

# CME Group Precious Metals Products

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13 November 2017

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# Agenda



1 Overview Of CME Group Precious Metals Futures & Option Contracts

2 Delivery Process

3 Start Trading



# CME Group

- The leading and most diverse financial exchange in the world for trading futures and options.
- Formed by the 2007 merger of the Chicago Board of Trade (1848) and Chicago Mercantile Exchange (1898) followed by the 2008 acquisition of New York Mercantile Exchange (NYMEX and COMEX merged in 1994).

# CME Group: What Makes Us Different



**3 Billion**

Contracts Traded  
Annually

**6**

Major Product  
Classes

**Pioneers of  
Financial Futures**

**Industry-Leading  
Market Liquidity**

**24**

Hour Access

**160**

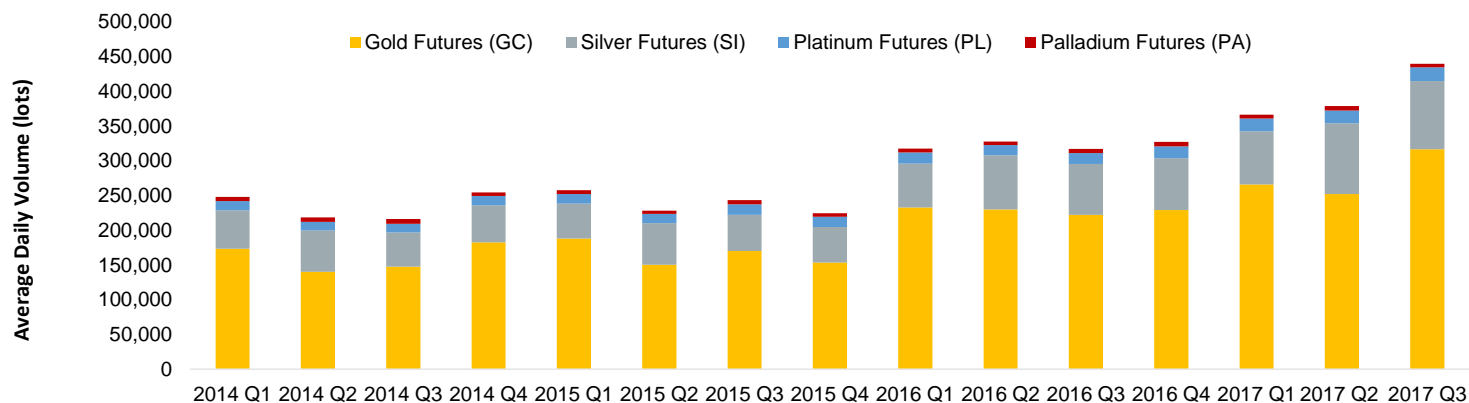
Years of Industry  
Expertise

# CME Precious Metals Products



	Launch Year	Product Code	Listed Exchange	2017 Jan-Sept Average Daily Volume in lots	Volume % Change from 2016 Jan-Sept	Open Interest As of End-Sept 2017 in lots
Gold Futures (100oz)	1974	GC	COMEX	278,334	+22%	530,883
Silver Futures (5000oz)	1933	SI	COMEX	91,920	+28%	182,960
Platinum Futures (50oz)	1990	PL	NYMEX	18,922	+23%	71,206
Palladium Futures (100oz)	1968	PA	NYMEX	5,794	+6%	31,478
Gold Options (100oz)	1982	OG	COMEX	40,438	+9%	1,032,826

## Volumes for all precious metals futures +78% YoY in Q3 2017



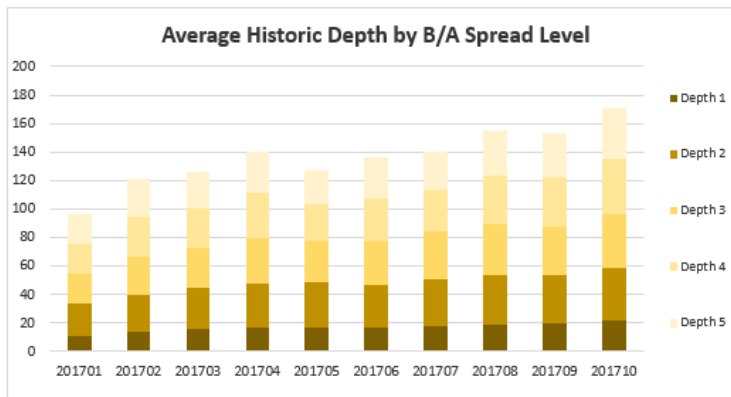
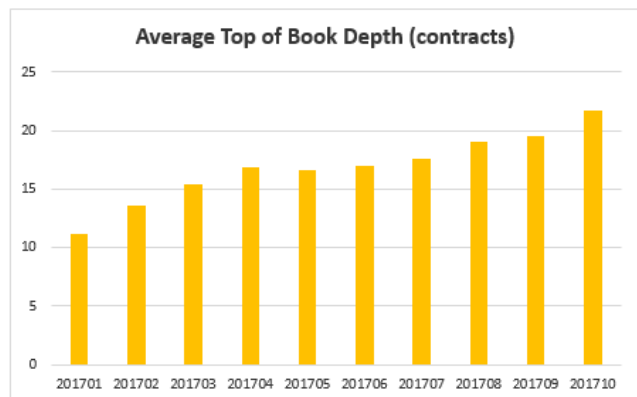
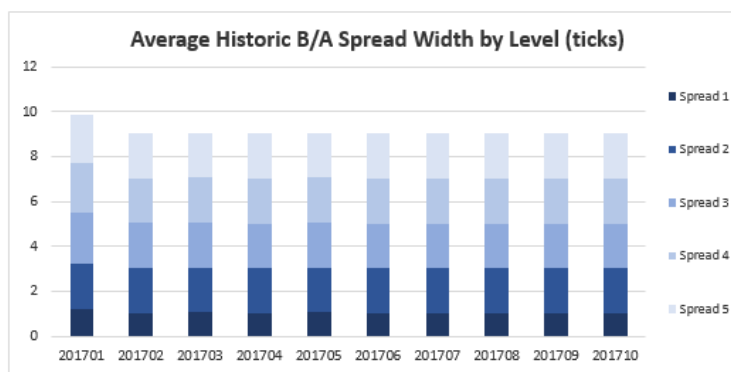
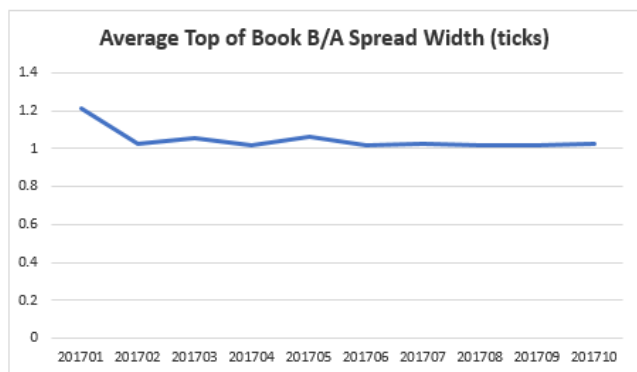
Source: CME Group

# Improved Liquidity During Asian Hours



- Improvement in liquidity is also represented by tightened B/A spread width and increasing depth of book

## Gold Futures (GC) - Asian Hour Liquidity - Active Month Contract



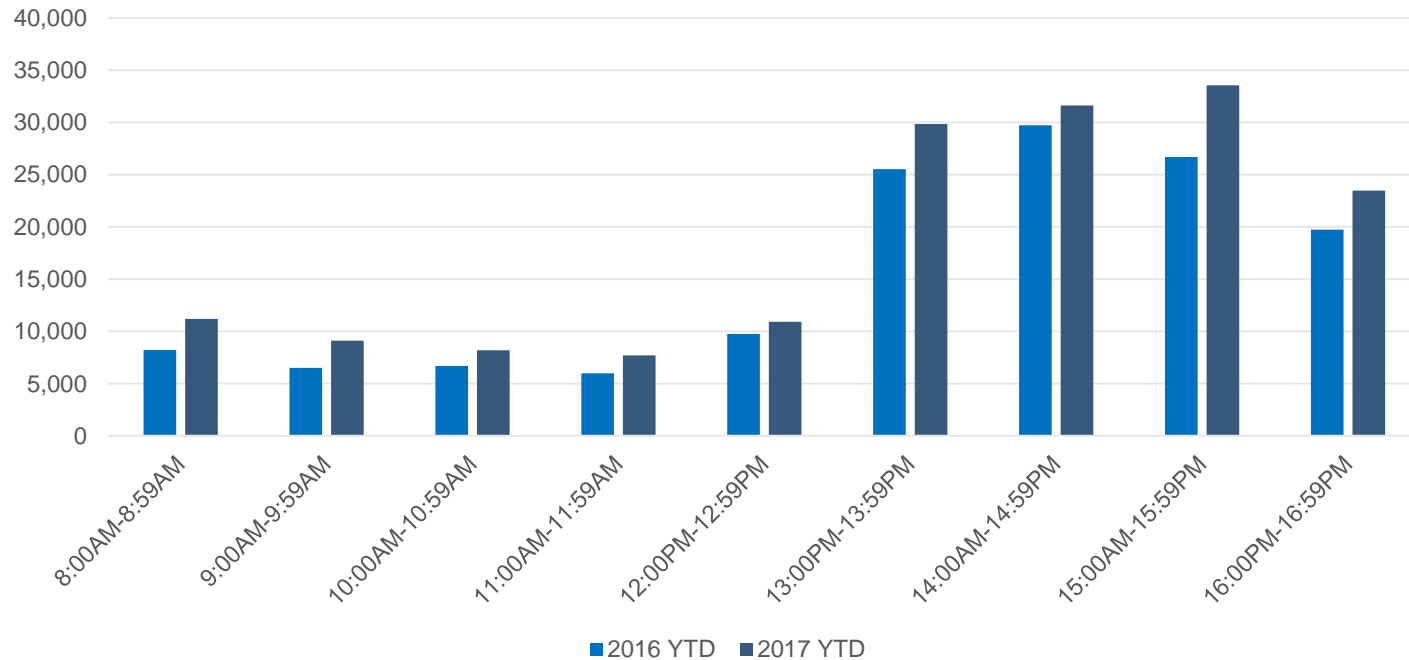
Source: CME Group

## Improved Liquidity During European Hours



- Great liquidity in core metals products during European trading hours.
- Gold Futures trade 165,000 lots (equivalent to 16.5 million ounces) during European hours on a daily average in Jan-Sept this year, up 19% YoY.

Gold Futures (GC) 2017 Jan - Sept Average Daily Volume  
London Trading Hours (8am - 5pm London Time)



Source: CME Group

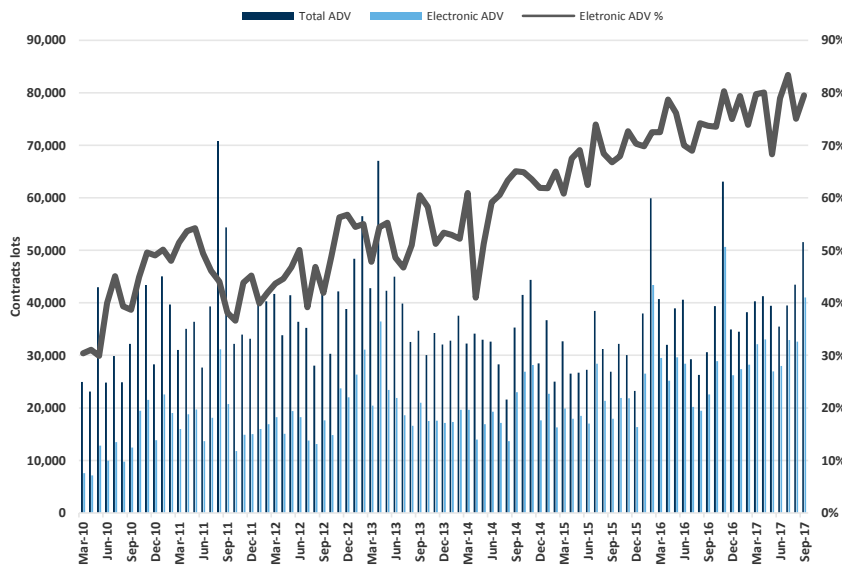


# Development Of Precious Metals Options

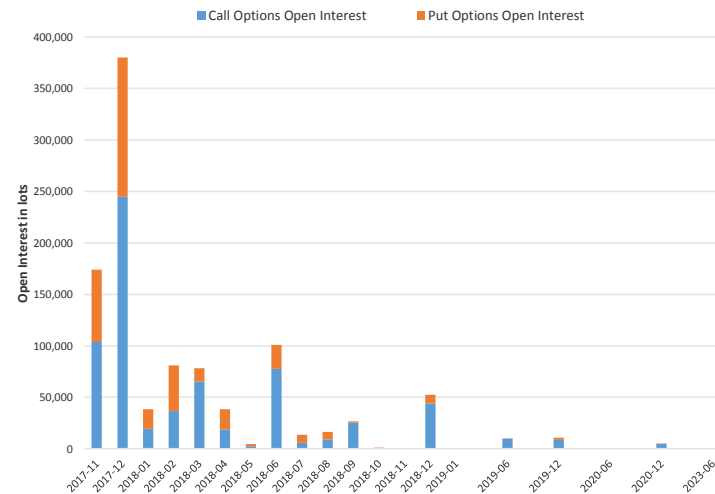


- Largest and most liquid listed Gold Options market in the world, with open interest along the curve.
- Significant growth in options electronicification in the recent years.
- Fast growth in Gold Weekly Options in 2017: Jan-Sept ADV +221% YoY

**Gold Options – Electronic ADV % Growth**



**Gold Options Open Interest along the Curve**



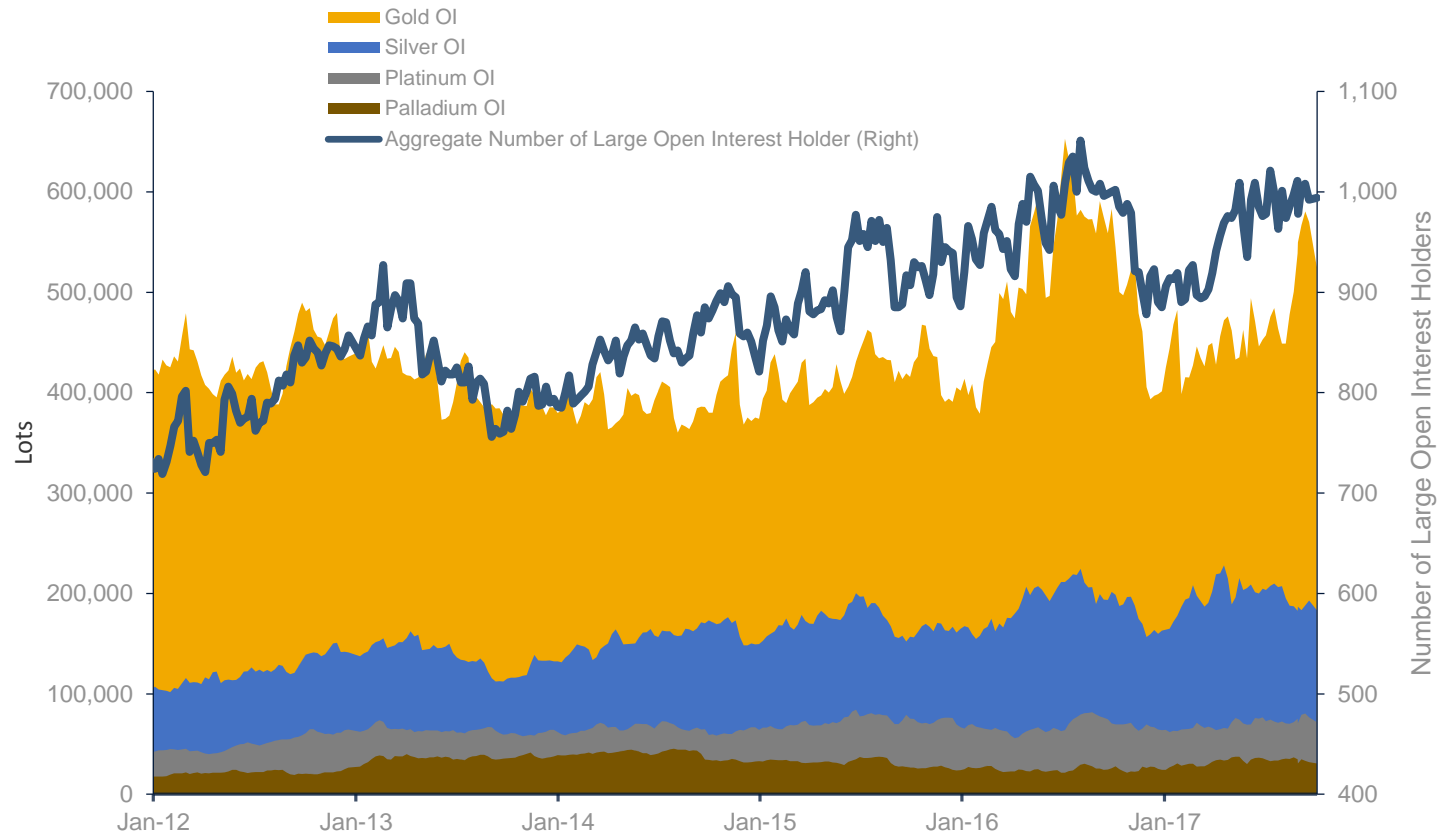
\*Open interest of Gold Options of all contract months taken on 29th Sept 2017

Source: CME Group

# Metals Products Growth



## Metals Products Open Interest vs Large Open Interest Holder Growth (CFTC CoT report)



Source: CME Group

# Precious Metals Physical Delivery Process

## Deliverable Precious Metals Products



Contract	100-oz Gold Futures (GC)	Gold Kilo Futures (GCK)	Silver Futures (SI)	Platinum Futures (PL)	Palladium Futures (PA)
<b>Deliverable Product</b>	100 oz gold bars; 1 kg gold bars	1 kg gold bars	1000 oz silver bars	Cast plate and/or ingot	Cast plate and/or ingot
<b>Number Required per Contract</b>	1 x 100-oz bar or 3 x 1 kg bars	1 x 1 kg bar	5 x 1000-oz bars	1 x 50oz or multiple pieces of cast plates and/or ingots (with no piece less than 10oz)	1 x 100oz or multiple pieces of cast plates and/or ingots (with no piece less than 10oz)
<b>Weight Tolerance</b>	±5%	N/A	±10%	±10%	±10%
<b>Minimum Fineness</b>	995	9999	999	9995	9995
<b>Brands</b>	Exchange Approved Brands	Exchange Approved Brands	Exchange Approved Brands	Exchange Approved Brands	Exchange Approved Brands
<b>Facilities Location</b>	New York, Delaware	Hong Kong	New York, Delaware, Massachusetts	New York, Delaware, Massachusetts	New York, Delaware, Massachusetts

# Three-Day Delivery Cycle



## Three-Day Delivery Cycle

### 1. Delivery Intention Day

#### First Intent/Position Day

*2 business days prior to 1<sup>st</sup> business day of the contract month*

#### Last Intent/Position Day

*1 business day prior to last business day of the contract month*

### 2. Notice Day/ Invoice Day

### 3. Delivery Day

## Delivery Intention Day



- The Short must submit a notice of intention to deliver in the CME Deliveries Plus application (a short position holder must have enough open short positions in order to tender).
- On the notice of intent there must be precious metals warrants selected to match the number of positions the seller wishes to deliver.
- The warrants will include the following information:
  - Allocation notices are sent.
  - Allocation notice indicates:
    - *Parties matched for delivery*
    - *Number of contracts to be delivered*



## The Next Step: Notice Day



**Notice day is the day on which the invoice is issued by the Clearinghouse to the Buyer and the Seller.**

- *If issued on the next to last day of the delivery month, they are issued prior to the end of the day*

## Notice Day Continued....



### Invoice specifies:

**Brand**

**Warrant number**

**Weight**

**Total cost of the warrants based on settlement price on Intention Date**

**Seller and buyer firm information**

**Approved depository where the metal is stored**

**Reimbursement of storage fees that were pre-paid by owner prior to delivery**

*The allocation notice and invoice are not transferable*



## Delivery Day



**Delivery day can occur on ANY business day during the delivery month.**

### Seller receives:

**Electronic transfer of funds – banked through Clearing**

### Buyer receives:

**Electronic warrant in their Inventory in Deliveries Plus**

## Role of Clearing Firms



- Procedures for making and taking delivery on CME Group-listed precious metals futures are established by the Exchange.
- **The delivery process takes three business days** to accomplish. This provides adequate time for the participants – the seller, the buyer, their respective clearing firms and CME Clearing – to make necessary notifications and arrangements.
- **Clearing firms play a central role in the delivery process**, because deliveries occur between clearing firms, acting as agents for those who hold accounts with them. Contract deliveries do NOT occur directly between the account holders themselves.
- **Each clearing firm is responsible to the Exchange and to CME Clearing** for guaranteeing the performance of its account holders in meeting the obligations of delivery:
  - The **short clearing firm**, i.e., the clearing firm making delivery on a short futures position, is responsible for: (a) ascertaining that its account holders who are the ultimate owners of the short position have registered and furnished deliverable grade warrants on time and in sufficient quantity to meet contract requirements; and (b) distributing to those same account holders the funds it receives in payment for the warrants it delivers.
  - The **long clearing firm**, i.e., the clearing firm taking delivery on a long futures position, is responsible for: (a) distributing the warrants that it receives to its account holders who are the ultimate owners of the long contract position; and (b) collecting from those same account holders the funds required to pay the invoice amounts for the warrants delivered.

# CME Group Delivery Facilities



Precious Metals Depositories and Weighmasters								
Region	Depository	Gold (GC) Depository	Gold (GC) Weighmaster	Silver (SI) Depository	Silver (SI) Weighmaster	Platinum (PL) Depository	Palladium (PA) Depository	Gold Kilo (GCK) Depository
New York	Brink's, Inc.	x	x	x	x	x	x	
	HSBC Bank USA	x	x	x	x	x	x	
	JP Morgan Chase Bank NA	x	x	x	x	x	x	
	Malca-Amit USA, LLC	x	x	x	x	x	x	
	Manfra, Tordella & Brookes, Inc.	x	x			x	x	
	ScotiaMocatta Depository, A Division of the Bank of Nova Scotia	x	x	x	x	x	x	
Delaware	Delaware Depository	x	x	x	x	x	x	
	International Depository Services of Delaware	x	x	x	x	x	x	
New Jersey	Ledoux & Company Weighmasters		x		x			
Massachusetts	CNT Depository, Inc.			x	x	x	x	
Hong Kong	Brink's, Inc.							x
	Malca-Amit Far East Ltd.							x
	Loomis International (HK) Ltd.							x

# Role of Market Regulation



The Market Regulation Department at CME Group ensures the integrity of the markets and the delivery process

- CME Group's Market Regulation Department ensures that all four (CME, CBOT, NYMEX and COMEX) of our Designated Contract Markets (DCMs) fulfil their self-regulatory responsibilities.



## Key Responsibilities

- Approve and inspect facilities for physically settled metal products (and other CME Group products)
- Ensure facilities meet Exchange Rules and remain financially stable
- Publish inventory reports for metals products in Exchange approved facilities
- Issues notices to the market for any changes or new approvals with respect to the facilities
- Approve and monitor deliverable brands for precious metals



# Approved Brands



**Brands List:** <http://www.cmegroup.com/rulebook/files/service-providers.xls>

**Gold Brands List:** 60+ brands approved for deliveries. Only a partial list of approved brands has been shown here.

Gold (GC) Brands			
Producer	Refined At	Code	Brand Marks
Argor, S.A.	Chiasso, Switzerland	ARGO	*ARGOR S.A. CHIASSO-ASA
Argor - Heraeus SA	Mendrisio, Switzerland	ARHE	Argor-HerAeus SA, A-H, Switzerland
Asahi Refining Canada Limited	Brampton, Ontario, Canada	ASAH	ASAHI CANADA (within an oval) and ASSAYERS REFINERS (within an inner oval)
Asahi Refining USA, Inc.	Salt Lake City, Utah	ARUI	ASAHI SLC (within an oval) and the fineness listed within an inner oval
ASARCO Incorporated	Amarillo, Texas	ASAT	*ASARCO GOLD- AMARILLO, TEXAS
Casa da Moeda do Brasil	Rio de Janeiro, Brazil	CASA	*CASA DA MOEDA DO BRASIL-CMB
Compagnie des Metaux Precieux	Ivry, France	CMPP	*COMPAGNIE DES METAUX PRECIEUX PARIS (may also contain letters CMP)
Compagnie des Metaux Precieux	Ivry, France	SDBS	*SOCIETE DE BANQUE SUISSE
Companhia Real de Metais	Sao Paulo, Brazil	CRDM	*CRM
Comptoir Lyon-Alemand Louyot	Noisy le Sec, France	CLAL	*COMPTOIR-LYON-ALEMAND, LOUYOT-PARIS (with Affineur Fondeur within octagon)
H.Drijfhout & Zoon Edelmetaalbedrijven BV	Amsterdam, Netherlands	HDZA	*H. DRIJFHOUT & ZOON-AMSTERDAM-MELTERS (within octagon)
Elemental Refining, LLC	Jackson, Ohio	ELEM	ELEMENTAL REFINING AND JACKSON IN A CIRCLE WITH A STYLIZED E AND M IN AN INNER CIRCLE
Engelhard Corporation	Carteret, New Jersey	ENNE	*ENGELHARD (may also be * ENGELHARD NEW JERSEY-U.S.A. or ENGELHARD U.S.A.)
Engelhard Corporation	Carteret, New Jersey	BAKE	*BAKER (within circle atop triangle)
Engelhard Corporation	Chessington, England	ENCI	*ENGELHARD LONDON
Engelhard Corporation	Thomastown, Australia	ENTH	*ENGELHARD AUSTRALIA
Engelhard Corporation	Aurora, Ontario	ENAU	*ENGELHARD (with circle connected to 1/2 moon to left of name; may also be ENGELHARD INDUSTRIES OF CANADA LTD.)
Glencore Canada Corporation	Montreal East, Quebec	CCRL	*CANADIAN COPPER REFINERS LIMITED MONTREAL EAST, CANADA (within an oval)
Glencore Canada Corporation	Montreal East, Quebec	NORA	*NORANDA MINES LIMITED - CCR, MONTREAL EAST, CANADA (within an oval)
Glencore Canada Corporation	Montreal East, Quebec	NINC	NORANDA MINES Inc. - CCR, MONTREAL EAST, CANADA (within an oval)
Golden West Refining Corporation Limited, Handy & Harman Refining Group Inc.	Attleboro, Massachusetts	GWHH	*HH HANDY & HARMAN REFINING GROUP
Handy & Harman	Attleboro, Massachusetts	HAND	*HH HANDY & HARMAN
W.C. Heraeus GmbH	Hanau, Germany	HERA	HERAEUS FEINGOLD (with Heraeus Edelmetalle GmbH-Hanau encircling three roses)

# Responsible Gold



## Physical Gold contracts listed on COMEX are now in compliance with LBMA Responsible Gold Guidance.

- **From April 8, 2015, Exchange rules went into effect that require a gold refiner/producer to comply with LBMA Responsible Gold Guidance.**
- This is required for a gold producer to obtain and maintain Exchange approval for delivery against any of the Exchange's physically delivered gold futures contracts.
- The rules on Responsible Gold are intended to render COMEX standards consistent with international standards for conflict-free gold.
- The LBMA Responsible Gold Guidance is intended to assure investors and consumers that COMEX gold stocks are conflict-free due to compliance with an internationally accepted audit process.
- The LBMA Guidance is based on the OECD Due Diligence Guidance as well as Swiss and US KYC, Anti-Money Laundering and Combating Terrorist Financing regulations.
- The rule amendments in relation to Responsible Gold for COMEX gold contracts further adds to the existing requirements of approval for gold producers and refiners.

# NYMEX and COMEX Delivery Notices and Stocks

<http://www.cmegroup.com/trading/energy/nymex-delivery-notices.html>



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## NYMEX, COMEX Delivery Notices & Stocks



### COMEX & NYMEX Delivery Notices

#### COMEX & NYMEX Metal Delivery Notices

Daily  
Monthly  
Year-To-Date

Metals Delivery Notices

#### NYMEX Energy Delivery Notice

Daily  
Year-To-Date

#### Warehouse & Depository Stocks

Gold Stocks  
Gold Kilo Stocks  
Silver Stocks  
Copper Stocks  
Platinum and Palladium Stocks  
Aluminum Stocks

Daily Metals Inventory  
Reports

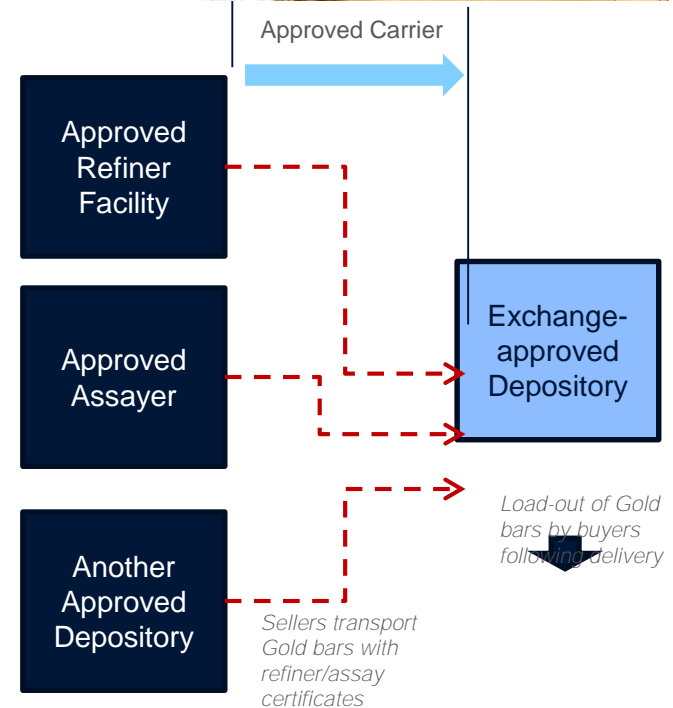
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# Chain of Integrity



- Exchange rules ensure strict control on the delivery process and the chain of integrity.
- For Gold, the inventory may only be delivered to a COMEX-approved depository using an approved carrier in one of the following ways:
  - Directly from an approved refiner along with the refiner certificates; or
  - Directly from an approved assayer with the assay certificates; or
  - Directly from another COMEX-approved vault.
- Each gold bar is inspected and weighed at the Facility.
- A complete list of approved Carriers and Assayers can be found here <http://www.cmegroup.com/rulebook/files/service-providers.xls>



## Approved Carriers for Gold

Garda CL Atlantic, Inc.  
 TransValue, Inc.  
 Dunbar Armored, Inc.  
 Loomis, Fargo & Co.  
 Brinks, Inc.  
 G4S International, Inc.  
 IBI Armored Services, Inc.  
 Malca-Amit Armored, Inc.  
 Loomis International (USA) Inc.

## Approved Assayers for Gold

SGS Lakefield Research Limited  
 ALS Inspection UK Ltd.  
 Alfred H. Knight International Ltd.  
 Alex Stewart (Assayers) Inc.  
 Ledoux & Company  
 Alfred H. Knight North America Ltd.



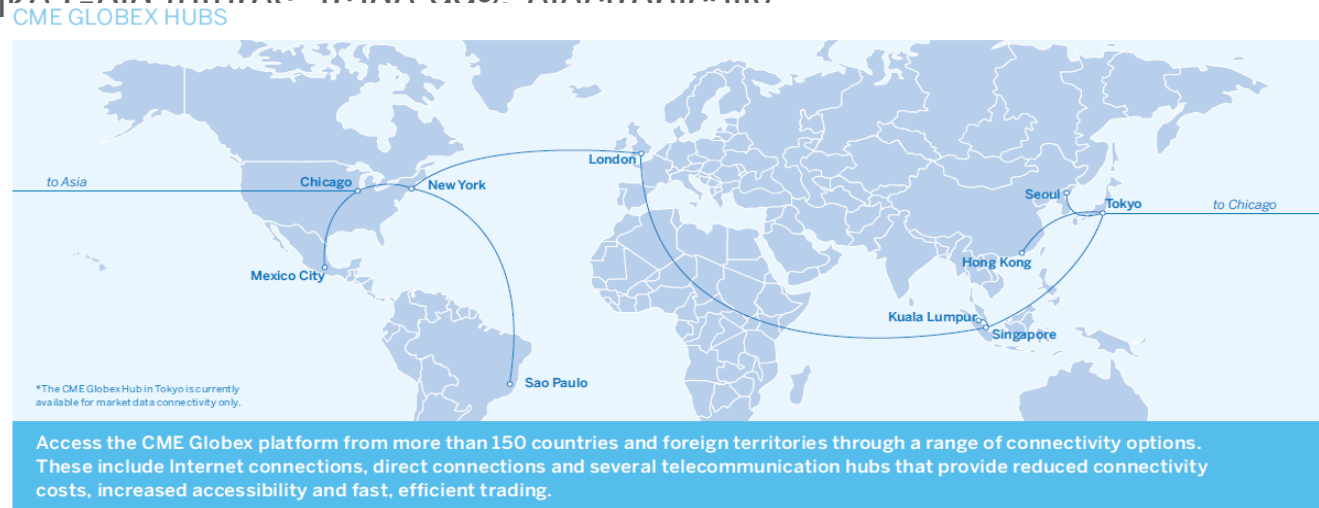
# How To Access Our Markets

# Electronic Trading - CME Globex



Over 90% Gold, Silver and Copper futures and 80% of metals op

- CME Globex platform was the first – and remains among the fastest – **global electronic trading system** for futures and options.
- Some Markets, like Gold futures, trade 99% electronically.
- Our contracts trade **throughout the day** except for a 60-minute break between 5:00 pm to 6:00 pm U.S. Eastern Time.



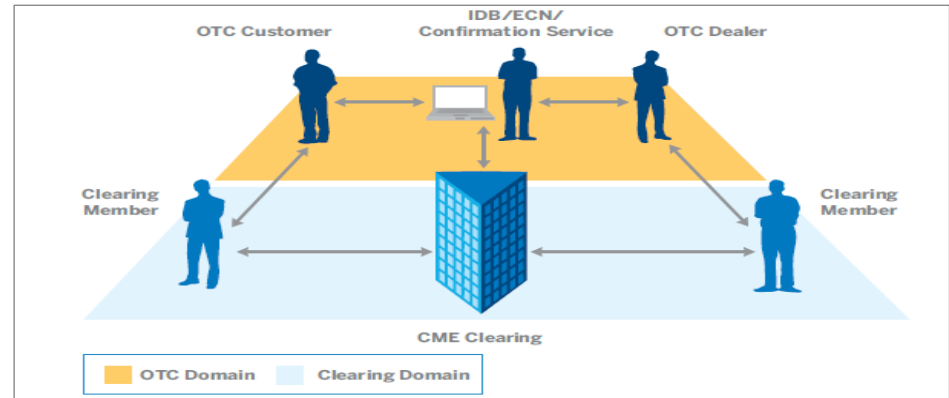
<http://www.cmegroup.com/globex/>

- CME Group delivers services to ensure market continuity and reliability. Our **Global Command Centre (GCC)** is the market operations and customer service desk for Globex trading and is open 24 hours a day.

# Clearport – Flexible Clearing Service For OTC Market



- Market participants (merchants, banks, producers, consumers) can **bilaterally negotiate deals off-exchange** subject to Exchange rules, while gaining **increased security and efficiency**.
- Once the transaction is cleared, CME Inc. (CME Clearing House) serves as the **counterparty to every cleared transaction**, becoming the buyer to each seller and the seller to each buyer, and **limiting credit risk by guaranteeing financial performance** of both parties.
- A **Block Trade** is a privately negotiated futures, options or combination transaction that is permitted to be executed apart from the public auction market.



CME Group | CME Direct    Live

Term	Status	+	Qty	Bid	Ofr	Qty	Pin	Last	Cha...	Volu...	Open Int...
+ Gold Future											
Nov17	Open	+	9	1,282.3	1,282.5	1		↓ 1,283.3	-2.3	2	79
Dec17	Open	+	9	1,284.3	1,284.4	46		↑ 1,284.3	-3.2	90,7...	322,833
Jan18	Open	+	9	1,285.9	1,286.1	44		↓ 1,286.3	-2.9	61	737
Feb18	Open	+	9	1,288.6	1,288.7	2		↑ 1,288.6	-3.2	1,930	141,690
Apr18	Open	+	9	1,292.7	1,292.9	2		↓ 1,293.0	-3.0	1,255	19,156
Jun18	Open	+	9	1,296.9	1,297.2	46		↑ 1,297.0	-3.3	1,925	19,060
Aug18	Open	+	9	1,301.1	1,301.4	46		↓ 1,303.1	-1.5	49	9,726
Oct18	Open	+	9	1,305.2	1,305.6	46		↓ 1,306.3	-2.5	1	4,534
Dec18	Open	+	9	1,309.6	1,309.9	44		↓ 1,312.4	-0.8	153	11,073

OTC Block trades reported in real time on CME Direct

Source: CME Group

# CME Direct

## View and Trade CME Futures



Description	Status	+	Qty	Bid	Ofr	Qty	Pin	Last	Change	Volume	Open Interest	Net Change %
<b>+ Gold Future</b>												
Nov17	Open	+	20	1,282.5	1,282.7	1	<input type="checkbox"/>	↓ 1,283.3	-2.3	2	79	-0.18%
Dec17	Open	+	20	1,284.5	1,284.6	24	<input type="checkbox"/>	↓ 1,284.5	-3.0	100,637	322,833	-0.23%
Jan18	Open	+	20	1,286.1	1,286.3	24	<input type="checkbox"/>	↓ 1,286.3	-2.9	61	737	-0.22%
Feb18	Open	+	23	1,288.7	1,288.9	26	<input type="checkbox"/>	↓ 1,288.3	-3.5	9,827	141,690	-0.27%
Apr18	Open	+	20	1,292.9	1,293.1	26	<input type="checkbox"/>	↓ 1,293.0	-3.0	1,255	19,156	-0.23%
Jun18	Open	+	20	1,297.1	1,297.3	26	<input type="checkbox"/>	↓ 1,297.0	-3.3	1,940	19,060	-0.25%
Aug18	Open	+	20	1,301.2	1,301.5	24	<input type="checkbox"/>	1,303.1	-1.5	49	9,726	-0.11%
Oct18	Open	+	20	1,305.3	1,305.7	24	<input type="checkbox"/>	1,306.3	-2.5	1	4,534	-0.19%
Dec18	Open	+	20	1,309.7	1,310.1	24	<input type="checkbox"/>	1,312.4	-0.8	153	11,073	-0.06%
<b>+ Silver Future</b>												
Nov17	Open	+	7	16.965	16.975	2	<input type="checkbox"/>				4	
Dec17	Open	+	20	16.995	17.000	25	<input type="checkbox"/>	16.995	+0.020	17,112	121,088	+0.12%
Jan18	Open	+	20	17.025	17.035	25	<input type="checkbox"/>	↑ 17.050	+0.043	6	1,053	+0.25%
Mar18	Open	+	22	17.090	17.100	30	<input type="checkbox"/>	↓ 17.085	+0.014	563	54,324	+0.08%
May18	Open	+	22	17.150	17.160	25	<input type="checkbox"/>	↓ 17.145	+0.010	77	9,526	+0.06%
<b>+ Platinum Futures</b>												
Nov17	Open	+	2	933.8	936.1	1	<input type="checkbox"/>				4	
Dec17	Open	+	2	935.2	935.8	1	<input type="checkbox"/>				23	
Jan18	Open	+	2	937.4	937.7	4	<input type="checkbox"/>	↑ 937.4	-3.2	2,538	70,889	-0.34%
Apr18	Open	+	2	941.6	942.0	4	<input type="checkbox"/>	↑ 943.7	-1.2	121	7,439	-0.13%
Jul18	Open	+	2	945.5	946.8	3	<input type="checkbox"/>				406	
Oct18	Open	+	2	939.0	957.3	2	<input type="checkbox"/>				24	
Nov17/Dec17	Open	+	1	-2.5	-1.1	1	<input type="checkbox"/>					
Dec17/Jan18	Open	+	3	-2.2	-1.9	1	<input type="checkbox"/>					
Jan18/Apr18	Open	+	547	-4.3	-4.2	85	<input type="checkbox"/>	↑ -4.2	+0.1	117		+2.33%
<b>+ Palladium Futures</b>												
Nov17	Open	+	1	994.45	1,001.55	1	<input type="checkbox"/>					
Dec17	Open	+	1	998.85	999.15	1	<input type="checkbox"/>	↑ 999.05	-5.35	1,075	29,376	-0.53%
Mar18	Open	+	1	992.10	992.55	1	<input type="checkbox"/>	↑ 991.45	-6.05	39	6,768	-0.61%
Jun18	Open	+	1	983.15	986.10	1	<input type="checkbox"/>				406	
Sep18	Open	+	1	956.00	997.75	1	<input type="checkbox"/>				293	
Nov17/Dec17	Open	+	2	-4.40	2.40	1	<input type="checkbox"/>					

Source: CME Group

# Thank you

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