

## Presentation of “Platinum 2006” to the analysts in London

May 15<sup>th</sup> 2006

### QUESTION AND ANSWER SESSION

Bill Sandford: Just let me introduce the panel. Immediately on my left Mark Bedford, Director of Precious Metals Marketing, Jeremy Coombes on my far left General Manager Marketing, Tom Kendall immediately on my right General Manager Market Research and Tom will take over the market research activities from Mike Steel, Market Research Director, when he retires at the end of the month and of course myself Bill Sandford, Division Director, Precious Metals.



Q1a:

Could you tell us what's going on with Rhodium, and more to the point, tell us where you think this could get to.

Mike Steel:

I wouldn't give a forecast for Rhodium. I just wouldn't put much of my own money in Rhodium, at the moment, at the current price.

Bill Sandford:

If you look at the numbers in the book, this year we're suggesting another year of deficit for rhodium. So that's on top of last year, which was also a deficit. And the market was already very tight coming into this year. It's a very small market, as you know, a tenth of the size of platinum and palladium, easily distorted. A few years of deficit, some fund buying as well, and it's all become rather spiky.

As for the future, well you can bet that all the car companies are looking at the situation and they are pretty much the market for rhodium. Since 1990 when rhodium was \$7,000 they've been very careful about the amounts they use. It's a market which they probably find a little bit frightening really. So taking Rhodium out is actually not that easy. NOx legislation is getting tighter and tighter and therefore there will be a need for rhodium. But I think I'd agree with Mike. We've never given a price forecast for rhodium, I don't think this is a good time to start.

Q1b

But its fair to say that you haven't seen anything changing on the demand side that would make you think that there would be much less rhodium used in the next 12 months compared to the last 12 months?

Bill Sandford:

No.

Mike Steel:

Well, I think as Bill says, especially in the auto sector, the use of rhodium in autocatalysts is still critical to their effectiveness and in the total scheme of things it's not such an enormous cost to the auto company. Of course they don't like anything that's a high price, but I think they realize they have to have rhodium to make their catalysts work.

Sure in some other sectors, wherever it's possible, people will be looking very hard at the use of rhodium and trying to get it out wherever they can. And one has to say on the other side, in the longer-term, there will be more rhodium coming out of South Africa - if and when Eastern Bushveld operations are successful and when there's more UG2. So it's a question of timing and the problem with the rhodium market, as Bill said, is that it is very thin and therefore relatively small differences between supply and demand can have a disproportionate effect on the price.

Q2a:

Your presentation focuses very much on supply and demand as an industrial metal. But speculative money is flowing into the commodity sector pretty vigorously. You mentioned NYMEX but NYMEX long positions were larger than they are now a year ago and the price was half the current levels. Isn't the problem that funds are moving into commodities across the board, squeezing out the conventional players who previously have been a mainstay of these markets, and couldn't this just feed off itself? And couldn't your forecast just be entirely wrong, this market is potentially posed for a new high - much higher?

Mike Steel:

Yes, of course our price forecast could be entirely wrong, as could all of our forecasts over many years. But fortunately they haven't been too often; this is the first time I think we've actually been out of the forecast price range at the time of the launch. It is an extremely unusual situation. Really the only time I can think of anything remotely similar was price spike of 1980-81 and then the funds weren't involved. That was a totally different situation. But I think others might like to comment on the stocks.

Tom Kendall:

Certainly the flow of investment money into PGMs has had a major effect on the price, but the kind of picture that we are seeing is clearly not sustainable. You can't have prices increasing exponentially for any great length of time. Pension funds are moving more into commodities - we've all see the headlines of that - but by and large, those kinds of investment flows don't find their way into the PGMs. PGM isn't part of any of the major indexes anymore.

So although the PGMs are being partly driven by the broader enthusiasm for commodities as an asset class they also do have some distinctions. And with platinum we do think the underlying fundamentals are better than they are for palladium, so for platinum, although we would expect to see a correction at some stage, support is going to be there at a better level than it would be for palladium. We are still concerned that if there is a correction, for palladium, being such a small and illiquid market, the downside is considerably greater.

But you're absolutely right and NYMEX has become less important over the last 12 to 18 months. We saw a period last year when the Japanese were heavily influencing the market and that was closely related to what was happening with the yen dollar exchange rate. I think now we're in a situation where our focus is moving back again to North American investors and, with everyone expecting the federal exchange tightening cycle of interest rates to come to a close and for the dollar to resume its downward path, I think that's going to have an effect on commodities as well.

Q2b:

Perhaps let me rephrase the question slightly differently. It's evident that the money is moving into the sector and the victim of that will be some of the industrial players to the benefit of some investment money. How does a longer term elevated PGM price impact the industrial markets over the next couple of years or so?

Bill Sandford:

Well I think the first casualty will probably be jewellery, and we're already starting to see that on the charts we've presented, but it has been a lot more resilient than we ever expected but if it goes up any more then I think there will be more hits on the jewellery market and that has in the past tended to act as a sponge. The price goes up, the jewellery demand goes down and eventually the price comes down and the demand starts to resume. It will also impact on the industrial market but I often think it's not the actual level of the price; it's the speed that it goes up. When the price goes up very quickly, that gets a lot of attention, much more than it does when it creeps up and carries on creeping upwards. So yes it will have some effect, but the point is, it's really difficult to know where the price is going to go right now, for the reasons you just mentioned.

Q3a:

I wonder if you could share with us a few thoughts about the outlook for light diesel vehicles in the USA bearing in mind that from September the upper limit of sulfur is fixed in the fuel by law. And coincident with that, I believe Mercedes is launching its Z320CDI model in the USA.

Mark Bedford:

In the US market in particular we think that the advent of low sulfur fuels is obviously an enabling factor. By the end of the decade the fuel will probably be down to less than 10 parts per million but what we can't tell is whether this could be a kick-start compared to the effect of very high fuel prices. This could be the real kick-start for diesels in North America. There is a lot of bad history and consumer dislike of diesels in the USA but now with fuel prices at \$4 gallon, it's really focusing minds and I think in the next two or three years we could see some real LDD demand in North America. The Mercedes E class that they launched is perhaps the first example of that kind of vehicle but I would imagine that all the major car companies are looking at diesel engines now.

Jeremy Coombes:

Even though the sulfur levels of in fuel are coming down, it is still going to be difficult to introduce palladium for diesel catalysts except in certain conditions. This is relevant because it will effect the way the 2 PGMs are going to be used in diesel. Palladium is likely to be used along with platinum but only in the long term because with sulfur in the fuel it can only be used when you've got a soot filter on the catalyst system. As the introduction of soot filters will only be gradual, we'll only see a gradual introduction of palladium alongside platinum.

Q3b:

Can I follow that up with another question then? If that's the basis of your view then what impact does that have on your view of supply demand balances in the next few years.

Bill Sandford:

If diesels were successful in the USA? I'm not sure that we have much in there right now for diesels in the USA, but I mean if they were introduced then clearly it would be to the detriment of palladium. Most of the gasoline cars in the US now have palladium based catalysts but as they switch from gasoline to diesel it increases demand for platinum.

Q4a:

The de-stock you saw in Japan, can you remind us whether that was due to an HDD build up the year before, and if that was the case, what kind of build up we can expect this year with the US coming into play?

Tom Kendall:

De-stocking on the auto side, there is – we saw a relatively small build up in auto company stocks of platinum in 2004 and we didn't see that same effect in 2005 so that's really why year to year we saw a slight decreases in purchases of platinum by the Japanese auto companies. So effectively through last year, purchases were more reflective of the underlying demand.

Q4b:

Was that HDD driven?

Tom Kendall:

Yes, essentially it was, ahead of those new regulations.

Q4c:

And the implications for the US this year?

Tom Kendall:

The implications are that we expect to see quite a significant increase in platinum demand from the US this year.

Q5a

And just secondly on palladium diesel technologies, can you just expand a bit more in terms of whose technologies seem to be working, how much interest you've seen on the technology side of the equation from the OEMs. Thanks.

Bill Sandford:

When you said the technology, are you talking about whose technology?

Q5b

Yes. I mean there's been a lot said from the likes of Umicore about part palladium diesel catalysts with the low sulfur diesel fuel and you did mention it for the first time today as a potential change in the dynamic of the market. I just wonder if you can expand a bit more on that.

Bill Sandford:

As far as the different companies are concerned I think it's probably fair to say that all the bigger companies supplying autocatalysts have been working on this particular technology for some time, including Johnson Matthey. I can't speak for the others, but I'm sure they're all at the same sort of level of progress. In terms of their introduction it is coming in slowly and in the presentation we noted that this year there will be some palladium catalysts out there going on to cars, but the actual amount of metal that will go into cars this year is relatively small.

Mark Bedford:

It is quite small at the moment but it will grow. Not all car companies are fitting palladium-based catalysts at the moment and some of them, perhaps, never will. It will take some time though, as it always does when there is a change of catalyst technology. Generally it happens when they launch a new model. They don't change usually in the middle of the model year. So it will take time to phase in.

Mike Steel:

You can add simply to that that the use of palladium in diesel tends to be only a portion of one brick in a multi-brick system, so we're not looking at a major proportion at the moment. Who knows how it will go in future, plainly it partly relates to the earlier question about the impact of high prices. It would then also have an impact on what could happen in North America. Catalyst producers are under heavy pressure from the auto companies to move in that direction but there are limits because of the issue of sulfur in fuel.

Q6

If you look at the palladium spike in 1999, 2000, 2001, according to your information at the time, loadings halved over the next five years because of that spike. What's the risk of that happening in the European market on the diesel side? You've been showing a lovely growth in the ratings, but catalysts or CSF technology is very new and they're getting better at it. What's the chance of those loadings actually coming down or at least showing an impact from the current spike or price spikes?

Bill Sandford

Generally in Europe, loadings have tended to be much lower than they have in the States. Since the price went to over \$1,000 they've taken great strides to improve the loadings very successfully in the US. In Europe, I think loadings generally have been much lower. Engines are probably a bit cleaner here than they were in the US and therefore I think the ability to take a lot of metal out is actually quite small.

Jeremy Coombes:

Well it's very hard to take metal out when the emission standards are getting tighter. Euro 4 is now with us, but Euro 5 although not finally decided is pretty much in shape for application in 2010. That's going to require a very significant reduction in particulate emissions. In those circumstances vehicles are going to be fitted with more catalysts, bigger catalysts or they're going to have soot filters as well as oxidation catalysts. Maybe catalyzed soot filters alone.

It's not likely therefore that it will be possible to cut the loading significantly, although the ongoing work is always to try and minimize the loading, but I wouldn't say you'd see much reduction at all.

Bill Sandford

I might just add something else and that is that right now in Europe we've got catalysts – diesel catalysts - which have been around for some time now.

Technology is good, and the loadings on them are quite severely thrifted. There might be some more opportunity but I suspect its going to be small. Now we've got these soot filters coming in and right now the soot filters probably have more platinum in than the actual catalyst itself - probably not surprising really because it's a new technology and particulates have only been recognized as a pollutant really for the last year. As time goes on I'm sure that there'll be more thrifting from the soot filter than there is from the catalyst because they're relatively new.

Q7

The average Texan trucker basically doesn't give a hoot about the environment and what you see this year is a phenomenal rise in sales of old fashioned trucks, so 2007 trucks are actually quite expensive. What actual numbers are you looking at for heavy-duty diesel in the US, if it is such a spike but taking that into account as well?

Mark Bedford:

I think as far as HDD is concerned, probably in 2005 you're looking at something around 150,000 ounces, something of that order - not just in the US, but worldwide. Moving out to 2010, you might be looking at a half million ounces all together for HDD. That's the kind of numbers we're looking at.

Q8

I just wondered whether you could give some detail on the trends in recycling of platinum and palladium you've seen last year and the beginning of this year with the increasing prices.

Mike Steel:

The most significant recovery sector has been in the autocatalyst recovery, and there is no doubt that the high prices give greater incentive for people to increase recoveries. It's still not a terribly efficient process. We're probably still only getting around 50% of the theoretical amount of metal that's on the cars scrapped around the world each year coming back into the marketplace. So there is room for improvement. I think it's going to be other factors that affect it. Things like European legislation on scrap recovery that will undoubtedly force more metal through.

In some senses there is a build up that's going to come through in the next few years and I think most people will have appreciated that the very high loadings of palladium in particular, that we referred to just now, started to be seen especially in the USA and to an extent in Europe in the mid 1990s. Those are going to come

back over the next few years and that will undoubtedly increase the amount of palladium that's recovered rather faster than the amount of platinum. But it's a process that is gradually becoming more efficient. People are becoming more aware of the contained value, but it will take time because the whole collection and recycling process is quite complex. That's far and away the most important sector as far as recovery is concerned.

Bill Sandford:

Just to add on the other sectors there's no doubt that high prices stimulate more refining - we know that from our own refinery - but these are not new materials that are coming out. Nobody's been throwing them away in the past. Platinum hasn't been cheap for some time now. It's really working material that the customers have and they want to reduce their holding costs so they manage to squeeze some out and send it off for refining, but it's probably not sustainable forever.

Mike Steel:

The other so called mountain coming down the track which people sometimes refer to is palladium in electronic scrap. I don't actually believe that one because if you look at what's happened, especially in the last five years. There has been an enormous decrease in the amount of palladium used in the electronic sector, and you've got to a level where the amount of palladium in any individual item is extremely small. So the recovery process is less attractive and I think that is a problem. So although palladium has got autocatalyst recovery to cope with, it doesn't have I think a major electronics recovery that's going to be an issue in the future.

