



# Creative Global Investments

Market Insights

Tuesday, October 28, 2014

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## All That Glitters Isn't Gold— Its Palladium

### Summary

**We do not share the consensus view of a global deflationary environment causing a continued downward spiral for commodities.** Commodity prices have been under near unrelenting pressure over concerns that slowing global growth will suppress demand while the recently resurgent Dollar has further forced down prices for those commodities such as oil priced primarily in dollars. Precious metals have been no exception, notwithstanding the modest lift to gold on the heels of heightened geopolitical tensions. The consensus view appears tilted toward a continuation of further weakness into 2015. **We doubt that this will be a one way trade across the entire asset class and that meaningful investment opportunities will emerge.**

**In our view, one such emergent investment opportunity is palladium as the timing for palladium prices to reach technical support levels coincidentally converges with automotive manufacturers beginning to publicize higher 2015 volume forecasts.** The automotive industry accounts for two-thirds of palladium demand. We forecast that over the next several years palladium consumed in the production of catalytic converters to control automotive emissions will grow in excess of the projected 4% CAGR for automotive production—outstripping global mining production volumes that are unlikely to even meet 2% CAGR over the same timeframe. **We believe that the fundamentals behind demand and supply for palladium provide high confidence that, if we are correct in the forthcoming set up, the subsequent trade is capable of returning in excess of 25% over the next 12 months.**



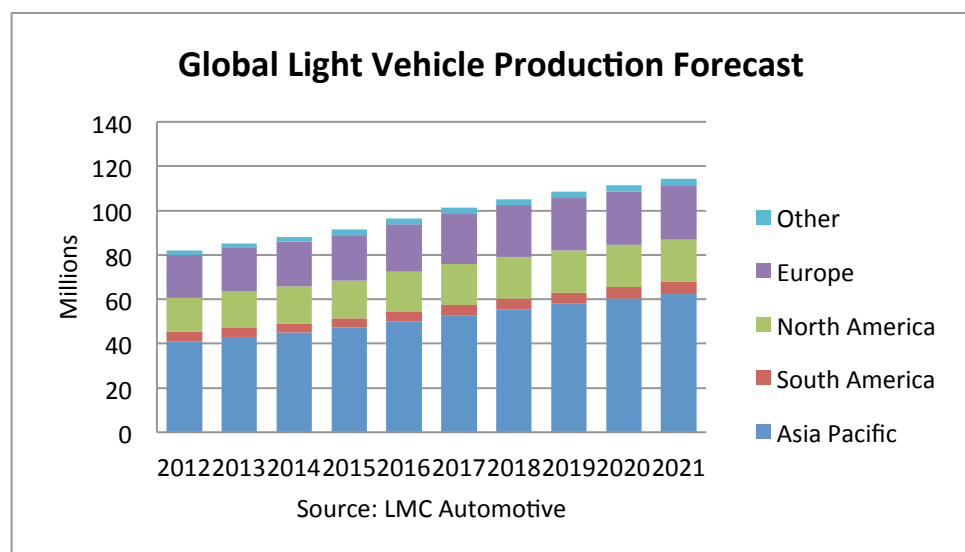
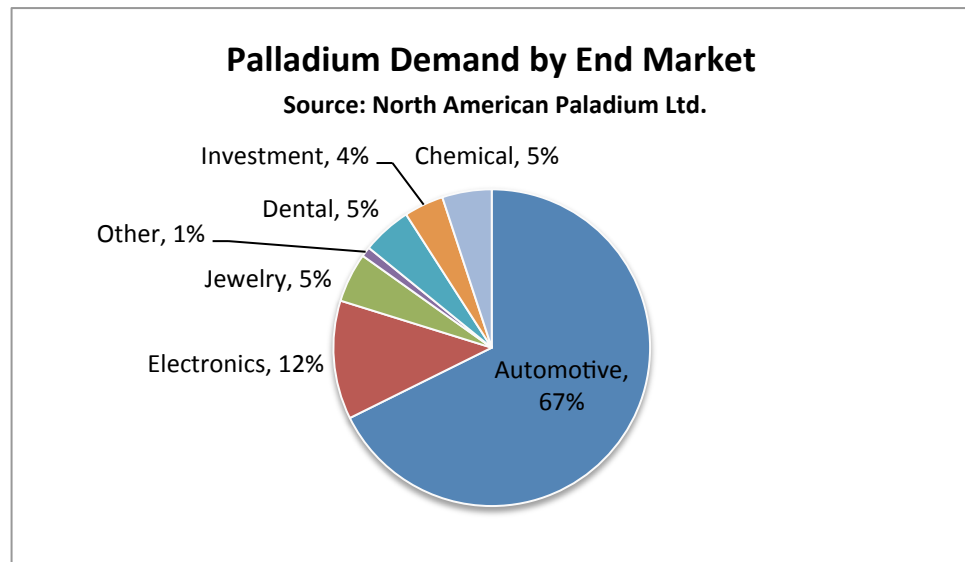
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**Palladium supply shortages during the past three years have been the largest since the 1980's.** Although producers in South Africa built up inventory in anticipation of labor strikes, we suspect that those stockpiles [that were regardless woefully deficient under the most optimistic of supply scenarios] have dissipated over the past two years. According to Johnson Matthey, automakers' palladium usage rose 3.6 percent to a

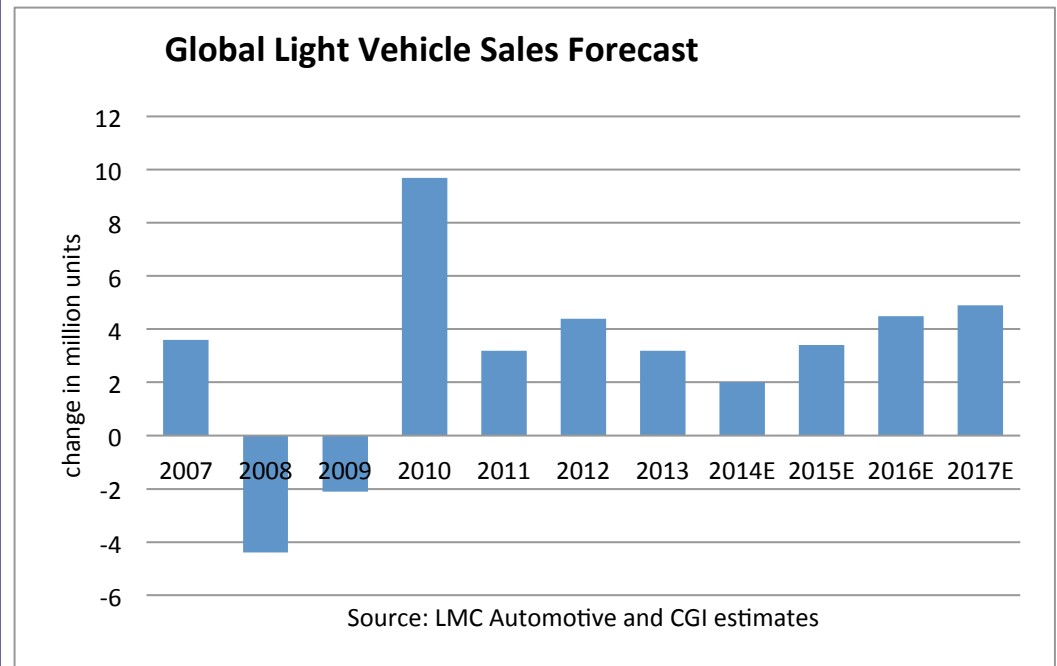
record 6.91 million ounces in 2013. However, the supply deficit narrowed 63 percent to 371,000 ounces as gross demand dipped 4.6 percent to 9.44 million ounces on lower jewelry, dental and electrical demand. Supply fell 0.4 percent.



While recycling of palladium and platinum continues to rise along with recovery rates (primarily sourced from automotive catalytic converters), it still lacks sufficient volume to offset mine production shortfalls relative to the increase in end use demand. For the current year, Johnson Matthey has forecast a record supply deficit of 1.61 million ounces.



**Our light vehicle sales estimates validate the global production forecast.** Although CGI's automotive analyst, Sabine Blümel expects light vehicle sales for the current year to climb by two million units, the 2.4% increase represents a considerable decrease from last year's 4% y-o-y increase. However, her estimate for next year is for a re-acceleration for growth with y-o-y sales climbing closer to 4%. (For full detail on the state of the global light vehicle market see the October edition of the CGI Global Automotive Demand Atlas published October 20<sup>th</sup>.)



**Tightening emission standards should leverage palladium usage beyond incremental production volume increase, especially in emerging markets such as China.** Car sales and production remain strong in US with sales forecasts of 17 mil units likely to re-emerge among industry participants while exports begin to show meaningful growth. Europe car volumes have been steadily recovering for the past year after six years of decline. China production plans call for added volume of 2+ million vehicles next year with environmental emission control assured high priority. Palladium is used for over 90% of catalytic converters in gas combustion engines while diesel engines have historically used platinum as the principal catalyst. Stricter emission standards that require catalytic converters were also extended to off-road equipment at the start of the decade and are starting to also meaningfully affect palladium consumption at the margin. Palladium usage for this specific application has tripled to about 500,000 ounces over the past three years.

**Palladium usage could climb even higher due to technological innovation.** With the advent of rapidly rising light crude production in the United States due to advanced drilling techniques, the potential to produce proportionately greater quantities of low sulfur diesel fuel has risen markedly. This shift has great significance for palladium demand yet has gone mostly unappreciated. Until about three years ago, diesel engines typically used a mix of 30% palladium and 70% platinum as the reactive catalysts in their catalytic converters. However, switching to low sulfur fuel helps facilitate converter manufacturers to substitute the less expensive palladium. In the meantime, additional improvements in engine technology have advanced to the point that palladium can now be substituted one-for-one with platinum.

In our judgment, the downward price pressure on palladium is due to temporary factors which, once subsided, will generate a rubber band snap back rally. Russia may have been forced to sell some of its remaining palladium stockpile for hard currency as a result of trade sanctions over Ukraine. Although the real stockpile is subject to conjecture, we would not be surprised if some of the downward price pressure was generated by illicit sales on the world market.

We expect PALL to move higher near-term to the \$78 level where it will run into resistance at the 200 day moving average on the daily chart below. The 200 day moving average appears set to turn down just as the 50 day moving average completes a death cross. We anticipate a retest of support at around \$68 where the unit held repeatedly last year and from which it began its ascent early this year. Failure to hold there would trigger secondary support at around \$65. Resistance on the weekly chart (see next page) is just over \$77—lining up nicely with near-term resistance on the daily chart. In our view, the bottoming process will extend into year end.

Coincidentally, just when we project that selling in PALL should exhaust itself, the automotive industry will begin to ratchet up its media presence and publicize new models along with 2015 sales and production forecasts that we anticipate will be solidly higher. This traditionally occurs each year at the Detroit Auto Show, which gets underway with presentations for the Press on January 12<sup>th</sup> and 13<sup>th</sup>.



As fundamentals and technicals align, a powerful catalyst for higher prices will emerge. We anticipate that the 2014 high of \$88.42 will be eclipsed by the end of next summer as spot prices for Palladium again breach \$900 to exceed this year's high of \$913. We recommend waiting to buy PALL as it rises near term and approaches resistance at \$78. We would begin to build positions once PALL subsequently turns down and tests the \$68 support level. However, should our outlined scenario prove incorrect and PALL holds at or near current price levels, we would nonetheless begin to buy ahead of the Detroit Auto Show.



Alternatively, one can always invest in the [very thin] futures market for palladium or play the miners directly. Palladium is typically found adjacent to other metals deposits so there are no “pure play” palladium mining stocks. Stillwater Mining Company (NYSE:SWC) is the only U.S. producer of platinum group metals and the largest producer of those metals outside South Africa and Russia. It has a market capitalization of \$1.6 billion. Although it boasts a solid balance sheet and low cash mining costs, we would avoid the shares for now as the chart below flashes the caution sign.



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