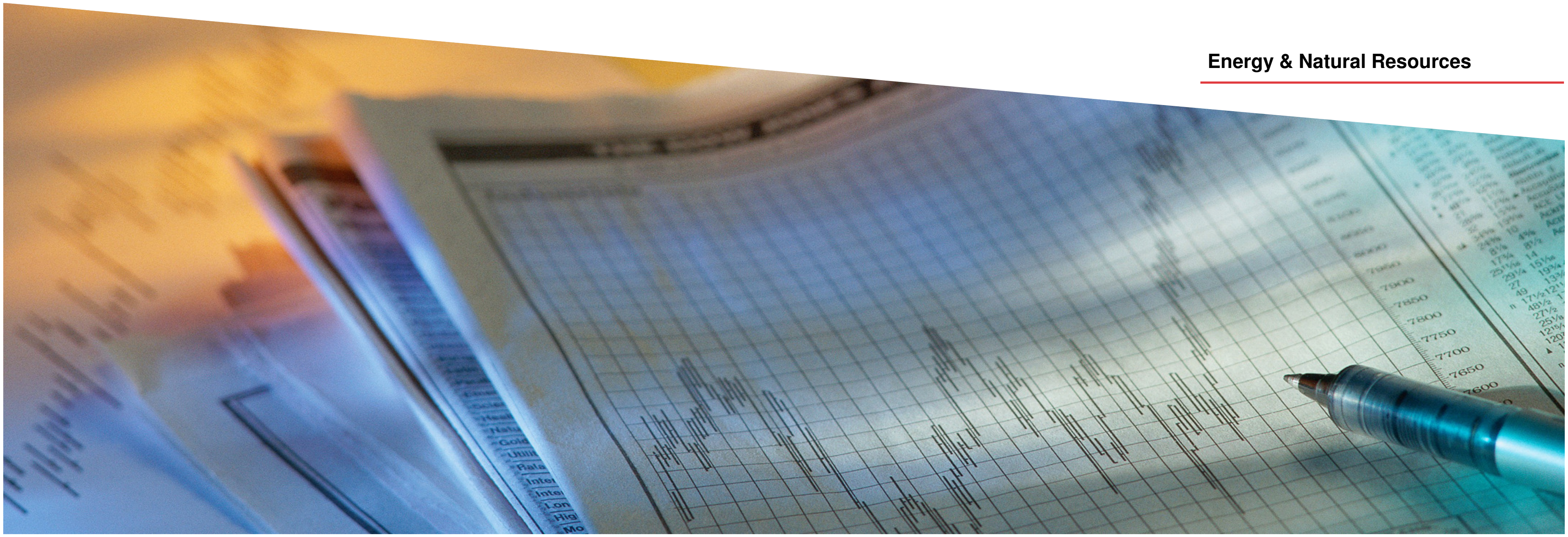
Energy & Natural Resources



FIA Physical Commodity Trading Webinar

Peter Y. Malyshev (DC), Christopher Borg (London), Kari S. Larsen (NY), Edwin J. Nazario, Jr. (DC / Houston)

March 8, 2018

ReedSmith

Driving progress
through partnership

*This presentation is for general education purposes. It should not be construed as, and does not constitute, legal advice on any specific transaction or matter, nor does the presentation create an attorney-client relationship.

Administrative Items

- The webinar will be recorded and posted to the FIA website following the conclusion of the live webinar.

- A question and answer period will conclude the presentation.
  - Please use the "question" function on your webinar control panel to ask a question to the moderator or speakers. Questions will be answered at the conclusion of the webinar.

- CLE certificates will be emailed shortly after conclusion of the webinar.

Upcoming Webinars and Events

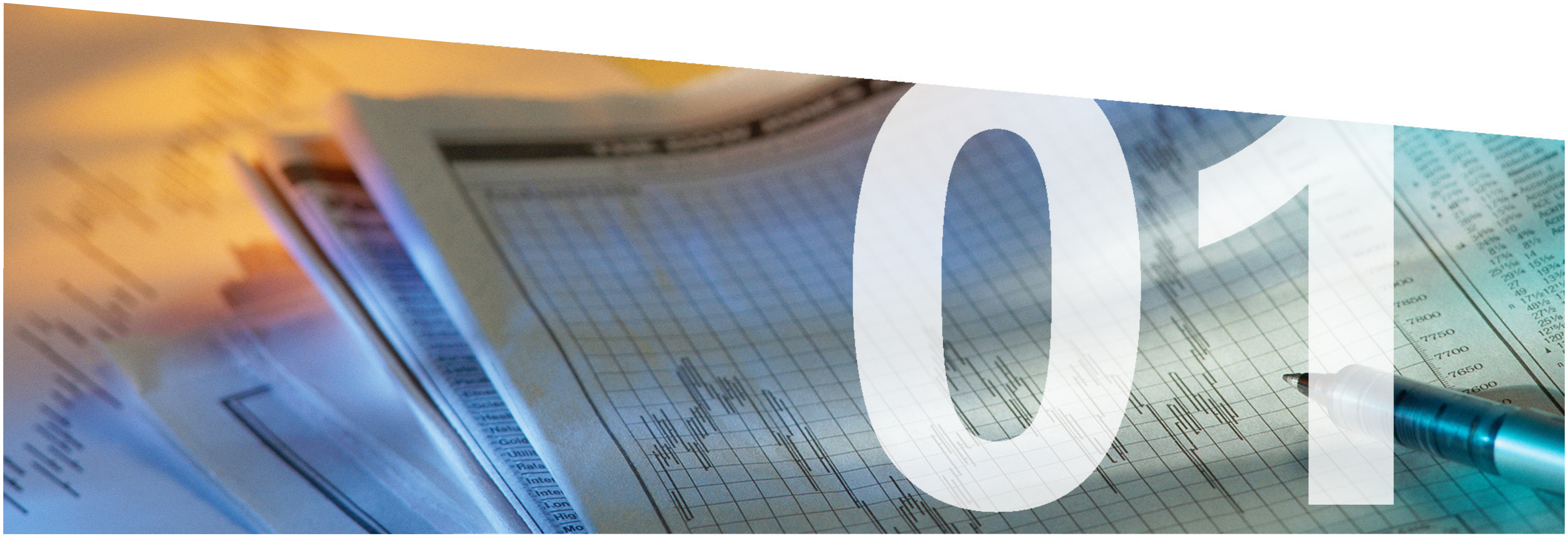
43rd Annual International Futures Industry Conference
March 13-16, 2018| Boca Raton Resort & Club| Boca Raton, FL

40th Annual Law & Compliance Division Conference
May 2-4, 2018| Omni Shoreham| Washington, DC

Learn more and register at FIA.org/events

Today's Agenda

1. Update on CFTC's Regulation of Physical Commodity Contracts
2. Trends in Physical Commodity Markets
3. Update on the EU Regulation of Physical Commodity Markets
4. Fintech and Physical Commodities
5. Q&A



Update on CFTC's Regulation of Physical Commodity Contracts

[15 mins]

Peter Y. Malyshev (DC)

Types of Commodity Contracts under CFTC Jurisdiction

Not a "Commodity Interest"

Type: **Spot**
Definition: Settles within 2 business days (BK Code)
Product Test: None
Underlier: Any
Form: Any
Exceptions: Depending on the industry, can settle up to a month or more, for retail no longer than 28 days
Participation: Any
Usual Concerns: Rolling spots
E.G.: FX spot, day ahead power

Type: **Forward**
Definition: Several in the CEA. Sale of cash / physical commodity for future delivery; settles via delivery
Product Test: Statutory
Underlier: Non-financial commodity (i.e., physical)
Form: Contract for sale
Exceptions: Several.
Participation: Commercial participants
Usual Concerns: Optionality (see below)
E.G.: FOB Sale of sugar

Type: **"Customary Commercial Agreements"**
Definition: None
Product Test: Yes
Underlier: Any
Form: All service, transportation, processing and tolling / specific facility and other customary commercial agreements that do not involve the sale
Exceptions: N/a
Participation: Any
Usual Concerns: Recharacterization as a hedge or speculation or sale.
E.g.: Transmission of crude oil, storage of nat gas, energy management agreement, insurance

Type: **Forwards with Price Optionality**
Test: 3-part test
E.g.: Forward pricing is fixed or per CME settlement of a futures contract

Type: **Forwards with Volumetric Optionality**
Test: 7-part test
Usual concerns: Last prong of test not met
E.g.: Forward with an option to take 50% more commodity

CFTC has non-exclusive jurisdiction only with respect to manipulation and fraud

"The Grey Area"

Type: **Unclassified, but technically "commodity interests"**
Definition: Exempted or excluded by CFTC order or No-Action Letter
Product Test: Per CFTC guidance
Underlier: Depends, mostly energy and physical
Form: Any
Exceptions: E.g., FERC Tariff, or FX Treasury Determination
Participation: Commercial entities
CFTC Jurisdiction: Non-exclusive, but ***some*** rules apply
Usual Concerns: Condition not met
E.G.: FTRs, ETRs, RECs, electric coop contracts, FXF and FXS (forex)

Type: **Mixed Swaps**
Jurisdiction: Concurrent with the SEC

"Commodity Interest"

Type: **Swap**
Definition: CEA, fixed for floating
Product Test: Definition, examples
Underlier: Any
Form: Any
Exceptions: See other boxes
Participation: ECP only
Usual Concerns: Compliance, Dodd-Frank
E.g.: Basis swap, contract for differences

Type: **Future**
Definition: Not defined, court interpretation, CFTC orders
Product Test: Must trade on a DCM only
Underlier: Any
Form: Any, contract of sale of commodity
Exceptions: Blocks and EFRPs
Participation: Any
Usual Concerns: Compliance, blocks, EFP/EFRP, EFRP, wash sales, position limits
E.g.: Brent Crude Futures

Type: **Trade Option**
Definition: Optionality re delivery (usually these are "failed" forwards with optionality)
Product Test: 3-conditions (03-2016)
Underlier: Any, physical (exempt commodity)
Form: Option
Exceptions: One party must be an end user
Participation: End user
Usual Concerns: Conditions not met, then it remains a regular nonexempt swap
E.g.: All-requirements contract with a power utility, forward with "questionable optionality," zero volume options, etc.

CFTC has exclusive jurisdiction, all rules apply

Jurisdictional Matters

Two levels of CFTC's jurisdiction:

1. **General (enforcement) jurisdiction** – authority to prosecute manipulation or fraud involving any "commodity" traded in the interstate commerce.
   – E.g., the CFTC may prosecute manipulation in commodity spots or forwards.
2. **Exclusive (regulatory) jurisdiction** – authority to regulate all aspects of "commodity interest" contracts.
   – E.g., the CFTC may regulate all aspects of trading of a commodity swap.

Key Takeaways on Recharacterization as a “Swap” or “Futures Contract”

Spot

- Must not be rolling
- Must settle within 2 business days

Forwards

- Look for built-in optionality:
  - Price
  - Volumetric (swing supply)
  - Delivery date / delivery location
  - Liquidated damages / take-or-pay clauses
- Commodity trade options
- Book-outs

Physical Energy Service agreements, e.g.,

- Gas storage, transportation, tolling agreements

Spots

A spot contract is a contract to buy or sell a commodity for immediate delivery

- Spots and forwards are excluded from the Dodd-Frank Act definition of “swap” but are subject to the CFTC’s anti-manipulation and anti-fraud jurisdiction
- E.g., day ahead traded power – a spot contract

Forwards

A forward contract is a contract that (1) creates an enforceable obligation with intent to deliver a nonfinancial commodity in the future (2) between a buyer and seller that have the ability to make and take delivery (3) in connection with the buyer and seller's line of business

- Forwards can only be on a **nonfinancial (deliverable) commodity** (e.g., natural gas, crude oil, ethanol, emission rights, currency)
- A forward on a financial commodity is a DF Swap (e.g., a non-deliverable forward on currency, interest rates, credit default swap)

Forwards

Forwards are typically private commercial merchandising transactions which create enforceable obligations to deliver but in which delivery is deferred for reasons of commercial convenience or necessity

- Includes transactions where delivery is subsequently “booked out”, so long as there was an original intent to deliver and the agreement to “book out” is subsequent to the original transaction

Embedded Volumetric Optionality

A forward contract is within the exclusion from definition of "swap" if the following 7 elements are met:

1. The embedded optionality does not undermine the overall nature of the agreement, contract, or transaction as a forward contract;
2. The predominant feature of the agreement, contract, or transaction is actual delivery;
3. The embedded optionality cannot be severed and marketed separately from the overall agreement, contract, or transaction in which it is embedded;
4. The seller of a nonfinancial commodity underlying the agreement, contract, or transaction with embedded volumetric optionality intends, at the time it enters into the agreement, contract, or transaction to deliver the underlying nonfinancial commodity if the embedded volumetric optionality is exercised;
5. The buyer of a nonfinancial commodity underlying the agreement, contract or transaction with embedded volumetric optionality intends, at the time it enters into the agreement, contract, or transaction, to take delivery of the underlying nonfinancial commodity if it exercises the embedded volumetric optionality is exercised;
6. Both parties are commercial parties; and
7. The embedded volumetric optionality is primarily intended, at the time that the parties enter into the agreement, contract, or transaction, to address physical factors or regulatory requirements that reasonably influence demand for, or supply of, the nonfinancial commodity.

Price Optionality

The CFTC provided that a forward contract that contains an embedded option price optionality would continue to be considered an excluded nonfinancial commodity forward contract, so long as the embedded option:

1. may be used to adjust the forward contract price, but does not undermine the overall nature of the contract as a forward contract;
2. does not target the delivery term, so that the predominant feature of the contract is actual delivery; and
3. cannot be severed and marketed separately from the overall forward contract in which it is embedded. See 77 FR at 48237 (August 2012)

Other Optionality

- Delivery date optionality
- Delivery location optionality
- Take or pay clauses
- Liquidated damages provisions

FERC Jurisdictional Electric Contracts

Electric energy transactions on RTOs and ISOs sometimes look a lot like futures and swap transactions (*e.g.*, financial transmission rights, virtual bids)

Transmission Congestion Rights ("*TCRs*") or Financial Transmission Rights ("FTRs"), Energy Transactions (*i.e.*, day-ahead and real-time transactions, including virtual bids), and Operating Reserve Transactions, more often called "ancillary services," are exempt from the CEA and CFTC's regulations (with the exception of its anti-fraud and anti-manipulation authority) <u>if</u>:

They are entered into on RTO/ISO (not bilaterally) between two parties that are either:

- (1) "appropriate persons" (as defined in CEA section 4(c)(3) – includes FCMs, commodity pools, banks, and certain corporations);
- (2) ECPs; or
- (3) persons who are in the business of (a) generating, transmitting, or distributing electric energy; or (b) providing electric energy services that are necessary to support the reliable operation of the transmission system; and

They are offered and sold pursuant to an RTO/ISO's FERC-approved tariff

When engaging in transactions on RTOs and ISOs, always review and follow rules set forth in the FERC-approved tariff and do not attempt to take advantage of perceived flaws in the rules

CFTC private right of action is not available with respect to certain of these markets

Trade Options Exemption

- **If a forward contract does not meet either the pricing or volumetric optionality test, it is or may be a DF Swap but it may still be exempted from most DF Swap requirements as a trade option**

- **The requirements to qualify as a trade option:**
  - The underlying commodity is a nonfinancial commodity;
  - The offeror must be either (1) an eligible contract participant or (2) a commercial end-user of the underlying commodity;
  - The offeree must be a commercial end-user of the underlying commodity;
  - The commodity option, if exercised, must be intended to be physically-settled; and
  - The transaction, if exercised, must result in either spot or forward

Exchange for Related Position Transactions

EFRP transactions, including Exchange of Futures for Physicals (“EFP”), Exchange of Futures for Swaps (“EFS”), and Exchange of Futures for Options (“EFO”), are an exception to the general prohibition against off-exchange futures transactions

- EFRPs are subject to specific exchange rules and restrictions, which include the following:
  - There must always be a legitimate (or bona fide) underlying cash/swap/options transaction in the same commodity (or derivative, by-product or related product), swap or option as the futures or listed option contract
  - Quantities of the futures trade and the related position trade must be approximately equivalent
  - The related position trade must involve the same commodity as the futures or a derivative, byproduct, or related product that is closely correlated

ICE and CME prohibit Transitory EFRPs (i.e., transactions in which execution of an EFRP is contingent upon execution of another EFRP or related position transaction between the parties and where the transactions result in the offset of the related position without incurring market risk that is material in the context of the related position transactions)

- In determining whether a transaction is transitory, the primary consideration is whether the offsetting cash or OTC transaction can stand on its own as an independent transaction
- Other factors, such as the length of time between the futures transaction and the offsetting physical or OTC transaction, can also be relevant

Block Trades

- Block trades are another exception to the general prohibition against off-exchange futures transactions
- Block trades are privately negotiated, off-exchange trades of futures or options
  - Can be negotiated bilaterally or through a broker
- Block trades must exceed a minimum size threshold determined by the exchange
- Block trades allow market participants to execute a large order at a single, negotiated price rather than through multiple transactions
- Exchange block trade rules generally require:
  - Block trades to be expressly designated as such
  - Pricing to be "fair and reasonable"
  - The parties to be ECPs
  - Block trades to be reported to the exchange pursuant to exchange rules and procedures (typically within minutes – not a long delay)
  - In the case of aggregating transactions to meet block trade thresholds, that a single controlling entity enter the trade

Position Limits and Aggregation

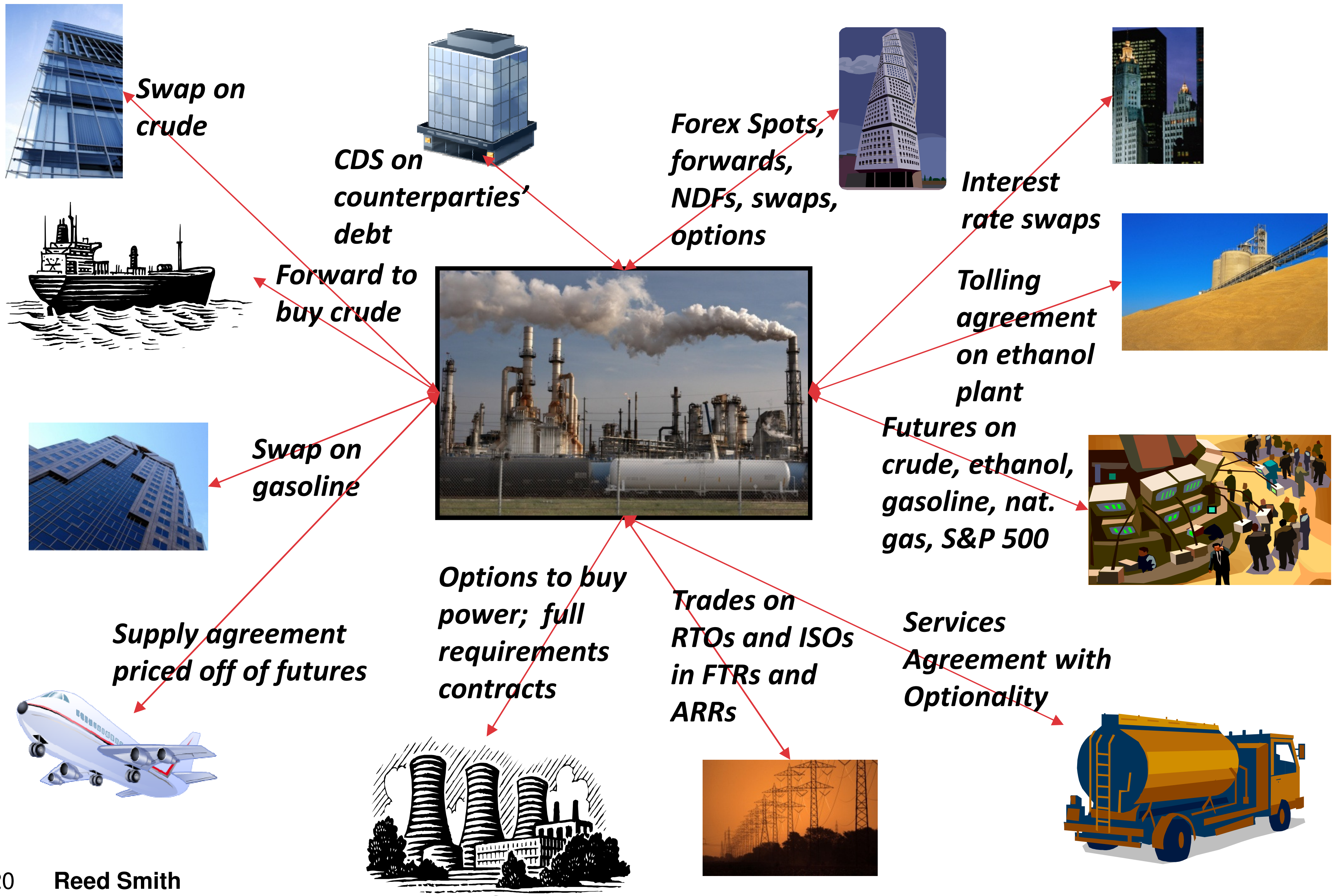
Currently, federal position limits apply only to nine agricultural commodity futures contracts

- If finalized, the CFTC's proposed position limits rulemaking could expand the list to many more (e.g., 25 commodities), including additional agricultural, energy and metals contracts

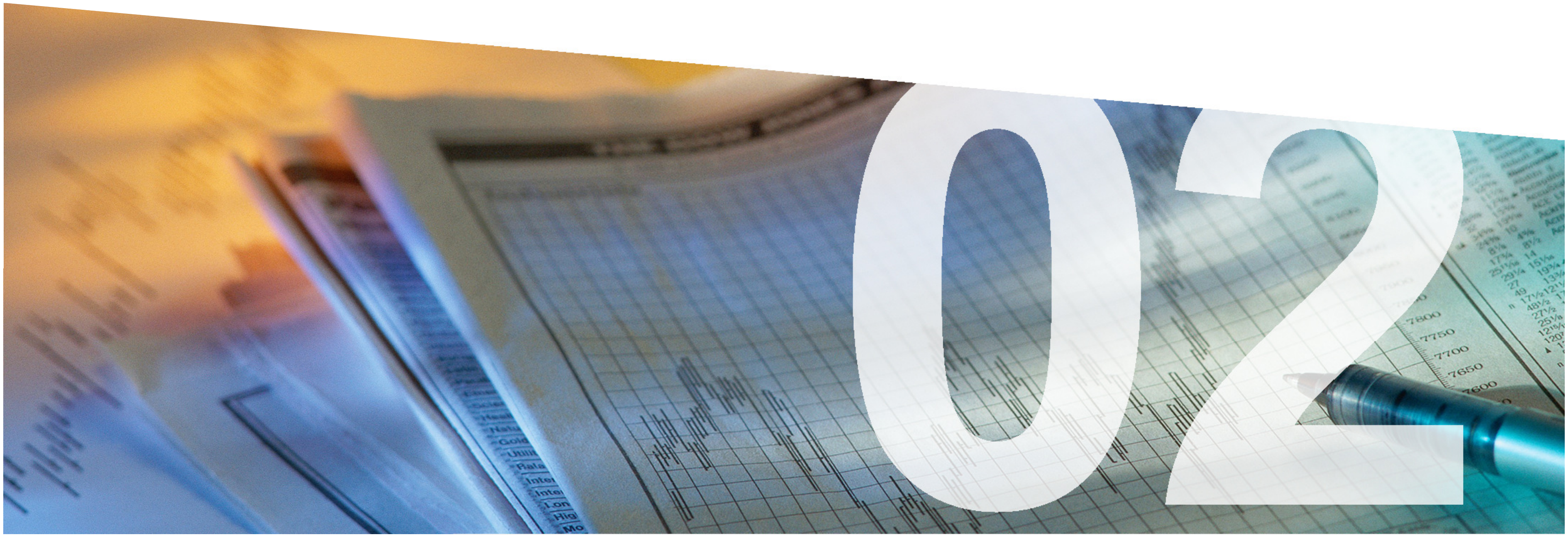
Each DCM applies its own positon limits in respect of futures contracts traded on its platform

- Once federal position limits are imposed, it will be necessary to review aggregation also per contract, not just per exchange.

Examples



Swap on crude
CDS on counterparties' debt
Forex Spots, forwards, NDFs, swaps, options
Interest rate swaps
Forward to buy crude
Tolling agreement on ethanol plant
Futures on crude, ethanol, gasoline, nat. gas, S&P 500
Swap on gasoline
Supply agreement priced off of futures
Options to buy power; full requirements contracts
Trades on RTOs and ISOs in FTRs and ARRs
Services Agreement with Optionality



Trends in Physical Commodity Trading

[10 mins]

Edwin Nazario (DC)

Key Takeaways

- Shale Becoming More Profitable with Increase in Oil Prices
- U.S. Producers are Expanding in Permian Shale Play and Adding Rig Count
- Noticeable Increase in International Exports of U.S. Crude Following Lift of Export Ban
- Recent U.S. Third Circuit Decision Has Significant Implications for Perfecting Security Interests in Physical Crude Oil Trades
- U.S. Natural Gas Production Predicted To Have Record Increase in 2018
- U.S. Natural Gas Producers Entering Into More International Transactions for Export of Natural Gas and LNG
- Growing Interest in Mexican Natural Gas and Power Markets
- Increasing Amount of Trades Being Placed on Nodal Exchange
- RTO modifications to capacity requirements creating uncertainty
- Growth in Demand Response Market (e.g., ERCOT)

Crude Oil

Overall Increase in Trading Volumes

- Shale is more profitable with the current run up in WTI and Brent prices
- Efficiency gains continuing to reduce extraction costs per barrel
- There are 975 rigs operating in the U.S. as of Feb. 19th, vs. 751 a year ago, according to data from Baker Hughes Inc.
- Shale production is forecasted to increase this year providing downward pressure on oil prices
- International Energy Agency recently forecast strong global crude demand, but concerned over non-OPEC producers
- In the US, largest Increases are expected from Permian and Eagle Ford

Crude Oil

- Noticeable increase in international trading in past year with more exports of US crude
- Experts predict record exports in 2018
- US Crude recently transported overseas on fully laden very large crude carrier via the Louisiana Offshore Oil Port
- 2.1 million barrels of US crude has been exported since oil export ban was lifted
- Increasing amount of deals focused on international arbitrage in order to capture profits from pricing inefficiencies and/or governmental barriers
- More deals with Africa and Asia, including negotiations with NOCs and state owned oil companies (e.g., NOC Libya, Unipec)

Crude Oil

- On legal front, a recent court decision has reinforced the need to adequately document transactions for the physical sale of crude oil
- In *Arrow Oil & Gas, Inc., et al. v. J. Aron & Company, et al.* (In re Semcrude, L.P., et al.), Case Nos. 15-3094, 15-3095, 15-3096 and 15-3097 (3d Cir. July 19, 2017), the United States Court of Appeals for the Third Circuit held that producers that want to perfect a security interest in crude oil which they sell to an out of state buyer must file a financing statement in the state where the buyer is located. Producers that have not filed such a financing statement do not have a perfected security interest in such crude oil.

Crude Oil

- This case stems from the sale of crude oil by a collection of upstream producers that sold crude oil on credit to Semgroup L.P and its affiliates (Semgroup). Semgroup in turn sold the crude oil to J. Aron and BP.
- Semgroup also entered into call options with J. Aron and BP. Semgroup eventually ran out of funds to cover its margin obligations in connection with the options and declared bankruptcy.
- As J. Aron and BP had entered into master agreements to cover their physical and financial trades with Semgroup, they were able to set off amounts owed for crude oil purchases against amounts due under the options.

Crude Oil

- This case demonstrates the importance of purchase and sale documentation when engaging in physical sales of crude oil. J. Aron and BP entered into master agreements that provided for the ability to request adequate assurances, and, in the event of Semgroup's insolvency, the ability to set off amounts owed under the master agreements. Upstream producers should have done the same.
- For sales of crude oil on credit, sellers may want to consider the relevant perfection laws of the state where their buyer is located and whether they should file financing statements in such state in order to perfect their security interests in the crude oil.

Natural Gas

- Per the U.S. Energy Information Administration (EIA), natural gas is the world's fastest growing fossil fuel, increasing by 1.4%/year, compared with liquid's 0.7%/year growth and virtually no growth in coal use (0.1%/year)
- EIA forecasts that natural gas production will reach 80.3 billion cubic feet per day (Bcf/d) in 2018, establishing a new record, 6.7 Bcf/d higher than the 2017 level and the highest annual average growth on record
- Natural gas continues to play a big role in the strategy of many energy companies, with exports increasing since the lifting of the export ban
- Noble Energy Inc. and Delek Drilling (each part owners of Tamar and Leviathan) announced a $15 billion deal to supply 64 billion cubic meters of gas over a 10-year period to Egyptian company Dolphinus Holdings; sense is that Egypt will become gas hub of Middle East
- With respect to LNG, Cheniere Energy Inc. announced a long term contract to supply U.S. LNG to China National Petroleum Corp
  - Growing interest in Mexican natural gas market in response to their deregulation. American and Mexican companies have been working to expand pipeline capacity in order to increase exports of U.S. natural gas to Mexico (e.g., construction of pipelines and headers at Waha Hub connecting Permian field to Mexico, approximately 21 proposed pipelines in Mexico)

Power Trading

- Increasing amount of power futures contracts transactions being placed on Nodal Exchange
- Nodal Exchange is developing depth in products tied to electricity delivered at specific nodes, increasing efficiency in the market
- RTO's are submitting modifications to FERC regarding their capacity requirements; resulting regulatory uncertainty makes development of trades or products difficult
- Growing interest in Mexican power market in response to their deregulation. Industry working groups have formed to adopt a standardized form for trading power in the Mexican power market. At least one working group favors a Mexican adaptation of the WSPP Agreement
- Growth in Demand Response Companies-allows companies to reduce or shift their electricity usage during peak periods in response to financial incentives
- Increasing number of demand response companies that assist large businesses in identifying where they can reduce electricity usage in return for payment under a demand response program

Trade Finance: Trends in Metals Financing

- **Banks and trading companies are increasingly taking title to metals in storage to provide working capital and balance sheet relief to both suppliers, traders, manufacturers and processors.**
- **Provides alternative financing when borrowing base and bilateral credit facility capacity is unavailable.**
- **Types of metals financings:**
  - Repos (common for steel, base metals)
  - Consignments (common for precious metals used as catalysts or blended in finished products by manufacturers)
  - Tolling Arrangements (common for aluminum processors)

Trade Finance: Trends in Metals Financing (cont.)

Key Legal Issues:

- Title transfer mechanics (documents of title)
- Precautionary grant of a security interest if structures are re-characterized as secured financing
- Commingling issues (can jeopardize owner’s first priority ownership interest)
- Lien releases or intercreditor agreement with existing secured creditors
- Collateral access rights with storage providers, and from lessors and mortgagees
- Insurance coverage, environmental risk and local licenses to own and store metals

Trade Finance: Trends in Ag Financing

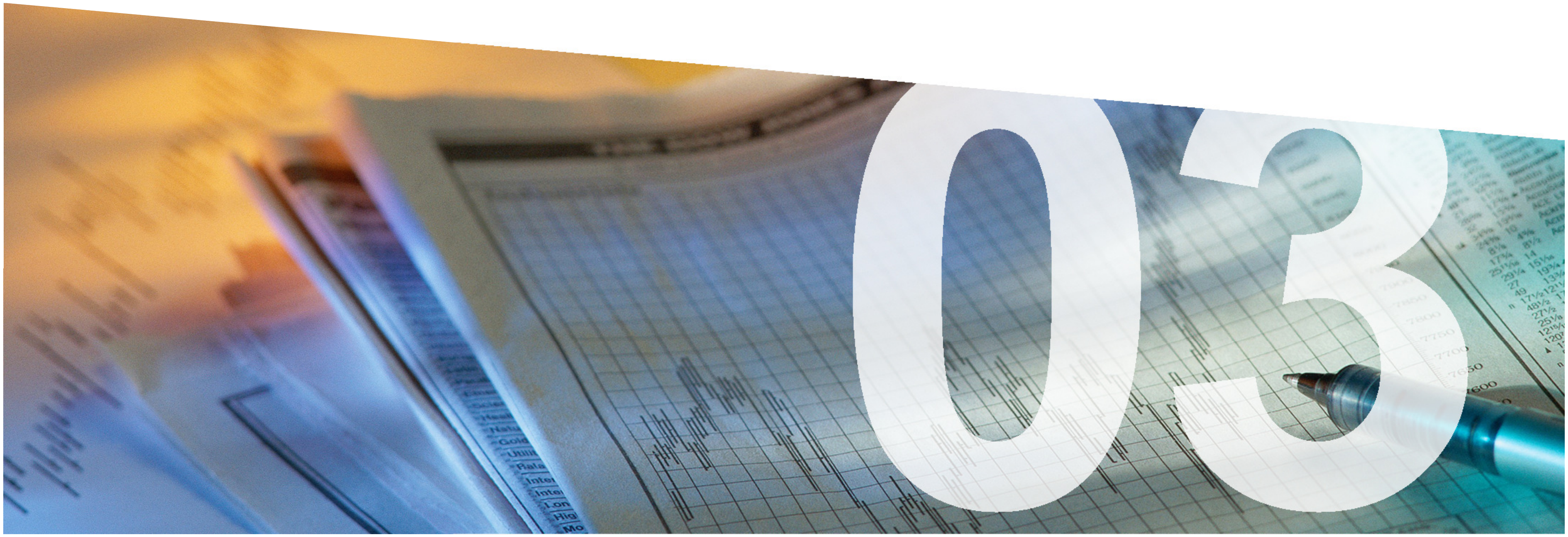
Borrowing Base Facilities

Tighter terms resulting from Transmar cocoa bankruptcy

- Forward Book eligibility: requirement to amend forward purchase and sale contracts to include customary 2 way damage clause or equivalent provision
- Shorter maturities
- More sub-limits for different types of inventory and receivables
- Restrictions on affiliate transactions

Trade Finance: Trends in Ag Financing (cont.)

- Trading companies use of trade flows for trade structured finance transactions (issuance and discounting of letters of credit to provide term financing for letter of credit issuers for a fee)
- Trading companies increased reliance on global securitization programs to finance receivables originated from sale of inventory



Update on the EU Regulation of Physical Commodity Markets

[15 mins]

Chris Borg (London)

Physical Commodities & EU Regulation

The Big Picture

- Increase in extra-territorial EU legislation
- Financial Regulators' encroachment into physical markets – "Mission Creep"

EU Financial Regulation of Physical Markets

EU Market Abuse Regulation

- Insider dealing/market manipulation offences for spot underlying commodities
- Benchmark manipulation offence

EU Benchmark Regulation

- Administrators, contributors to and users of “benchmarks”

Codes of Conduct – e.g. Global Precious Metals Code

- FCA CP & proliferation risk

Markets in Financial Instruments Directive (MiFID2)

“Financial Instrument”, includes:

- Physical forward commodity contracts on “trading venues”
- Bilateral physical forward commodity contracts which are “standardised” and “equivalent” to contracts on TVs
- Exception for some EU gas/power trades

MiFID2 - Position Limits

In a nutshell …

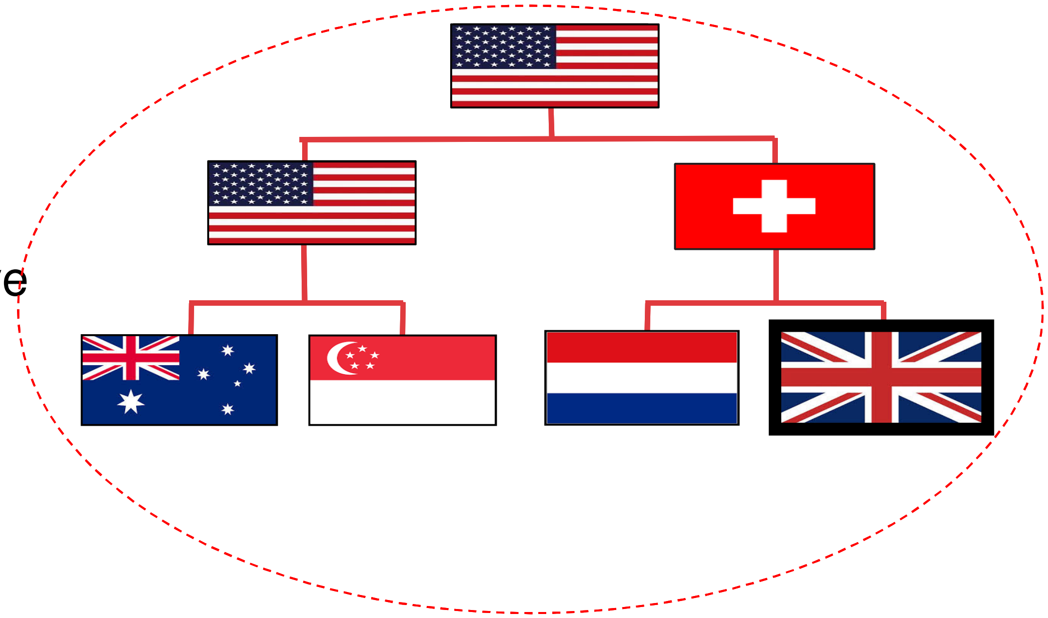
- Limits on net positions held by a person and aggregated “at group level”
- Spot month limit & all other months limit
- Limit set per contract per trading venue (generally)
- “Commodity derivatives” on “trading venues”
- “Economically equivalent OTC contracts”
- Hedging exemption available:
  - per contract
  - on application to NCA of TV
  - only for “non-financial entities”

MiFID 2 - Position Limits

Aggregation

"Positions held by a person and those held on its behalf at an aggregate group level"

- Group-wide
- Consolidated Accounting Directive
- Full size of a position counted
- Generally no aggregation/ disaggregation based on trading control/independence
- Limited fund manager exception



EU Regulation is often extra-territorial…

E.G.

- EU Market Abuse Regulation (MAR)
  - Covers manipulation & insider dealing by anyone anywhere
  - EU nexus is at the product level
- EU Benchmark Regulation (BENCH)
  - Regime for third country benchmark administrators
- EU Regulation on Energy Market Integrity and Transparency (REMIT)
  - Registration requirements, transaction reporting and market conduct rules apply regardless of location of the firm.
  - Nexus is with delivery location for gas/power: LNG issue.
- And much of MiFID2 ….

MiFID2/MiFIR – Market Access

- Market Access under MiFID2/MiFIR
  - How can one participate in EU financial markets?
    - MiFID passport
    - MiFID exemptions
    - Territorial scope argument
    - Third country access regime (equivalence)
- Equivalence
  - Recent ESMA communications
  - Brexit risk

Third Country Access Regime

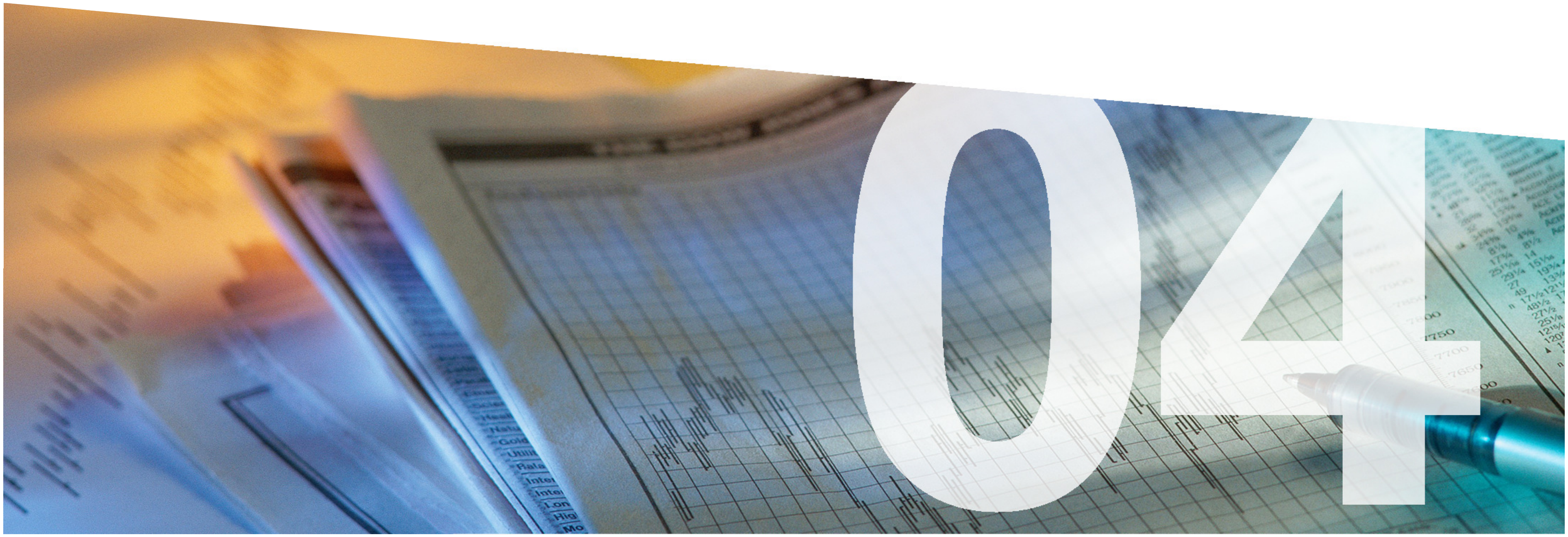
Branch Requirement – MiFID2

- TC firms with “Retail Clients” or “Elective Professional Clients”
  - Member State discretion to require firm to authorise a local branch
    - – Authorised in home jurisdiction for relevant activities
    - – Local regime satisfactory on AML/CTF
    - – MoU with member state competent authority
    - – Initial capital requirement for branch
    - – Branch is managed by appropriate individuals
    - – Home jurisdiction tax regime is acceptable
    - – Firm participates in an EU investor compensation scheme
  - Except for activity at “own exclusive initiative” of client

Third Country Access Regime

Cross-Border Access – MiFIR

- TC firms with “Eligible Counterparties” or “Per Se Professional Clients”
  - TC firm can “register” with ESMA for a third country passport
    - Commission decides that home jurisdiction is “equivalent” (art 47)
    - Authorised in home jurisdiction for relevant activities
    - MoU with member state competent authority
  - Reliability of any “equivalence” decision?
  - For first 3 years after an “equivalence” decision:
    - firms can register, but
    - Member State discretion on territorial scope pe
  - Except for activity at “own exclusive initiative” of client



Fintech and Trading Physical Commodities

[15 mins]

Kari Larsen (NY)

Key Takeaways

- Physical commodities are beginning to be tracked via blockchain technology
- The shipping industry is experimenting with blockchain technology in a myriad of ways
- The energy trading market is well-suited for the integration of blockchain technology
- Asset backed tokens are likely to move into energy assets
- While bitcoin futures products were recently listed, cryptocurrencies remain primarily a physical spot and forward market
- Efforts to regulate the cryptocurrency spot markets could be a slippery slope

Supply Chain Management

- Blockchain technology and smart contracts may be used to track transactions and automate aspects of the supply chain
- Often combined with the Internet of Things (IoT), a network of physical objects that contain embedded technology to communicate and sense or interact with their internal states or the external environment, and provide data such as security, temperature, humidity levels, etc.
- Microsoft, Walmart, IBM, Maersk, SAP Ariba and BHP Billiton are developing blockchain-based supply networks that rely on smart contracts to automate the writing, shipping and receiving of transactions, and the transmission of documents between trading partners
- A consortium of food suppliers, including Dole, Walmart, Kroger and Nestle, has partnered with IBM to develop a blockchain solution for tracking dangerous foods

Shipping

Digitized Supply Chain

- Shipping industry is paper-intensive with a number of agreements
  - 80% of documentation is still in paper form
- Blockchain technology would allow documents to be uploaded and shared instantaneously and securely
  - Could save up to US$300 per container

Companies already considering a digitized supply chain:

MAERSK
aws
Dole
NAMSUNG
HMM
Korea Customs Service
Microsoft
IBM
BPA 부산항만공사 BUSAN PORT AUTHORITY
Walmart Save money. Live better.
SAMSUNG

Shipping

Electronic Bills of Lading & Marine Insurance

- Industry slow to depart from paper bills, partly due to legal uncertainty around e-bills
- Blockchain could make this less problematic
  - Each blockchain e-bill is and remains entirely unique
  - Less vulnerable to hacking than centralized system
- Marine insurance is historically a cumbersome, paper intensive industry
- *EY*, in collaboration with *AP Moller-Maersk*, *Microsoft* and *Guardtime* announced plans to launch the world's first blockchain platform for marine insurance
- This new platform will allow the different parties to input data and make payments – this could reduce paperwork, delays and disputes

Energy Trading

- The energy trading market is well-suited for integration of blockchain technology:
  - Development of crypto tokens backed by physical energy resources could monetise reserves of commodities lying dormant in storage
  - As more consumers begin to generate their own electricity, there will be demand for crypto token credits that compensate the consumer for selling excess energy back into the grid
  - Renewable energy credits can be issued as crypto tokens
  - Blockchain technology and smart contracts can facilitate near instantaneous execution and clearing of energy derivatives and automate margining
  - Blockchain technology can streamline regulatory reporting and recordkeeping obligations

Cryptocurrency Introduction

- Bitcoin White Paper published October 2008, software/network launched in January 2009 as the technology underpinning Bitcoin.
- "[A] new electronic cash system that's fully peer-to-peer, with no trusted third party" – Satoshi Nakamoto, the inventor of Bitcoin.
- Start-ups and financial industry now applying blockchain, cryptocurrencies and crypto tokens to other fields, such as capital markets, financial institution back office solutions, shipping, energy, health care, real estate and supply chain management.

Crytocurrencies

- Cryptocurrencies are digital assets that are intended to serve as a (1) medium of exchange; (2) store of value; or (3) unit of account
- Cryptocurrencies are issued on public decentralized ledgers and therefore require proof of work (miners) or some other mechanism to reward nodes on the network, such as proof of stake or proof of consensus
- Examples of cryptocurrencies:
  - Bitcoin (BTC)
    - Most popular cryptocurrency
    - Intended to function as a currency for psuedonymous electronic transactions with minimal transaction costs on a blockchain
  - Litecoin (LTC)
    - Similar product to bitcoin but has lower transaction costs and a faster settlement rate
  - ZCash (ZEC)
    - Short for zero cash, this product claims to offer superior privacy protection for transactions over other cryptocurrencies

Cryptotokens

- The universe of token assets has expanded beyond cryptocurrency
  - Network infrastructure tokens
  - Gaming/gambling tokens
  - Social network tokens
  - Cloud services tokens
  - Data/text messaging tokens
  - Streaming content tokens
  - Intellectual property tokens
- Many of these tokens are generated for issuance and will not be gradually released into the ecosystem through mining or other means – this is because they are issued on the Ethereum blockchain (which has its own proof of work mechanism) and therefore there is no need to incentivize persons to join the network

Initial Coin Offerings-Spots/Forwards

- Initial coin offering ("**ICO**"), token sale, and token generation event all refer to the offering of all or a portion of the initial supply of a token to the public in exchange for legal tender or other cryptocurrencies, such as bitcoin or ether
- ICOs often are used as an alternative method for raising capital but may also establish infrastructure for a protocol or facilitate the sale of a utility product (e.g., gaming, file storage tokens)
- Tokens issued through an ICO may be connected to decentralized applications that utilize smart contracts
- "Utility" tokens are products issued for a particular purpose or use case – such as digital poker chips issued by an online gambling website – and may be distinguished from currency and security tokens
  - Tokens may be sold in forward agreements, with deferred delivery
  - Public sales usually spot or forwards, with delivery in near term
  - Tokens are traded globally on over 100 cryptocurrency exchanges

Regulation – US Landscape

- There is no single digital token regulatory agency or law
- Both products- and activities-based regulation:
  - **CFTC regulation:** tokens are "commodities" subject to the anti-fraud and anti-manipulation jurisdiction of the CFTC
    - Enforcement Actions: Coinflip, TeraExchange, Bitfinex, Gelfman Blueprint
  - **SEC regulation:** certain tokens qualify as "securities" under the *Howey* test and issuers must accordingly comply with the securities laws
    - Investigation Report: The DAO
    - Enforcement Actions: Zaslavskiy, Munchee, PlexCorps
  - State laws – some states have enacted licensing requirements for companies that issue virtual currencies, such as New York's BitLicense regime

CFTC

- The CEA broadly defines a “commodity” to include, among other things, “all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in”
- In an enforcement action against Coinflip Inc., the CFTC explained that “Bitcoin and other virtual currencies are encompassed in the definition and properly defined as commodities”
- *In the Matter of TeraExchange LLC*: CFTC found that TeraExchange allowed for a prearranged bitcoin swap to occur on its swap execution facility platform and therefore failed to establish and enforce rules to prohibit wash trading and prearranged trading on its platform
- *In the Matter of BFXNA Inc. d/b/a Bitfinex*: CFTC found that Bitfinex offered illegal off-exchange bitcoin futures because no actual delivery of bitcoin to customers
- In its most recent bitcoin enforcement action (*Gelfman*), the CFTC is using bitcoin as the jurisdictional nexus to assert its authority over the matter in light of the absence of any derivatives trading – this case involves a fraudulent pooled fund (not a commodity pool) that traded bitcoin allegedly using a robo-trader (that did not exist)

SEC

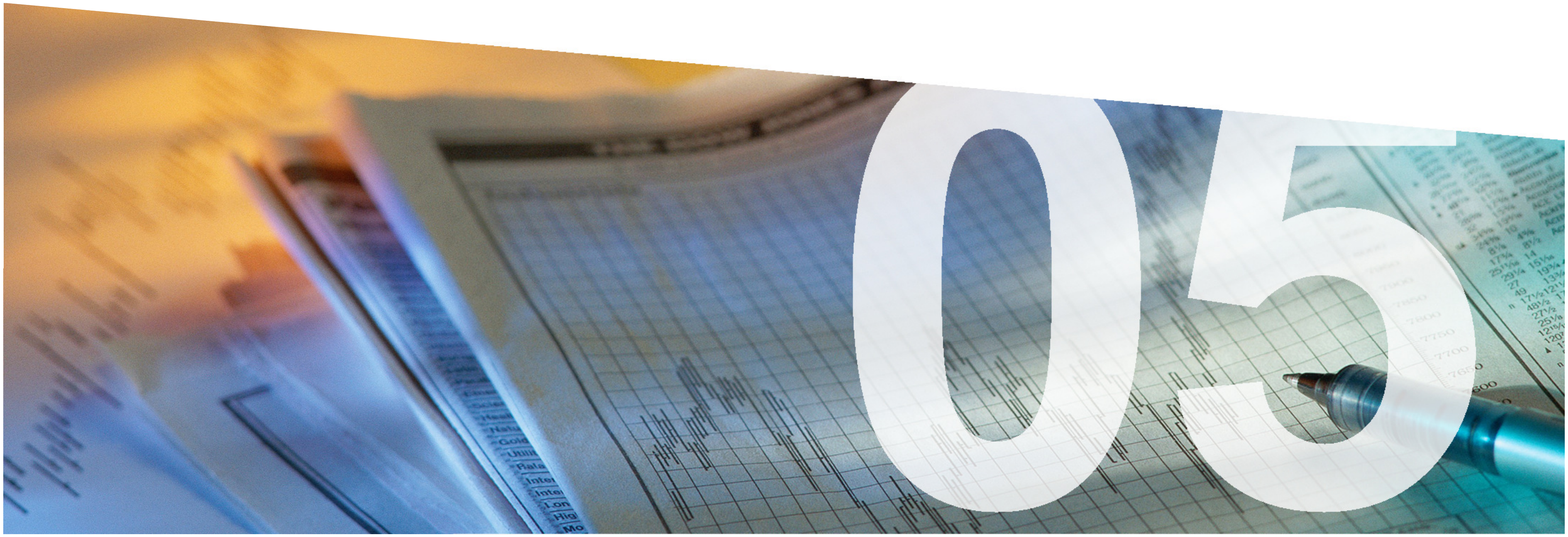
- Asserted jurisdiction over certain digital assets that qualify as "securities"
- Will use a facts and circumstances approach to determining if the product qualifies as an "investment contract" under *Howey*
- Ambiguity – many products function as "utility tokens" akin to arcade coins or poker chips
- The DAO – SEC stated in an investigation report (not an enforcement action) that DAO Tokens, which gave holders voting rights and a right to distributions of profits, were "investment contracts"
- SEC is now bringing an enforcement action in federal court against defendants who offered tokens to the public that they alleged to be backed by real estate and diamonds
- SEC has temporarily suspended trading in the public securities of companies due to their stated interest in blockchain

Bitcoin Futures

- The Chicago Mercantile Exchange **("CME")** and CBOE Futures Exchange **("CFE")** self-certified bitcoin futures with the CFTC and launched the contracts in December 2017
- The self-certification process for bitcoin futures is the same as the process for futures on any other commodity, but the novelty of the product led CME and CFE to engage with the CFTC up to 6 weeks in advance of self-certification
- When a futures exchange self-certifies a new contract submits to the CFTC that the offering complies with the CEA and CFTC regulations, including that the requirement that the contract not be readily susceptible to manipulation

Senate Banking Committee Hearing

- At a recent Senate Banking Committee Hearing, CFTC Chairman Giancarlo and SEC Chairman Clayton agreed that legislation may be necessary to appropriately regulate crypto asset spot markets
- Chairman Clayton noted that “we may be back with our friends from Treasury and the Federal Reserve to ask for additional legislation”
- Chairman Clayton also opined that “every initial coin offering I have seen is a security,” while Giancarlo explained that crypto assets are generally commodities that fall within the CFTC’s anti-fraud and anti-manipulation jurisdiction



Questions?

[5 mins]

You can also send your questions directly to contact persons identified on the next slide

Team Contacts

Peter Y. Malyshev
Partner
Washington, D.C.
+1 202 414 9185
pmalyshev@reedsmith.com

Christopher Borg
Partner
London
+44 (0)20 3116 3650
cborg@reedsmith.com

Kari S Larsen
Counsel
New York
+1 212 549 4258
klarsen@reedsmith.com

Edwin J. Nazario Jr.
Counsel
Washington, D.C.
+1 202 414 9192
enazario@reedsmith.com

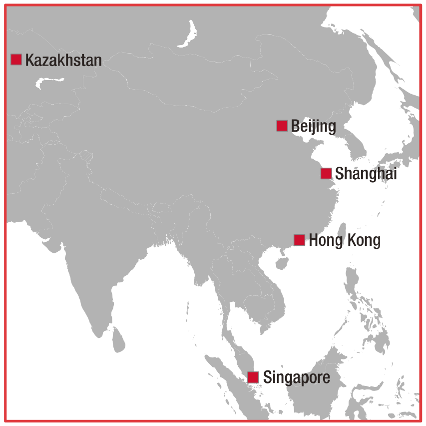
Presenters would also like to thank the following Reed Smith colleagues for their contribution to theses materials: **Michael K. Brown** (Chicago), **Craig R. Enochs** (Houston), **Patricia Dondanville** (Chicago), **Brett Hillis** (London), **Colette D. Honorable** (DC), **Justin J. Mirabal** (DC), **Debra A. Palmer** (DC), **Matthew Petrillo** (Chicago), **Michael S. Selig** (New York), **Regina Y. Speed-Bost** (DC).

Thank you!

ABU DHABI
ATHENS
BEIJING
CENTURY CITY
CHICAGO
DUBAI
FRANKFURT
HONG KONG
HOUSTON
KAZAKHSTAN
LONDON
LOS ANGELES
MIAMI
MUNICH
NEW YORK
PARIS
PHILADELPHIA
PITTSBURGH
PRINCETON
RICHMOND
SAN FRANCISCO
SHANGHAI
SILICON VALLEY
SINGAPORE
TYSONS
WASHINGTON, D.C.
WILMINGTON

Reed Smith is a dynamic international law firm, dedicated to helping clients move their businesses forward.

Our long-standing relationships, international outlook, and collaborative structure make us the go-to partner for speedy resolution of complex disputes, transactions, and regulatory matters.



reedsmith.com

ReedSmith

Driving progress
through partnership