

**NEW YORK MERCANTILE EXCHANGE, INC.**  
**ANALYSIS OF DELIVERABLE SUPPLY**  
**PALLADIUM FUTURES**

**August 2018**

In estimating deliverable supply for Palladium Futures, the New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) relied on long-standing precedent, which provides that the key component in estimating deliverable supply is the portion of typical depository stocks that could reasonably be considered to be readily available for delivery. In its guidance on estimating deliverable supply, the Commodity Futures Trading Commission (“CFTC” or “Commission”) states:

In general, the term “deliverable supply” means the quantity of the commodity meeting a derivative contract’s delivery specifications that can reasonably be expected to be readily available to short traders and saleable by long traders at its market value in normal cash marketing channels at the derivative contract’s delivery points during the specified delivery period, barring abnormal movement in interstate commerce. Typically, deliverable supply reflects the quantity of the commodity that potentially could be made available for sale on a spot basis at current prices at the contract’s delivery points. For a non-financial physical-delivery commodity contract, this estimate might represent product which is in storage at the delivery point(s) specified in the futures contract or can be moved economically into or through such points consistent with the delivery procedures set forth in the contract and which is available for sale on a spot basis within the marketing channels that normally are tributary to the delivery point(s)<sup>1</sup>

**Approved Depositories and Stock Reporting Requirements**

To date, Exchange approved palladium depositories are Brinks, Inc., CNT Depository, Inc., Delaware Depository Service Company, HSBC Bank, USA, International Depository Services of Delaware, JP Morgan Chase Bank NA, Malca-Amit USA, LLC, Manfra, Tordella & Brookes, Inc., Loomis, International and Scotia Mocatta.

Pursuant to the rules of the Exchange, each depository is required to report to the Exchange the level of Exchange grade inventory on a daily basis. The inventory shall include eligible and registered palladium. Eligible palladium shall mean all such palladium that is acceptable for delivery against the Palladium Futures contract (i.e., which meets the specifications and approved brands of the Palladium Futures contract) for which a warrant has not been issued. Registered palladium shall mean eligible palladium for which a warrant has been issued. Specifically, on a daily basis, each depository is required to provide the Exchange (1) the total quantity of registered palladium stored at the depository, (2) the total quantity of eligible palladium stored at the depository, and (3) the quantity of eligible palladium and registered palladium received and shipped from the depository.

The palladium inventory levels at all Exchange-approved depositories are made publicly available daily on the Exchange website<sup>2</sup>. Further, the rules of the Exchange require an independent inventory audit to be performed annually to provide a comprehensive reconciliation of stocks stored at depositories with records maintained by both the Exchange and the depository<sup>3</sup>.

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<sup>1</sup> [http://www.ecfr.gov/cgi-bin/text-idx?SID=74959c3dbae469e2efe0a42b45b8dfae&mc=true&node=ap17.1.38\\_11201.c&rgn=div9](http://www.ecfr.gov/cgi-bin/text-idx?SID=74959c3dbae469e2efe0a42b45b8dfae&mc=true&node=ap17.1.38_11201.c&rgn=div9)

<sup>2</sup> <http://www.cmegroup.com/market-data/reports/registrar-reports.html>

<sup>3</sup> <http://www.cmegroup.com/rulebook/NYMEX1/7.pdf>

## Deliverable Supply Analysis

The Exchange determined at this time to base its estimates of deliverable supply of palladium on registered stock as well as such palladium stock meeting all specifications of the Palladium Futures contract stored at Exchange approved depositories. The Exchange recognizes that palladium may at times be used as an investment vehicle and as such some palladium stock may be held as a long-term investment. While surveys conducted indicated no clear consensus on how much palladium was dedicated to long term investments, there was consensus that investment demand for palladium typically accounts for a much smaller portion of total physical supply compared to gold and silver.

Data from GFMS, a metals research consultancy, notes that retail investment, which it classifies as the sale of coins and bullion to small-scale, less sophisticated investors, in platinum and palladium was roughly 3.9% and 0.5% of total physical demand in 2017, respectively. This compares to 25.8% for gold and 14.8% for silver.<sup>4</sup>

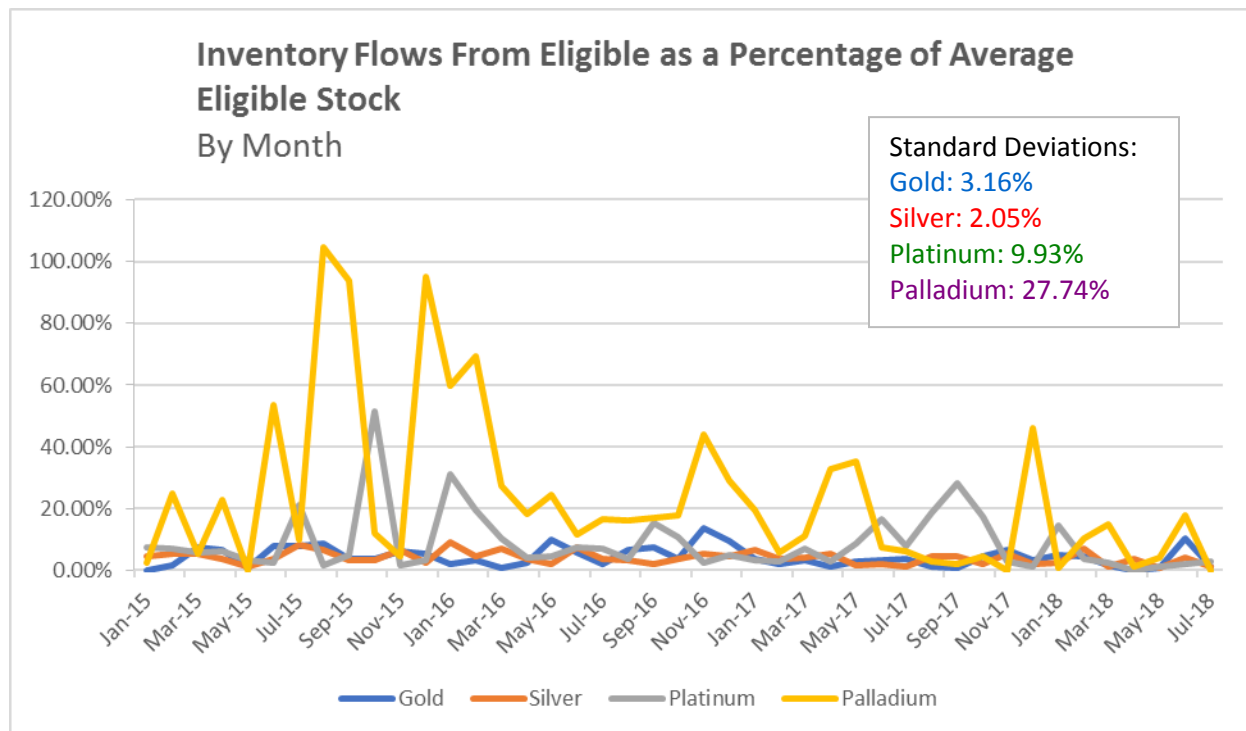
Withdrawals of eligible palladium and platinum from NYMEX depositories and adjustments of that eligible metal to warranted status are typically larger, in terms of percentage of eligible stock, than similar withdrawals and adjustments in the COMEX gold and silver markets. Furthermore, the standard deviation of these statistics is larger for palladium and platinum, suggesting that withdrawals and adjustments from eligible to warranted are proportionally larger than those of gold and silver. These two factors suggest that a greater portion of the eligible palladium and platinum stock is readily available to the marketplace.

Chart 1 below illustrates withdrawals from eligible stock and adjustments from eligible to registered stock as a percentage of monthly average eligible stock and the standard deviations of that data. These withdrawals and adjustments are taken as a percentage of average eligible stock of that metal during that month to adjust for the inventory size. Generally, the chart below shows that as a percentage of average eligible stock, flows of metal are relatively larger in the Platinum Group Metals (PGMs) than in gold and silver. By taking the monthly total withdrawals and adjustments as a percentage of average eligible stock, a turnover ratio is created which illustrates the magnitude of stock movements out of eligible inventory over each month. By taking the standard deviation of these monthly statistics, it is evident that changes in in platinum and palladium eligible stocks as measured by standard deviation, at 9.93% and 27.74%, respectively, have more dispersion around the mean than those of gold and silver, 3.16% and 2.05%, respectively. The mean withdrawal for both platinum and palladium are already greater, as a percentage of eligible stock, than for gold and silver. The larger dispersions, however, further show that greater proportions of platinum and palladium are withdrawn from eligible or adjusted to warranted stock.

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<sup>4</sup> Thomson Reuters GFMS Annual Surveys 2018 – Gold, Silver, Platinum & Palladium  
[http://images.financial-risk-solutions.thomsonreuters.info/Web/ThomsonReutersFinancialRisk/%7B87eb3342-8e48-44af-937e-7ad3264c2199%7D\\_Gold\\_Survey\\_2018\\_Final\\_Version\\_-\\_GS18\\_-\\_Compressed-min.pdf](http://images.financial-risk-solutions.thomsonreuters.info/Web/ThomsonReutersFinancialRisk/%7B87eb3342-8e48-44af-937e-7ad3264c2199%7D_Gold_Survey_2018_Final_Version_-_GS18_-_Compressed-min.pdf)  
[http://images.financial-risk-solutions.thomsonreuters.info/Web/ThomsonReutersFinancialRisk/%7B8f5b2e6f-3c85-4630-aaa6-622569f34af6%7D\\_Updated\\_WSS\\_2018\\_compressed.pdf?utm\\_source=Eloqua&utm\\_medium=email&utm\\_campaign=&utm\\_content=&ga=2.152130553.1935136870.1532520821-132593290.1532520821](http://images.financial-risk-solutions.thomsonreuters.info/Web/ThomsonReutersFinancialRisk/%7B8f5b2e6f-3c85-4630-aaa6-622569f34af6%7D_Updated_WSS_2018_compressed.pdf?utm_source=Eloqua&utm_medium=email&utm_campaign=&utm_content=&ga=2.152130553.1935136870.1532520821-132593290.1532520821)  
[http://images.financial-risk-solutions.thomsonreuters.info/Web/ThomsonReutersFinancialRisk/%7Bd68cfa9a-27a9-4f1e-9b00-07b85152ab37%7D\\_PPS\\_2018\\_Final\\_Report-compressed.pdf](http://images.financial-risk-solutions.thomsonreuters.info/Web/ThomsonReutersFinancialRisk/%7Bd68cfa9a-27a9-4f1e-9b00-07b85152ab37%7D_PPS_2018_Final_Report-compressed.pdf)

**Chart 1:**



Source: CME Group

Based on the foregoing, and in order to represent a conservative deliverable supply that is readily available for delivery, the Exchange made a determination to discount from its estimate of deliverable supply 10% of its reported eligible palladium as opposed to the higher discount levied in the gold and silver deliverable supply analyses. The Exchange may, at a later date, decide to estimate those stocks and include them in future deliverable supply estimates.

Table 1 below provides the monthly inventory average of each of registered and eligible palladium stored at Exchange-approved depositories for the period beginning August 2015 through July 2018.

Over the period beginning August 2015 through July 2018, the monthly average registered palladium was 245 futures equivalent contracts. The monthly average eligible palladium was 337 futures equivalent contracts accounting for a 10% discount. Based on the foregoing, the Exchange estimates monthly deliverable supply at approximately 582 futures equivalent contracts. The current spot month position limit of 50 contracts represents 8.60% of the estimated monthly deliverable supply.

At this time, the Exchange does not account for palladium stock meeting all specifications of the Palladium Futures contract that is stored at depositories other than those approved by the Exchange and which can be moved economically into such Exchange-approved depositories consistent with Appendix C of Part 38. The Exchange may, at a later date, decide to estimate those stocks and include them in future deliverable supply estimates.

**Table 1: Monthly Average Stock Levels at Exchange Depositories**  
**(in Palladium Futures equivalent contracts)**

<b>Month</b>	<b>Average Eligible Inventory (with 10% haircut)</b>	<b>Average Registered Inventory</b>	<b>Average Total Inventory</b>
<b>Aug-15</b>	506	425	931
<b>Sep-15</b>	505	467	973
<b>Oct-15</b>	479	381	860
<b>Nov-15</b>	449	377	827
<b>Dec-15</b>	322	501	823
<b>Jan-16</b>	335	388	723
<b>Feb-16</b>	311	337	648
<b>Mar-16</b>	300	341	642
<b>Apr-16</b>	379	327	706
<b>May-16</b>	328	318	646
<b>Jun-16</b>	403	262	666
<b>Jul-16</b>	431	260	691
<b>Aug-16</b>	445	260	704
<b>Sep-16</b>	446	256	702
<b>Oct-16</b>	466	256	722
<b>Nov-16</b>	369	256	624
<b>Dec-16</b>	356	252	608
<b>Jan-17</b>	387	220	607
<b>Feb-17</b>	355	220	575
<b>Mar-17</b>	329	220	549
<b>Apr-17</b>	357	125	483
<b>May-17</b>	291	122	413
<b>Jun-17</b>	259	132	391
<b>Jul-17</b>	255	128	383
<b>Aug-17</b>	245	156	400

<b>Sep-17</b>	245	264	509
<b>Oct-17</b>	331	171	501
<b>Nov-17</b>	333	171	504
<b>Dec-17</b>	286	153	438
<b>Jan-18</b>	258	120	378
<b>Feb-18</b>	285	102	387
<b>Mar-18</b>	243	152	396
<b>Apr-18</b>	229	160	388
<b>May-18</b>	229	156	385
<b>Jun-18</b>	196	180	376
<b>Jul-18</b>	189	195	384
<b>3 Year Average</b>	337	245	582