

Interview with GoldSeiten (www.goldseiten.de)

- Mr. Hochreiter, at the moment the whole world has their eyes on gold and silver, but what can you tell us about the current development of platinum and palladium?
- The demand for platinum and palladium is strong. These two metals are the best for treating the exhaust gases of diesel and gasoline engines and as world car sales recover in the next few years, so a shortfall in these metals, especially platinum, will develop. Jewellery demand for platinum is especially strong despite the current financial problems, especially from China. Platinum remains the best catalyst for chemical reactions in the manufacture of gasoline and fertiliser and is used extensively in cell phones, solid state electronic memory storage and cancer fighting drugs. The outlook for all these sectors is strong. Palladium is also positively affected by these market sectors. Hence, the outlook in my opinion is that platinum will see a supply shortfall from 2011 onwards until 2015 at least, resulting in rising prices from the current level of USD 1600/ounce to well over USD 2000/ounce. For palladium, prices should react similarly and as I believe that above ground stocks of palladium are exhausted, its price could rise dramatically from the current USD 500/oz to well over USD 1000/oz by 2015.
- Every year 2 ½ thousand tonnes of gold are produced. How are the figures for platinum and palladium?
- Compared to gold, platinum production is very small. In 2009, 190 tonnes were produced. Palladium is much the same, with 228 tonnes produced in that year.
- Where are the biggest deposits to be found and in which ratio do platinum and palladium occur?
- The biggest deposits are to be found in South Africa. Approximately 95% of all platinum resources in the world are contained in the geological feature called the Bushveld Complex. It is 300km by 200km and contains 2 major platinum bearing reefs and also 7 other reefs from surface down to a depth of 3000m. The ratio of Pt:Pd is 2:1 in 75% of the reefs and is 1:1 in 25% of the reefs. Other resources are in Zimbabwe, Russia and Canada, but they are very small compared to the massive Bushveld Complex. The Pt:Pd ratio here is on average 1:3.
- Which are the biggest producers of platinum and palladium?
- The biggest producers of Pt and Pd are AngloPlatinum (77 tons Pt in 2009) Implats (42 tons Pt) and Lonmin (21 tons Pt) all South African Producers, and Norilsk (24 tons Pt) in Russia.
- Does the recycling of scrap material play any significant role? How high is its percentage of the total supply every year?
- The recycling of scrap plays a big role. Last year 45 tons of Pt and almost exactly the same amount of Pd came from recycling.

- Is there a surplus at the moment or rather a deficit?
- Last year (2009) there was a surplus of 9 tons of Pt. But in the last 15 years, Pt has been in a deficit in only 3 years. That is, there has almost been a perpetual shortfall of Pt, which was supplied by Russian stock sales in the 1990s, but these Russian stocks of Pt ran out 10 years ago. Pt will likely be in a deficit of around 15 tons in 2010.

In Pd, there has been a surplus for many years because of sales from Russian stockpiles of Pd, but these have now run out and I believe that because of this, the price of Pd will rise sharply, as Pd may be in a deficit in 2010.

- Where are palladium and platinum primarily used?
- **Pt:** Primarily used in autocatalysis (car exhaust emission control) in diesel and petrol powered cars. Also used in jewellery, cell phones, gasoline cracking, hard discs in computers and solid state memory storage like camera cards for photo storage. Also used for cancer drugs (Cisplatin - Lance Armstrong used them) and in chemical reactions where a catalyst is necessary. Pt is the best catalyst known to mankind and the chemists have known this for years. Recently, it is being used in environmentally friendly fuel cells (zero emissions) for cars and is now used in Investments such as the recently launched ETFs (Exchange traded funds) and in coins and investment bars.

Pd: Also used in mainly in autocatalysis and electrical applications such as capacitors. Also used in ETFs.

- Considering the similar characteristics of the two, how can we explain the big difference in the prices?
- As I have mentioned above, large stocks of Russian palladium resulted in the Pd price being capped as the Russian sold into any price rally for Pd. Therefore the price of Pd could never rise like Pt where there have been no stocks for many years now. I believe that the stocks of Pd are now also exhausted and I believe the price will rise strongly in the not-too-distant future.
- Many investors are wondering whether palladium is too cheap at the moment or platinum is too expensive. Are you expecting an alignment of the prices? And what development are you foreseeing in general?
- I think this answer is the same as the one for the last question. In a perfect world, the prices of Pt and Pd should be the same as the total Pt and Pd resources of the world have a Pt:Pd ratio of 1:1. However, demand and usage is different for the two metals and as a result, prices will be different, but I believe that we will see Pd moving up to a much smaller discount to the Pt price than we have ever seen before.
- Is the development of the prices of these two precious metals only regulated by the demand of industrial consumers or do speculators play any significant role, too?

- Speculators play a role through their investments in ETFs. These are fairly easily tradeable and selling or buying of Pt or Pd metal can be done with one phone call. Hence, volatility of the prices of these metals will likely increase as the ETFs become larger. Pt ETFs currently have a total of just under 30 tons of metal that can be traded, and Pd around 42 tons.
- Would you recommend platinum and/or palladium as an investment? If so, what are the options?
- I would strongly recommend Pt and Pd as an investment with a 5 year timeframe of investment. The easiest way is to buy the metals through ETFs in Zurich, London or New York. The second way is to purchase shares in the Pt and Pd producers. My recommendation on these would be, in order of preference: AngloPlatinum (JSE-Johannesburg Stock Exchange listed), Implats (JSE), Aquarius (JSE and LSE), Anooraq(JSE and TSX), Northam (JSE), Stillwater (Nasdaq), Norilsk Nickel (Moscow Exchange listed)

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