

Why Investors Buy Platinum

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I would like to take this opportunity to thank Richard Kaltenbach and the IPMI for inviting me to speak today.

My topic today focuses on why investors buy platinum. In short, investors will buy platinum only if they believe the price will rise. Since platinum pays no dividends or yield, investors will look at it only if they can be convinced that platinum will rise in price, either sharply or on a sustained basis.

Investors are bombarded with "reasons" to believe platinum will rise in price. They are told that platinum is rarer than gold, that platinum is used to make 20% of all products, and that all the platinum ever mined would only fill a space 20-feet on either side. Again, none of these reasons matter to investors **unless they mean** that prices will rise.

Therefore, what investors need are more credible reasons to buy platinum than the normal truisms visited upon them.

This morning I will touch upon the three basic roles platinum plays as an investment: 1). platinum's normative role in an investment portfolio, 2). the complementary relationship platinum shares with gold as a hedge within a hedge, and 3). the role platinum plays as an ideal portfolio diversifier. I will then conclude my discussion with a brief analysis of what the future may hold for platinum, in terms of investment opportunities.

Platinum's Normative Role in an Investment Portfolio

Platinum provides several useful benefits to a diversified investment portfolio. Gold often is said to have a dual nature, being both a financial instrument and a commodity. The same is true of platinum.

As an industrial commodity, platinum is available to investors interested in this metal's potential capital appreciation. Investors can study platinum's supply and demand trends, making educated and informed decisions about both the short and long term prospects for platinum prices. Depending on individual investors' conclusions, time horizons, and risk-reward profiles, they will either buy, hold, sell, or abstain from buying platinum at any given time.

Some observers might question whether platinum shares such a duality of functions with gold, as both a commodity and a financial asset. The proof of this duality is evident in the platinum price, however. Platinum prices have risen in two distinct economic environments: When real economic growth has been healthy and when the world economy seemingly was going to hell in a hand-basket.

For example, in 1984-1986 and again in 1993-1994, we saw examples of the former condition. In both periods, real economic growth was very strong in many industrialized countries. This boosted industrial demand for platinum as a commodity, helping to exert upward pressures on prices. In 1974 and 1980, the latter was the case. In these periods, economic conditions were extremely hostile to traditional financial assets such as stocks and bonds, while currency markets were in turmoil and the stability of both the international political system and the international economic structure were in question.

In each of these periods, platinum prices rose sharply in part as a financial asset, a hedge against economic, financial, and political calamity.

A Hedge Within a Hedge

Platinum is called a hedge within a hedge expressly because it behaves differently from gold. There are six reasons for this, and this distinction offers investors interesting possibilities. The rationale for comparing platinum and gold lies in the fact that most people tend to invest in gold before buying into the other precious metals.

1. First of all, platinum serves as a diversifier within a diversifier. The fundamental differences between platinum and gold make platinum an excellent complement to gold in investor portfolios.

In fact, platinum is an excellent portfolio diversifier by itself. As explained later, platinum's statistical correlations to stocks and interest bearing assets are very low, the chief characteristic sought in a portfolio diversification program.

Platinum prices have a much stronger relationship to gold prices, but even here there are important divergences. Statistically speaking, the quantifiable relationship between monthly platinum price changes and shifts in gold prices since 1968 has been 83%. This is the extent to which these two metals' prices have moved in tandem. The remaining 17% represents the differences in prices. For example, gold prices peaked in January 1980, around \$825 per ounce. Gold prices promptly fell back. Platinum prices kept rising, however, reaching a peak of \$1,040 per ounce in March 1980, two months after the gold price topped out.

Another example was in the period between 1984 - 1986. **Platinum prices rose from \$286 in 1984 to a peak of \$678 in November 1986.** Gold prices kept falling into the first quarter of 1985, and then staged only an anemic recovery until the second half of 1986.

By taking initial positions in platinum in 1984, and then selling the platinum positions in late 1986 to move into gold, some investors were able to compound their profits in the upward move. Gold prices had risen to only around \$325 in November 1986, as platinum was peaking. However, gold kept rising, eventually reaching \$497 in late 1987.

2. Platinum primarily is an industrial commodity, while gold is a financial asset.

The vast majority of platinum is used in industrial applications. While most of the gold produced each year now is used in fabricated products, jewelry accounts for 91% of this demand. In some countries gold jewelry still is used as a form of savings, while in other areas the price sensitivity of gold jewelry is very high. Thus, even though a significant amount of gold goes into fabricated products, it is not as much an industrial commodity as is platinum.

Gold jewelry demand can turn off quickly when the price of gold rises sharply, as has happened over the past few years. Also, gold jewelry sometimes is sold for its metal content when gold prices rise sharply.

Conversely, only about 35% of total platinum use is in jewelry. And even in this sector, the price elasticity of platinum jewelry demand is less than that of gold jewelry. While gold jewelry often is sold, either when prices rise or in exchange for new gold jewelry, platinum jewelry is seen more as a keep-sake to be retained.

The remaining 65% of platinum fabrication demand is in applications in which the value of the platinum is much lower than the cost of the total product. There is only about \$24 worth of platinum in the average automobile's catalytic converter, while the typical car today costs a thousand times that. In 1993 the average price paid for a new domestic auto

in the United States was \$17,219, while the average price for an import was \$21,988. Similar economics apply in platinum's other applications, in electronics, medical devices, chemical process and petroleum refining catalysts, glass making equipment, and other industries. **Thus, demand is less likely to decline sharply in the wake of higher platinum prices, and fabricators and consumers are less likely to sell their platinum-bearing products just because the value of the platinum inside them has increased.**

3. Platinum prices tend to rise sooner in the economic cycle than gold prices. Platinum prices are more responsive to changes in industrial demand for platinum, which tends to rise as economies expand.

Both platinum and gold prices respond to overall economic conditions. Like most other commodities, these two metals tend to experience weak or declining prices during recessions.

As economic conditions improve following a recession, gold prices generally lag other commodities. During a recession, demand is reduced, and inventories often build up, keeping a lid on prices.

Also, in the early stages of an economic recovery consumers tend to focus on basic purchases, including new homes, furnishings for their homes, and automobiles. Luxury items such as jewelry and electronics, which use gold in capacitors and connectors, tend to be bought later, as the recovery passes into a further expansion.

Platinum is used in many of the industrial products needed in the early stages of a recovery, however. Platinum is used in auto catalysts, of course. It also is required in equipment used to make fiber glass, used in building insulation, in auto body parts, and in

a host of other products. Platinum catalysts are used to refine petroleum into chemical feed stocks going into the manufacture of various plastics. Platinum thermocouples are used in steel furnaces.

Therefore, the revival in industrial demand for platinum tends to lead to platinum prices starting to rise before gold does. **Thus, in 1978 and again in 1985, platinum prices outpaced gold.**

4. Platinum is used in a wide variety of industrial products and applications, including gasoline, anti-cancer drugs, fiber optic cables, fertilizers, explosives, paints, and pacemakers.

This topic has just been addressed. The fact that platinum has a variety of uses protects it against the unknowns of any single industry. If the auto industry enters a downward phase, with fewer cars being produced and sold, there is a possibility that some of the other platinum consuming industries, such as the Japanese jewelry sector or the chemical industry, might be experiencing better fortunes, offsetting some of the price depressing effects of lower demand from the auto sector.

5. Platinum prices are more volatile than those of gold, given the smaller size of the platinum market. Thus, platinum prices tend to outpace gold prices during bull markets.

In 1994, gold price volatility (measured as the spread between the lowest and highest prices each month as a percent of the lowest price) ranged between 1% and 4%. Platinum price volatility ranged between 2.5% and 8% over the same period. The same relationship has held true historically: Platinum prices generally have been more volatile than those of gold. This greater volatility offers shorter term investors increased potential to profit from

price moves, while also providing enhanced returns for longer term investors, due to platinum's historical tendency to rise further in percentage terms than gold prices.

6. There are no large above ground inventories of platinum.

Above ground gold stocks total approximately two billion ounces in bullion and coinage form, including more than 800 million ounces held by private investors and more than 1.1 billion ounces held by central banks and other government authorities. Another 1.2 billion ounces of gold are held in the form of jewelry, decorative objects, and religious items, some of which could be sold for their gold content were prices to rise. Bullion and bullion coins are equivalent to about 23 years' worth of fabrication demand for gold, presently around 85 million ounces per year.

Platinum stocks may total around 6.5 million ounces worldwide, including metal held in Russia, Switzerland, and the United States. With present levels of fabrication demand hovering near 5.0 million ounces per year, this would be equivalent to 1.3 years' worth of demand.

All such estimates of worldwide metal inventories must be viewed with a great deal of caution. Even so, it is clear that the amount of platinum lying around in inventories relative to annual platinum demand requirements is much smaller than it is for gold. Also, it is equally clear that for all of these metals, including gold, a great deal of the metal held in inventories might not be readily forthcoming under any reasonable price scenario. Over the past 20 years gold and platinum prices have risen sharply and fallen dramatically. Throughout these variations, the flow of metal from inventories and scrapped jewelry and decorative objects has been very low, under 5% of estimated inventories.

Another attractive aspect of commodities is the heterogeneous nature of these investments: They do not move in tandem with each other, any more than individual stocks move in line with one another. While the overall stock market index may be rising or falling, individual stocks within that composite may be moving sharply in the opposite direction. So too with individual commodities.

Platinum prices tend to move in line with general commodity indices slightly less than half of the time. The chart here shows platinum prices and the CRB (Commodity Research Bureau) index of 21 commodities, one of the most popular commodity indices used by investors. Statistically, platinum prices have only a 48.9% correlation to the CRB.

Platinum as an Ideal Portfolio Diversifier

This brings us to the third and final role, platinum as an ideal portfolio diversifier. As mentioned earlier, the statistical relationships between platinum prices, on the one hand, and stock prices and interest rates, on the other, are very low. This qualifies platinum as a good instrument with which to diversify one's portfolio.

The ideal portfolio diversifier is one that has little to no statistical relationship with the other assets in the portfolio. A common misunderstanding is that a portfolio diversifier should have a high but negative correlation. That would make it a counter-cyclical asset, rising as the other assets decline in value, and falling back as they recover. A better way to diversify a portfolio is to find assets that have no relationship to the other assets.

Sometimes, they will all rise together. At other times, they will all fall together. Still yet at other times they will move in opposite directions. While it may seem strange, extensive quantitative, statistical work has proven that such a portfolio offers superior returns over time.

Platinum's measured relationship with U.S. Treasury bills has been 17%, calculated using quarterly data from 1968 through the middle of 1994. Similarly, platinum's correlation with the Dow Jones Industrial Average has been 19% on a monthly basis over the same time, while it has had a 23% correlation with the S&P 500.

Platinum did well in the 1970s, when stocks and U.S. T-bills did miserably. From around 1987 to 1992 U.S. equities and T-bills outperformed platinum. Since then, platinum has outperformed stocks and bonds once more. Here, what is important is the effect that platinum has on a portfolio, smoothing out the variations in the portfolio's value over time. Certainly overall performance would be better if one were able to manage one's portfolio so as to only hold assets that will rise in the future.

That is a difficult trick to pull off, however. Modern portfolio theory holds, and empirical tests have demonstrated it to be true, that a better approach is to manage a portfolio with a diverse profit profile. Sometimes, all of the assets will be appreciating together.

Sometimes, they all may be falling in value at the same time. More often than not, they will be heading in various directions at various times. Over the long run, the return on a portfolio that has unrelated assets tends to be greater than the return on portfolios that have only assets that have high correlations with each other.

In addition to platinum's strength as a portfolio diversifier, platinum also has some value as a hedge against inflation and a hedge against currency market disturbances. Platinum prices actually have a better statistical correlation to overall inflation, measured by the U.S. Consumer Price Index, than do gold prices. From 1968 through 1994 platinum prices had a 44.9% correlation to the CPI, far higher than the statistical relationship between gold prices and general price inflation.

Even so, the relationship is far from perfect, and it shifts dramatically over time. In the late 1970s and early 1980s, for example, platinum prices rose and fell in direct relationship to overall inflation. **Since 1991, however, U.S. inflation rates have fallen steadily while platinum prices were consistently stronger, at least until 1995.**

While platinum prices sometimes are directly related to inflation rates, they sometimes move indirectly to the U.S. dollar's exchange rate. In the early 1980s platinum prices declined sharply as the dollar, measured here on a trade-weighted basis, rose. In the middle part of the 1980s, both reversed course at about the same time. Platinum then rose for a year, while the dollar slid. As the chart on *Platinum and the Dollar* shows, since the early 1990s both the dollar and platinum have trended sideways, with platinum showing a slight upward trend.

Future Snapshot

Taking a snapshot view of the future over the next few years, investment demand for platinum looks positive. As a classical commodity, industrial demand for platinum will continue to rise, fueled by a worldwide revival in auto sales and steady growth in jewelry demand. Along this vein, perhaps the most interesting event to mark over the next few years will be the work conducted on Engelhard's new catalytic radiator system.

Briefly, much of what can be said at this point is rather speculative. The technology is relatively early in its development process. Still, there are legislative reasons to believe that this technology may move toward commercialization more rapidly than otherwise would be expected, in view of even more stringent emissions standards worldwide.

Based on models of the number of cars sold in the United States, and elsewhere, it is possible to estimate the amount of platinum that could be used annually were the PremAir system to be commercialized.

My point in showing this slide is not to address the likely or potential use of platinum in PremAir. My point is that, as investors wonder where to put their money in the second half of this decade, they are going to be looking for markets that offer strong demand growth, which could be reflected in higher prices. The advent of PremAir is just one aspect of the platinum market that could keep investors engaged in this market.

In terms of a financial asset, platinum may also gain favor as an alternative investment choice in the coming years. Factors such as the overheated status of the U.S. equity and bond markets, the 1996 U.S. political elections, continued disharmony within the European Union regarding a single monetary unit, and the potential for political problems within China, just to name a few, should keep investors interested in platinum.

Thank you.