

# Platinum Market Review

## May 2012

### Platinum

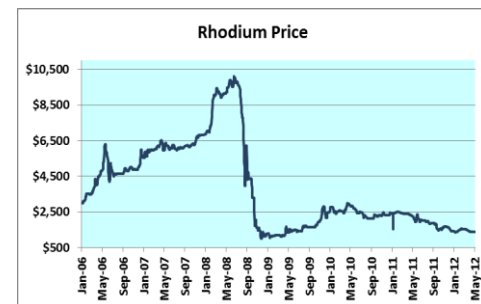
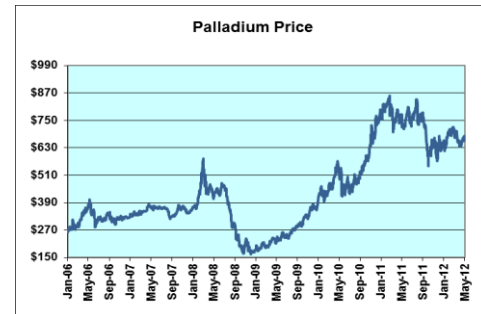
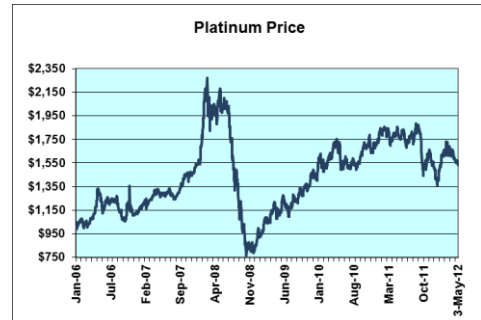
- A further slowing in global economic growth, a result of the EU debt crisis and a deliberate easing in China, keeps pressure on precious metals prices
- Prices could remain range bound given growing surplus and potential for additional economic declines
- European vehicle sales still weak, down 7.7% in first quarter 2012
- Primary metal supplies from southern Africa threatened by escalating costs for energy and labor, frequent safety-related closures and restrictive government legislation

### Palladium

- Record global vehicle sales offers support for current valuation of palladium
- Considerable gains in secondary supply to partially compensate for reduced sales from Russian stocks
- Speculative interest in palladium has moderated from record levels seen in earlier period of expansion and may limit upside price potential

### Rhodium

- At current prices rhodium for commercial applications becomes more attractive
- Recent production losses from SA mines help to erode portion of substantial supply overhang
- Rhodium's role in automotive pollution control now competes with alternative technology



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## Market Summary

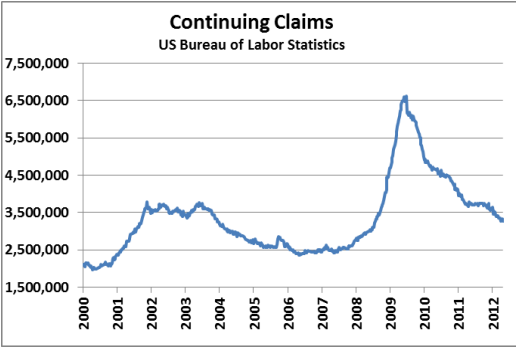
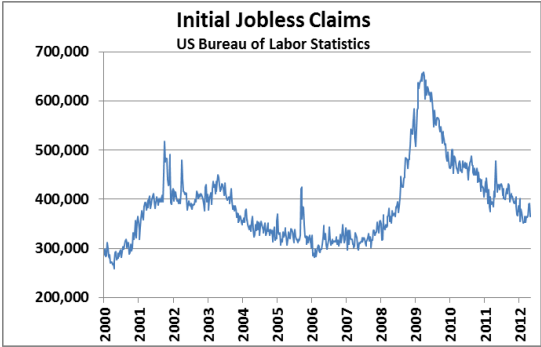
The prices of platinum and palladium have struggled to gain traction after falling from first half highs in late-February as consumers and investors continue to be apprehensive about a possible further slowing in the world economy from the risks associated with the sovereign debt crisis in Europe and the intentional deceleration of the Chinese economy. The value of the euro vis-à-vis the US dollar has traded in a fairly narrow band around \$1.32/euro thus far in 2012 reflecting the market's trepidations, trading significantly lower than the average for 2011 of \$1.39/euro and a recent December 2011 high of \$1.42. The continued weakness in the euro rate has acted to limit any measurable price appreciation in the precious metals in 2012.

But despite lackluster world growth, vehicle sales globally have remained firm, again with the exception of European registrations, and are projected to improve by some 6% to 78 million units in 2012. Solid advances in the US, a rebound in Japan and modest gains in Chinese car sales continue to support the global vehicle market. In addition, a steady succession of supply disruptions at the South African mines has lent further support to platinum and palladium prices. However, speculative involvement in the PGMs, which was a driving force in the substantial earlier price gains, has eased over the past year as the potential reward expectations at the start of this cycle have been scaled back.

According to the IMF, global GDP growth estimates for 2012 are 3.5%, down from last year's 3.9%, principally on European concerns and a soft landing in the Chinese economy but with further progress anticipated in 2013, advancing to 4.1%. For the US, the IMF is projecting modest growth of 2.1% in 2012, rising to 2.4% next year. First quarter GDP in the US was recently announced at 2.2%. In the US, the economy has benefited from solid corporate earnings but still lacks the support of two important sectors, job creation and housing.

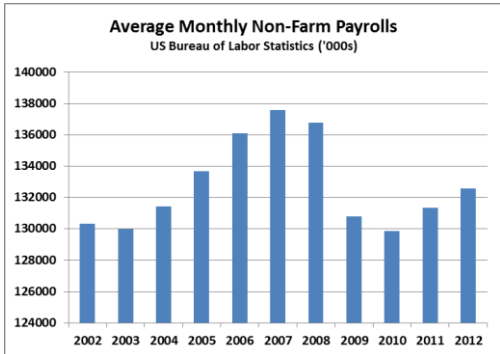
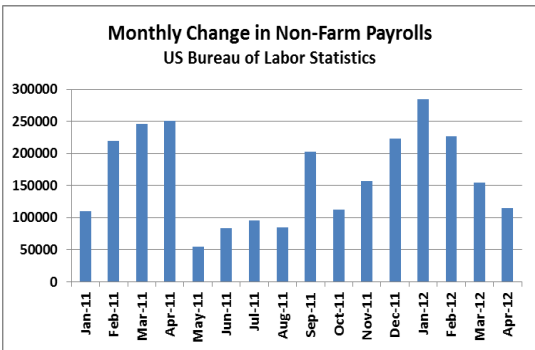
The US employment picture has experienced some tangible gains over the past year, nevertheless, as the volume of new layoffs has fallen in line with longer-term averages while the number of jobs created has made advances, albeit modest. In the most recent report from the US Bureau of Labor Statistics, new weekly jobless claims have now declined to 365,000 individuals, down from its cyclical high rate of 659,000 claimants in March 2009, and approaching the average rate of the prior expansion period of 2001 through 2007 of 353,000 new filings.

The number of planned layoffs in the US fell in March to its lowest level in ten months, 8.8% below the same period last year, following an increase in redundancies in the first two months of this year. However, the number of individuals continuing to receive unemployment benefits has exceeded longer-term averages despite the improvement. Current data show some 3.28 million people continue to receive benefits, well above the longer-term average of 2.96 million claimants for the previous expansion period. Moreover, the labor force participation rate has also slipped to its lowest measure for the past decade, down to 63.6% of all available workers 16 years of age and older. For comparison, the average participation rate for the '01-'07 expansion was 66.2%.

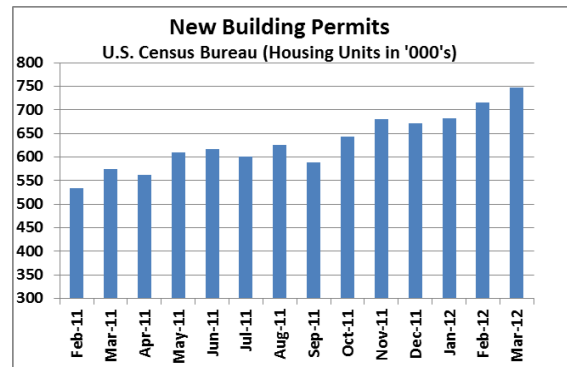
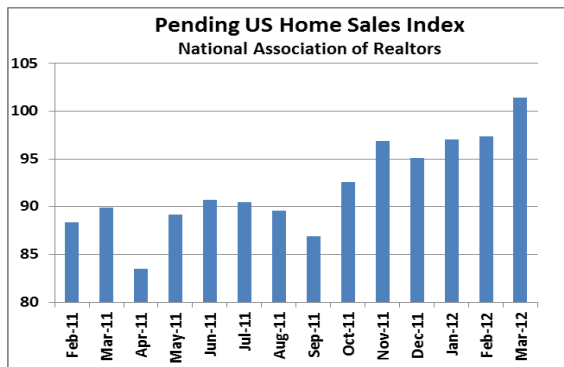


The official unemployment rate in the US has also made progress in the past year dropping to its current 8.1% from a cyclical high of 10.6% in 2010. But considering the decline in the participation rate since the recession of 2008-2009 which would include the many marginal workers, or those who have stopped searching for jobs because of a lack of opportunities, the unemployment rate climbs to 10.6%. And then if those individuals working only part time because of job losses and the inability to find sufficient work are also counted, the unemployment rate then rises to a more comprehensive 15.8%.

It was estimated that some 8.7 million jobs were lost during the last recessionary period, the most in any economic contraction since the Great Depression. And thus far in the past three year recovery, a little more than a third of these jobs have been replaced as only 3.2 million new jobs have been created. However, the pace of new job creation has shown strong gains since the start of 2011 with more than 2.6 million more individuals employed from January of last year. On average, 164,000 new spots per month have been created over this past 16 months. And given the recent improved performance in the US economy, the rate of unemployment could conceivably drop below the 8% level in the latter months of this year. Nevertheless, job losses in the labor market still remain well above the average structural unemployment level for the past decade of 5.8%.



The US housing market appears to have stabilized but the recovery remains fragile with inventory levels still oppressively high. The index of pending home sales has risen steadily over the past year, with the seasonally adjusted March rate 12.8% above that for the same period of 2011. New building permits have shown even better growth with the most recent report of a 30% year-on-year increase. While the latest March report of 747,000 new permits is nearly 24% above the average for all of 2011, the present rate is still only about half of the longer-term mean for the past decade.



In addition, new foreclosure starts in the US have slowed dramatically since last year with the most recent March data reporting a 15% drop month-on-month, 8% year-on-year. Increased government oversight due to past abuses and loan modification programs that attempt to keep owners in their homes have reduced the flood of distressed properties on the market. But while holding potential foreclosures off the current market may support home values in the short-term, the overhang of a large “shadow” inventory of distressed properties may only prolong the recovery in home values. Moreover, there likely exists a further large inventory of homes in which owners are waiting for improvement in market prices before listing for sale. It is estimated that some 22% of homeowners in the US are presently “underwater”, a situation where more is owed on the mortgage than the property is worth. The most recent Case-Schiller housing price index recorded a further 3.5% decline in home values from the same period last year after posting a 3.7% annual decrease for 2011.

The Federal Housing Finance Agency is now investigating a plan to sell a portion of its distressed mortgages in bulk to institutional investors who would agree to manage these properties as rental units, ideally with current residents. The effect would be a draining of the inventory of potential foreclosures, removing an enervating overhang on the markets and presenting a possible lift to prices. The US Bureau of the Census estimates that there are currently about 19 million unoccupied housing units for sale in the US, approximately 14% of available housing stock (12% remained vacant in 2000). Otherwise, the portfolio of shadow inventory, which could total as much as two to three years normal supply, would need to clear the markets before any sustainable recovery in house prices can be realized. Property values have already been discounted by more than 30% of their aggregate worth in the six years of decline from the housing market’s peak in 2006.

Faced with many similar problems, the ECB has injected some \$1.3 trillion of low interest three-year loans into the European economy since December through its Long Term Refinancing Operation to shore up the balance sheets of member banks. But the ECB appears at present to be

reluctant to add any additional funding to member banks or to lower its benchmark interest rate below 1% where it has been for some time for fear of impacting price inflation over the long-term. However, the implementation of mandated austerity programs across the EU has now resulted in further declines in national growth for many member countries with negative first quarter growth reported in Spain, Greece, the Netherlands, Italy and the UK. Unemployment in the EU has risen to a 15-year high at 10.9% as a consequence of austerity measures; Spain has reported its unemployment rate in March of 24.1%. Market fears of further declines in growth have forced recent yields on Spanish government debt to rise briefly above 6%.

ECB President Draghi may be forced to reconsider an additional stimulus in the form of a government bond buying program to avoid possible deflation in certain weaker economies. The deleterious effects of austerity on already struggling nations have sparked populous demonstrations which are likely to build as the pain increases. Voters will put pressure on elected officials which could alter the resolve of national leaders to adhere to these programs, which in turn could prolong an economic contraction in the EU through the first half of 2013. Recent election results in France and Greece offer clear evidence of the public's response to the continued economic morass and the harsh effects of austerity.

In its most current assessment, the IMF has forecast a negative growth across the EU of 0.3% in 2012 but followed by a 0.9% expansion in the collective economy in 2013. Continued sluggish to negative growth in Europe will have a measurable and direct effect on the global economy as outside of its member nations, the US and China are the EU's largest trade partners, accounting for some 20% of all transactions.

In contrast, China's manufacturing Purchasing Managers Index for April was reported as 53.3, its fifth consecutive increase from cycle lows in December and its highest level in 13 months. The non-manufacturing PMI for March was the second straight month of gain. First quarter GDP for China declined to 8.1%, down from 9.7% in the comparable period of 2011 and to its lowest in several years, as the government intentionally decelerated growth to avoid further overheating of the economy. Modest to even negative economic growth across the EU has coincidentally dampened demand for imports over the past year, with China posting a substantial trade deficit in February of \$31.5 billion, its largest ever and the first in several years.

Price inflation had risen to a recent high of 6.5% in July of last year before measures were taken by the Peoples Bank to tighten rates. Since then, inflation has fallen to a more acceptable 3.6% annual rate and comfortably below its 4% target. Rapidly expanding property values have also been brought under control with home prices easing in 37 of 70 large cities in the first quarter. Investments in fixed assets, which account for about half of China's GDP, have slid to a still impressive 20.9% growth in the March quarter, but at its lowest rate in several years.

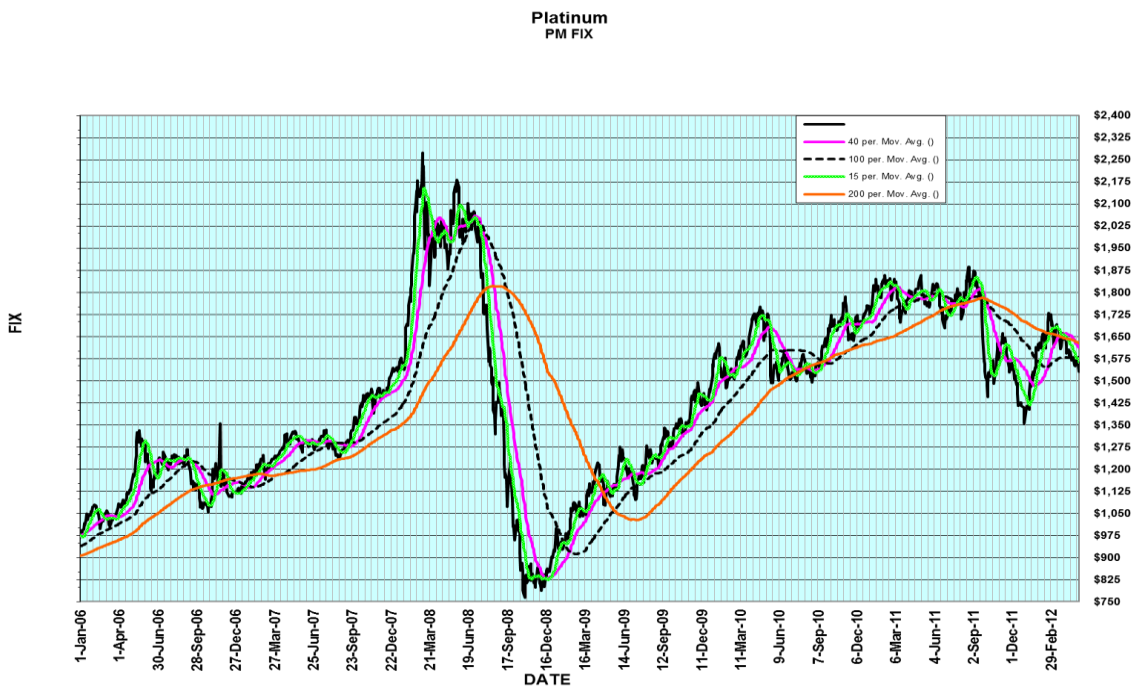
It may now appear that China's economy may indeed experience its soft landing in the first half of 2012 and that the early signs of a budding recovery may be starting to appear. In its most recent research, the IMF forecasts an 8.2% growth in China's GDP for all of 2012 with a rebound to 8.8% in 2013. With inflation seemingly contained, the Peoples Bank may be able to add liquidity once again, first in the form of a cut in bank reserve rates and then in other short interest rates. The bank did lower reserve requirements this past February and in November of

last year. As the world’s largest consumer of a variety of raw materials, any indication that the Chinese economy is accelerating once again will likely translate to firmer prices in commodities, and more specifically, in platinum and palladium.

### Platinum

A series of disappointing EU bond auctions during the past two months, primarily in Italy and Spain, reinforcing the market’s anxieties of a global slowdown, brought pressure to the commodities markets with platinum falling from its February 29<sup>th</sup> high of \$1,740 an ounce. Adding to investor fears has been the declining trend in economic data from China where the government has made significant strides to intentionally slow its economy. The price of platinum had made a remarkable recovery from late-December lows of \$1,355 an ounce before the mounting risk of a global contraction from the re-occurring financial distress of the EU countries and the easing in Chinese economic growth eroded about half of the metal’s 2012 gains. The metal only briefly traded above its 2011 average value of \$1,721 an ounce this year, falling well-short of last year’s cyclical high of \$1,912 an ounce, and has struggled since to retrace recent losses in relatively light volumes.

Platinum prices have likely been supported in recent months by a loss of primary supply from the world’s largest producing nation, South Africa, and by further threats to future mining efforts. It has been estimated that some 300,000 ounces of platinum may have been forfeited over the past year due to a succession of safety-related mine closures by order of the SA Department of Mineral Resources to investigate on-site deaths. In addition, the six-week strike at Impala in the first quarter could cost more than 120,000 ounces of platinum outturn, or perhaps more, depending upon the condition of the mine and how quickly production can return to steady state status. The labor action appeared to have been more politically driven as a new union attempted



to gain a foothold with those workers already represented by the NUM, while also rallying support for many poorer disenfranchised workers. Impala had reported only limited damage at its site. Platinum production from southern Africa could be down by as much as 10% from 2011 levels to 4.8-4.9 million ounces as Section 54 closures, worker actions and rising labor and equipment costs cripple mining plans.

Additionally, the Zimbabwe Minister for Indigenisation and Empowerment rejected initial plans from both Impala and Aquarius to comply with the country's latest legislation that requires foreign firms to transfer 51% ownership of its operations to the local population. The Minister had threatened that non-compliance with this law would result in some "enforcement mechanisms" which could affect production. Discussions with the Zim government are ongoing. Impala is reliant on its Zimbabwe holdings for a significant portion of its expected production growth. Impala produced 92,000 ounces of platinum in its first half year to December from its Zimplats mines with annual outturn scheduled to rise to 270,000 ounces of platinum annually by 2014. Also, output of some 100,000 ounces of platinum each year is derived from its Mimosa mine, a 50%-owned joint venture with Aquarius.

Another potential threat to SA PGM production came from the ANC. In a statement from the ANC leadership it stated that it had agreed not to seek nationalization of the country's mining industry, but rather could see the benefits to the poor of a 50% tax on producer profits. At present the SA normal taxation on profits from state mines is only 28%. A move to take half of all profits could drain funds needed to re-invest in continuing operations, and will likely reduce prospective rewards of new development projects and could alter the economics needed for sinking a new mine. The immediate effect of such a large tax hike would be an appreciation in the value of the metals as a rise in overall mining costs would further threaten marginal operations and lower longer-term growth expectations for investors.

Additionally, steadily escalating operational expenses on the SA mines in the form of higher energy charges and worker compensation are affecting profits at producers, and along with softening metal values, will likely threaten the closure of higher cost mine sections and the future of smaller, marginal producers. In South Africa, employee wages account for about half of all costs. In recent years, salary costs have risen on average 8-10%, well in excess of the current 6% rate of inflation in South Africa.

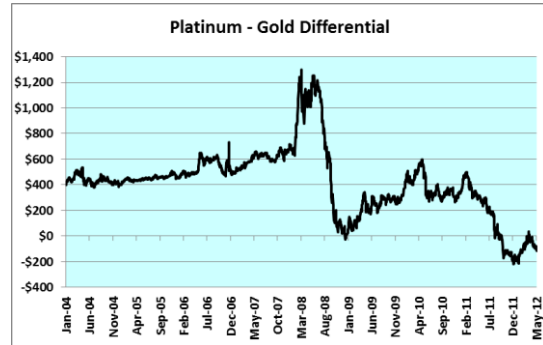
But the slowing in overall global growth, particularly in Europe and China, has impacted demand volumes for platinum. Europe accounts for nearly a third of all platinum consumption, about 60% of which is used in the manufacture of autocatalysts. European car sales have been on the decline in recent years, dropping by a marginal 1.7% in 2011 following a 5.4% decrease in 2010. First quarter 2012 sales in the 27 EU nations are off again, down 7.7% at 3.31 million units with most recent March sales at the lowest level since 1998. Austerity measures and the negative to flat growth recorded in most countries continue to discourage buyers.

Speculative positions in platinum on the NYMEX/CME, as measured by total non-commercial and non-reportable holdings, remain well-below the higher levels attained earlier this year of nearly 1.7 million ounces, dropping to about 1.0 million ounces currently. ETF holdings in



platinum have risen marginally to 1.46 million ounces held on behalf of investors from 1.4 million ounces at the start of the year.

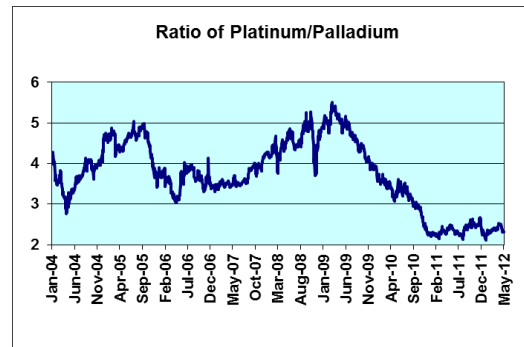
Platinum has underperformed gold and other metals in recent months as industrial demand for metals remains soft. The price differential between gold and platinum narrowed from its \$220 spread at the start of the year back briefly to parity in mid-March but has again fallen to over \$100 an ounce under gold. Platinum prices may be expected to continue to show difficulty gaining traction as the global economy, and again specifically in Europe and China, struggles to improve.



A more recent cautionary note from GFMS stated that the rising gross surplus in platinum may continue to expand, and along with a static demand outlook could adversely affect market prices for the metal. However, assuming a further modest expansion in vehicle sales worldwide, additional losses in primary supply anticipated from South Africa and indications of a recovery in Chinese economic growth, platinum prices may be able to retrace recent losses and climb higher in the months ahead, potentially rising back to \$1,650 an ounce; a return to February highs of \$1,740 an ounce may prove far more difficult to achieve, but possible later in the year or early 2013. Intermittent reports on European financial difficulties, nevertheless, will likely offer the occasional headwinds that limit platinum's move to the upside and will probably act to negate any chance of a return to last year's cyclical highs.

## Palladium

Palladium rose sharply in the first months of the year, gaining more than \$100 an ounce to its February high of \$723 an ounce, a level not matched since the price collapse in late-September of 2011. The metal has been unable to sustain a move above \$700 an ounce since, as the market's concerns of a further slowing in global growth have stifled investor interest. Despite wide ranges posted in platinum and gold over the period, the price of palladium has remained relatively stable.



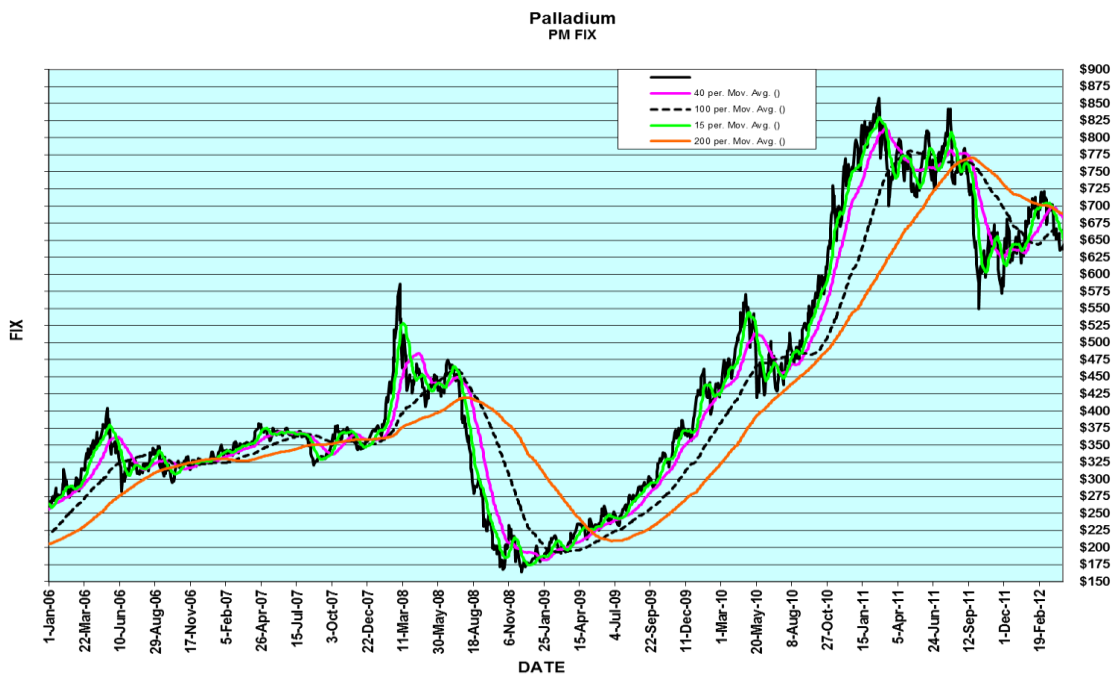
Palladium is still perceived as the favored metal for automotive catalysts as the increased manufacture of smaller engine cars now common in China and the US can be fitted with lower costing palladium-rich converters.

Vehicle sales may have moderated in China in the past year as that country intentionally slowed its economic growth to avert an overheating in certain industries. But total vehicle sales for calendar 2012 are projected to be 18.5 to 19 million units, strikingly higher than the 2 million produced just a decade ago. And even if the pace of global car manufacture may have slackened, total vehicle sales remain at record levels, requiring steadily higher loadings of palladium and other metals.

Supplies of primary palladium are also expected to be down this year as South African production is affected by a significant number of safety-related mine closures and other disruptions for worker actions and an announced decrease in sales from the world's largest producer of palladium, Norilsk. Separate official sales of palladium from Russia's state repository for metals, Gokhran, which were estimated to have exceeded 1 million ounces annually in recent years, are also expected to be greatly reduced in 2012 and completely depleted within a couple of years.

Palladium positions on the NYMEX/CME, as measured by total non-commercial and non-reportable holdings, have also fallen by more than half over the past year to the present 768,000 ounces as speculative interests have waned. In sharp contrast, ETF holdings in palladium have climbed considerably to 2 million ounces held on behalf of investors, higher by more than 300,000 ounces from the start of the year. A portion of the former futures trades may have migrated over to the ETF market during this period.

The price of palladium continues to recover, albeit slowly, from recent April lows of \$625 an ounce, as markets have been quietly cautious ahead of new economic data, particularly concerning Chinese growth and EU debt issues. But a firming US economy and equity market and a recovery in the value of the euro, perhaps from a lack of fresh negative news from EU members, may support palladium's recovery to recent highs of \$723 an ounce in the months ahead. An intermediate-term price range of \$625 to \$725 an ounce for palladium may be warranted given current record new car registrations worldwide. Further price appreciation to the \$775 to \$800 an ounce area, however, will need to be supported by a clear indication of a resumption of growth in China, a stable expansion in the US and a more positive outlook for the EU countries.



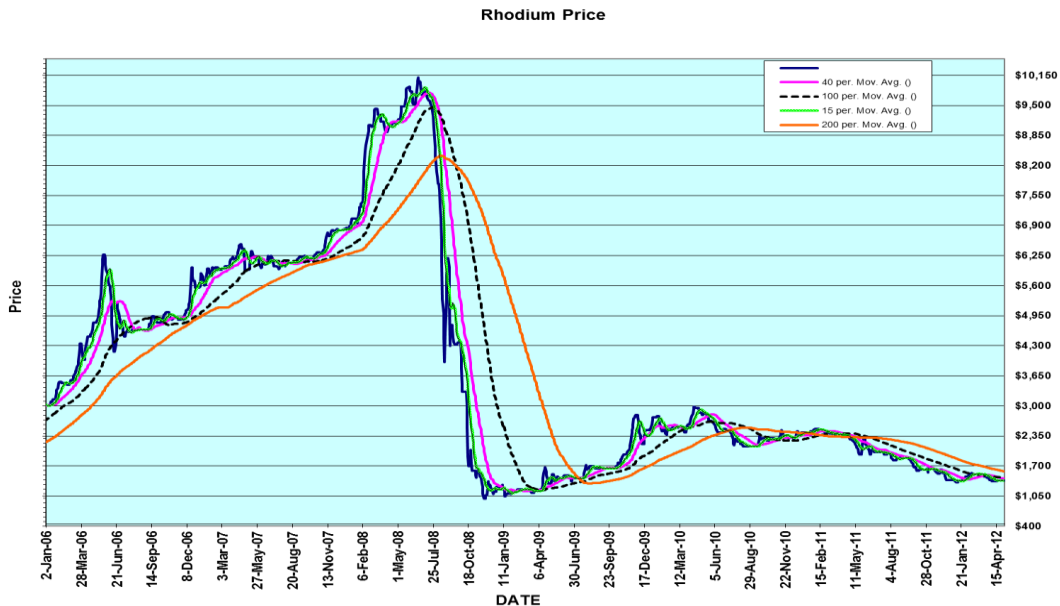
## Rhodium

Rhodium values continue to drift on very light volumes and a lack of any incremental consumer demand. Market supplies apparently remain more than ample to satisfy current levels of industrial offtake. Investment demand also appears to be virtually flat at this time as the possibility of lower prices over the near-term still persists.

Supplies of primary rhodium have been on the decline as South African production, which accounts for more than 80% of global supply, has been adversely affected by the current spate of Section 54 safety-related work stoppages, which may cost the industry an estimated 300,000 ounces of platinum in 2012 and some 30,000 ounces of rhodium. Additionally, the recent six-week strike action at Impala’s Rustenburg lease area will likely result in a loss of rhodium ounces of perhaps 12-15,000 ounces. This loss of primary production is steadily eroding the excess supply of metal that continues to overhang the market and limits price gains.

Demand for rhodium in the automotive sector should also remain firm as global vehicle sales continue to expand, albeit at a modest pace. Current market values for rhodium should make the metal more attractive to commercial users than it has probably been for several years, possibly limiting price declines from present levels. The urgency to “engineer-out” the need for rhodium may have now peaked with the metal’s price having plummeted to just a fraction of what it was four years ago. Automotive demand requires some three-fourths of annual new rhodium supplies.

Euro 5 regulations which took effect in September 2009 mandated a 20% reduction in nitrogen oxide emissions from earlier standards, and Euro 6 rules to begin in September 2014 will require an additional 50% cut to NOx levels for all vehicles across the EU. The more restrictive



emissions standards should necessitate a greater usage of rhodium in converter loadings but perhaps not to the full extent that was projected earlier. Most diesel truck manufacturers, especially in Europe, have adopted a Selective Catalytic Reduction (SCR) Dosing System which utilizes an aqueous ammonia or urea solution to neutralize NO<sub>x</sub> into its inert components of nitrogen and water. In the SCR process a highly atomized spray of urea is injected into the exhaust stream before the converter to reduce NO<sub>x</sub>. The SCR urea injection system which has been used in the marine and other stationary diesel applications for decades requires no rhodium or other metals to initiate catalysis.

Selective Catalytic Reduction has also begun to be used in passenger cars, again mostly by European automakers, where the process is used independently or in tandem with a three-way catalyst of some combination of platinum, palladium and rhodium. Daimler's BlueTec reducing technology has now been offered on many of its current models of cars and on most trucks with its SCR system, along with a converter and particulate filter. Similar SCR systems can also be found on certain models of Volkswagen, BMW and others nameplates.

The prohibitively high cost of rhodium prior to 2009 was undoubtedly an important element in the industry's decision to pursue the SCR process for NO<sub>x</sub> reduction. But now with rhodium prices at their lowest level in seven years, the three-way catalyst with rhodium may begin to recapture a portion of the market share for diesel engine pollution controls.

Industrial demand for rhodium is expected to be flat to slightly negative this year as need for the metal in the glass sector has slowed as consumer buying of flat screen televisions in the US is projected to fall by 5% in 2012 and may continue to slide through 2015. A combination of a market that may be maturing, reduced levels of new inventories and consequent less need for discounting, and limited updates on available options have curtailed consumer buying.

The world's largest specialty glass maker, Corning, confirms the declines reported in LCD glass prices over the past six months which it has estimated could reach double digit levels this year. The company has announced that it is reducing its capacity for display glass manufacturing to bring supply more in line with present demand. Requirements for cover glass for tablets, cellphones and other handheld devices remain strong, nonetheless. Because of its high melting point, rhodium is required as a component in the manufacture of furnaces, crucibles and other glass making equipment.

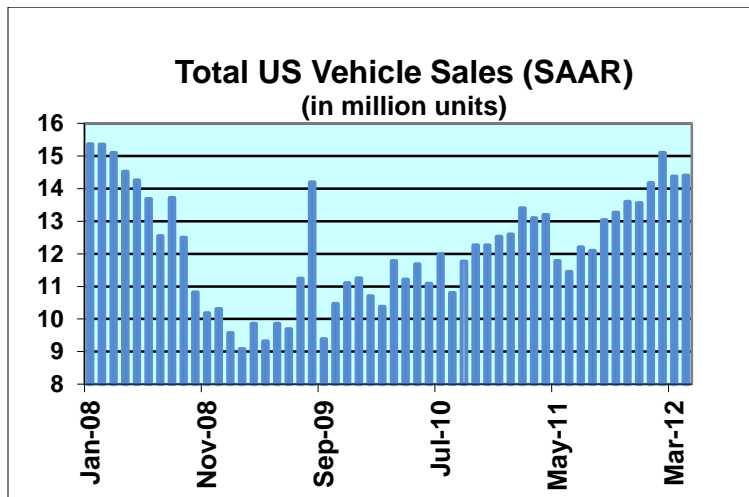
A slowing in economic growth in China and elsewhere in Asia and the prospect of a further contraction in Europe over the months ahead should limit the upside for rhodium at least in the near-term. But if global car sales can continue to firm, rhodium prices could stabilize and even show some moderate appreciation to \$1,680-\$1,700 an ounce in the latter months of the year before rising higher in 2013.

## PGM Demand

### Automotive Catalyst demand

US vehicle sales in 2012 continue to outperform most other world markets despite the modest expansion in monthly sales for April. Sales of passenger cars and light trucks for April were 2.3% higher than in the comparable 2011 period, rising at an annualized rate of 14.4 million units. Higher gasoline prices which were expected to have a negative effect on sales may have been a contributing factor in the better numbers as the sale of smaller, more fuel efficient cars represented a larger percentage of new purchases. Sales of pick-up trucks, however, also showed some improvement last month. Stronger sales were again attributed to pent-up demand and gains in consumer confidence that the economic recovery, at least in the US, may be firming.

But while Chrysler (+20%) and Toyota (+11.6%) reported solid increases, GM (-8.2%), Ford (-5.1%), Honda (-2.2%) and Nissan (-0.3%) all registered lower sales in April, suggesting that the pace of growth in vehicle sales in the US may be starting to ease somewhat. Industry estimates are now projecting as much as 14.5 million vehicle sales in the US in calendar 2012, up from just 12.8 million last year.



In a recent survey conducted by US auto industry consultants Edmonds.com, it was found that only about 35% of present hybrid owners would purchase another hybrid for their next car. High price premiums over similar all-gasoline models with a “payback period” to recoup the differential of as long as 10 years was a key determinant. In addition, with an increasing number of new gasoline-powered cars attaining 30 or even 40 miles per gallon, the need for a more expensive hybrid model diminishes.

It is this latter point which may partially explain the continued strong US auto sales over the past year in spite of gas prices that have risen to just under \$4 a gallon. A US driver who has kept his old car through the recessionary period can better justify the expense of purchasing a new car if the selection of high mileage gasoline and hybrids currently available can achieve a 50% or more gain in fuel efficiencies. Paradoxically, record US gasoline prices have encouraged this pent-up demand to trade for a new model.

Vehicles sales in the 27 EU nations fell again in March, off by 7% year-on-year at 1.45 million new registrations, its lowest March sales level since 1998, as overall sluggish economic growth continues to affect car sales. For the first three months of 2012, EU car sales are down by 7.7% at 3.31 million units, indicating at this time a possible total of 13 million vehicles for the full year. EU registrations totaled 13.34 million units in calendar 2011, off by a marginal 1.7% from 2010.

In first quarter sales in the top six major markets of Europe, which account for nearly 90% of total EU-27 sales, Germany (+1.3%) and Britain (+0.9%) posted slight gains while France (-21.6%) and Italy (-21.0%) saw steep declines, and the Netherlands (-7.5%) and Spain (-1.9%) reported smaller losses.

Total Chinese vehicle sales for the month of March rose by a paltry 1% over the comparable period of 2011 to 1.83 million vehicles, while passenger car sales were up by 4.5% at 1.4 million units. For the first quarter of the year, total sales in China actually fell by 3.4% to 4.79 million vehicles, offering an early indication of full year sales of 18 to 19 million. Passenger car sales declined by 1.3% in the first three months of this year. Sales projections for calendar 2012 call for a possible 5% gain for the year. Vehicle sales rose by only 2.4% in calendar 2011 to 18.5 million units after a 32% jump in the prior year.

Japanese vehicle sales rose sharply for a third month this year, up 78.2% in March to 497,959 units, from a depressed period one year ago when the effects of the March 11, 2011 earthquake and tsunami first affected the economy. In the first quarter, vehicle sales have climbed to 1.1 million units, 52.2% above that reported in the same period of 2011.

Government tax incentives and subsidies targeting hybrids, electric and diesel car buyers which began late last year, continue to benefit sales. The Japan Automobile Manufacturers Association has projected growth in 2012 sales of as much as 19%, rising to 3.6-3.8 million units, a result of pent-up demand, increased production and fresh buyer incentives. Total domestic vehicle sales for the fiscal year ending in March fell by 15% in 2011 to 3.06 million units owing to the decline in buying interest and production of new cars following the effects of the devastating tsunami that occurred last March.

Indian car sales jumped 19.7% in March to 229,866 units compared to 192,105 units in the same period of last year, and 8.7% above prior month's levels. For the financial year ending in March, vehicle sales rose by a modest 2.2% at 2.0 million units as rising fuel costs and a series of interest rate increases impacted sales. The anticipation of an interest rate incentive from the government for new buyers has led the Society of Indian Automobile Manufacturers to raise projections for new car sales by 10-12% for the twelve months ending March 2013.

Vehicle sales in Brazil slipped 1.8% in March from a year ago to 300,574 units, but rose 20.5% from February 2012 sales. First quarter sales are down by only 0.8% over the comparable 2011 period. Presently, annual new car sales are on pace to match that of last year when sales rose 3.4% to 3.63 million cars, up from 3.51 million in 2010.

Russian car sales in March were 13% higher than those for the same time last year at 252,816 vehicles; first quarter sales rose to 614,273 cars and light trucks, up 19%. Full year sales for 2012 are projected to be 2.8 million, the highest since the 2.9 million posted in 2008.

### **Jewelry Demand**

Platinum jewelry sales are expected to be only marginally better in 2012 as some anticipated growth in the US market will likely be offset by continued weakness in consumer interest across the EU countries. And the slowing in China and many other Asian economies will likely temper further growth. Over the past decade, China's requirements of platinum for various jewelry applications have expanded significantly and now account for nearly two-thirds of total global platinum jewelry demand.

Weakness in the current price of platinum, with the metal trading some 10% below the average value for 2011, may encourage further buying despite the easing in the growth of discretionary income particularly in China. Moreover, the present discount of platinum to the price of gold, a rare occurrence in the past 30 years, may attract value investors who may perceive platinum's relative price as a buying incentive. The Platinum Guild has projected further gains in Chinese platinum jewelry sales for 2012 as the network of retail outlets expands in second and third tier cities. The Guild estimated that some 1.7 million ounces of platinum were consumed for jewelry sales in China in 2011, with as much as 2.5 million ounces consumed globally. Some measure of growth in Japanese consumption of platinum jewelry in 2012 is also anticipated as that economy has shown a strong recovery from the devastating events of early 2011.

Indications are that demand for palladium in jewelry applications continues to decline as changes in fashion preferences appear to have diminished consumer interest in the metal. Palladium jewelry demand had been largely defined as a Chinese phenomenon, with limited interest elsewhere. Additionally, the rising value of the metal relative to platinum since the trough of the 2008 recession may have also affected consumer offtake. Demand for palladium for jewelry manufacture could fall to 500-600,000 ounces in 2012 from more than a million ounces just four or five years ago.

## PGM Supply

### South African Production

Anglo American Platinum posted a 24% decline in its first quarter in fiscal 2012 to 403,000 ounces of refined platinum, down from 533,000 ounces in the same period of last year, but saw a much larger 43% fall from the 710,000 ounces reported in December. Total refined platinum ounces also include refined metal from joint venture and associate partners. The dramatic drop in production was ascribed to the continued occurrence of safety-related work stoppages and to a period of planned maintenance at its smelter. Production often suffers in the first quarter because of the effect of year-end holidays. Management has stated, nevertheless, that its earlier projections for a total of 2.6 million refined ounces of platinum in 2012 will be achieved. Anglo produced a total of 2.53 million ounces of refined platinum in its fiscal year ending December, 2011.

Impala reported only a marginal decline in platinum production at its Rustenburg lease area in the first half of fiscal 2012 to 490,000 ounces, 2.8% below the 500,500 ounces outturned in the same period of 2011. Production was affected by a loss of an estimated 33,000 ounces of platinum in the half due to a “significant number” of Section 54 safety-related stoppages. Management reported that development of three new shafts in the Rustenburg area has progressed well. The earlier decision to delay its first year production of 26,000 ounces of platinum at its new 20 Shaft until 2013 did, however, impact results in the period through December. Shaft 20 is now scheduled to commence production in fiscal 2013 and to reach steady state status with 150,000 ounces of platinum by 2017. Shafts 16 and 17 should add an additional 180,000 ounces of platinum each, reaching full production in 2019 and 2023, respectively.

The six-week strike action at Rustenburg is expected to cost Impala more than 120,000 ounces of platinum in the second half of fiscal 2012. Impala produced 942,200 ounces of platinum from its Rustenburg lease area in fiscal 2011, but given the first quarter loss, outturn this year will likely fall well-short of this total.

Production at Impala’s 86.7%-owned Zimplats rose to 92,000 ounces in platinum concentrates for the period, an improvement of 23.4% over the same time last year (89,000 ounces), as the mine has now achieved its steady state Phase 1 expansion plan. The Phase 2 project which has already commenced could raise platinum outturn to 270,000 ounces by 2014. 50%-owned Mimosa reported production of 52,400 ounces of platinum in the December half, a 2.7% gain, as the mine has also reached steady state status. At the 77.5%-owned Marula, platinum output was down 12.2% to 36,000 ounces in the first half (41,000 ounces in 1H 2011) due to a re-structuring of the mining operation. The mine had targeted increases to 100,000 ounces of platinum at full production later this year, but it has now lowered expectations to just 70,000 ounces for a period of two years as management amends its mining plan. Two Rivers mine reported a 5.5% increase in platinum production in the six months through December to 77,000 ounces.

Aquarius Platinum reported a further decline in its third quarter production, down 20% to 97,802 attributable ounces of PGMs from 122,213 ounces in the same period of fiscal 2011, but falling only 7.4% from the 105,629 ounces in the previous December quarter. The wholly-owned



Everest mine posted the worst results, with PGM production dropping to 15,926 ounces in March, 42.6% below the comparable 2011 period and 14.9% below that of December. The mine was impacted by labor actions and by poor ground conditions and a consequent drop in the grade profile as mining moved to the shallower western section of the mine. Due to the deteriorating condition of the ore body, management has taken the decision to reduce production targets to 10,000 ounces of PGMs per month for the next 12 to 18 months and move mining teams to higher yielding areas. A further decision will now be made on how to proceed with development of the adjacent Booyensdal South section recently purchased from Northam. Booyensdal South could raise Everest's output to 250,000 ounces of PGMs by 2017/18.

Kroondal, the largest contributor of metal at Aquarius, also posted a large decrease in output in December with 38,467 attributable ounces, 19.6% below year ago levels of 47,866 ounces on a loss of production due to the unanticipated closure for safety inspections costing 15 production days. Production at Marikana showed a 10.4% increase year-on-year at 13,203 attributable ounces, but was off by 8.3% from the 14,404 ounces in the December 2011 period. The company's 50%-owned Mimosa property in Zimbabwe saw a 1.6% rise in output year-on-year to 26,026 attributable ounces, at its steady state status of 100,000 attributable ounces of PGMs annually, despite a decline in tonnage and complaints of power delivery problems and occasional outages.

Aquarius has reported a total of 313,259 attributable ounces of PGMs in its first nine months of fiscal 2012, 16.1% below the 373,184 ounces produced in the same period of 2011. For its fiscal year through June 2011, Aquarius produced 487,404 attributable ounces of PGMs (422,619 ounces of PGMs outturned in 2010). It would appear now that outturn for fiscal 2012 could fall short of last year's totals, perhaps slipping below 450,000 ounces of PGMs.

In its first quarterly results ending in December 2011, Lonmin reported total platinum concentrates of 186,725 ounces, a 3.5% increase over the same period last year, despite a record number of lost days due to Section 54 closures. Management at Lonmin has maintained projected sales of 750,000 ounces of platinum in its fiscal year ending September 2012.

Platinum concentrates produced at Lonmin in its fiscal year ending September were in line with that of 2010 at 719,000 ounces of platinum despite a number of Section 54 work stoppages and a total of ten lost days due to an illegal strike at Karee mine, the largest contributing operation which accounts for more than a third of the company's outturn. Overall tonnage at Lonmin rose 3.7% during fiscal 2011 while grades fell 5.4% from dilution from higher development activity, poor ground conditions and overall lower yields. Improved production levels were achieved at Karee and also at its ramp-up operations at Saffy and Hossy mines. Increasing contributions from these latter properties and initial production from its new K4 shaft in 2012 will boost production at Lonmin to a planned 950,000 ounces by 2013.

Northam reported a 26.5% increase in PGM outturn in its first half year to December when compared to the comparable period of fiscal 2011. The company produced 147,636 ounces of PGMs in the half (approximately 92,715 ounces of platinum, 43,995 ounces of palladium and 10,925 ounces of rhodium), substantially higher than the 116,665 ounces in 2011 in a period marred by a six week strike action over a new wage contract. Tonnage at the Zondereinde mine

rose 44% over that of the prior year with a greater increase from the UG2 reef due to unspecified ground problems on the Merensky reef. Some 15,700 ounces of PGMs were lost in the quarter because of Section 54 safety-related mine closures. Management cautioned that production in the second half could be slightly lower, citing potential geological difficulties on the Merensky reef and an extension of the year-end holiday season. Northam outturned only 250,110 ounces of PGM concentrates in fiscal 2011, which was a significant drop from the 321,475 ounces of PGMs mined in the prior year.

The construction at the company's new mine at the Booysendal North property on the eastern limb of the Bushveld Complex is progressing with first production scheduled for the third quarter of 2013. It was announced earlier that the planned outturn at Booysendal would be 162,000 ounces of PGMs annually at steady state likely in 2015.

Xstrata reported a 16% decrease in PGM production from its South African operations in its first quarter to March with outturn of 31,447 ounces of PGMs versus 37,430 ounces in the comparable 2011 period. The decline in output in this period has again been ascribed to problems at its wholly-owned Eland's mine which included earlier difficulties gaining government approval to extend mining of the open pit operation. Management had decided to phase out the open pit operation at Eland in the final quarter of last year and to concentrate development efforts on the underground operation. The plan is for the sinking of two new decline shafts at Eland that could contribute upwards of 150,000 ounces of platinum by the end of 2013, and reaching targeted output of 300,000 ounces of platinum (500,000 ounces of total PGMs) by late-2015.

The contribution from the 50%-owned operation at Mototolo, a joint venture with Anglo Platinum, was some 117,000 attributable ounces of PGMs in 2011. In the first quarter of the current year, Mototolo likely contributed 27,000 ounces of PGMs with the balance of approximately 4,500 ounces derived from Elands' underground operation during the period. Mototolo is now producing at its steady state level of 230,000 total ounces of PGMs annually.

In addition, Xstrata produces PGMs as a by-product of its nickel mining from its Sudbury operations. Xstrata doesn't disclose actual PGM totals from Sudbury production but did report a 12% increase in production of nickel concentrates from its Sudbury and Raglan operations in 2011. Estimates place PGM outturn at 160,000 ounces of palladium and 100,000 ounces of platinum per annum, not including toll refining on behalf of North American Palladium.

Anooraq Resources announced its results for the full year ending December 2011 at its Brakfontein mine at Bokoni with PGM production of 113,625 ounces, 2.2% below the previous year's output of 116,164 ounces. Management reported that production was affected by a loss of 42 full shifts due to Section 54 safety inspections, a decrease in recoveries from the UG2 reef, an increased incidence of ground problems on the Merensky reef and a planned maintenance at the Merensky concentrator during the fourth quarter. Despite the many problems, throughput totals as a result were basically in line with those of 2010. It was also noted that reef development at Brakfontein during the second half improved considerably (+24%) which should bode well for subsequent periods.

It was decided along with its 49%-partner Anglo Platinum that the company will concentrate on developing its Bokoni properties at Brakfontein and Middelpunt Hill through 2017 with combined steady state production of some 300,000 ounces of PGMs expected at that time, nearly triple current outturn. The Brakfontein mine will phase-out its higher cost marginal shafts while sinking three additional ventilation shafts, and operations at Middelpunt Hill, which were to start post-2020, will commence now. Management is also investigating opportunities to exploit shallow portions of its Ga-Phasha project, an area adjacent to Brakfontein, to raise throughput in the interim. Anooraq is currently running at slightly better than half of the mill capacity. However, it would appear that production totals at Anooraq are not likely to increase materially at least until the latter months of calendar 2012.

South African miner Platmin announced ambitious expansion plans to grow the existing operation to produce as much as 1.1 million ounces of PGMs annually. Platmin currently mines the Tuschenkomst open pit operation of its Pilanesberg Platinum Mine on the Western Limb where the company produced 17,437 ounces in its December quarter and 65,059 ounces of PGMs in 2012. An unauthorized work stoppage that began in June and continued through most of July of last year that was accompanied by acts of vandalism to property and equipment, and other safety-related closures adversely affected production. Management had earlier set a monthly target of 12,000 ounces of PGMs plus gold, or approximately 140,000 ounces per annum by mid-2012. However, haulage rates from the open pit operation have improved markedly in past months suggesting that PGM outturn could rise above 22,000 ounces in the March 2012 period.

The current owners of Pilanesburg Platinum, Pallinghurst Resources, will partner with the local Bakgatta tribe and include contiguous properties, the Sedibelo and Magazynskraal projects just north and east of the Tuschenkomst open pit operation. The properties are said to be lower cost, shallow projects with a 30 year life which could be brought to steady state status by 2016/17 and produce more than a million ounces of PGMs each year. A detailed study of Platmin's Sedibelo West property, adjacent to the eastern boundary of the Tuschenkomst open pit operation, is anticipated later in 2012.

Management at Platinum Australia's Smokey Hills Mine announced that it was making considerable progress in raising production levels as it transitions to an owner-operator of the mine, a process which is now nearly completed. Platinum Australia reported disappointing production results for its December quarter with a 30.6% drop in outturn to 6,259 ounces of PGMs + gold from 9,021 ounces in September and 8,799 ounces in June, citing a two week strike action in October and an extended holiday break for workers. Its recent statistics show a 40% gain in the amount of ore trammed from the mine since late-January when management assumed operational responsibility. Production totals will likely again be below target levels in the March period but should see improvement in subsequent quarters. Management had projected that production at Smokey Hills would reach steady state status of 22,000 ounces of PGMs quarterly in 2012, but presumably this target will not be achieved before 2013.

Eastern Platinum reported disappointing results for its fiscal year ending December with a 29.7% decline in production to 92,724 ounces of PGMs from 131,901 ounces in 2010. The outturn at its Crocodile River Mine on the western limb was also well-below earlier guidance of 105,000

ounces, the effects of an unprotected strike action in May that included damage to property and equipment and a Section 54 safety-related stoppage in the final quarter. Tonnage fell 28.9% in the period while grade levels were only marginally lower. Levels of development and stoping meters both dropped considerably in the fourth quarter suggesting a slow recovery from current production totals (outturn fell by an even higher 39.4% to 19,854 ounces of PGMs in the three months to December 2011).

In addition to the larger Zandfontein mine at Crocodile River, the re-start of operations at the adjacent Crocette mine scheduled for 2013 should raise total potential production to over 160,000 ounces of PGMs annually by 2014. Development of East Plats' 75.5%-owned Mareesburg open pit mine on the eastern limb of the Bushveld should continue through this year with projected outturn of 115,000 ounces of PGMs set for initial mining probably in 2013. A decision on whether to commence development at Eastern Platinum's contiguous Spitzkop and Kennedy's Vale mines will likely be forthcoming later in 2012. Management has estimated that output from these properties could total 400,000 ounces of PGMs if brought to production, replacing ore from Mareesburg by 2018.

### **Russian and North American Production**

Norilsk confirmed its earlier announcement that its production of palladium and platinum could be marginally lower in fiscal 2012, but outturn would again be expected to increase in subsequent years. First quarter production of palladium declined 5% to 649,000 ounces while platinum was only 2% lower at 88,456 ounces, despite a 7% rise in nickel outturn during the period. Management stated that PGM production was reduced due an accumulation of unfinished stockpile material.

Palladium output in 2012 is projected at 2.7 to 2.75 million ounces, down by only 2% from the 2.81 million ounces declared in 2011. Similarly, platinum production could slip by only 1.5% in 2012 to 670,000 to 685,000 ounces from 695,000 ounces outturned last year. In 2010, Norilsk recorded total output of 2.861 million ounces of palladium and 693,000 ounces of platinum. The company also stated that its nickel production would be flat to slightly higher in 2012, while copper outturn is projected to show a small decline for the year. Virtually all of Norilsk's PGM production is sourced from the company's nickel operations at its Kola mines on the Kola Peninsula in western Russia and from the larger Polar division on the Taimyr Peninsula in central Russia in the Arctic Circle.

First quarter production at Stillwater was down by 7.9% to 120,800 total ounces of PGMs (93,400 ounces of palladium and 27,400 ounces of platinum), compared to 131,200 ounces in the same period last year, but rose 6% from the fourth quarter's production of 114,000 ounces. Management has maintained its projected production target for 2012 of 500,000 ounces to be in line with that of last year. Stillwater Mining had reported a 6.8% increase in its PGM production in 2011 to 517,900 ounces, up from 485,100 ounces in fiscal 2010. Management's earlier efforts to improve outturn by re-allocating workers to the higher yielding eastern section of the Stillwater Mine have proven successful.

Stillwater's recycling operation posted a similar decline of 7.2% in the March period to 107,300 ounces from 115,600 a year ago, as lower metal prices in the early part of the quarter affected availability. The company produced 486,700 ounces of PGMs from recycling in 2011, up from 399,400 ounces in the prior year. Stillwater purchases and recycles autocatalyst and oil catalyst scrap for its own account and toll refines on behalf of third parties at its Columbus, Montana smelting and refining complex.

PGM production at Vale fell 24.8% in the first quarter when compared to the same period last year as the company suspended operations at all five of its mines in Sudbury, Ontario for one week during the period due to the death of a worker, the fourth fatality in seven months. For the March period, Vale produced 97,000 ounces of PGMs (59,000 ounces of palladium and 38,000 ounces of platinum) against 129,000 ounces in the March 2011 period and 105,000 ounces in the December 2011 quarter (-7.6%).

In its fiscal year ending December 2011, PGM outturn at Vale climbed to 422,000 total ounces from only 95,000 ounces in the prior year. PGM production at Vale which is mined as a co-product of the company's Sudbury nickel mining, only re-commenced operations in September of 2010 following a protracted labor strike that lasted nearly a year. Of the total PGMs outturned in fiscal 2011, Vale produced 248,000 ounces of palladium and 174,000 ounces of platinum. In its last full year of production in 2008, Vale produced 411,000 ounces of total PGMs which included 238,000 ounces of palladium and 173,000 ounces of platinum. The company appears positioned to again exceed outturn of 400,000 ounces of PGMs in fiscal 2012.

First quarter production at North American Palladium's Lac des Iles mine in north Ontario rose 36.2% from the same period last year with output of 41,760 ounces of palladium (30,661 ounces produced in a depressed March 2011 period), despite an increased proportion of lower grade surface material than had been mined previously. NAP produced 146,624 ounces of palladium in fiscal 2011, in line with full year guidance. For 2012, management has targeted a small increase in outturn of 150,000 to 160,000 ounces of palladium. The company also made the decision to close its Sleeping Giant gold mine in Quebec due to poor performance and insufficient margins at the end of 2011. Sleeping Giant produced 14,623 ounces of gold in 2011.

The completion of Phase I expansion scheme, with the commissioning of a new shaft system to access ore from the Offset Zone, an area adjacent to the existing Roby Zone, is on schedule for late-2012. Deeper access to the Offset Zone and existing Roby Zone in Phase II is expected to potentially increase output at NAP by up to 250,000 ounces of palladium per year by 2015, and extending the life of the mine by 7 to 10 years. NAP is investigating three additional areas of mineralization contiguous to the Offset Zone which could also contribute to production beyond 2013.

## **Secondary Supplies**

Recycling volumes have improved substantially over the past several years principally as a result of solidly higher metal prices, up from the trough of 2008, but also on improved efficiencies in the collection process, broadening environmental regulations, an increasing commercial need for the metal and a growing pool of aging automobiles, all on a global basis. An increased

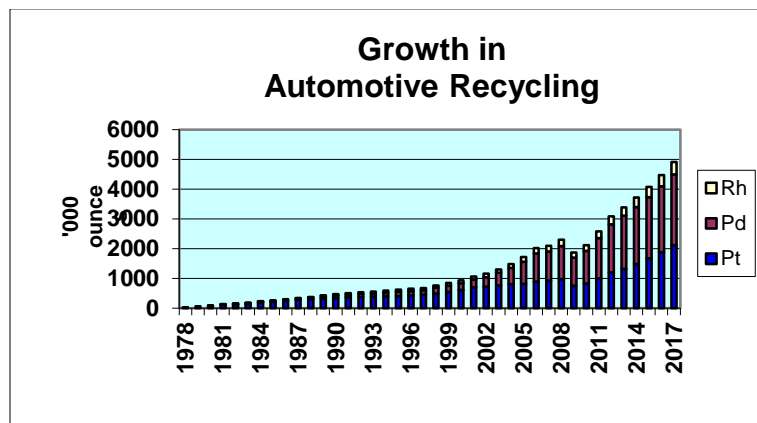
speculative presence in the markets over the past decade has resulted in a sizable appreciation in precious metals prices with platinum recording its highest ever average yearly value in 2011 of \$1,721 an ounce. The sharp sell-off in commodities in late-December into January, however, slowed the sale of salvage converters to consolidators in the first month of the year, but volumes have improved to more normal levels in the months since along with the recovery in metal prices.

Available supplies of primary platinum have been declining due to a series of safety-related closures at South African mines and to a recent six-week strike action at the world’s second largest producer, Impala Platinum. Similarly, annual palladium deliveries from Russia, the world’s leading producer, have fallen by perhaps 15-20% as the current sale of state stocks has been substantially reduced, and is likely to decrease further as these stocks are depleted.

It should also be noted that the processing of salvage catalyst scrap along with primary feed will be essential in containing the current rampant cost increases at the South African producers. The inclusion of lower cost, higher content scrap can effectively reduce the overall unit cost of the smelting and refining process.

To compensate for the potential shortfall in new mine supplies, the growth in secondary supplies of PGMs has become tantamount to less volatility in the market and lower, more consistent pricing levels. Palladium from recycled salvage converters has enjoyed the most growth in the past several years as a wave of scrap autos dating from the late-nineties make their way through the scrap processing system. But platinum reclaim totals have also displayed solid growth over the past year as more converters from both diesel- and gasoline-engine vehicles from EU cars built over the past decade now flow through to the market.

A-1 estimates that the amount of palladium recycled from scrap converters could see more than a 20% increase in 2012, rising to a minimum of 1.62 million ounces, up from 1.35 million ounces in 2011, to a record level that ranks third in size only to Russian and South African primary mine production. Platinum totals from recycled converters could rise by a comparable rate to 1.2 million in 2012, from 1.0 million last year, while rhodium could see a 15% increase to 260,000 ounces this year (225,000 ounces in 2011). Recycling totals of all three metals could conceivably appreciate over the next five years to near 5 million ounces of platinum, palladium and rhodium combined, rising to potentially more than one-third of total annual primary PGM supply.



## Gold Market Summary

Parallels have been drawn between the spike in the price of gold that ended in January of 1980 and the more recent rally to a September 2011 high of \$1,920 an ounce. Gold had soared to the unprecedented value of \$850 an ounce on the 21<sup>st</sup> of January, 1980 in response to a myriad of events, including double-digit price inflation from Mid-East oil supply disruptions of the late-seventies and the Iranian hostage crisis which began in November 1979. Gold rose more than eightfold to its then record high in 1980, but quickly dropped 43% to \$481.50 by the 18<sup>th</sup> of March. Subsequently, the price of the metal climbed once more to \$711 an ounce in September (+47%) as the Iraqi invasion of Iran commenced, before the price then trailed lower for most of the next two decades. During this period significant Central Bank sales, particularly in the late-nineties, along with the consistent flow of forward sales hedging by producers and a steady decline in inflation, kept pressure on metal prices with gold dropping to a low of \$255 an ounce in April of 2001.

Over the past decade the price of gold has steadily trended upward, rising by a multiple of 7.5 times, similar to the pace experienced some thirty years ago. The long-term slide in gold prices effectively ended with the introduction of the Central Bank Gold Agreement in September 1999, which acted to limit supply and reassure markets by restricting sales of official gold holdings from mostly European banks initially to 400 tons per annum. In contrast, the last few years have been characterized by negligible levels of selling by the EU banks and a sharp increase in official purchases from Russia, China and many other Asian and non-European banks. In addition, a period of de-hedging by gold producers that lasted most of the last decade adding further support for prices followed as forward sales on significantly lower prices became less advantageous.



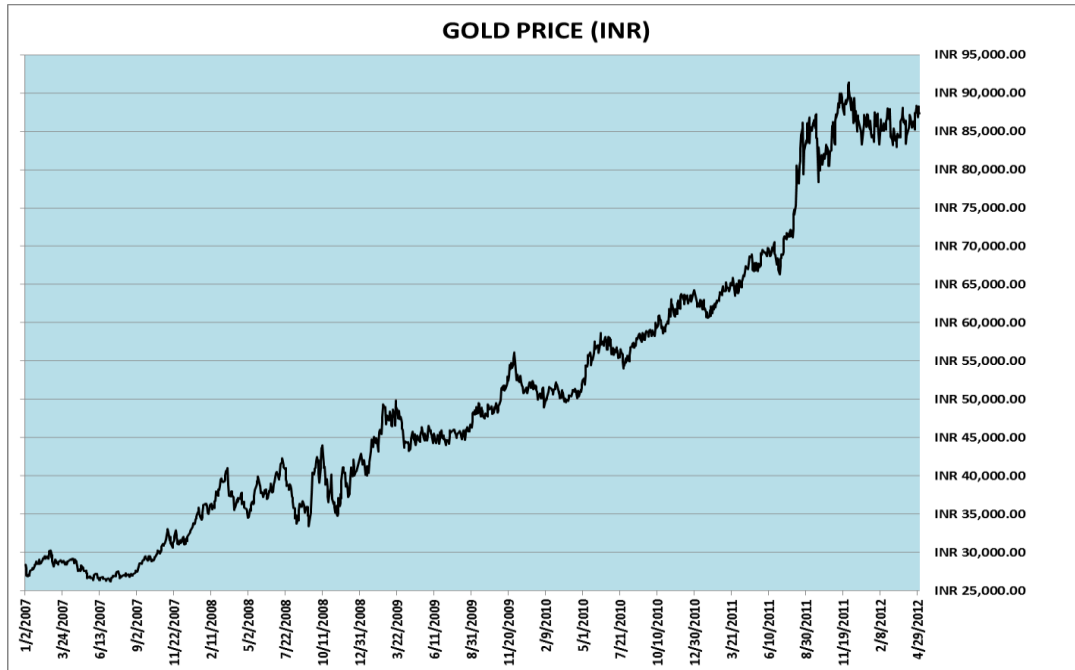
Increased imports of gold for various jewelry applications particularly in the developing markets of China and India were evident over this recent period as well. Jewelry accounts for the largest single source of gold demand. Moreover, the upsurge in safe-haven investors and other speculative interests drove the metal's price to record levels in 2011 through vehicles such as the SPDR Gold Shares ETF which at present holds 1,274 tons of gold on behalf of clients, an amount that represents nearly half of one year's total supply of primary mine production.

But now it appears that market sentiment towards gold may be changing with the current perception of the reward of higher prices no longer countering the risk of further profit taking as the supportive fundamentals that raised gold values in recent years and to a 2011 record high may have become less effectual. The massive de-hedging programs have all been completed; the need for safe-haven stocks of gold may have dissipated with added stability in the EU countries; higher metal prices have had a measurable impact on the volumes of jewelry demand; and the pace of official buying for diversification of reserves may also be expected to slow. Even the growth in substantial speculative holdings in the SPDR Gold Trust may have peaked as current demand, albeit solid, has been unable to match record levels set in mid-2010. And the increased infusion of liquidity in world markets since the trough of this cycle has had minimal effect on price inflation in most advanced economies thus far despite repeated warnings by the usual cadre of gold bugs. Inflation may yet become an issue, however, but perhaps may not be a factor for gold for the intermediate term. Further, a strong performance in the US and many other world equity markets since the start of this year and a small uptick in bond yields may also be attracting investment funds away from alternatives like metals and back to more traditional asset classes.

Gold market statistics for 2011 as presented by the World Gold Council showed only a slight increase in overall demand of 0.4% while supplies actually decreased by 4.1% for the year. Demand results differed by segment, however, as the higher prices and volatility caused a 2.7% decline in gold for jewelry consumption, the largest sector of demand for the metal accounting for nearly half of the total, while investment offtake grew by 4.7%, mostly in small bars and coins. Gold demand in electronic and industrial applications fell marginally for the year and given the higher market prices for the metal, the dentistry sector consumed 10% less gold during the period.

Gold sales to India, the largest single consumer of the metal, declined by 14% in 2011 as record high prices and a substantially weaker rupee rate discouraged fresh buying. Gold imports to India trailed off considerably more in the fourth quarter, down by 44% year-on-year. However, improved purchasing totals from China, Hong Kong and Russia offset much of these losses. Indian imports of gold in the first quarter of 2012 were down significantly at an estimated 90 tons thus far, off from some 283 tons in the same period last year. The recent strike by jewelry retail shops across India in protest of the doubling of import duties from 2% to 4% further affected already sluggish 2012 sales. At the current pace, gold imports to India may have difficulty reaching 500 tons for the year against a reported 969 tons in 2011.





Mine supply including hedging grew by 8.5% in 2011 to 2,822 tons, a record level, while gold from recycling edged lower by 1.8%. Primary production is projected to continue to grow by 2-3% per annum over the next several years, likely offsetting potential growth in physical demand.

It was also reported by the World Gold Council/GFMS that central banks made net purchases of 440 tons of gold in calendar 2011, its highest annual amount since 1964, compared to 77 tons in the previous year. Official gold holdings have risen steadily in recent years to the highest level since 2004, with gold now accounting for more than 10% of foreign exchange holdings. In the second half of 2011, sizable additions of gold to reserves were reported by Turkey with 63.0 tons, Korea (+15.0 tons), Thailand (+24.9 tons), Russia (+17.2 tons), Venezuela (+7.2 tons), Bolivia (+7.0 tons) and smaller amounts in Belarus, Kazakhstan and Mongolia. The most recent IMF data show that a total of 58 tons of gold were purchased by central banks in March. Of the Central Bank Gold Agreement signatories, only Germany sold a reported 4.7 tons in the current year to September 2012. The current CBGA limits sales from mostly European banks to 500 tons each year. Sales from EU central banks have been on the decline in recent years with only 53.3 tons sold in 2011 and 136.2 tons in 2010.

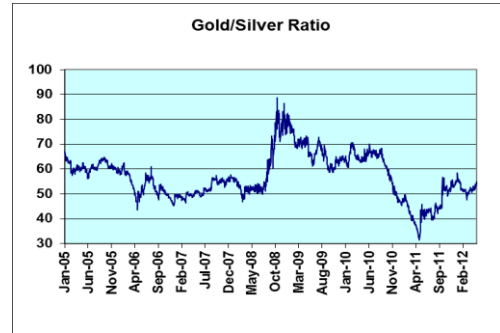
The price of gold rose to a 2012 high of \$1,790 an ounce in late February, a level last occurring in this past November. A slowing in the Chinese economy, continued flat to negative growth in the EU countries and repeated comments from Fed Chair Bernanke that the introduction of further liquidity in the US in the form of a QE3 program would be unlikely prompted a series of sizable liquidations in most commodities, especially in gold, over the past two months. In fairness though, gold had soared over the first two months of the year, gaining 18% from its December low of \$1,521 an ounce, and a correction was anticipated at some point. But given the declining trend in Indian imports for jewelry and a decreased appeal of safe haven investments, it would seem unlikely that gold could match last year's record high of \$1,930 an ounce or perhaps

even reach the \$1,800 level in the second half of this year without a return of additional speculative interest, which for now appears to have quieted.

With the significant overhang of existing speculative positions in vehicles such as the SPDR Gold Shares the markets will likely remain volatile as investors react to each fresh news story. And should gold continue to trade at these still lofty levels or even climb to new highs later this year and into 2013, as predicted by several market analysts, it could only be considered prudent for mine management to re-commence hedging strategies for some portion of future production, a concern also cited recently by GFMS. However, the first indication of such a strategic modification to mine hedging could be expected to prompt a round of profit taking from the substantial speculative gold hoards and the price of the metal could see a quick and sizable correction as a consequence.

## Silver Market Summary

Silver outperformed most metals in its recovery in the early months of 2012, rising some 43% from December lows to a February 29<sup>th</sup> high of \$37.46 an ounce. This price movement has been reflected in the gold/silver ratio which narrowed to a low of around 48x in February, significantly under the multi-year average of 58x.



But since the February highs, most commodities including silver have fallen in value as market participants have become increasingly wary of a further slowing in the global economy given the ongoing debt situation in Europe and the deliberate easing of the Chinese expansion. In addition, higher prices for silver in recent years have spurred an increase in primary production and scrap recovery that is likely to continue over the next several years and is expected to outpace the corresponding growth in industrial demand which may slacken as the global economy decelerates. A recent report on current CME holdings finds that silver inventories have risen to a 14-year high at 141 million ounces as both investment and industrial demand weakens.

The iShares Silver Trust, often quoted as a proxy for speculative investments in silver, currently has total silver holdings of 306 million ounces, a level which is some 17% below the record high position of 366 million ounces held in April of last year, but still well-above average holdings in prior years. These positions suggest that the speculative activity in silver has decreased somewhat from earlier last year when prices made new cyclical highs but show that a strong interest continues to exist nonetheless.



According to the Silver Institute/GFMS annual survey for 2011, total fabrication demand for silver fell marginally, off by 1.5%, with declines in many industrial applications including photography, jewelry and silverware manufacture. Investment products, however, such as small bars and coins rose sharply. Mine production was reported to grow by a similar 1.4% in 2011, while scrap sales posted sizable gains (+12.2%) given the cyclical high metal values. The pace of new mine production is projected to record 4-5% annual growth over the next several years.

India had become an important importer of silver in recent years but sales thus far in 2012 indicate that higher metal prices and a weaker rupee are dissuading buyers. In the first quarter of 2012, silver imports to India have fallen to an estimated 300 to 400 tons, well-below the pace of last year when India imported 4,874 tons of silver in total. Similarly, silver coin sales as reported by the US Mint have declined by 18.4% in the first quarter of 2012 due to particularly weak sales in February (-76% y/y). In sharp contrast, March sales from the Mint soared by 70% over February sales, offering some promise for improvement.

In the near-term silver will likely continue to take its lead from perceptions of global growth, most notably Chinese economic developments, and consequent changes in the direction of world equity markets, as well as from fluctuations in gold prices and in the value of the euro as both respond to daily developments and news concerning the debt crisis in Europe. A further slowing in world growth could also impact photovoltaic demand going forward, an important factor in silver price expectations for the intermediate term. And absent any further disappointing reports on the EU economy, silver may be expected to resume its uptrend once again, perhaps towards \$37 to \$40 an ounce, but isn't likely to appreciate to the levels of last year's brief price spike to near-\$50 an ounce.

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