodium, ruthenium, osmium and iridium, of which only platinum and palladium are suitable for investment.[2]

Gold has proven its worth as a store of value for 5,000 years, and gold and silver in the form of coins have been used as means of payment for more than 2,500 years. Since 1970, gold and other precious metals have been in a much better position to preserve purchasing power than the US dollar and the Deutsche mark or the euro. At present, however, it is not the fear of inflation but the concern for the financial system that makes gold interesting. After three lean years, however, inflation can quickly become an issue again, because in the summer of 2018 inflation in Europe rose back to the ECB's target of 2% for the first time.

What is the fundamental value of a troy ounce of gold or silver? Does an intrinsic value exist that is oriented, for example, to the funding costs? It is undisputed in industry circles that the costs of promotion mark a lower limit of price development at least in the medium to long term. How attractive it is to own precious metals, on the other hand, can be assessed on the basis of the following factors:

- monetary policy
- inflation
- currencies
- economic data
- Supply and demand
- insecurity

The monetary policy of the central banks, in particular of the FED and the ECB, influences the interest rate level and thus the „opportunity costs" of gold. If the savings book offers attractive interest rates, this has a negative effect on the demand for gold. Precious metals should play to their strengths above all in times of rising and high inflation, when the rate of cash devaluation increases. If real interest rates, i.e. nominal interest rates minus the inflation rate, stagnate or fall, this is good for precious metals. The development of the US dollar is also a decisive influencing factor: if the US dollar weakens, this is a positive factor for precious metals. Important economic data provide clarity as to whether the economy is running „smoothly": if the economy is booming and unemployment figures are falling, this is the bad omen for precious metals. We are currently in the longest stock market boom since the golden 1920s, so a certain degree of caution is advisable[3].

Uncertainty includes geopolitical crises, terrorist attacks and a financial system that is going through the cracks. Finally, it plays a role whether fundamental trends in supply or demand are shifting in the gold or silver market, for example. The most important buyer of physical gold, for example, is India. The most important owners of gold are the central banks. Central banks worldwide hold around 33,800 tons of gold. The largest holdings are held by the central banks of the USA, Germany and the International Monetary Fund IMF. In recent years, China, Russia and Turkey in particular have been buyers of gold. countries whose currencies have depreciated significantly against the US dollar. China has built up its gold reserves massively in recent years, but due to enormously high foreign exchange reserves, the country of the middle only achieves a gold cover ratio of 2.5%. By way of comparison, the USA and many European countries cover between two thirds and three quarters of their foreign exchange reserves with gold.

There are currently about 190,000 tons of gold worldwide . This is the estimated amount of gold that has been mined in human history. The value of this quantity of gold adds up to about 8 ½ trillion US dollars. Let us recall that this alone corresponds to the increase in global debt in the first quarter of 2018. Gold inventories are therefore not suitable for debt repayment.

Conclusion.

The markets for most assets have become accustomed to the policy of cheap money. The stock markets saw their all-time high in January 2018, Germany can still borrow virtually free of charge, and real estate prices are also rising. However, the turnaround in interest rates has already begun in the USA. A total of seven interest rate hikes have raised the key interest rate to 1.75%-2% since the end of 2016. If the end of QE is indeed reached in Europe in 2019 and the reins are tightened again, many market observers fear that the capital markets could react irrationally and with significant valuation discounts. Gold and other precious metals may not be suitable for repaying debt, but they can be used as crisis and inflation protection for private investments.

[2] Federal Institute for Geosciences and Natural Resources (BGR), www.deutsche-rohstoffagentur.de, accessed 15.08.2018

[3] Chris Anstey: Goldman Warns That Market Valuations Are at Their Highest Since 1900, www.bloomberg.com/news/articles/2017-11-29/goldman-warns-highest-valuations-since-1900, 29.11.2017

[4] World Gold Council, www.gold.org, accessed 22.8.2018

Interview mit Dr. Torsten Dennin –
Gründer und CEO der Lynkeus Capital LLC

Dr. Torsten Dennin is the founder and CEO of Lynkeus Capital LLC, an investment boutique specialized on the topic area commodities, seated in Switzerland. Since 2003 Dr. Dennin is analyzing the international commodity markets with a focus on energy and the global equity sectors oil & gas and metals & mining. Until the middle of 2017 Dr. Dennin managed the division Strategy and Research of Tiberius Asset Management AG. Previously Dr. Dennin worked as Co-Head Natural Resources for VCH Vermögensverwaltung (asset management) (2010-2013) and from 2003 to 2010 as Portfolio Manager for Deutsche Bank AG in Frankfurt am Main. During this time, he was responsible for the investment decisions of several commodity funds. Dr. Dennin studied economics at the University in Cologne, Germany and at Pennsylvania State University, USA. He wrote his doctorate on the topic Commodity Markets at the Schumpeter School of Business and Economics.. Dr. Dennin is the author of the books “Besicherte Rohstoffterminkontrakte im Asset Management”, “Lukrative Rohstoffmärkte – Ein Blick hinter die Kulissen” and “Afrika – Kontinent der Chancen” as well as numerous publications in journals.

Prof. Dr. Dennin, you are the founder and managing director of Lynkeus Capital LLC, an investment company specializing in commodity markets. What do you do differently from your competitors? What strategy or investment objective are you pursuing?

With the Lynkeus Commodity Strategy I have developed a concept which is able to invest asset classes across the board in commodities. An investment can be represented either directly via the commodity or via shares or bonds of commodity producers. Depending on what pays off more for the investor. An example: In a positive market environment for gold and silver, shares in gold and silver mines often show a significantly more positive investment performance, as rising prices are often reflected as a „multiplier“ in the company‘s earnings and value. For example, in addition to direct investments in gold and silver, the portfolio also includes equities and bonds from gold and silver mines. For the selection, the strategy relies on a stringent quantitative investment process and qualitative fundamental market analysis for the corresponding commodities.

An interesting and innovative concept, but what has the strategy brought to the investor so far? And what are the risks?

The Lynkeus Commodity Strategy has been active on the commodity markets since March 2016 but has been on paper since June 2013. During this period of more than 5 years, an average performance of 24% per year was achieved (CAGR). Such a result is, of course, also associated with a corresponding fluctuation in value. Accordingly, investors must always take setbacks into account. Last year, a value increase of 40.7% was achieved, this year the strategy is slightly negative due to a disappointing development of the commodity markets, especially precious metals and mining companies.

What moves you to focus on commodities? Haven‘t the stock markets, especially the technology sector, performed much better in recent years?

Admittedly, the performance of the stock market and in particular of Apple, Alphabet (Google) and Amazon is impressive. But don‘t you think it‘s unhealthy that the stock market value of Google, for example, alone exceeds the value of all mining companies in the MSCI World Metals & Mining Index, which includes around 100 companies including mining giants such as BHP Billiton, Rio Tinto, Glencore and ArcelorMittal? This reminds me rather of the times of the „New Economy“. But what specifically does I do for raw materials? First, unlike the stock market, commodities have a five-year bear market behind them, which bottomed out in spring 2016. Raw materials are therefore relatively „cheap“. Second, commodities are good performers in the late cycle of economic development. We are in the longest share boom since the golden 1920s, so caution is advised. And thirdly, despite all the enthusiasm for technology, people often forget Without lithium, cobalt, copper and nickel there is no electric car and no iPhone on the phone!

How will the stock and commodity markets develop in 2018? What have been the big value drivers and the big value destroyers on the commodities market so far? And how do you assess the further development for the year as a whole?

In the USA, the S&P 500 index is starting to regain its all-time high of January 2018 on the back of a strong US dollar. The situation on the global stock markets, on the other hand, does not look quite so rosy. In Germany, for example, the DAX is trading closer to the 52-week low of around 11,700 points instead of the all-time high of 13,600 points.

The Bloomberg Commodity Index, the indicator of the commodity markets, has also clearly left its annual high behind. But the positive long-term price trend is still intact. Commodities trade on average around +15% above the price level reached on an index basis with their all-time low in January 2016.

Despite a stronger US dollar, crude oil is trading at USD 70 (Brent) and USD 65 (WTI) and thus around 10% above the price level at the beginning of 2018. Natural gas and uranium have also risen in price. Base metals, on the other hand, are weaker overall. Copper trades just under 20% below the level of the turn of the year at less than USD 2.70 per pound. In this segment, only nickel stands out with a positive performance since the start of the year. Tears predominate for precious metals: the price of one troy ounce of gold has slipped well below the USD 1,200 mark. Gold is thus about 13% below its high of the last 12 months. An ounce of platinum is currently available for less than 800 US dollars. Silver even trades just under 20% below the high of the last 12 months, which was around 18 US dollars.

The prospects for the stock market are clouding over; many indices are trading at significant discounts from the highs reached in January 2018. Commodities as a classic late-cycle asset class are likely to outperform in this environment. Precious metals and the shares of gold and silver mines have particular potential.

Gold, silver and platinum did not please investors in 2018. What are the advantages of precious metals in the current market phase?

First and foremost, I see the strong US dollar in connection with the friendly stock market development in the USA as a negative factor for precious metals. As a result of these factors, Gold ETFs, for example, recorded significant falls in July and August.
Even if the latest development is unsatisfactory, I consider this negative development to be short-term. The fundamental picture for precious metals remains attractive.

In the first quarter of 2018, the international debt of states, companies and households rose by USD 8 trillion. This corresponds to the value of the entire physical gold market! According to data from the Global Debt Monitor, international debt continues to rise faster than economic power, and the IMF warns of a debt level that is now higher than before the financial crisis. The increased level of debt is a guarantee that interest rates cannot be reduced to a „normal“ level.

10-year interest rates in the USA and Germany are stagnating instead of rising. At the same time, inflation is rising noticeably, so that real interest rates, i.e. nominal interest rates minus inflation (which are such an important factor for the gold price), are even falling!

In Europe Great Britain is still facing a disorderly Brexit, the Greeks have temporarily left the EU rescue parachute after 8 years, Nato partner Turkey is facing an economic and financial crisis, and in Italy not only bridges but also public finances are wobbling. In the summer of 2018, the Bundesbank‘s target balances will rise to 1,000 billion euros – half of Germany‘s financial risks are attributable to Italy.

From the USA, President Trump provides interference signals for international trade. With the further rise in US debt, the period of a strong US dollar should have a short half-life. Therefore, gold and other precious metals are likely to play a more significant role as crisis insurance in 2018/2019 than as inflation protection.

Does this apply to all precious metals to the same extent? Specifically asked for the investor: what is the difference between gold, silver, platinum and palladium? What should you invest in?

Lynkeus Capital, founded at the beginning of 2016, specialises in cross-asset class investments in international commodity markets with a focus on energy and metals. The focus is on identifying exceptional investment opportunities in commodities and commodity producers, as well as achieving convincing, positive value growth in every market phase ("absolute return"). Lynkeus is a member of the Association for Quality Assurance in Financial Services (VQF), a self-regulatory organisation for asset managers in Zug recognised by FINMA.

The gold / silver ratio of the last 20 years
(Source: own representation)

An important factor is market size and related factors such as tradability, liquidity and volatility. The classic investment metals are gold and silver. Both metals long served as the basis for currency systems (keyword: „gold and silver standard"). Based on current prices, the value of annual mine production for gold is around 120 billion US dollars, for silver it is slightly more than 12 billion US dollars – i.e. much smaller and thus more volatile than the gold market. Platinum, palladium and rhodium taken together do not even reach the size of the silver market. Investors must be aware of this.

The growth in electrically powered vehicles (EVs) is passing by the so-called platinum group metals, because their main application is in the area of catalytic converter technology. As a result of the diesel scandal, palladium developed significantly better than the other precious metals. Only in the case of platinum is the jewelry industry an important influencing factor.

Note: demand from industry is highest for platinum group metals, is still an important factor for silver, but plays no role at all for gold. The jewellery industry dominates here, followed by investment demand in the form of ETFs, coins and bars.

If the purpose of an investment in precious metals is to protect assets against inflation and instability of the financial and monetary system, gold is still of the greatest importance. We recommend silver in admixtures. The gold-silver ratio has proven to be an important indicator. The ratio indicates the ratio between the price of gold and the price of silver. A high figure means: Relative to the historical average, silver is currently undervalued compared to gold. So, silver would be cheap compared to gold.

Over the past 30 years, the gold/silver ratio has averaged 66, which means it took 66 ounces of syllable to buy one ounce of gold. Currently the ratio is 82, close to the historical highs. An admixture of silver can therefore make sense.

After a good performance in 2016/2017, gold and silver mines left strong feathers especially in July and August 2018. What's the next step here?

Investors in gold and silver mines will face a 20% decline in average value this year. Gold at just under 1,200 US dollars and silver below 15 US dollars per troy ounce does not sound particularly encouraging to investors. Even for many gold and silver mines, even lower prices can soon become a problem. The market began to price this in July and August but did not differentiate between good and less good quality.

Should the gold price finally break through the 1,365/70 US dollar mark, then nothing stands in the way of a further rise to levels of 1,400 to 1,500. For silver, this increase corresponds to price levels of 22-24 US dollars. However, the prerequisite is that gold does not fall below the levels of 1,124 US dollars and 1046 US dollars per troy ounce, the local lowest prices of 2016 and 2015. Otherwise, a further correction to levels below 800 US dollars cannot be ruled out.

Let's look at the index funds of VanEck large and small gold and silver mines (GDX and GDXJ) we are currently trading in both categories at the low of the past 52 weeks. By the way, it looks the same for the large mine values like BHP, Rio and Glencore.

We are convinced that at the current price level we have identified an attractive buying level for precious metals as well as for gold and silver mines. Risk-averse investors should wait for confirmation of the positive fundamentals of the gold market with an initial rise in gold prices in the $1,280-1,320 range. At the latest when the gold price passes the 1,365/70 US dollar mark again for the first time, the chase to catch up of the gold and silver mines will accelerate. A doubling of the current price level is not excluded.

What is the situation with regard to the flow rate? Which are the largest producer countries, and which are the leading companies?

The decline in exploration spending by companies since the peak before the 2007 financial crisis suggests that this will soon be reflected in declining production figures. However, gold production surprised with a slight increase this year; the World Gold Council reported a slight increase in mine production to around 3,150 tonnes in 2017. Silver production peaked at 26,800 tonnes in 2014 and has since declined slightly but steadily to 25,000 tonnes in 2017. The production of platinum and palladium, on the other hand, amounts to just 500 tonnes.

Gold and silver are mined almost everywhere in the world. The leading countries in gold mining are China, Australia, Russia, USA and Canada. In silver mining, Mexico, Peru and China lead. In the case of platinum, on the other hand, South Africa dominates production, while in the case of palladium the country on the Cape shares this rank with Russia. A higher concentration of support can also contribute to a higher fluctuation in value.

The largest gold mine operators in terms of production are Barrick Gold, Newmont Mining, AngloGold Ashanti and Goldcorp. The largest „pure" silver producer is Fresnillo. However, KGHM Polska Miedź and BHP Billiton produce more ounces per year, but silver accounts for only a fraction of their total turnover. For both gold and silver, it is not so much the large companies that deserve investors' attention as interesting development projects in the small and medium-sized business sector. Through an aggressive acquisition policy, the South African company Sibanye-Stillwater, for example, moved into the top 10 global gold producers and into the top 3 global producers of platinum and palladium. In the latter category, Anglo American Platinum, a subsidiary of South African Anglo American, and Russian Norilsk Nickel are the leaders.

What do you pay particular attention to when assessing the attractiveness of an investment in a gold and silver mine?

The location, quality and potential of an asset as well as the competence and reliability of the management are decisive factors in qualitative fundamental analysis for me. This applies to precious metals as well as to the mining and energy segment. Prior to this, all companies go through a quantitative filter („screening“). Diversification is another important point that we do not neglect.

These are all topics you will find in your books „Lucrative commodity markets – a look behind the scenes“ and „Africa. Continent of Opportunities“. And at the end of the year, you‘re planning „From Tulips to Bitcoins. Fortunes Made and Lost in Commodity Markets“ another book. What motivated you to write these books and what can interested investors take with them?

All three books have a clear focus on the commodity markets and are warmly recommended to interested investors. My first book examines the background of the great speculative bubbles on the commodity markets, starting with the tulip madness in Holland in the 17th century, through the silver speculation of the Hunt brothers to the demise of Amaranth Advisors 10 years ago. In „Africa – Continent of Opportunities“ I show the attractive development opportunities of raw material projects, including gold, silver and gemstones. Africa is a continent that most investors still wrongly ignore.

„From Tulips to Bitcoins“ describes how the largest bubble in the financial markets to date, the Dutch tulip madness, was replaced by Bitcoins in 2017/18. A fabulous performance from 3 US cents to over 20,000 US dollars, followed by a crash in which investors lost 80% of their capital. Cycles are typical for commodity and financial markets – investors should always bear this in mind!

Bitcoins and other crypto currencies are an exciting topic. How do you interpret current developments? Isn‘t this a competition for gold and silver?

Bitcoins have managed to break a 400-year-old record in 2018: Finally, there‘s a bubble bigger than the Dutch tulip mania! But apart from that: Bitcoins and other crypto currencies, like gold, offer a hedge against the risks of the traditional financial system. As a result, in recent months investment money has grown in the crypto segment, which may have been lacking in gold and other precious metals. One problem, however, is the high volatility in this area. For example, crypto currencies covered with gold or other forms of digitisation that are actually backed by physical gold offer a way out. This is where the latest technical standards and a millennia-old investment medium come together. It almost seems as if the gold standard is reviving through private initiatives. The combination of new technological standards such as the blockchain with gold opens up new investor circles and promotes the acceptance of gold and silver. Therefore, I do not see competition in this development, but a meaningful solidarity.

How do you assess the future development of gold and silver? What‘s more promising? Gold and silver mines, or a direct investment in gold and silver?

Physical gold forms the basis of any long-term asset strategy. Rising interest rates and a strong US dollar are short-term negative factors for a positive development. Internationally, however, debt is rising faster than economic power, so that the rise in interest rates seems limited. Otherwise, the negative consequences would be a slowdown in economic growth and a reluctance to consume and invest – negative factors for the stock market, but positive for the development of the gold price. Falling real interest rates, i.e. inflation is rising faster than interest rates, are also a positive sign for the gold price. Rising debt and an increase in debt service also limit the strength of the US dollar. In sum, precious metals help to build up a counterweight against inflation and financial crises. In view of the current US economic policy, the dealings with countries such as Iran and North Korea, the Brexit in Europe, or the stability of the European Union, an „insurance“ seems to be advisable. In a positive environment for gold, silver should clearly outperform. This is also supported by the comparatively high gold-silver ratio. A „normalisation“ of the price ratio of gold to silver to a ratio of 60-65 implies an outperformance of silver to gold of approximately 25%. This can confidently be described as „brilliant“ prospects!

Both are good news for mining companies: rising prices earn the company more, and the value of the company increases! Even in an otherwise weak equity environment, gold and silver mines should perform well.

Torsten Dennin
Lukrative Rohstoffmärkte: Ein Blick hinter die Kulissen
FinanzBuch Verlag, 2. Auflage, Oktober 2011
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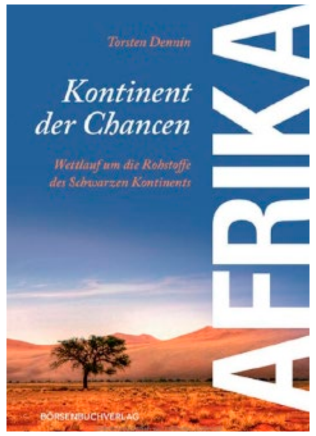


Torsten Dennin
Afrika – Kontinent der Chancen: Wettlauf um die Rohstoffe des schwarzen Kontinents
Börsenbuchverlag, April 2013
ISBN 3864701007

Endeavour Silver
Fourth mine in operation, fifth within reach

Endeavour Silver is one of the largest silver producers in North America with listings in New York, Toronto and Frankfurt. The Company mined a total of approximately 2.7 million ounces of silver and 26,882 ounces of gold from its three Mexican mines during the first half of 2018. Endeavour Silver is currently in a state of upheaval as three new mines are to be commissioned by the end of 2020.

Guanaceví Silver Mine

Endeavour Silver's first Guanaceví plant, commissioned in 2004, consists of three mines: Porvenir Norte, Porvenir Cuatro and Santa Cruz. The processing capacity on Guanaceví is 1,200 tonnes of rock per day (tpd), which could only be utilised at 830 tpd in the first half of 2018. In total, Endeavour Silver mined 961,258 ounces of silver and 2,870 ounces of gold there in the first half of 2018. At the end of 2017, reserves were 2.81 million ounces silver equivalent and resources were 33.84 million ounces silver equivalent. The Company has demonstrated silver equivalent grades of up to 5,120 grams per tonne in the Santa Cruz vein area.
Most recently, several high-grade intervals of 1,000 grams silver equivalent per tonne of rock were reported in August 2017, including one interval of up to 2,824 grams!

Silver mine Bolañitos

Endeavour Silver Bolañitos was commissioned in 2007. The entire plant currently has six mines: Lucero, Bolañitos, Karina, Fernanda, Daniela and Lana. The processing capacity on Bolañitos is 1,600 tpd, of which 1,235 tpd was used in the first half of 2018, about two thirds of which was used. In total, Endeavour Silver mined 504,032 ounces of silver and 11,129 ounces of gold there in the first half of 2018. At the end of 2017, reserves were 3.23 million ounces silver equivalent and resources were 16.40 million ounces silver equivalent. The society is currently working on expanding these and was recently able to celebrate great success with the new discoveries LL-Asunción and La Joya.

Silver mine El Cubo

El Cubo was acquired in 2012 and currently comprises the four ongoing mines San Nicholas, Dolores, Villalpando and Peregrina. The processing capacity on El Cubo officially amounts to 1,500 tpd, which was well utilized in the first half of 2018 with 1,471 tpd. In total, Endeavour Silver mined 1.241 million ounces of silver and 12,883 ounces of gold there in the first half of 2018. At the end of 2017, reserves were 4.93 million ounces silver equivalent and resources were 17.29 million ounces silver equivalent. Endeavour Silver could announce a new discovery with V-Asunción. In 2015, the pure mine capacity was expanded to 2,200 tpd.

Mine project El Compas

In May 2016, Endeavour Silver acquired the El Compas Mining Project for only US$6.7 million in shares. In addition to the acquisition of the actual El Compas gold-silver mining operation, the nearby La Plata ore processing plant was leased with an initial processing capacity of 250 tpd (expandable to 500 tpd). The El Compas Gold-Silver Mining Project offers some exploration potential for resource expansion and much acquisition potential to bring together all unrecognized resources and exploration targets within the Zacatecas Mining Region to extend project life. El Compas currently consists of the two El Compas and El Orito veins, which can be rapidly exploited. In addition, the project site has ten other exploration targets. Drilling to date has included 4.70 metres of 239.55g/t gold and 1,333g/t silver.
At the end of 2017, El Compas had approximately 6.45 million ounces of silver equivalent. Endeavour Silver commissioned the mine in April 2018. A feasibility study (PEA) published in March 2017, for a silver price of US$18 and a gold price of US$1,260, comes to a very strong return on equity (IRR) of 42% and a payback period of 2.1 years. All-in-sustaining costs were estimated at US$ 9.64 per ounce of silver equivalent.
In June 2017, Endeavour Silver acquired two further projects with a total area of 227 hectares in the immediate vicinity of the El Compas Mine in order to extend the mine life. These contain several veins with proven degrees of up to 1,300g/t.

Mega development project Terronera

On the San Sebastian project acquired in 2010, Endeavour Silver recently discovered a new, high-grade silver-gold mineralization called Terronera on the San Sebastian project, which now also gives the project its name. The existing at least four large gold vein systems there are each over three kilometers long. In total, Terronera had 59.5 million ounces of silver equivalent reserves and 74.8 million ounces of silver equivalent resources (including reserves) at the end of August 2018. Continuing infill drilling has shown grades of up to 18,000 grams of silver equivalent per tonne. In the first half of 2016 alone, Endeavour Silver discovered nine new veins. Terronera seems predestined to become Endeavour Silver's fifth (after the three existing mines plus El Compas) producing mine.
In August 2018, Endeavour Silver released a renewed pre-feasibility study (PFS) for Terronera. This is based on an initial production capacity of 750 tpd, which is to be increased to 1,500 tpd in the third year. The initial cost of capital was estimated at US$ 75.8 million. The planned expansion would cost a further estimated US$39.2 million. Over the initial estimated 9.5-year mine life, an average of 5.1 million ounces of silver equivalent will be produced annually. For the underlying prices of US$ 17 per ounce of silver and US$ 1,275 per ounce of gold, a strong after-tax IRR of 23.5% was calculated. The construction time for the mine could only be 12 to 16 months.
Mine construction within 12 to 16 months would be so quick because Endeavour Silver has its own design and planning team that a production of 1,000 tonnes per day could be established relatively quickly. This team is made up of the same project manager, the same Canadian engineering consultants and the same Mexican construction company that has been used since 2010 for the expan-

(Source: Endeavour Silver)

sion of Bolañitos and the commissioning of El Cubo, among other things.
In August 2017 Endeavour Silver reported further results from its most recent drill program at La Luz Vein. It encountered sensationally high-grade areas such as 1,180 grams silver equivalent per tonne of rock over 1.7 metres, 1,485 grams silver equivalent per tonne of rock over 1.3 metres and 3,335 grams silver equivalent per tonne of rock over 0.2 metres. The highest concentration was an amazing 11,245 grams of silver equivalent per ton of rock! In June 2018, 861g/t silver equivalent was found on a 21.2-metre-long intercept in June 2018.

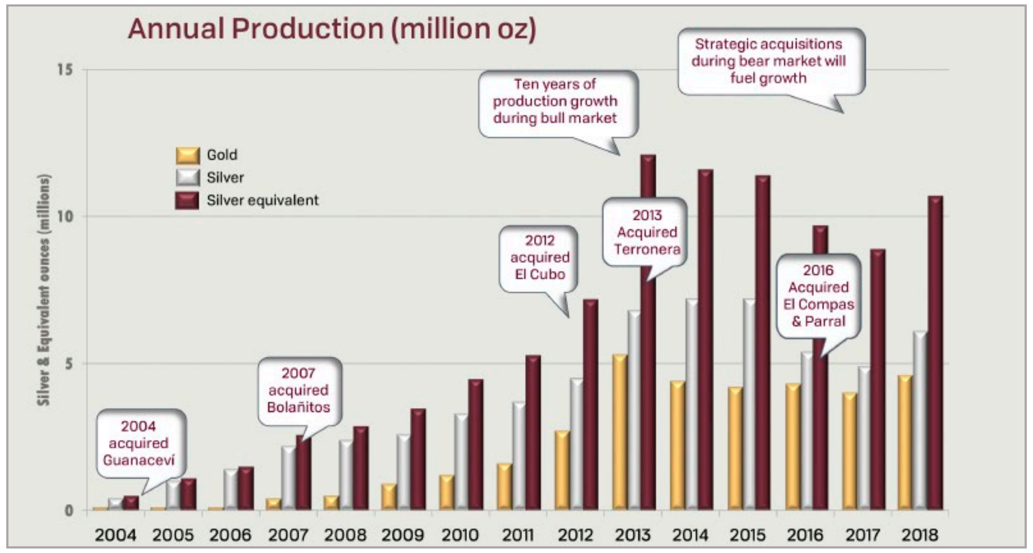
Development project Parral

In September 2016 Endeavour Silver acquired the Parral project for only US$ 6 million in treasury shares. There are several large veins that extend over a length of eight kilometres and are up to 40 metres thick. In February 2017 Endeavour Silver released its own resource estimate for Parral. Accordingly, the project has a total of 32.37 million ounces of silver equivalent. There is also excellent potential for the discovery of new high-grade resources in the under-explored areas along the strike lines of Veta Colorada, San Patricio, Palmilla and numerous other veins in the properties. Drill hole SPD-03 at San Patricio intersected one meter of 638g/t silver. Several high-grade drill results were reported in October 2017. Among them was also a 0.6-meter-long section with fabulous 13,117g/t silver! Another high-profile drill success was reported by Endeavour Silver in May 2018 where up to 1,660g/t silver, 0.72g/t gold, 6.52% lead and 14.45% zinc over 2.3 metres were encountered in the San Patricio mineralization area.

Expansion of exploration in Zacatecas Province

In September 2017, Endeavour Silver announced that it had secured the right to explore and mine precious metals on Capstone Mining's 181-hectare Toro del Cobre concessions, located above 2,000 metres above sea level, at Toro del Cobre. Capstone's concessions are adjacent to the 75-hectare Calicanto concessions in Zacatecas (Mexico) owned by Endeavour Silver. The company is thus attempting to consolidate another project and make it fit for future funding.
Speaking of Calicanto, Endeavour Silver delivered absolute high-grade drill results for the core project in December 2017. Among other things, they came across 0.5 metres with a fabulous 16,350g/t silver equivalent! In July 2018, recent drilling intersected 3,450g/t silver equivalent over 0.2 metres, among others.

Endeavour Silver could already reach the 2015 production level in 2018. (Sorce: Endeavour Silver)



Catalysts for the coming months

Endeavour investors can look forward to several significant advances over the coming months. The company is planning a production decision for Terronera. Furthermore, it is planned to further reduce all-in-sustaining costs. The same applies to the acquisition of further projects that fit into the production profile as well as additional licenses in the area of previous projects in order to investigate and expand them by means of an aggressive exploration program and thus to extend mine runtimes accordingly.
For the full year 2018 Endeavour Silver plans to increase its production by a whopping 20% to 10.2 to 11.2 million ounces silver equivalent!

Summary: Terronera becomes the absolute Company Changer

Endeavour Silver is currently setting an uncanny pace. In the current year 2018 a new mine could already be put into operation. Two more are to follow in the next 24 months. Including Terronera, which would then be by far the company's largest mine. In mid-2015 the plan was to increase silver production by 60% over the next three years. From early 2016, production should gradually increase to at least 16 million ounces silver equivalent, which would catapult the company into senior producer status. Including all associated amenities such as a higher valuation of each individual ounce of silver and a potentially doubled annual cash flow valuation. Now it looks like this plan is being postponed by pretty much two years. However, at the end of the day this could be offset by even higher production.

Exclusive interview with Bradford Cooke, CEO of Endeavour Silver

Bradford Cooke, CEO

What did you and your company achieve within the last 12 months?

We returned our focus to building new mines and growing our production. As a result, Endeavour Silver now has one of the most compelling organic growth profiles in the silver mining sector. We delivered decent performance in 2017, generating $9.6 million net earnings in spite of lower metal prices and lower production compared to 2016. Silver equivalent reserves grew by 228% and we added 21 million oz AgEq inferred resources at our new Parral exploration project. But the real story is our new mines. We optimized the operating metrics and commenced development of our fourth mine, El Compas, in Zacatecas. Final commissioning of the new mine and refurbished plant are expected shortly. Most importantly, we recently published an updated pre-feasibility study for our fifth mine, Terronera, in Jalisco, with a significantly larger NPV ($118 million), higher IRR (24%), larger reserves (4.0 million tons), higher grades (428 gpt Ag Eq) and a longer mine life (10 years). Terronera will become both our largest (5.2 million oz Ag Eq per year for 10 years) and lowest cost ($1.36 per oz Ag AISC net of the Au credit) mine with production starting in 2020.

What are the main catalysts for your company within the next 6 months?

We anticipate several catalysts to create shareholder value over the news few months, including:

- Achieving commercial production at the new El Compas mine
- Developing two new orebodies at Guanacevi to boost production and reduce costs
- Securing the final government permits, arranging debt financing and making a production decision for Terronera
- Expanding resources again at Parral and completing a preliminary economic assessment for this project to potentially become our sixth mine
- Cutting costs at our mining operations to weather this short-term drop in metal prices
- Acquiring new mining properties to expand our development pipeline

What is your opinion about the current conditions of the silver/gold market?

This is a very delicate time in the global economy and financial markets. Central banks are moving from quantitative easing to monetary tightening. Developed economies are enjoying growth but emerging economies are struggling. The US stock markets are now in the longest running bull market ever and equity valuations are very high whereas emerging markets have crashed. Trump and his trade wars, tariffs, and sanctions threaten the status quo everywhere. The US dollar is strengthening but export currencies are weakening, some precipitously (Argentine peso, Turkish lira). As a result, money has moved out of commodities to the safety of the US$ so gold and silver prices have fallen close to their 2015 bottom. This is how a liquidity crisis begins. They typically end with a bubble, then panic, a stock market crash and economic recession, all within a few months. Once this is behind us, money inevitably starts to seek better returns through value investing, and what better value can be found than gold and silver? So, I think precious metals could enter into their next bull market late this year.

Endeavour Silver Corp.

ISIN: CA29258Y1034
WKN: A0DJ0N
FRA: EJD
TSX: EDR
NYSE: EXK

Shares outstanding: 128.3 million
Options/PSUs: 6.5 million
Warrants: -
Fully diluted: 134.7 million

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Excellon Resources
Production more than doubled in first half!

Excellon Resources is a Canadian silver producer operating the La Platosa silver-lead-zinc mine in northeastern Mexico. This is considered to be the highest average grade mine in Mexico, making Excellon Resources the country's highest-grade silver producer. Society is currently undergoing a transformation process that will result in a doubling of support.

La Platosa Silver-Lead-Zinc Mine – Location and Infrastructure

The La Platosa silver-lead-zinc mine is located in the Mexican province of Durango, not far from the small town of Bermejillo with 9,000 inhabitants. The infrastructural location is excellent, as the city of Torreon with 600,000 inhabitants is located only 50 kilometers southeast of the mine. This has a direct connection to the highways 30, 49 and 490 as well as to the national high-voltage network. An international airport is only 50 kilometres away.

La Platosa Silver-Lead-Zinc Mine – Acquisition and Resource

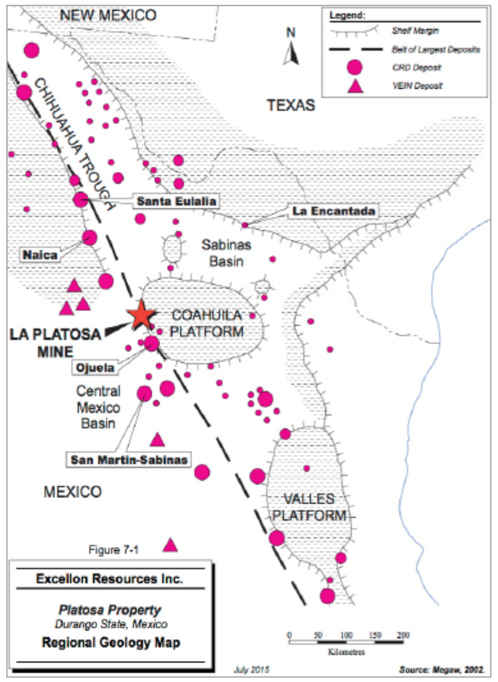
La Platosa was acquired in 1996 and has been in continuous operation since 2005. Since then, about 500,000 tons of rock have been mined. The entire licence area covers almost 20,950 hectares and consists mostly of flat land. La Platosa is a conventional underground mine that was developed by means of a ramp. Most of the material is pumped from relatively near-surface layers. The extracted rock is crushed on the site and then transported by lorry to Miguel Auza Mill in the state of Zacatecas, about 200 kilometres south, where it is further processed into a concentrate. The most recent resource estimate dates back to July 2018 and indicated 485,000 tonnes of indicated resources for La Platosa with an average of 549g/t silver, 5.6% lead and 5.9% zinc. In summary, this is 16.456 million ounces silver equivalent with average grades of 1,055g/t silver equivalent. In addition, 426,000 ounces of silver equivalent are derived to an average of 1,014g/t in the category.

La Platosa Silver-Lead-Zinc-Mine – Production

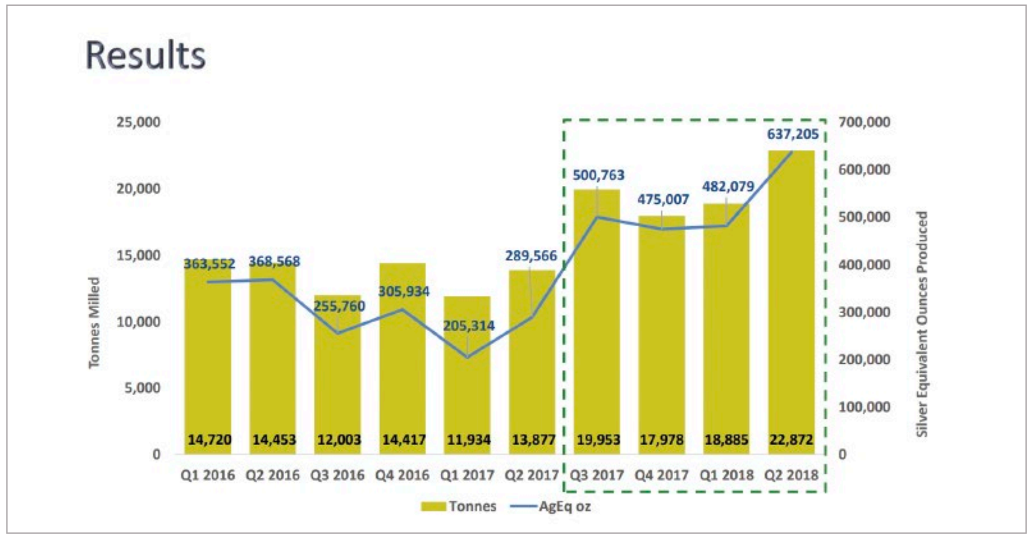
A total of 1.12 million ounces of silver equivalent (472,163 ounces of silver, 3.12 million pounds of lead, 5.06 million pounds of zinc) were produced in the first half of 2018, representing a 126% increase in silver equivalent ounces over the first half of 2017.

La Platosa silver-lead-zinc mine – production improvements

This strong production growth also indicates the future path of the company, which plans to drastically increase production to 4 million ounces silver equivalent by 2020 through optimization programs. At the same time, the all-in-sustaining costs are to be halved to US$ 9 per ounce of silver equivalent.



The La Platosa silver-lead-zinc mine is located in the northeast of Mexico, framed by further high-carat mines (projects). (Source: Excellon Resources)



Silver production increased dramatically from 2017 to 2018. (Source: Excellon Resources)

An important point for the already apparent improvement in production is the issue of water. Prior to 2017, La Platosa had to contend with a steady influx of groundwater, which severely restricted production. Since the middle of 2017, large parts of the mine have been drained. Together with the specialist partners Hydro Resources and Technosub, high-performance pumps have been and are being installed that pump out penetrating groundwater directly at the source, i.e. directly at water-bearing fault lines.

This leads to a 5 times faster development of the underground infrastructure and a simultaneous halving of the required equipment. In addition, the number of pumps can be reduced from 60 to 20 and the electrical efficiency increased from 30% to 75%.

Actions have been taken to branch production from 256,000 ounces silver equivalent in the third quarter of 2016 to 637,205 ounces silver equivalent in the second quarter of 2018. In order to achieve this interim target, Excellon Resources had to absorb high all-in sustainability costs, particularly in the second half of 2016, which in some cases exceeded US$ 40 per ounce of silver equivalent. All-in costs of less than US$ 10 in the second quarter of 2018 show that the effort has paid off.

La Platosa Silver-Lead-Zinc Mine – Clear focus on 4-million-ounce silver equivalent per year production mark

In addition to the actual improvement of the production conditions, the dewatering of the mine also has an additional advantage in deeper layers. Now you can also attack deeper Manto reservoirs. And they have it in them, for example the deposit „623“ has average silver equivalent grades of 1,766g/t! For comparison: in 2017, the average silver equivalent degree of the processed rock was around 718g/t! Additional upside potential is offered by the Miguel Auza processing plant, which can currently process 350 tonnes of rock per day. According to Excellon‘s management, this can be increased to a daily processing volume of 650 tonnes at relatively low cost. A new overburden facility can also accommodate material for the next 20 years.

La Platosa Silver-Lead-Zinc Mine – Exploration Potential

La Platosa is located in the middle of the Mexican CRD belt (CRD stands for Carbonate Replacement Deposit), which houses some of the largest precious metal deposits, such

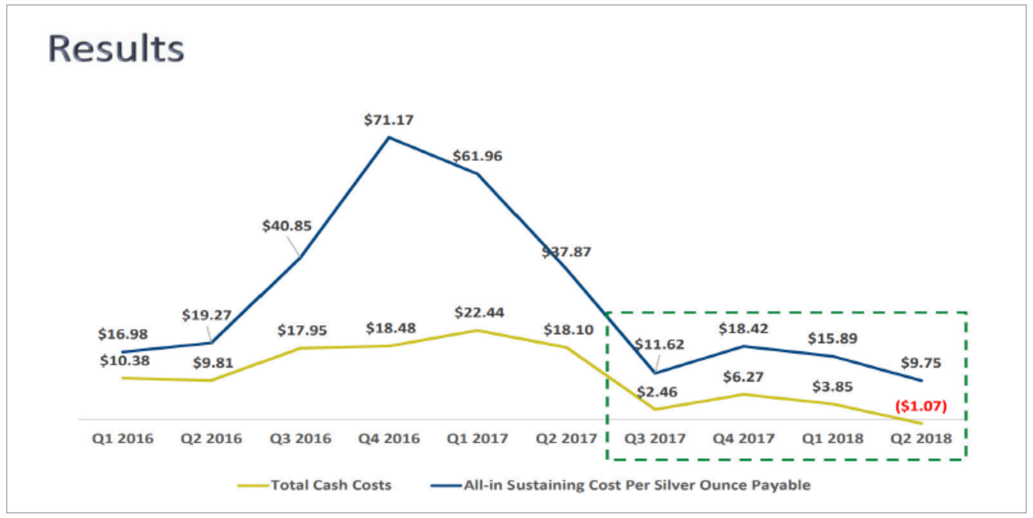
as Cerro San Pedro, Santa Eulalia or Penasquito. These are characterised by largely gigantic tonnages (an average of 10 to 15 million tonnes), high grades (up to 600g/t silver, 6g/t gold, 12% lead, 18% zinc and 2% copper) and relatively easy to mine resources. The tonnage mined to date or currently still known amounts to just 1 million tonnes, with at the same time still partly completely un-explored areas within the licence area. Spectacular drill results in 2016 and 2017 repeatedly indicated the continued potential of La Platosa when up to 5,727g/t silver equivalent was encountered. The best results were:

- 5,727g/t silver equivalent over 1.27 metres,
- 3,857g/t silver equivalent over 5.2 metres,
- 3,702g/t silver equivalent over 1.45 metres,
- 3,570g/t silver equivalent over 3.6 metres and
- 2,780g/t silver equivalent over 5.08 metres.

Further spectacular results were reported in February 2018. Including 2,648g/t silver equivalent over 9.1 metres including a 6.2-metre-long interval of 3,355g/t silver equivalent.
Also, in May 2018, when 3,428g/t silver equivalent was encountered over 10.2 metres. In September 2018 a further 2,781g/t silver equivalent over 15.1 metres was reported. All these are only the best of a whole series of top-class drilling results.

Licensed area offers countless other exploration targets

When comparing La Platosa to the Santa Eulalia Mine, it is easy to see that La Platosa still has tremendous potential for additional deposits at depth, but also in a trend direction. After all, the La Platosa mine currently covers only 56 of almost 21,000 hectares, the entire licensed area. The concession has a strike length of at least 23 kilometres. In previous exploration campaigns Excellon Resources has identified several high-profile deposits. Rincon Del Caido, for example, where 55 metres of 0.08g/t gold, 132g/t silver, 3.13% lead and 1.74% zinc were encountered and 43 metres of 0.22g/t gold, 146g/t silver, 2.76% lead and 1.85% zinc were encountered. Higher grade mineralization of 13.07g/t gold, 21.1g/t silver and 3.57% zinc over 13 metres was also seen. Further southwest the Saltillera deposit was identified by historical drilling. This partially yielded 50-meter thick mineralizations. The most impressive result was 0.8 metres of 660g/t silver, 19.4% lead and 6.23% zinc. Other potential deposits are Jaboncillo to the northwest of the concession, Saltillera North to the west, La Platosa South close to the mine, and Refugio and San Gilberto to the south.



Cash and AISC costs were drastically reduced. (Source: Excellon Resources)

EXCELLON

Miguel Auza – Processing plant and more

The Miguel Auza Project is located approximately 200 kilometers south of the La Platosa Mine and hosts the 800tpd mine material processing facility. Miguel Auza also has a relatively high resource of 22.8 million ounces of silver equivalent indicated in the category and a further 11.8 million ounces of silver equivalent inferred in the category. Miguel Auza covers approximately 14,000 hectares and is located only about 35 kilometers southeast of Heclas high-grade San Sebastian Mine and 135 kilometers northwest of Fresnillos and MAG Silvers top mines. The Miguel Auza Mine itself was in operation until 2008. These and other deposits in the vicinity could in future feed the plant with far more rock material than before. Corresponding silver veins extend to the surface. Historical drilling encountered sometimes gigantic grades of up to 7,600g/t silver plus lead and zinc.
In October 2018, extension drilling encountered a 2.4-metre-long intercept of 683g/t silver equivalent.
In February 2018, Excellon Resources concluded a processing deal with Hecla, which will result in 400 tonnes of rock per day being processed from Hecla's San Sebastian Mine in the Miguel Auza plant from 2019 onwards. Excellon itself does not need this 400tpd capacity but can drastically improve its all-in-sustaining costs through this additional utilization.

Summary: Gigantic exploration potential meets above-average production growth

Over the past two years, Excellon Resources has shown courage and invested a lot of money to make its La Platosa mine fit for the future. The wage: A more than doubling of the subsidy, while at the same time the subsidy costs are significantly reduced. Nevertheless, the company is now putting an extra stop to this and plans to almost double silver equivalent production again to 1 million ounces per quarter by 2020. Commodity luminaries such as Eric Sprott, who holds a large stake in Excellon, believe that the company will achieve this goal. With a CA$14.8 million financing completed in November 2017, the company is excellently positioned to test the La Platosa concession and Miguel Auza for further high-grade silver occurrences. Both projects have recently delivered a host of high-grade drilling results that are expected to offer a gigantic exploration potential. Investors therefore face an eventful and exciting year in 2019.

Brendan Cahill, CEO

Exclusive interview with Brendan Cahill, CEO of Excellon Resources

What did you and your company achieve within the last 12 months?

Over the last 12 months we continued our transition toward becoming one of the lowest cost producers among our peer group. During Q2, we achieved AISC of $9.75 with production of over 600,000 AgEq oz. We remain focused on improving operations, and maximizing cash flow, which we expect to greatly improve in 2019.
Exploration was also an important focus during the year, with fully funded programs on two of the world's richest silver belts, the carbonate replacement deposit (CRD) trend and the Fresnillo silver trend in Durango and Zacatecas, Mexico.
At Platosa on the CRD trend, our underground drill program continued to define further resource tonnage. Our ultimate goal is to find multiple high-grade, near surface silver-lead-zinc deposits and the much larger copper-gold skarn "Source" deposit our 21,000 ha land package. Our work during 2017-18 has made great progress on developing targets for both.
At Miguel Auza on the Fresnillo trend, we commenced an initial 3,000-metre exploration program to test high priority targets. Results are pending, but a potential discovery could be moved quickly through our growth pipeline as our processing facility is located on the 14,000-ha land package, with ample expansion and 20-years of tailings capacity.

What are the main catalysts for your company within the next 6 months?

Within the next 6 months, we expect production at Platosa to continue to improve, generating significant cash flow and delivering an industry leading cost profile. We will use that

Processing facility Miguel Auza
(Source: Excellon Resources)

cashflow to fund important exploration on both our properties with the goal of making multiple discoveries on both of our projects.

Miguel Auza is also soon to develop into an important source of cashflow. In the next few months, the Company expects to commence a toll milling arrangement with Hecla Mining to process ore from the San Sebastian Mine at our processing facility.

Excellon Resources Inc.

ISIN:	CA30069C2076
WKN:	A1XDB7
FRA:	E4X1
TSX:	EXN

Shares outstanding: 98.6 million
Options/DSU/RSU: 6.5 million
Warrants: 5.6 million
Fully diluted: 110.7 million

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GoldMining

Mineral Bank with more than 26.5 million ounces of gold equivalent

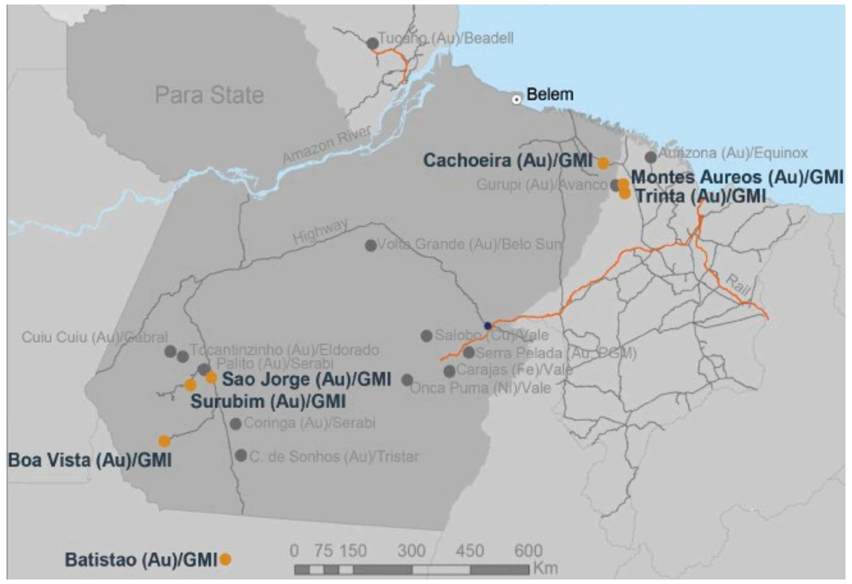
GoldMining is a Canadian mining development company focused on prospective gold projects in North and South America. As a so-called mineral bank, the business model consists of buying up top-class projects at the best possible conditions during bear markets and reselling them at the highest possible price during bull markets or generating development partners for them.

More than 21 million ounces of gold on the credit side

GoldMining has made a number of high-profile acquisitions in recent years and now has a resource base of more than 21 million ounces of gold. Including all other commodities, namely silver and copper, GoldMining's projects have more than 26.5 million ounces of gold equivalent. The most important projects will be presented below.

Para State Projects – Brazil

7 projects are located within or just outside the Brazilian state of Para State. 4 of these already have a combined resource base of 2.41 million ounces of gold.

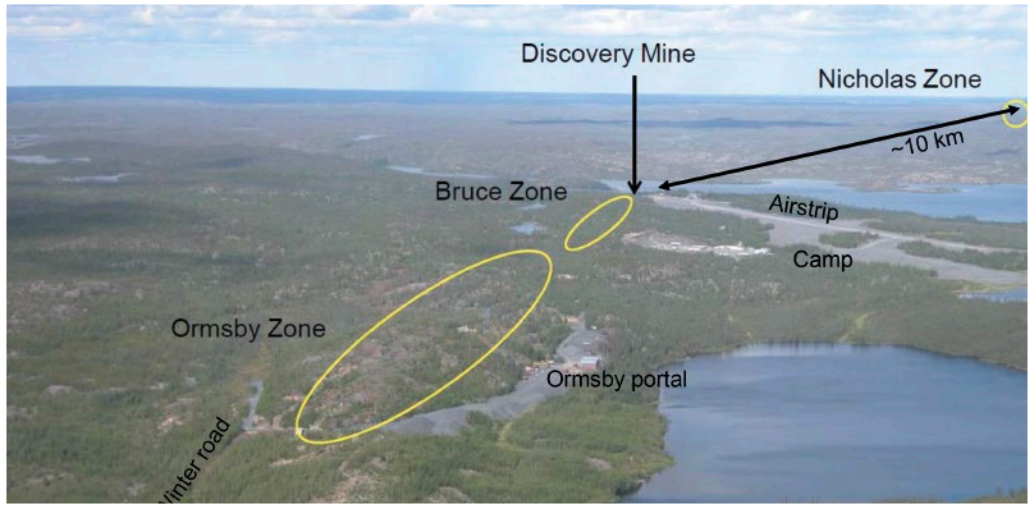


In Para State GoldMining owns 7 top-class projects. (Source: GoldMining)

With 715,000 ounces of gold in the indicated category and 1.035 million ounces in the derived category, Sao Jorge is the leading Para State Project. It is an open pit project with an average indicated grade of 1.54 grams gold per tonne of rock (g/t). Although 145 diamond holes have been drilled to date, approximately 80% of the property has not yet been tested for resources.
Cachoeira has 692,000 ounces in the indicated category and 538,000 ounces in the derived category and a total of three separate deposits in the western licensing area. However, the eastern part of the shear zone has not yet been sufficiently investigated. The 285 holes drilled to date have averaged up to 100 metres in length. This results in a high exploration potential for Cachoeira in depth.
The other 5 projects have only been sporadically explored for gold occurrences to date, with no resource estimate at all yet available for three of them.
Para State has an excellent infrastructure. In addition, the state has a very low corporate tax rate of only 15.25%. By comparison, most other Brazilian states charge 34%. This provides a very good environment for interested development companies.

Titiribi Gold Project – Colombia

The so-called Mid-Cauca Belt runs from north to south through Colombia. This is regarded as one of the most perspective gold belts in the world and in the past 10 years alone has produced finds of about 100 million ounces of gold. The entire gold belt is nevertheless considered under-explored compared to other regions of South America. Most recently, major gold companies made several investments in corresponding projects of the Mid-Cauca Belt. Like Newmont, who invested $100 million in Buritica. The two gold-copper porphyries and epithermal gold deposits Titiribi and La Mina are located approximately 100 kilometers southwest of Medellin and are 100% owned by GoldMining. They are connected to an excellent infrastructure and already accommodate offices, drill core storage and a power supply. The two deposits together contain 5.3 million ounces of gold, 1.6 million ounces of silver and 800 million pounds of copper in the Measured and Indicated category and 3.5 million ounces of gold, nearly 700,000 ounces of silver and 151 million pounds of copper in the Derived category. Several drill areas have been identified but have not yet been further investigated for corresponding occurrences.



On the Yellowknife Gold Project, several high-grade deposits are located directly adjacent to each other. (Source: GoldMining)

Crucero Project – Peru

The Crucero Project is located throughout southeastern Peru within the Orogenic Gold Belt and comprises three mining and five exploration licenses over 4,600 hectares. The A1 deposit hosts at least 993,000 ounces of gold in the indicated category and 1.147 million ounces in the inferred category. In addition, the project has high exploration potential as several other targets have not yet been explored by drilling.

Yellowknife Gold Project – Northwest Territories, Kanada

The Yellowknife Gold Project consists of several properties (Nicholas Lake, Ormsby, Goodwin Lake, Clan Lake and Big Sky) covering parts of the Yellowknife Greenstone Belt from 17 to 100 kilometres north of the city of Yellowknife. The Yellowknife Greenstone Belt is said to have mined over 15 million ounces of gold from the Con, Giant and Discovery mines in the past. The Discovery Mine, located on the Ormsby property, operated from 1950 to 1969 and is reported to have mined 1 million ounces of gold at an average grade of 28 g/t gold in the past. Over $60 million has been invested in exploration, underground development and camps on GoldMining's project areas in the past. Directly next to the Discovery Mine are the two high-grade target areas Ormsby and Bruce, about 10 kilometres away the target area Nicholas. The company is currently working on a resource estimate.

Whistler Project – Alaska, USA

The Whistler Project is located approximately 150 kilometers northwest of Anchorage and has a runway and access to the Donlin Gas Pipeline. The project is district in character with an area of 170 square kilometres and hosts several near surface porphyry deposits. Currently, Whistler's resource base consists of 1.77 million ounces of gold and 343 million pounds of copper in the indicated category

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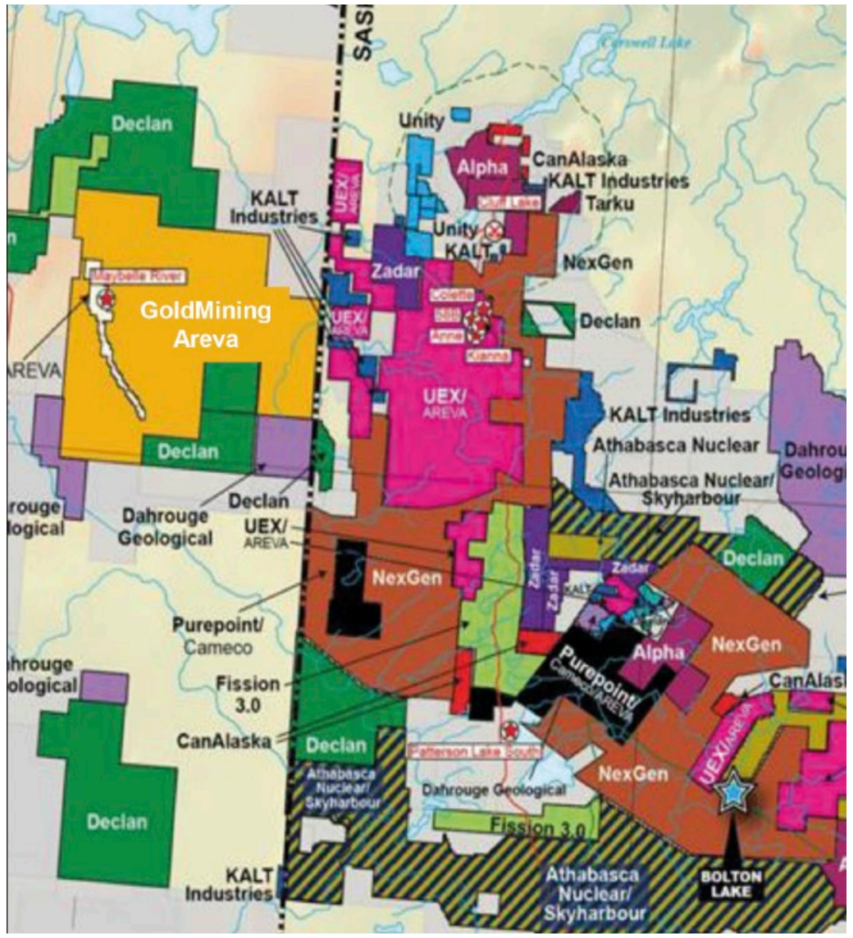
and 4.63 million ounces of gold and 713 million pounds of copper in the inferred category. There is also significant potential for high-grade epithermal mineralization. Although 70,000 meters have already been drilled, some areas are still little investigated. Several areas need to be explored in greater detail, including an area that has intersected 435.2 metres averaging 0.72g/t gold and 0.12 copper from previous drilling.

Rea Uranium Project – Alberta, Canada

Another possible trump card is the Rea Uranium Project in the western part of the Athabasca Basin, the current hottest uranium hot spot in the world. With its 125,000 hectares, it has district potential. It includes Oranos (ex-AREVA) high-grade Maybelle deposit which has produced 17.7% U3O8 over 5 metres, among others. Orano is actively exploring the Maybelle Project there. Rea owns 75% of GoldMining, while Orano owns the remaining 25%.

Rea Uranium Project
(Source: GoldMining)



Low free float, sufficient cash

Most of the outstanding Gold Mining shares are held by insiders or institutional investors. Thus, insiders, management, etc. hold about 20% of all shares. Large institutions and companies such as KCR Fund, Sprott, IAMGOLD, BRASILINVEST, Extract Capital, Marin Katusa and Ruffer Gold hold a further 36% of the shares. This means that only about 40% of all shares are directly tradable. Thanks to clever financing, GoldMining has recently been able to accumulate a considerable cash sum of 9.5 million CA$, which means that important development work can be financed over months.

Top management as guarantor of success

GoldMining has a highly experienced and successful management team.
Chairman and founder Amir Adnani is an entrepreneur with excellent contacts in the mining and financial world. Among other things, he founded Blender Media Inc, a company that was considered Canada's fastest growing company. In addition to GoldMining, he also heads Uranium Energy, a former uranium producer that is one of the most important uranium players in the USA.
CEO and Director Garnet Dawson has more than 30 years experience in the exploration and mining business and works with leading and young mining companies in America, Europe, Africa and China. He has held senior and executive positions with several Canadian mining companies operating internationally. Dawson is a registered professional geologist with the Association of Professional Engineers and Geoscientists of British Columbia.

Summary: High leverage-potential

Since its inception in May 2011, GoldMining has assembled a significant portfolio of projects that together add up to over 26.5 million ounces of gold equivalent. The projects are not even completely explored in the slightest, the deposits are partly in several directions and in depth not yet delimited. The high-caliber Yellowknife Gold project is about to release its first resource estimate. GoldMining's successful management team should already be working on the next acquisition coup, which should be easily accomplished with a cash position of over CA$ 9 million. If the gold price plays along, GoldMining should have no major problems selling its projects or finding development partners for them. The Rea Uranium Project could prove to be a special trump card up the sleeve, as it encloses one of the most promising uranium projects of the uranium giant Orano and has not even been investigated for its own uranium deposits. In the event of a further increase in the price of uranium, it may be spun off into a separate company and thus become a kind of dividend in kind for the shareholders. Speaking of shareholders: around 60% of the outstanding shares are in firm, institutional hands, which secures the share at the bottom. Several analysts, including H.C.Wainwright&Co. and Roth Capital Partners, consider a share value of CA$ 4.50 to be appropriate.

Exclusive interview with Garnet Dawson, CEO of GoldMining

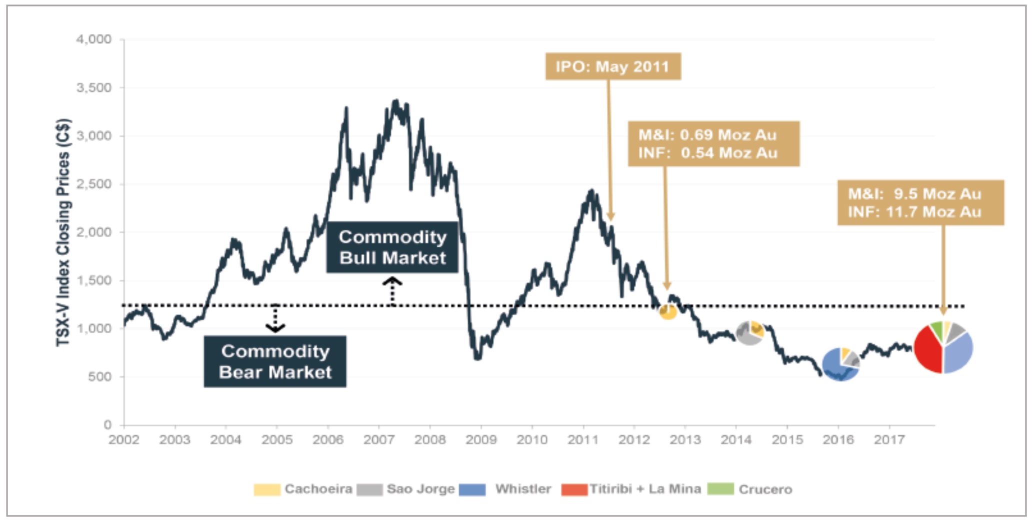
Garnet Dawson, CEO

What did you and your company achieve within the last 12 months?

After completing the acquisition of three gold/gold-copper projects in 2017, the Company purchased additional contiguous mining claims at the Yellowknife project in NWT, graduated to the TSX, bought back 66% of the royalty at the Cachoeira project, completed acquisition of the Crucero project in Peru and announced an indicated resource of 1.0 million ounces and an inferred resource of 1.1 million ounces of gold at Crucero. GoldMining's global gold resource now totals 9.5 million ounces in the measured and indicated categories and 11.7 million ounces in the inferred category.

What are the main catalysts for your company within the next 6 months?

- Receive Land Use Permit and Water License at Yellowknife Gold Project.
- Announce updated resource estimate and file technical report for the Yellowknife Gold Project in NWT.
- Submit final application for Preliminary Environmental License to regulatory authorities in Brazil for the Cachoeira Project.

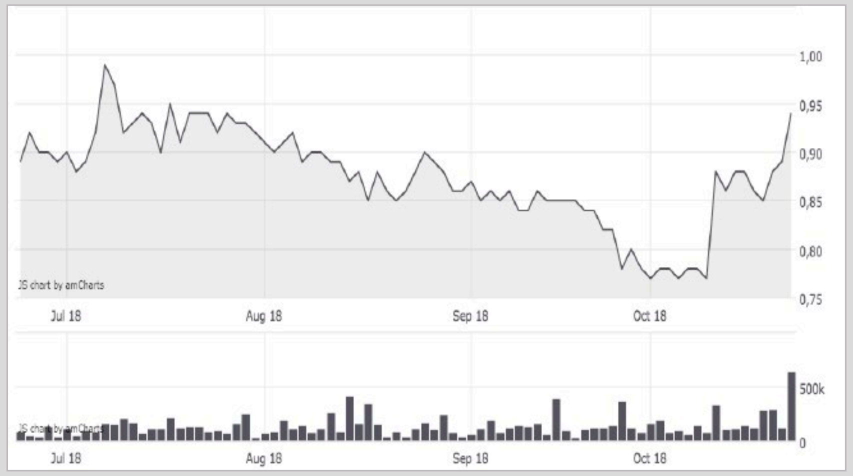


In the bear market, GoldMining was able to build up an impressive resource base. (Source: GoldMining)

What is your opinion about the current conditions of the silver/gold market?

The gold market is being held back due to rising interest rates and an inflated US dollar. We believe the USD will ease back once trade tensions between the US and China subside along with the US FOMC indicating a slower pace towards further tightening monetary policy in 2019. The FOMC does not want to stifle economic growth in the US as long as inflation is running close to the 3% target rate into 2019. As a result, we believe gold to be undervalued and a return towards $1300 is not unreasonable in the short term.

GoldMining Inc.



ISIN: CA38149E1016
WKN: A2DHZ0
FRA: BSR
TSX: GOLD

Outstanding shares: 135.6 million
Options: 7.3 million
Warrants: 12.2 million
Fully diluted: 155.1 million

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Levon Resources
Mega-Silver Deposit Provides Gigantic Leverage

Ron Tremblay, CEO

Levon Resources is a Canadian silver-gold-zinc-lead development company that owns one of the largest unexploited silver deposits on the planet. The Company has demonstrated a silver resource of 595 million ounces within a few years, plus significant gold, zinc and lead resources as by-products. In total, Levon Resources has a silver equivalent of over 1.5 billion ounces!

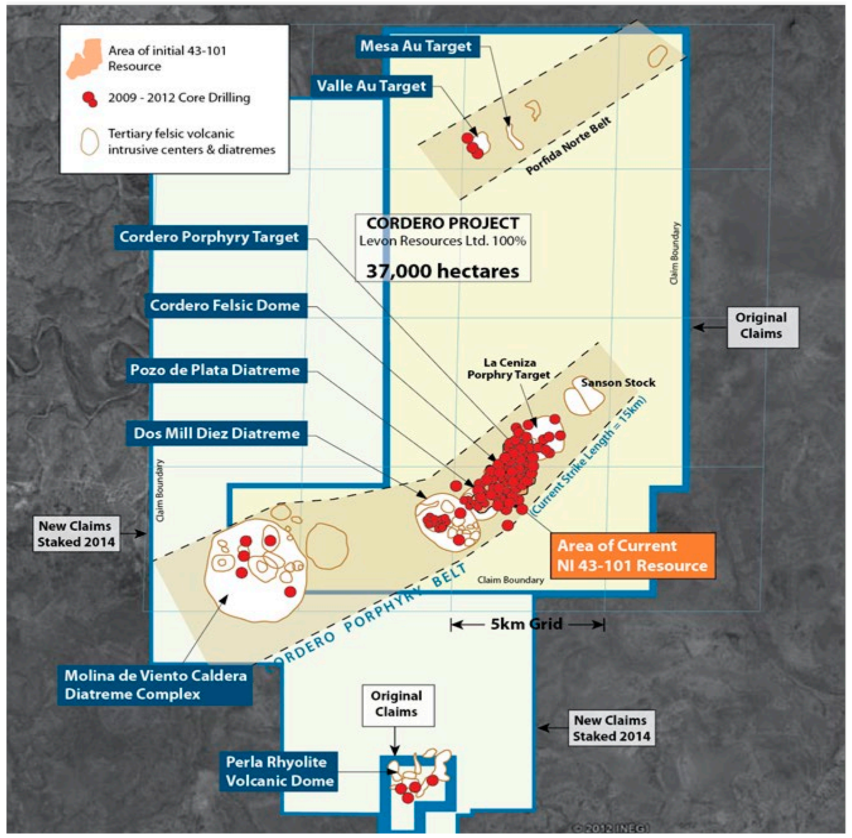
Flagship Project Cordero – Resource

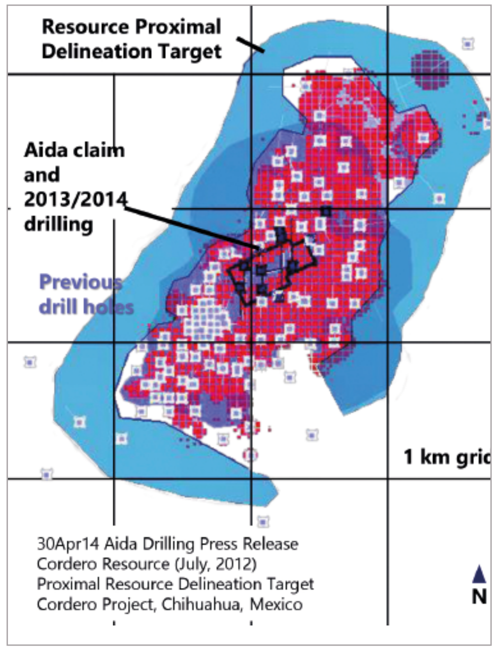
This project is called Cordero, is located in the Mexican state of Chihuahua, covers 37,000 hectares and is 100% owned by Levon Resources. The license area is traversed by two northeast trending porphyry belts, the Cordero Porphyry and the parallel Peridia Norte Belt, approximately 10 kilometers north. The project also includes the southern Perla Volcanic Dome, which covers an area of approximately 430 hectares. The project is part of the Chihuahua-Uacatecas Silver Gold Belt which contains many other significant deposits such as Penasquito (Goldcorp), Pitarilla (Silver Standard), Camino Rojo (Goldcorp) and San Agustin (Silver Standard) which are geologically and geochemically very similar. More than 126,000 metres have been drilled since exploration began in 2009, with Levon Resources showing some very impressive results. The most recent resource estimate to date, dating from March 2018 and compliant with the Canadian NI 43-101 resource calculation standard, indicates 407.8 million ounces of silver, 1.27 million ounces of gold, 3.77 billion pounds of lead and 8.03 billion pounds of zinc in the indicated category. It also has 187.5 million ounces of silver, 363,000 ounces of gold, 1.86 billion pounds of lead and 4.66 billion pounds of zinc in the inferred category. In total, this results in over 1.5 billion ounces of silver equivalent. The resource is not even completely delimited. This extends from the surface – visible through superficial outcrops – to a depth of several hundred metres, whereby the current resource could not yet be delineated both in depth and in several directions, thus offering additional expansion potential.

Flagship project Cordero – Positive profitability study

Also, in March 2018, Levon Resources published a positive preliminary economic study (PEA) based on open pit production with a daily capacity of 40,000 metric tons. Based on US$20/ounce silver, US$1,300/ounce gold, US$1.00/pound lead and US$1.30/pound zinc, the project's (IRR) profitability was calculated to be 15.7% after tax. The net present value (NPV) at a discount rate of 7.5% would be US$ 387 million. The payback period would be 4.84 years. At a silver price of US$25 per ounce, the NPV would increase to US$683 million and profitability to 21.5% after tax. The payback period would fall to 3.9

Cordero covers 37,000 hectares and is 100% owned by Levon Resources. (Source: Levon Resources)





The AIDA Claim is located within the core resource. (Source: Levon Resources)

years. The initial cost of capital was estimated at US$ 575 million and the further costs until the end of the mine term were estimated at US$ 295 million. Given an average annual production of 8 million ounces of silver, 99 million pounds of zinc, 69 million pounds of lead and 11,900 ounces of gold, this cost of capital appears absolutely justified.

The big advantage of the mining would be the very favourable strip ratio of 0.98:1. The mine life would initially be 29 years, but this can still be extended. Levon Resources would also set completely new standards for the size of the pit, which would have a length of 2,000 meters, a width of up to 1,300 meters and a depth of 380 meters!

Purchase of the AIDA claim makes more efficient mine design possible

Another milestone in the Company's history was the acquisition of the AIDA claim in July 2013, which appears to be relatively small at just 15.8 hectares but is of strategic importance to the development of the entire Cordero project as it is located within the core resource. In 2013, Levon Resources launched a Drilling program started on the AIDA claim and other targets which produced some very good results. These include 28 metres at 275.1g/t silver equivalent, 24 metres at 106.9g/t silver equivalent and 98 metres at 95.1g/t silver equivalent. One of the holes had continuous silver mineralization over a length of 438 metres – directly from the surface! Further drilling in other areas of the project intersected both long intervals of low grades such as approximately 152 metres of 80.6g/t silver, 1.41% zinc, 2.27% lead and 0.61g/t gold at 152 metres, and shorter intervals of much higher grades such as 26 metres of 410.1g/t silver, 2.92% zinc, 7.06% lead and 1.057g/t gold within Pozo de Plata Diametre. The latter resource is analogous to the underground resource on Penasquito.

Coming Catalysts

Levon Resources completed an 18-hole drill program in the summer of 2017, totaling 5,655 meters in length, primarily focused on infill drilling in the central area of the 2014 Cordero resource. The focus was on high-grade gold-bearing sections, which would be ideal for a start pit. It was also investigated to what extent this first pit could be extended as far as possible towards the southeast. In addition, a gap within the Cordero Dome of Rock, which has hardly been investigated so far, has been closed. Engineering and metallurgical studies are currently underway to optimize the mine model and increase the recovery rate.

Levon Resources seeks partnership with a major mining group

Levon has already signed confidentiality agreements and agreements with several major mining groups.

Cordero standstill agreements have been signed, all of which are intended to enable the acquisition of the AIDA Claims was very important. Levon does not intend to launch Cordero itself, but rather to partner with a major mining group.

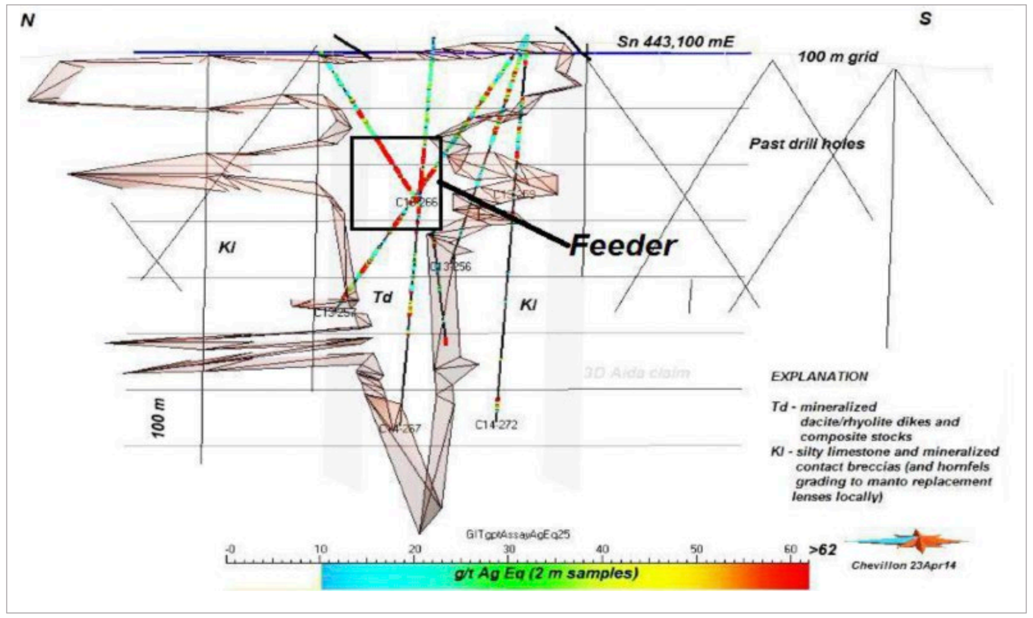
Focus on further developed mine projects

In addition to Cordero, Levon Resources is involved in or owns several projects in the Canadian province of British Columbia. However, these are at an early stage and currently have no priority for society. Thanks to the management's vast experience, the company is able to manage projects from discovery to production, with all steps carried out in a highly professional manner and to the highest standards. Levon Resources is currently evaluating numerous projects in Central and South America where it would be possible to generate a positive cash flow and high returns very quickly by contributing management capacity and relatively low financial outlay.

Very experienced management team

Levon Resources has a highly experienced management team that has already been able to bring corresponding mining projects into production. Ron Tremblay is the President and CEO. He brings over 30 years of finance and management experience to Levon. In his seven years as Levon's President, he generated over $80 million for the company and developed the Cordero project to its current world-class status. He has brought Levon from a market capitalization of 5 million to over 100 million CA$ (over 400 million CA$ in 2011) and led the company through very difficult markets.

Vic Chevillon is Vice President of Exploration and a Director and consultant exploration geologist with 36 years of exploration experience who has worked with major U.S. mining companies including Noranda, Homestake, Placer Dome and Barrick Gold. He had important exploration responsibilities at the Placer Dome's (Barrick), Nevada gold mines where he conducted a geological evaluation that led to the acquisition of the Getchell gold mine. He has also led the exploration evaluation of the Bald Mountain gold mine currently being completed by Barrick Gold. Chevillon was also involved in the Noranda acquisition in New World, Montana and developed an exploration model on the Blackbird deposit in Idaho.



On the AIDA claim, the silver grades increase at depth. (Source: Levon Resources)

Cash and cash equivalents refreshed and shares cancelled

In a private transaction in August 2018, Levon Resources announced the sale of 1,884,810 common shares of Pershing Gold Corporation for US$3,864,158. The consideration paid to Levon consisted of $1,968,928 in cash and 9,003,467 common shares of Levon, which were immediately cancelled and the number of Levon shares outstanding decreased accordingly. With just under US$ 2 million in fresh capital, the company is fully financed for the coming months.

Summary: Fewer outstanding shares, more cash

Levon Resources has one of the world's largest silver deposits. Especially for investors who expect a rising silver price, the share seems to be very interesting, as a rise of only US$ 1 in the silver price for Levon Resources means a change in the value of the silver in the ground of about US$ 600 million. The leverage offered by Levon is therefore enormous and the project offers many more opportunities and potential for resource expansion. It is to be expected that in the coming months the wheat chaff will also be separated from the silver chaff. The market should then realize that Levon Resources is currently significantly undervalued due to its enormous resource base. In particular, the extensive zinc deposits could become a problem in a production decision, as a massive supply deficit can be expected for zinc in the coming years. The Levon Resources share offers a very good risk/reward ratio, especially for investors who expect a significantly higher silver price in the medium term. In addition, there is always the chance of an entry by one of the large mining companies or even a takeover bid.

Levon Resources Ltd.

ISIN: CA52749A1049
WKN: A14WRT
FRA: 26V
TSX-V: LVN

Outstanding shares: 125.6 million
Options: 8.8 million
Warrants: 2.6 million
Fully diluted: 137.0 million

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Vancouver, BC V6C 2X8, Canada

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MAG Silver

Sensational silver project with mega partner and giga potential!

MAG Silver is a Canadian development company and, given the sheer scale and advanced development of its main project, it is also one of the best silver values on the planet. The company is preparing to bring its Juanicipio project quickly into production together with its mega partner Fresnillo (planned for mid-2020). Some important infrastructural necessities already exist.

The Joint Venture Silver Project Juanicipio

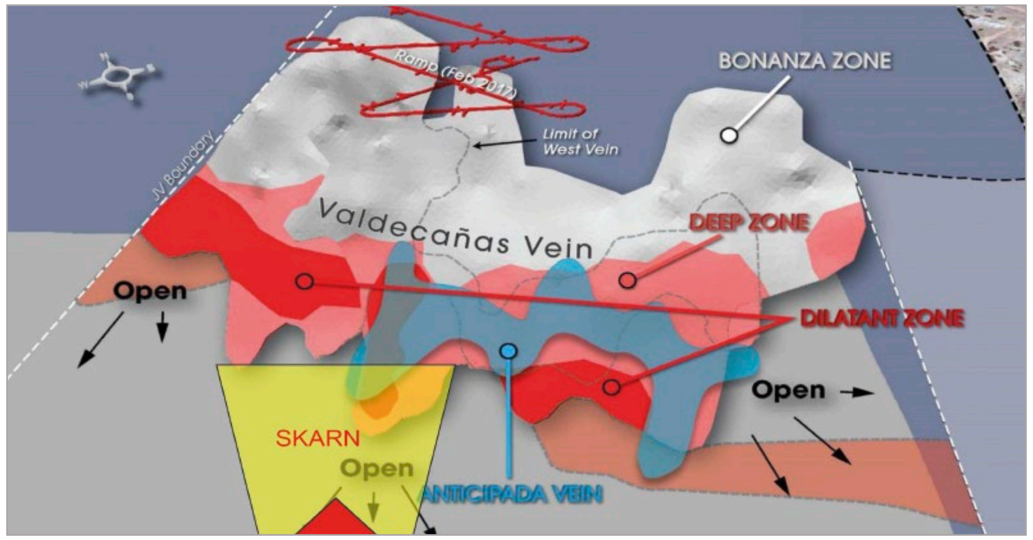
Such as a portal and several state-of-the-art access and conveyor ramps that lead right into the heart of the future mine. The project is owned by 44% MAG Silver and 56% Fresnillo, one of the largest silver producers in the world, which operates several other mega-projects directly adjacent to Juanicipio. Furthermore, within the Fresnillo Silver trend, Juanicipio is virtually surrounded by high profile mining projects that have produced more than four billion ounces of silver to date, representing over 10% of total silver production worldwide. Due to its proximity to the town of Fresnillo of the same name, Juanicipio is directly integrated into a very well-developed infrastructure. The project, which consists primarily of the so-called Valdecanas vein, hosts within the Bonanza Zone current resources of approximately 8.17 million tonnes of ore at 550g/t silver for 145 million ounces silver in the category indicated and 1.98 million tonnes of ore at 648g/t silver for 41 million ounces silver in the category inferred. In addition, about 848 million pounds of zinc and lead are indicated in the category. The Deep Zone has 4.66 million tonnes of ore at 209g/t silver for 31 million ounces of silver indicated in the category and 10.14 million tonnes of ore at 151g/t silver for49 million ounces of silver in the category inferred. In addition, another 790 million pounds of zinc and lead are reported in the category and 1.73 billion pounds of zinc and lead are inferred in the category. Juanicipio also contains over 1.5 million ounces of gold homogeneously distributed in the mineralized system. A true monster resource, yet the known resource is still open after several pages, so it is far from completely delimited.

Economic feasibility study points to low-cost production

The very high grades are also the main reason why Juanicipio will become a low-cost mine. According to the most recent November 2017 PEA, based on a silver price of US$17.90 per ounce, a gold price of US$1,250 per ounce, a zinc price of US$1.00 per pound and a lead price of US$0.95 per pound, a daily production of 4,000 tonnes and a 19-year mine life, all-in-sustaining cash costs of US$5.02 per ounce silver equivalent result. The payback period for this scenario is 1.8 years, the after-tax NPV is US$ 1.138 billion and the after-tax IRR is a very strong 44%. Even for much worse underlyings of US$ 14.50 per ounce of silver, US$ 1,000 per ounce of gold and US$ 0.75 per pound of zinc and lead, Juanicipio still has very good economic ratios. The payback period for this scenario is 2.6 years, the post-tax net present value is US$635 million, and the post-tax profitability is 30%. The initial capital costs for MAG Silver itself amount to only US$ 158.4 million and have already been fully procured. Higher prices of US$23 per ounce of silver, US$1,450 per ounce of gold, US$1.15 per pound of lead

Even for extremely low silver, gold, lead and zinc prices, Juanicipio still ranks among the most cost-effective and therefore highly profitable mines. (Source: MAG Silver)

Discount Rate (5%)		Base Case		
Metal Prices:				
Silver ($/oz)	14.50	**17.90**	19.50	23.00
Gold ($/oz)	1,000	**1,250**	1,300	1,450
Lead ($/lb)	0.75	**0.95**	0.95	1.15
Zinc ($/lb)	0.75	**1.00**	1.05	1.20
Copper ($/lb)	N/A – Copper excluded for purposes of PEA (1)			
Economics:				
Pre-Tax NPV (M)	$1,080	**$1,860**	$2,104	$2,776
After-Tax NPV (M)	$635	**$1,138**	$1,295	$1,729
Pre-Tax IRR	45%	**64%**	71%	86%
After-Tax IRR	30%	**44%**	49%	61%
After-Tax Cash Flow (M) Life of mine – (Undiscounted)	$1,170	**$1,995**	$2,243	$2,945
Cash Cost $/oz Ag (net of credits) (2)	(0.35)	**(3.94)**	(4.45)	(6.90)
Total Cash Cost $/oz Ag (3)	3.50	**2.39**	2.63	2.29
AISC $/oz Ag (4)	6.13	**5.02**	5.25	4.92
Payback (Years) From Plant Start up	2.6	**1.8**	1.6	1.2



MAG Silver was able to demonstrate higher grades of gold and a shift from silver to high grade copper, lead and zinc areas. (Source: MAG Silver)

and US$1.20 per pound of zinc result in a payback period of 1.2 years, an after-tax NPV of US$1.729 billion and an after-tax IRR of 61%.

Great progress in expansion with minimum cost input

But all this does not seem to be the end of the story! And yet almost a glance at MAG Silver's current company presentation is enough to see what a mega-potential there is in the company and thus also in the share.
The Juanicipio Mine is an underground mine and requires either a shaft or a ramp that is driven into the ground until mineralization begins. MAG Silver and its joint venture partner Fresnillo, which has been active in the area for more than 100 years, rely on the ramp solution. The advantage here is that a ramp can be used by heavy mining vehicles (transporters), whereas the transport of the rock is much more difficult with the shaft solution. A further advantage: Fresnillo, operator of the future Juanicipio Mine, builds these ramps including a concreted floor, which ensures a solid base for mining vehicles as well as a drain of water. The highlight: While ramps of this size (5 x 5 meters) are normally built for about 4,000 US$ per meter without floor, Fresnillo does this for 1,500 US$ including concrete floor!
Fresnillo has already built more than 15 kilometres of ramps (a total of 3) and other underground tunnels on the Juanicipio project to date. Currently the company is engaged in excavation and construction of an underground crushing chamber. The surface infrastructure is also taking on more and more shape.

Maximum exploration potential!

In addition, MAG Silver appears to have an unprecedented exploration potential. If you take a look at the immediate surroundings of the joint venture area, you can quickly see that Fresnillo has identified several more veins to the east of it. These run parallel to the Valdecanas and Juanicipio mineralization and are expected to extend into the joint venture area. So, does MAG sit on much more than „just" 266 million ounces of silver plus gold, lead and zinc?

Juanicipio: Two projects in one!

In 2017, the Company reported significant silver/gold mineralization encountered in recent drilling to expand Valdecanas Deep Zone West.

The best results were as follows:

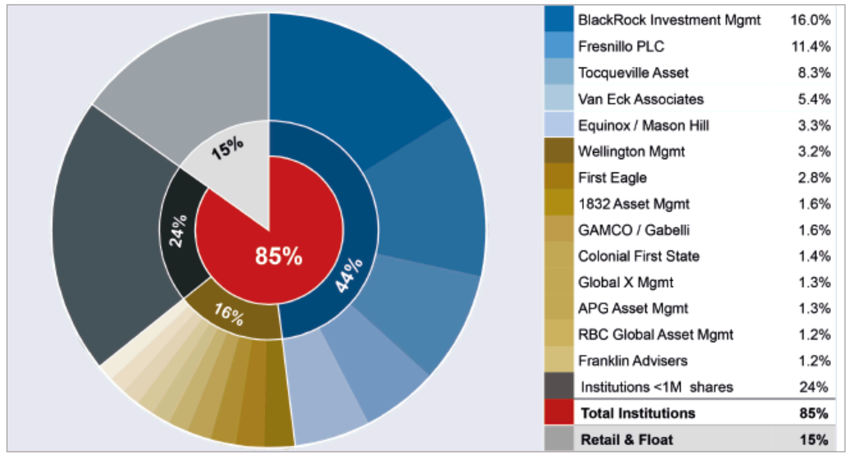
- DEEP ZONE WEST: 9.70m with 120g/t silver, 2.46g/t gold, 5.55% lead, 5.08% zinc, 0.21% copper.
- DEEP ZONE EAST: 5.20m with 333g/t silver, 16.87g/t gold, 4.47% lead, 3.77% zinc, 1.04% copper, including 1.44m with 854g/t silver, 54.67g/t gold, 3.21% lead, 2.72% zinc, 2.28% copper
- ANTICIPADA VEIN: 5.60m with 177g/t silver, 7.36g/t gold, 2.39% lead, 6.31% zinc, 0.12% copper, including 3.15m with 283g/t silver, 12.62g/t gold, 3.62% lead, 8.42% zinc, 0.17% copper.

MAG Silver was able to demonstrate higher grades of gold and a shift from silver to high grade copper, lead and zinc areas.

Moreover, only recently a parallel mineralization called Anticipada was detected. It now looks as if MAG Silver has not only one project, but two dismantling projects in one.
This already seems relatively certain: another silver-bearing layer has been discovered underneath the already known high-grade silver layer. MAG Silver also hopes that the Bonanza Zone source will be located at depth, which could be even higher.
Currently, the company is working on upgrading the inferred resources of the Deep Zone to the displayed category. A drilling campaign was also started in the Juanicipio West Zone.

Financial resources more than sufficient, mine launch planned for 2020

In November 2017, MAG Silver announced a financing of US$ 48 million. With this deal, the company disposed of almost all financial risks, especially with regard to the full financing of the Juanicipio Silver Mine. In December 2017, MAG Silver also published a short form base shelf prospectus (prospectus), creating the basis for a further US$ 200 million in various financing transactions to be carried out within 25 months. At the end of June 2018, the Company had approximately US$151 million in cash. If the construction work continues as quickly as before, a mine launch can be expected from mid-2020.



In total, over 85% of all MAG Silver shares are held by institutions or institutional investors. (Source: MAG Silver)

Strong shareholder structure, low free float!

The very strong and committed shareholders should ensure that this will also succeed. In total, over 85% of all MAG Silver shares are held by institutions or institutional investors. The 14 largest individual investors hold 61% of all shares. Less than 15% of all outstanding shares are in the hands of private investors as free float. Over the past five years, this has brought the share a degree of relative strength that could only be observed in very few precious metal stocks. The large institutions in particular should continue to provide MAG Silver with sufficient fresh capital.

Experienced and successful management team

MAG Silver has a very successful management team.

President & CEO George Paspalas was among others CEO & President of Placer Dome and several other companies, where he developed very complex surface and underground mines on four continents.
Chief Exploration Officer Dr. Peter Megaw was in charge of a number of new discoveries in Mexico. He is also called the Silver Pope of Mexico.
CFO Larry Taddei led, among others, West Timmins Mining Inc. to a 420-million-dollar acquisition by Lake Shore Gold Corp.

Summary: Everything is going according to plan

MAG Silver has one of the highest-grade silver deposits in the world. Mine construction is already well advanced and full silver production can be commenced as planned from 2020. The partner Fresnillo is already operating a mega-project right next door and can make a valuable contribution to the rapid commissioning of the Juanicipio project both in terms of infrastructure and mining expertise. MAG Silver has now eliminated almost all project risks. High degrees, fully financed, minimal political and development risks, very good metallurgy and access to sufficient energy and water and connection to the existing infrastructure near Fresnillo leave little room for downside potential. On the other hand, the upside potential with the possibility of further parallel mineralisation trends and expansion possibilities in depth is all the higher. An additional plus point, which should ensure further price highs, is the relatively low free float of only 15% of all outstanding shares.


George Paspalas, CEO

Exclusive interview with George Paspalas, CEO of MAG Silver

What did you and your company achieve within the last 12 months?

MAG generated a new resource estimate for the Juanicipio deposit following the discovery of a deeper zone of mineralization, continuous to and beneath the existing Bonanza zone of the veins, from drilling in 2015 and 2016. This discovery resulted in the decision to double the size of the mineralized envelope, and this significant growth in mineral resource facilitated the decision to increase the capacity of the operation from 2,650 tonnes per day to 4,000 tonnes per day. A Preliminary Economic Assessment (PEA) was conducted with the new resource and up-sized project scale, including the installation of an internal shaft to access the deeper mineralized material as quickly as possible, to return value to investors as soon as possible. The PEA, released in November 2017, showcased very robust economics and a long-life project, with significant exploration potential both in-mine and regionally to further extend the mine life beyond the initial 19 years outlined in the PEA. The Juanicipio project has a 43% after tax Internal Rate of Return, a 2.2-year payback of the total initial capital expenditure, and is so financially robust, that it generates a 15% after tax IRR at a $8 per ounce silver price.
Whilst this study was being conducted, the Joint Venture operator, Fresnillo PLC, continued to advance the development of the project, with the underground development reaching the mineralization, twinning of the main access ramp to facilitate a higher waste rock removal rate and hence a higher mining rate than initially envisioned, and development commenced on the underground crushing and conveyor systems. The project continues at “full steam” ahead!

What are the main catalysts for your company within the next 6 months?

In the coming months, MAG and Fresnillo, plan to officially announce a production decision on the Juanicipio project, although as previously mentioned, the project is well underway. We expect to see long lead items ordered for the process facility, and surface construction commence in earnest. Exploration drilling continues, and we will likely see an updated deep resource estimate in Q1/Q2 2019.

What is your opinion about the current conditions of the silver market?

The economically robust nature of this project, due to a combination of a very high silver grade and size of asset, complemented by good gold, lead and zinc grades, very strong metallurgy returning high recoveries of metals in the process facility, and low operating costs, means this project will make money at almost any silver price! Of course, MAG would like to see the price of silver price be as high as possible, but we are in the unique position of having downside protection.
Having said this, we don‘t understand the recent underperformance of silver relative to gold, but we are very encouraged with the increasing demand for silver in a number of growth sectors, such as the micro-electronics sector, the photovoltaic power generation industry and the health industry.
We do believe that precious metals will respond well in the near-term as interest rates continue to increase in the heavily debt-laden global economy. Silver’s industrial uses will provide an additional leverage to that upside and MAG Silver is well positioned to benefit.

MAG Silver Corp.

ISIN: CA55903Q1046
WKN: 460241
FRA: MQ8
TSX: MAG
NYSE: MKT: MAG

Shares outstanding: 85.5 million
Options: 2.1 million
DSUs/RSUs/PSUs: 0.7 million
Fully diluted: 88.4 million

Contact:
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Suite 770, 800 West Pender
Vancouver, BC, V6C 2V6, Canada

phone: +1 604-630-1399
fax: +1 604-681-0894

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www.magsilver.com

Osisko Gold Royalties

Unique hybrid business model for maximum shareholder value

Sean Roosen, CEO

Osisko Gold Royalties is a Canadian royalty company which, since its establishment in June 2014, has focused primarily on precious metal royalty and streaming license agreements in North and South America. The company holds a portfolio of over 130 royalties, streams and precious metal purchases. Osisko Gold Royalties also holds stakes in several top-class development companies (accelerator model) and pays a quarterly dividend with a current yield of around 2 percent.

19 high-calibre, cash-generating sources of income

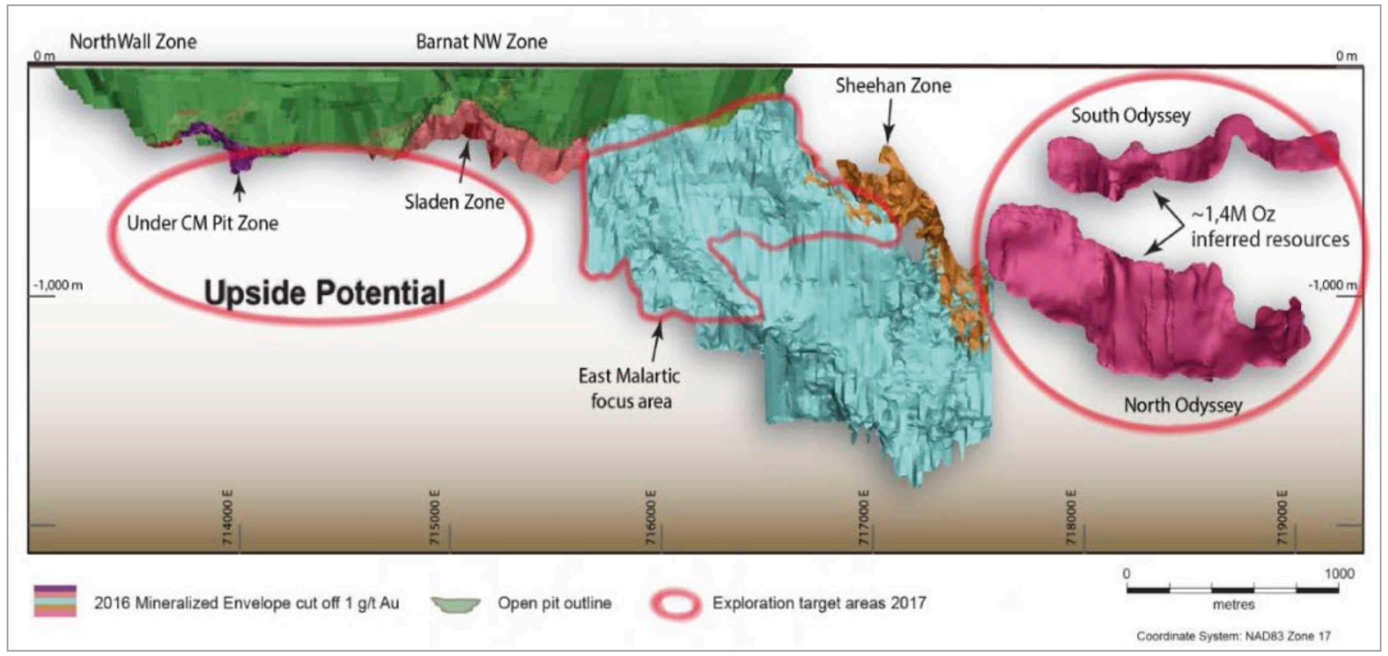
Osisko's portfolio is anchored by four important assets, which are presented below.

Canadian Malartic

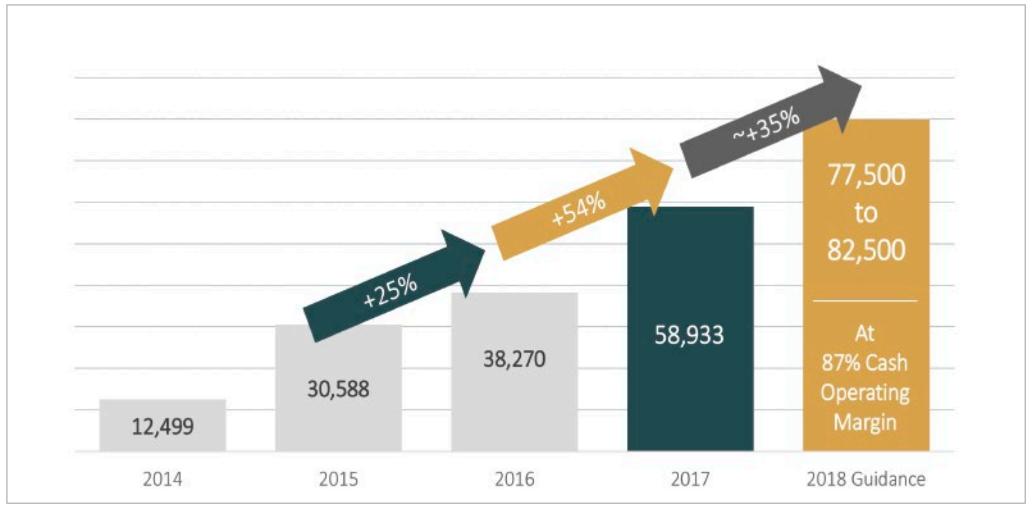
Osisko Gold Royalties was founded by Sean Roosen, who led the Canadian Malartic, currently Canada's largest gold mine, from exploration to production and ultimately to acquisition by Agnico Eagle and Yamana Gold. This acquisition also resulted in a 5% Net Smelter Royalty (NSR) license for production in Canadian Malartic. Canadian Malartic recently reported another record year of production and record mill throughput. In 2017, 682,000 ounces of gold were mined, 33,136 of which went to Osisko Gold Royalties. For the years 2018 and 2019 the operators expect production of 650,000 ounces each, for 2020 690,000 ounces of gold. In addition, Osisko receives CA$ 0.40 per tonne of rock mined outside the current production area. The Barnat expansion, in particular, promises high funding potential for the future. As are several nearby pit and underground targets that are currently being drilled. Canadian Malartic has reserves of approximately 6.3 million ounces of gold.

Éléonore

The Éléonore gold mine is operated by Goldcorp and produced 305,000 ounces of gold in 2017. Osisko Gold Royalties owns a 2% NSR for the first 3 million ounces of gold mined. In addition, the NSR will increase by 0.25% per 1 million additional ounces of gold mined up to a maximum NSR of 3.5%.



The Canadian Malartic Mine has several areas with increased expansion potential. (Source: Osisko Gold Royalties)



Osisko Gold Royalties' GEO volume is rising rapidly. (Source: Osisko Gold Royalties)

Goldcorp expects to produce 380,000 ounces of gold in 2018. Éléonore has reserves of approximately 3.8 million ounces of gold.

Renard

The third major source of income for Osisko Gold Royalties is the Renard Diamond Mine, operated by Stornoway in Quebec. Osisko owns a 9.6% stream of all diamonds mined. The company must pay US$ 50 per carat. For 2018, the operator anticipates production of around 1.6 million carats, which is in line with the average production plan per year over the entire mine life. Renard has estimated reserves of approximately 20 million carats and resources of more than 15 million carats in all categories.

Mantos

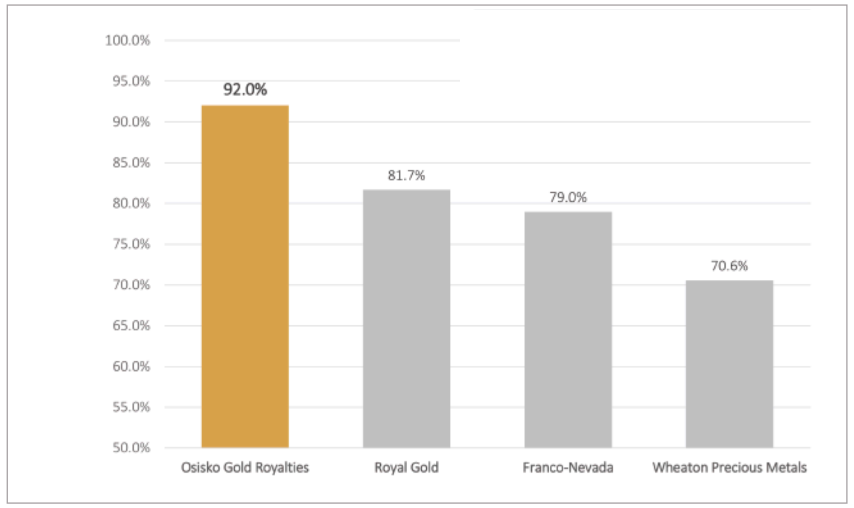
Mantos is a Chilean copper mine that mines silver as a by-product. Osisko Gold Royalties currently holds a 100% stream of all silver mined up to a maximum of 19.3 million ounces. From then on, this is converted into a 30% stream. Osisko pays 25% of the daily spot price for the silver. An annual silver production of 600,000 ounces is expected for 2017 through 2020. An annual silver production of 1.1 million ounces is expected from 2021 as part of an expansion.

Other important agreements currently generating cash flow

In addition to these 5 main sources of income, Osisko Gold Royalties currently has 14 other royalty, streaming and offtake agreements for operating mines. These include a 100% silver stream for the SASA mine in Macedonia, which is considered one of the largest silver-, zinc- and lead-mines in Europe. The mine runtime is currently over 20 years. The company holds an equally high 100% silver stream for Tasekos Gibraltar Mine. Osisko owns a 1.38-2.55% NSR for the Canadian Island Gold Mine. SSR Minings Seabee Mine contributes a 3% NSR. The mine is expected to produce an average of 100,000 ounces of gold per year between 2018 and 2023, 29% more than in 2016, according to the latest PEA.

Top projects in advanced development status

A further 15 precious metal royalty and streaming licence agreements concern top projects which are in an advanced development or even construction stage.

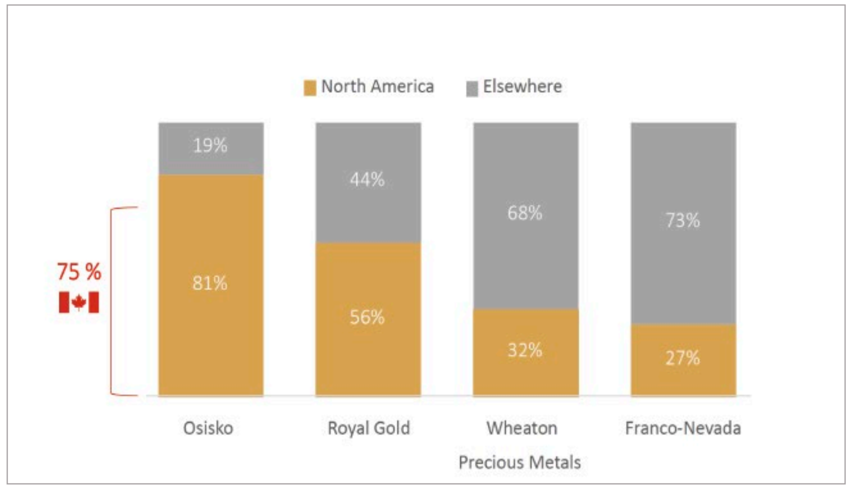


Osisko Gold Royalties has the highest margins of any royalty company in the world. (Source: Osisko Gold Royalties)

Eagle

The latter projects include Victoria Gold's Eagle Mine, which has the potential to become the largest gold mine in the Yukon. Osisko Gold Royalties owns 5% NSR on gold production up to 97,500 ounces of delivered gold. The NSR is then reduced to 3%. Eagle has approximately 2.7 million ounces of gold in reserves and is under construction. Once in full production, Osisko will receive an average of approximately 10,000 ounces of gold per year.

Osisko Gold Royalties relies more on secure jurisdictions in North America than its competitors. (Source: Osisko Gold Royalties)



Horne 5

Horne 5 is a gold-silver project in Quebec and is owned by Falco Resources. Osisko Gold Royalties holds a 90 to 100% stream of the silver resources mined and must pay 20% of the spot price. Horne 5 has approximately 6 million ounces of gold equivalent reserves. A bankable feasibility study has already been prepared for the project. Osisko Gold Royalties expects to receive up to 25,000 ounces of gold equivalent per year once the mine is operational.

Amulsar

Amulsar is located in Armenia and is in the construction phase. Osisko Gold Royalties holds a 4.22% gold and 62.5% silver stream and an offtake agreement for 82.5% of the gold production. The first gold production is expected by the end of 2018.

Accelerator Model

In addition to the classic business model of royalty companies, the formation of a portfolio of royalty and streaming license agreements, Osisko Gold Royalties has a second lucrative mainstay in the form of the accelerator model. With the accelerator model, the company supports promising mining (development) companies (accelerator companies) in the development, financing and construction of mine projects. The corresponding projects will be driven forward by drawing on the Osisko Group's extensive experience in exploration, engineering, construction and financing. In addition, Osisko Gold Royalties supports accelerator companies at board level and in key management positions.
The entry into such accelerator companies takes place in the phase before the exploration success, the phase of risk reduction or the financing and construction phase, usually by means of royalty or streaming agreements

OSISKO GOLD ROYALTIES

Canadian Malartic, currently the largest Canadian gold mine. (Source: Osisko Gold Royalties)

and/or share purchases. The important shareholder position, which usually amounts to up to 19.9% of the outstanding shares of the accelerator company, is maintained in most cases in order to achieve further advantages for Osisko Gold Royalties.

Principal shareholdings

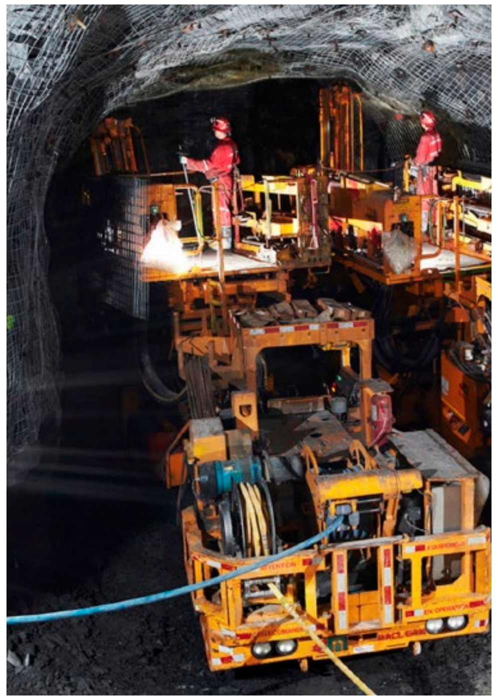
Osisko Gold Royalties currently holds several significant participations in advanced development companies under its accelerator model.
These include a 15.5% interest in Osisko Mining Inc., a 32.4% interest in Barkerville Gold Mines Ltd. and a 12.6% interest in Falco Resources Ltd.

Key figures + dividend

Osisko Gold Royalties has seen impressive growth and even more impressive growth ahead. Thus, with the help of all agreements, 58,933 GEOs (gold equivalent ounce) could be generated in 2017. For 2018, the company expects 80,000 ounces of GEOs, with growth potential to 180,000 GEOs within the next 5 years.
The cash margin for 2018 is estimated at a staggering 87%. The Company pays a quarterly dividend of US$0.05 per share and had slightly more than CA$188.6 million in cash or cash equivalents at the end of June 2018. In September 2018 it was announced that Osisko would receive a cash payment of US$118.5 million from a deal with Pretium to replace a 4% stream of gold from the Brucejack Mine by the end of 2018, further strengthening the company's cash position.

Summary: Relatively low risk with high growth potential

Osisko Gold Royalties has created in just 4 years a substantial portfolio of precious metal royalty and streaming license agreements in predominantly prime jurisdictions. The company has a relatively low risk, as many of the mines produce at very low cost and therefore fluctuations in precious metal prices can lead to margin losses, but not to larger losses. Moreover, the company does not bear any development or production costs. The growth potential is gigantic in the event of stable or rising precious metal prices, especially as several new mines will go into operation in the coming years, at which Osisko Gold Royalties holds corresponding stream or royalty receivables. The share offers a correspondingly high leverage on the price of gold and silver.



Éléonore has reserves of approximately 3.8 million ounces of gold. (Source: Osisko Gold Royalties)

Osisko Gold Royalties Ltd.

ISIN: CA68827L1013
WKN: A115K2
FRA: OM4
TSX: OR
NYSE: OR

Outstanding shares: 156.2 million
Options: 4.3 million
Warrants: 11.2 million
Fully diluted: 171.7 million

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fax: +1-514-940-0669

info@osiskogr.com
www.osiskogr.com

SilverCrest Metals

Drill results of up to 36 kilograms silver equivalent per ton speak for themselves!

SilverCrest Metals is a Canadian mining development company that aims to take high-grade silver projects in Mexico to production status. In the past, the current SilverCrest management could already impressively prove that a top-class silver project can be successfully brought into production. In 2006, for example, the Santa Elena deposit was discovered and quickly put into production. The predecessor SilverCrest Mines was acquired by First Majestic Silver in 2015 and Santa Elena is now First Majestic Silver's largest mine.

Las Chispas Silver-Gold District – Location, Geology, Scope and History

As part of this acquisition, a number of potentially high-profile Mexican projects were transferred to today's SilverCrest Metals. The Las Chispas Silver-Gold District soon turned out to be the flagship project. It is located in the Mexican state of Sonora, about 170 kilometers northwest of Hermosillo. First Majestic Silvers Santa Elena Mine and Premier Gold Mines Mercedes Mine are within a radius of about 25 kilometers and therefore within truck reach. Las Chispas currently comprises 22 concessions totaling 1,377.5 hectares. Geologically, Las Chispas is comparable to Santa Elena. In total, over 20 different mineralized veins have been identified. Many of them have so-called bonanza grades, i.e. they are extremely high, with relatively low tonnage. Furthermore, there are still about 150,000 tons of historical overburden on the former mine site. Most mining activity took place at the beginning of the 20th century, when an average of 35g/t gold and 4,500g/t silver were mined. The majority of the existing underground mine infrastructure, with a total length of 11.5 kilometres, dates from this period, of which large parts of SilverCrest Metals have already been made accessible again.

The Las Chispas Silver-Gold District is located in the Mexican state of Sonora, about 170 kilometers northwest of Hermosillo. (Source: SilverCrest Metals)

Las Chispas Silver-Gold District – Exploration Successes and Resource Estimation

SilverCrest Metals itself is the first mining company to explore Las Chispas using modern exploration methods.

Although over 11.5 kilometres of underground tunnels and tunnels with direct access to Bonanza areas already exist, 80% of the known high-grade areas are located in previously undeveloped areas.

In September 2018, SilverCrest Metals released its most recent NI43-101 compliant resource estimate for Las Chispas. Accordingly, in the inferred category, the project has 4.3 million tonnes of rock averaging 3.68g/t gold and 347g/t silver (giving a conversion factor of 1 to 75, 623g/t silver equivalent), representing an inferred resource of 86.7 million ounces silver equivalent. Only 8 out of 30 known occurrences were taken into account. SilverCrest has increased its resource base by 38% compared to its February 2018 estimate.

Las Chispas Silver-Gold District – Babicanora Vein

Of the 30 silver veins already known, two stand out clearly: the Babicanora Vein and the Las Chispas Vein.

The Babicanora Vein stretches over 3.2 kilometers on the surface. To date, 1.3 kilometres have been surveyed and the vein has been tracked to a depth of 200 metres. The average thickness of the mineralization is 3 meters. The mineralization is not yet delineated in both depth and strike direction and therefore promises additional exploration potential. In 2018 the company reported several phenomenal drill results from the Babicanora Vein area. In January 2018, step-out drilling in the southeast extension of Babicanora Vein intersected 0.9 metres averaging 3,995g/t silver equivalent, 4.5 metres averaging 4,153g/t silver equivalent, 1.6 metres 4,798g/t silver equivalent and 2.5 metres 7,238g/t silver equivalent at the southeast extension of Babicanora Vein. In April 2018, the Company reported 6,796g/t silver equivalent over 2.0 metres, among other things.

The subparallel Babicanora Footwall Vein runs in the immediate vicinity of the Babicanora Vein and has already been successfully drilled. In 2018 it encountered 1.5 metres of 10,629g/t silver equivalent including 0.5 metres of fabulous 35,621g/t silver equivalent, one of the highest silver equivalent grades we have ever seen. Drilling work is facilitated by the existing underground infrastructure, which also allows drilling to be carried out from underground.

Las Chispas Silver-Gold District – Las Chispas Vein

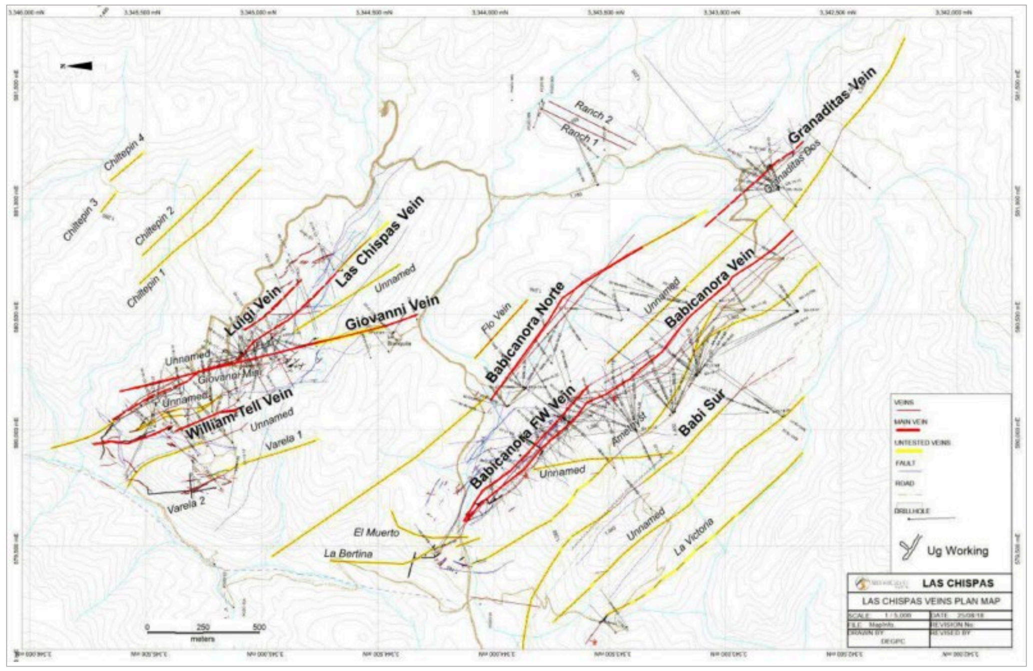
The eponymous Las Chispas Area is located north of Babicanora and has historically experienced most of the mining activities to date, with 80% of the historic mining areas accessible. Currently, SilverCrest Metals is focused on three silver veins, all of which are accessible and partially stabilized with modern infrastructure methods.

Several high-grade areas have been identified in the Las Chispas Vein area and the historic rock pillars that could be suitable for SilverCrest Metals' approved 100,000-ton Bulk sample.

The Giovanni Vein, which was only discovered in 2016, has already been traced over a length of 250 metres, but has not yet been delineated in depth or strike length. Drill results from La Blanquita mineralization, located approximately 500 metres south, suggest that a direct link to Giovanni Vein may exist.

The William Tell Vein, which was recently discovered, has been traced for 300 metres, but to date has also remained un-delimited in depth and strike direction.

The cumulative strike length of all known veins in the Las Chispas Area is currently approximately 5 kilometres but can be extended in multiple directions and to depth. Corresponding drilling campaigns are planned for 2019.



The Babicanora Vein stretches over 3.2 kilometers on the surface. To date, 1.3 kilometres have been surveyed and the vein has been tracked to a depth of 200 metres. (Source: Silvercrest Metals)

Las Chispas Silver-Gold District – More Top Veins

In addition to the Babicanora and Las Chispas veins, SilverCrest has also returned significant drill results for a number of other mineralizations. For example, for Luigi Vein, where the company discovered 8,870g/t silver equivalent over 0.4 metres in 2018.

In the area of the Babicanora Norte Vein, 11,615g/t silver equivalent over 0.5 meters could be reported. In July 2018, the highest grade find to date was encountered in this area: 36,764g/t silver equivalent over 0.4 metres! In the area of Granaditas Vein, 0.4 metres with 9,183g/t silver equivalent were encountered in 2018.

Coming Catalysts

The publication of a preliminary economic assessment (PEA) is planned for the first quarter of 2019. Additional drilling results are also expected by then. SilverCrest has a total of 6 to 8 drilling rigs permanently in use.

Top-successful management knows how to mine

SilverCrest Metals has a top management team that is second to none.

Prior to SilverCrest Metals, CEO Eric Fier worked at SilverCrest Mines, Newmont Mining, Eldorado Gold and Pegasus Gold Corp., where he was responsible for the exploration, development, financing, construction and operation of several successful mines, including SilverCrest Mines' Santa Elena Silver Gold Mine, prior to its acquisition by First Majestic Silver.

President Chris Ritchie is a successful banker at Canaccord and National Bank, among others, making him an indispensable expert in the areas of finance, marketing, corporate strategy and risk management. He was also on board at SilverCrest Mines, as were SilverCrest Metals' current CFO, Anne Yong and VP Corporate Communications Michael Rapsch.

Summary: Crazy drill results should result in top PEA

A project with such exploration potential as Las Chispas is extremely rare. 30 known silver-gold veins plus a variety of other mineralizations for which names do not even exist host an unparalleled exploration upside. The company was able to increase its resource estimate by 38% within only 7 months. And not even a third of all known mineralizations are taken into account! The release of a PEA is planned for the near future, which is likely to be a very high-grade mineralization due to the relatively shallow mineralization. The ability to utilize existing processing capacity at the nearby mines of First Majestic Silver and Premier Gold Mines could minimize any cost of capital. With over 14 million CA$ in cash, SilverCrest is financially top-equipped, allowing top management plenty of room for exploration success on one of Mexico's most high-grade and exciting projects. SilverCrest has been listed on the NYSE since August 2018, which should attract additional attention and shareholders to the company.

Eric Fier, CEO

Exclusive interview with Eric Fier, CEO of SilverCrest Metals

What did you and your company achieve within the last 12 months?

Over the last 12 to 18 months we conducted an aggressive and systematic mapping, sampling and drilling program resulting in the identification of thirty (30) low to intermediate sulfidation epithermal veins with width from 0.3 to 11 metres and an estimated cumulative vein strike length of over 20 km in the district. Of the 30 veins, 12 have been partially drilled and all of those 12 veins have intersected high grade mineralization. To date, we have drilled a total of approximately 80,000 metres and we are currently completing a Phase III drill campaign.

A milestone for the company was announced in late 2017 with the results from drill core hole BA17-51 along the discovery of what we call „Area 51“ within the Babicanora vein. This particular drill hole intercepted 3.1 metres grading 40.45 gpt gold and 5,375 gpt silver, or 8,409 gpt silver equivalent.

In February 2018 we achieved another milestone by announcing a maiden inferred mineral resource of an estimate 3.4 million tonnes grading 3.63 gpt gold and 296 gpt silver, or 568 gpt silver equivalent. Area 51 was the foundation of this initial resource with about 32 million ounces silver equivalent of just over 1,000 gpt silver equivalent.

In September 2018 we reported a successful update on the inferred mineral resource and announced an increase in overall ounces and grade, as well as a 75% increase in high grade silver equivalent ounces greater than 1,000 gpt from 32 million to 56 million ounces silver equivalent.

SilverCrest inferred resource got expanded to 4.3 million tonnes grading 3.68 gpt gold and 347 gpt silver, or 623 gpt silver equivalent for 87 million ounces silver equivalent.

The Company's Las Chispas project is one of the top percentile primary silver deposits in the Americas.

What are the main catalysts for your company within the next 6 months?

The natural progression is to keep drilling, both expansion and in-fill, and start converting inferred resources into measured- and indicated resources. Starting now, we will commence with in-fill drilling to recategorize our resource base. By Q1 2019, we hope to complete yet another updated resource and a Preliminary Economic Assessment (PEA). With a successful PEA, we plan to complete a Pre-Feasibility Study (PFS) in 2019. With success of a PFS, a construction decision could be made by the end of 2019. There are quite a few catalysts for the next 6 to 12 months and investors should keep watching how the SilverCrest story continues to unfold.

What is your opinion about the current conditions of the silver/gold market?

Underowned! There is little media coverage on the gold/silver space other then what you see and hear from those niche media outlets. But with more M&A activities and take-overs this could change and the broad market will start paying attention again. Otherwise, companies with cash, high margin projects and in good jurisdictions will be able to weather the current conditions in the precious metals market. SilverCrest Metals is one of those companies!

ISIN: CA8283631015
WKN: A141Q2
FRA: S0C
TSX-V: SIL
NYSE: SILV

Aktien ausstehend: 73,9 Mio.
Optionen: 6,2 Mio.
Warrants: 6,3 Mio.
Vollverwässert: 86,5 Mio.

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