



**Global Markets Advisory Committee February 13, 2023**



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## OPENING REMARKS



**Keynote Speaker: The Honorable Joshua Frost,**  
Assistant Secretary for Financial Markets, U.S.  
Department of the Treasury



**Keynote Speaker: Paulina Dejmek Hack**, Director for General Affairs, Directorate-General for Financial Stability, Financial Services, and Capital Markets Union (DG FISMA), European Commission



**PANEL I: GLOBAL MARKET STRUCTURE AND  
ACCESS TO MARKETS**

# Growth of Fixed Income e- Trading

Derek Kleinbauer  
Global Head of Fixed Income & Equity e-Trading Product  
President, Bloomberg SEF LLC

CFTC Global Markets Advisory Committee  
Feb 13, 2023

# Impact Events

- Brexit
- COVID-19 Pandemic & Lockdowns
- Russian Invasion of Ukraine
- Rising Inflation Globally
- Monetary Policy Response
- Collapse of FTX

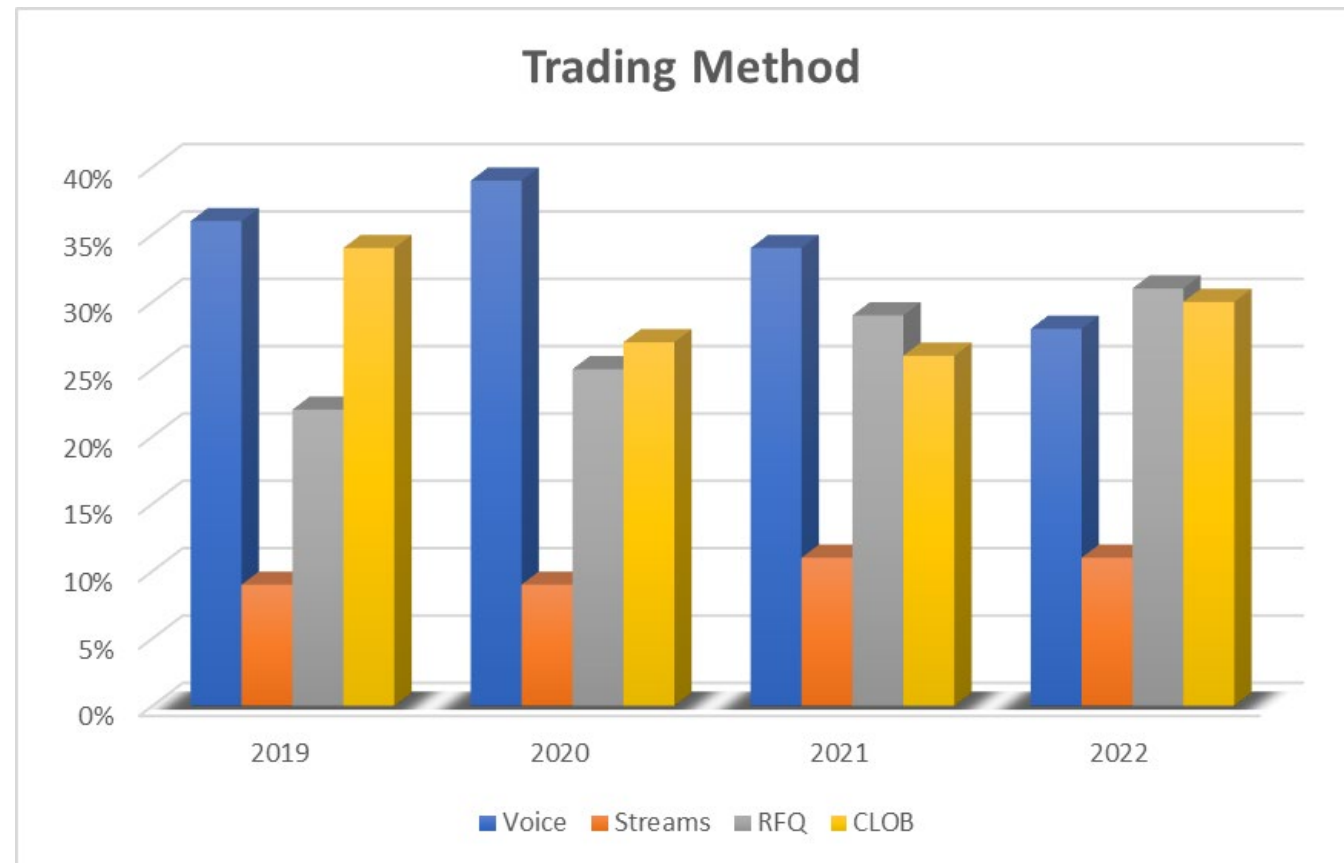
# Benefits of Electronic Trading

- Pre-trade price discovery
- Increased access to liquidity sources
- Ease of execution
- Straight-thru-processing (STP) for post trade efficiency
- Evolution towards automation & rules/attribute-based trading



# US Treasury Electronic Adoption

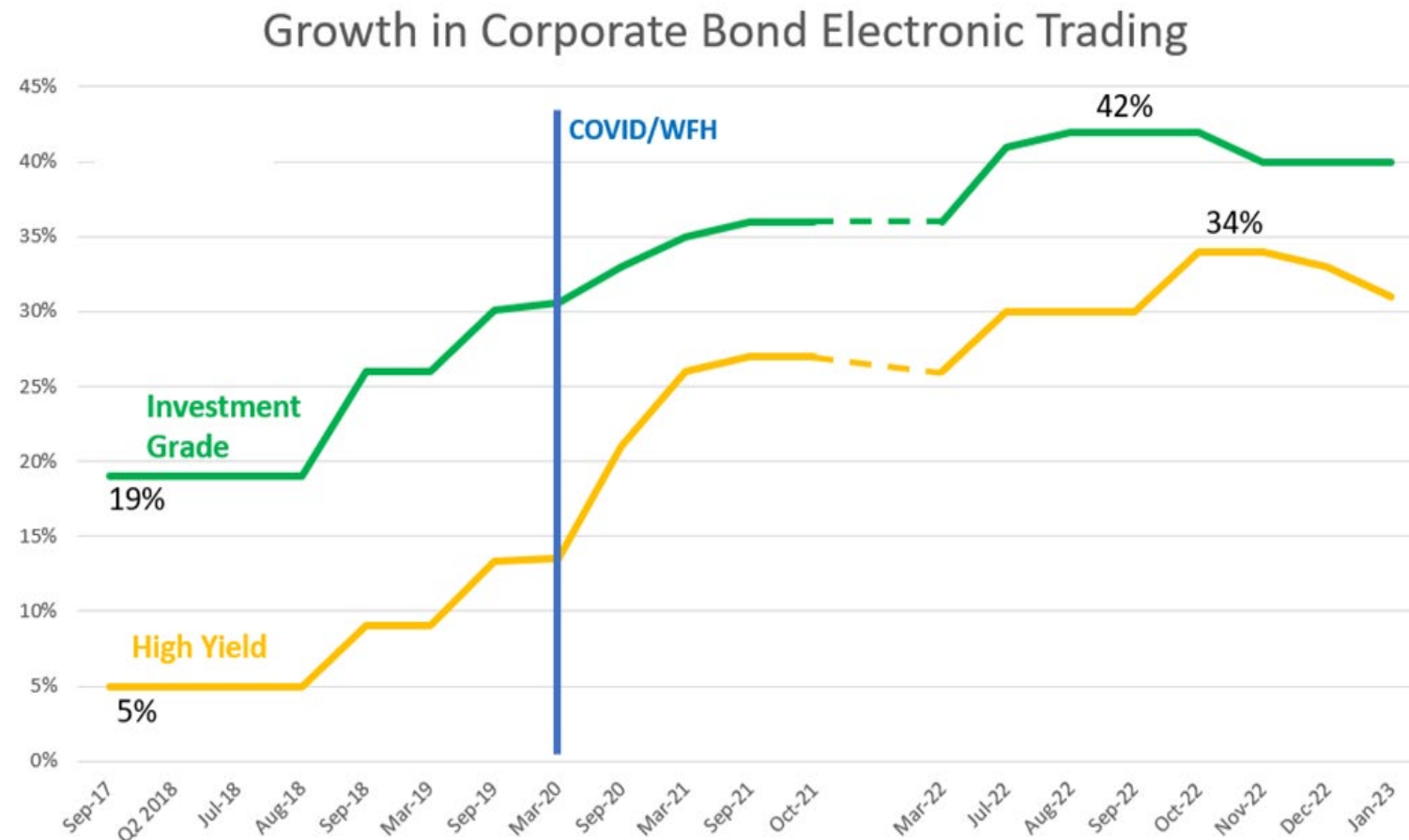
- Dealer to Client – Over 9% increase over the last two years.
- Increase in protocol utilization;



Source: Greenwich Associates

# Corporate Bond Activity

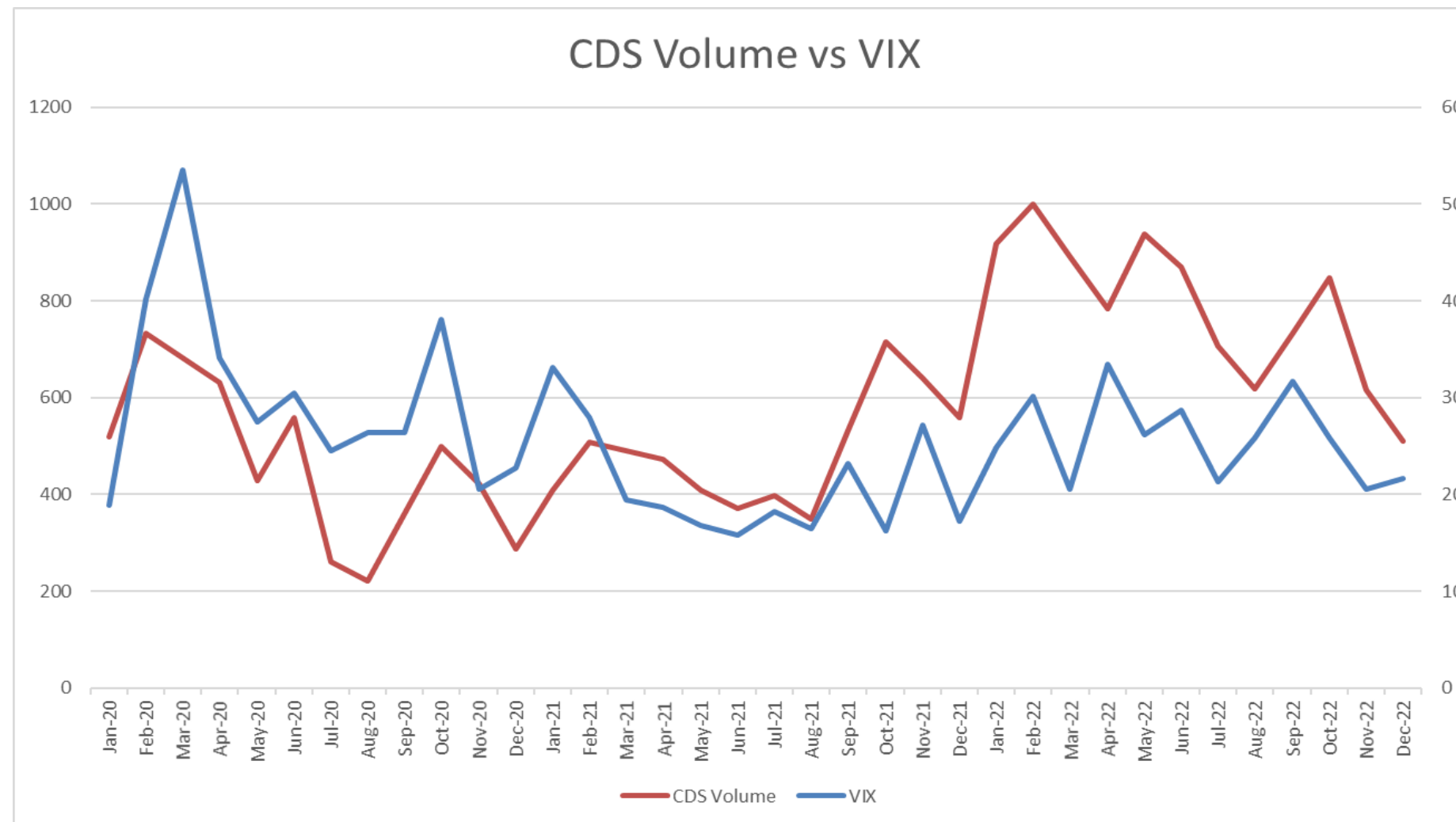
- Issuance impacting secondary market growth
- Adoption of Portfolio Trading & All-to-All trading increasing



Source: Greenwich Associates

# Swap Execution Facilities

- Activity in Credit Default Swaps and Interest Rates Swaps responding the volatility measures within their respective asset classes.



# Looking Ahead

- Recommendations from MRAC
- Expansion of Execution facility rules to other asset classes
- Re-definition of Exchanges and Dealers
- Potential UST Clearing mandates
- Best Execution changes
- ESMA Trading Perimeter opinion

# **GLOBAL MARKET STRUCTURE AND ACCESS TO MARKETS**

JPMorgan Chase & Co.

U.S. Commodity Futures Trading Commission  
Global Markets Advisory Committee

February 13, 2023

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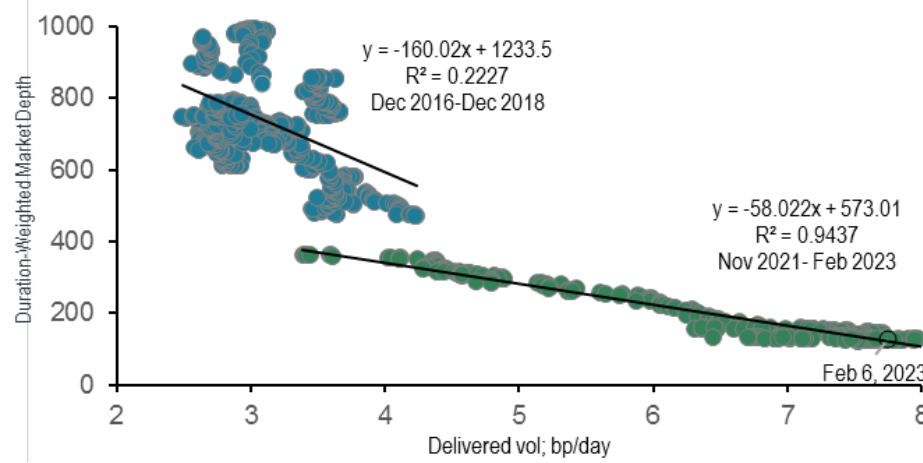
# U.S. Treasury market dynamics and liquidity have changed significantly over the last 10+ years

**1** 10-Year Treasury Market Depth, 5-Day Moving Average (\$mn)



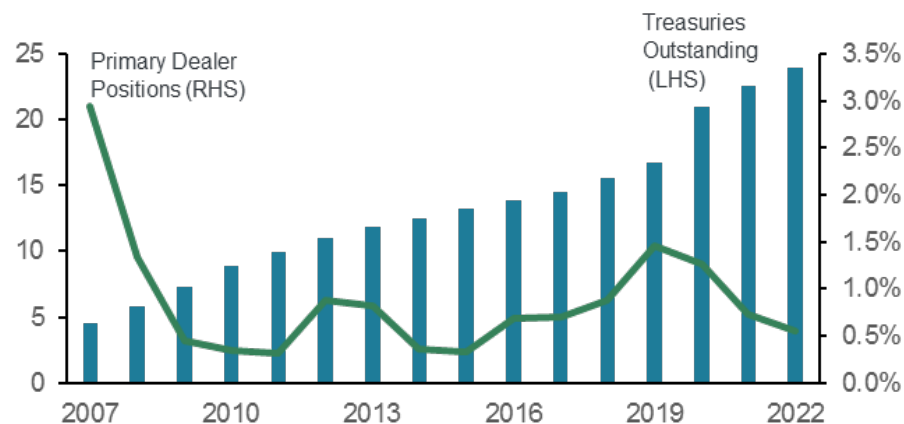
Note: Market depth is the sum of the three bids and offers by queue position, averaged between 8:30 and 10:30am daily

**2** Sensitivity of Liquidity to Volatility During Tightening Cycles

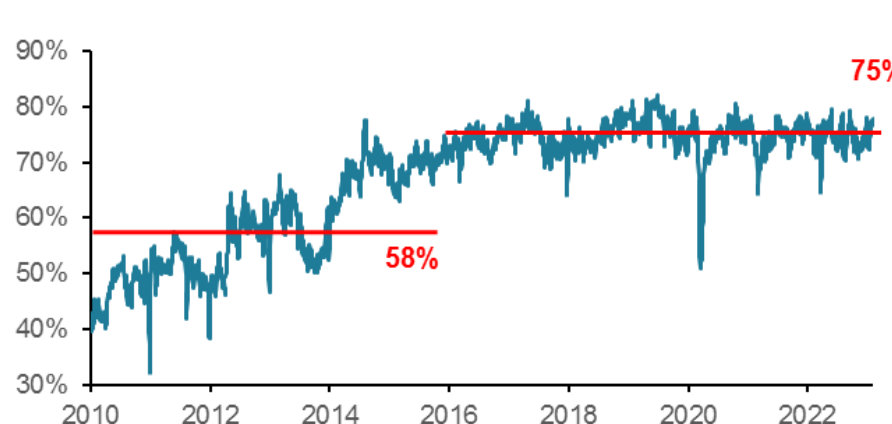


Note: Duration-weighted Treasury market depth; 3-month moving average, regressed on 3-month standard deviation of daily changes in US-GBI yield (bp/day), regressions over 2016-2018 tightening cycle and last 12 months, \$mm 10-year equivalents

**3** Treasury Securities Outstanding (\$tn LHS)  
Primary Dealer Positions % of Treasuries Outstanding (RHS)



**4** Market Share of Automated Trading in the Interdealer Market



Sources: BrokerTec, FRB, JPM Research, SIFMA

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Commodity Futures Trading Commission  
Global Markets Advisory Committee  
February 13, 2023

Panel I - Global Market Structure and Access To Markets  
Part I - Trading and Liquidity

Sachiyo Sakemi  
Managing Director, Global Head of Legal for Global Markets Group  
BlackRock





**Vadim Zlotnikov, Head of Fidelity Institutional, Fidelity Investments**



# U.S. Commodity Futures Trading Commission Global Markets Advisory Committee

February 13<sup>th</sup>, 2023

Isaac Chang, Head of Central Execution and Trading, Global Fixed Income

## Panel: Global Market Structure and Access to Markets



## PANEL 1

# GLOBAL MARKET STRUCTURE AND ACCESS TO MARKETS

Global Markets Advisory Committee  
U.S. Commodity Futures Trading Commission

Scott Fitzpatrick  
CEO, Tradition SEF  
February 13<sup>th</sup>, 2023

# SWAP INTERMEDIATION UNDER DODD-FRANK

Congress mandated the CFTC through the Dodd-Frank Act to create and enforce rules to increase visibility and certainty in the swaps market as a means towards overall financial stability, which was the overriding goal of the Dodd-Frank Act in the aftermath of the 2008 financial crisis.

The CFTC commendably implemented reforms such as swap participant and execution venue registration, mandated clearing for specific swaps and encouraged clearing for others, extensive transaction reporting by swap participants and venues, position reporting and moving as many swap transactions as possible from the opaque OTC and bilateral markets onto transparent regulated venues (e.g. Swap Execution Facilities “SEFs”). The CFTC’s Swap Rules reach across global jurisdictions.

While the vast majority of the CFTC SEF Rules have been implemented without issue, certain rules have proved impracticable to implement, or unwieldy and duplicative in the case of cross-border rules mandating US registration and execution processes in overseas financial centers. Most of the proposed fixes to these rule are non-controversial operational procedures that, as noted by current and past Commissioners\*, the CFTC has extended continuous No-action relief in recognition that these rules are impracticable or impossible to implement.

Rules that are arguably not fit for purpose or create operational inefficiencies put SEF’s, and by extension their Participants at risk of non-compliance with the Rules.

*\*Comments of Commissioner Pham, July 20, 2022;*

*\*Comments of Commissioner Mersinger July 20, 2022, January 9, 2023; February 2, 2023*

# SWAP INTERMEDIATION - AS IMPLEMENTED

## PRE-TRADE

- Vast majority of Swaps captured
  - *Fn88*
- MAT v Non-MAT Swaps
  - *Arrange and Execute*
  - *Brokers in IB for Permitted Swaps*
  - *Brokers in SEF for MAT Swaps*
- Access requirements
  - *D2D v D2C*
- Financial Resources
- Information gathering
  - *Fn195*

## TRADE

- Restricted trading functionality
  - *Order Book & RFQ*
- Block Trades
- Embargo Rule
- Work-up
- “15-Second” Rule
- Execution Rules and Protocols
  - *Mandatory Cleared Swaps*
  - *Intended To Be Cleared Swaps*
  - *Non-Cleared Swaps*

## POST-TRADE

- Trade Reporting
  - *P45, P43, P16*
- STP
- Audit Trails
- Information Gathering
  - *Position Limits*

## CROSS BORDER

- US Persons Nexus
- Bifurcated Liquidity Pools
- Substituted Compliance evolving

- Execution relief granted inconsistently
- Reporting asymmetry
- SEF = Reporting facility, not Trading facility

- Complex regulatory setup
- Duplicative operational setup
- Increased cost burden

## SWAP INTERMEDIATION - CHALLENGES TO BE ADDRESSED

- Impracticable rule requirements create operational risk and risk of non-compliance for venues and by extension participants
- Inconsistencies between SEF's and other similar Trading Venue types
- Futures market operating models implemented in rules for OTC Swap markets
- Resulting market inefficiencies/impracticalities dealt with by NARL's – many still in force
- Information asymmetry across regulatory jurisdictions
- Cross-Border implications significant

# Global Market Structure and Access to Markets

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Global Markets Advisory Committee,  
U.S. Commodity Futures Trading Commission  
February 13, 2023

R. J. O'Brien & Associates  
Gerry Corcoran, Chairman and CEO  
James Gabriele, Chief Financial Officer  
Brad Giemza, Chief Risk Officer  
Heather Rucci, Chief Strategy Officer and  
CHRO

# Impact of MMR on FCMs

- During the early stages of the Coronavirus outbreak and the Russia-Ukraine crisis, the exchanges worked to mitigate systemic risk by significantly increasing MMR
- The system worked as intended, helping to protect customers and allowing for risk transfer during extraordinarily challenging market conditions

**That said – and procyclicality notwithstanding – during periods of extreme volatility, the ability to access capital can “make or break” market participants**

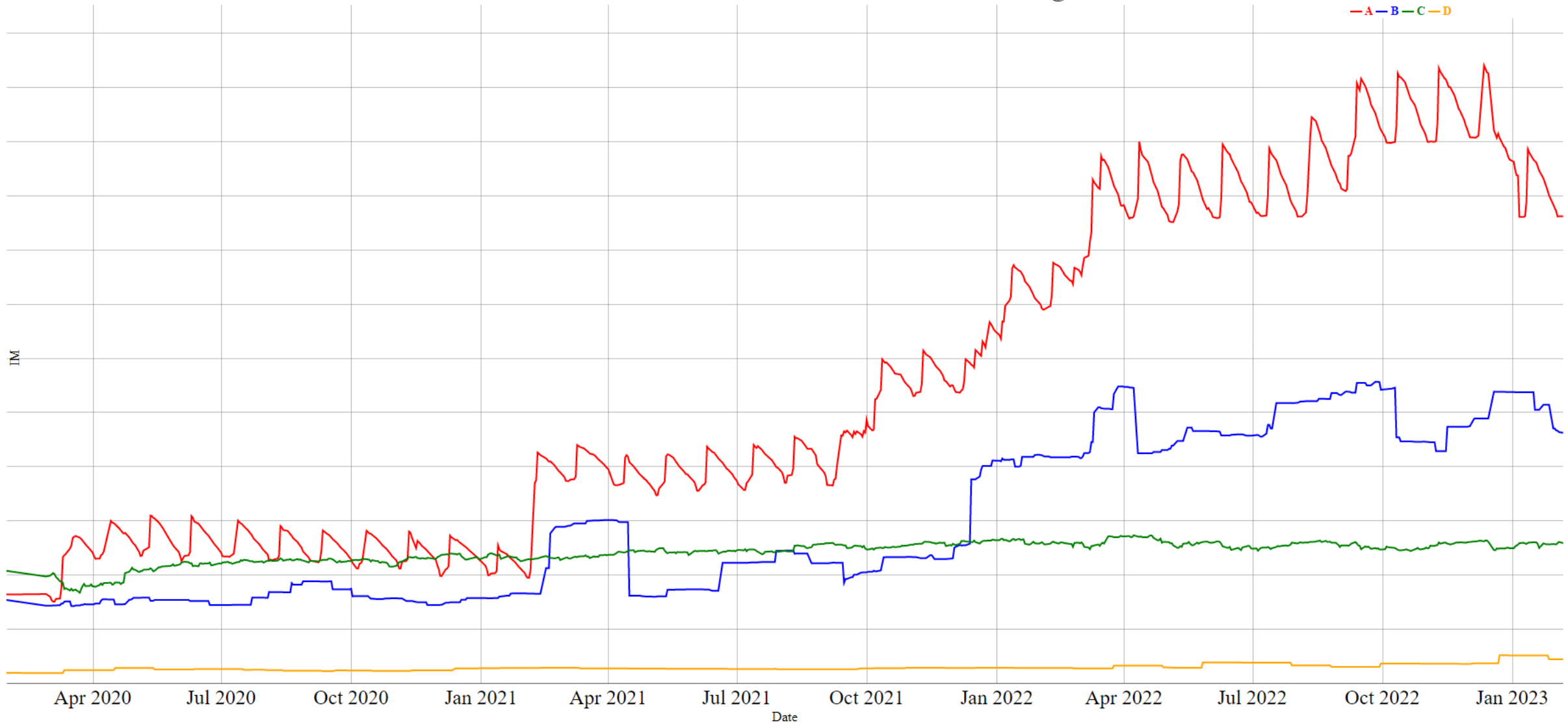
- Exchanges worked to ensure stability and that the market had appropriate liquidity to continue trading within established parameters – though, in the early stages liquidity challenges existed
- Market participants had to respond quickly to meet MMR, which resulted in increasing pressure on regulatory capital with customers and FCMs facing intense liquidity challenges





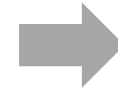
# RJO Exchange Margin Experience

IM for all Products - Front Month across Exchanges



# Our Observations

An ecosystem of FCMs is needed as there is a wide variety of customers requiring support



- Bank FCMs tend to have a broad client base and scope
- Independent FCMs tend to support more specific and/or niche areas of the market

Exchanges responded differently to extraordinary market conditions and, in turn, FCMs had to react accordingly to each set of circumstances



- Exchange A: acted proactively, aggressively and swiftly
- Exchange B: less proactive and slower to act
- Exchanges C and D: appeared to rely on daily models without adjusting for the extraordinary market events

Market volatility and higher MMR resulted in massive repricing event in the FCM community, supporting higher margins and safer markets overall



- MMR drives capital requirements
- FCMs evaluated relationships with clients and return on capital, and identified and worked to address potential exposure points/ “leaks in the pipes”



# Considerations Going Forward...

**Should there be a more “surgical” approach to margin requirements instead of a “one size fits all”?**

*Risk and margin requirements handled differently*

**Should exchanges have a higher level of margins over a longer period to minimize “spikes”, market disruption and market risks?**

*Not all participants are situated or impacted in the same way*

**Should there be consistent requirements across exchanges for when there are volatile markets?**

*Each exchange has different practices based on their own evaluation of risk*



**Global Markets Advisory Committee,  
U.S. Commodity Futures Trading Commission  
Panel II: Global Market Structure and Access to Markets - Clearing -  
Perspectives on key issues from central counterparties and futures  
commission merchants**

Agnes Koh, Chief Risk Officer

February 13, 2023

**Singapore Exchange**

Commodities | Equity Derivatives | Fixed Income | FX | Indices | Securities

# Impact of Regulatory Capital Changes on Commodities

Over the past decade, several factors such as shift in regulatory regime, falling revenue and unprecedented volatility appeared to have caused market participants to exit or consolidate their commodities businesses

- Multiple clearing members have limited their commodities derivatives business to only client clearing, after shutting down proprietary commodities derivative trading desks. This could be attributed to
  - Basel 3 Standards: revised requirements have resulted in significant capital increase for Banks. Tougher regulation focused on enhancing the market risk framework, derivative counterparty risk (SA-CCR), CVA, minimum leverage ratio, liquidity and funding risks
  - Return on Capital/Diminishing Profit: Lower return on capital on back of higher capital charge could have prompted deployment of capital to other businesses
  - Decreasing Credit Risk appetite for commodities clients

# Commodities Clearing Trend in SGX-DC

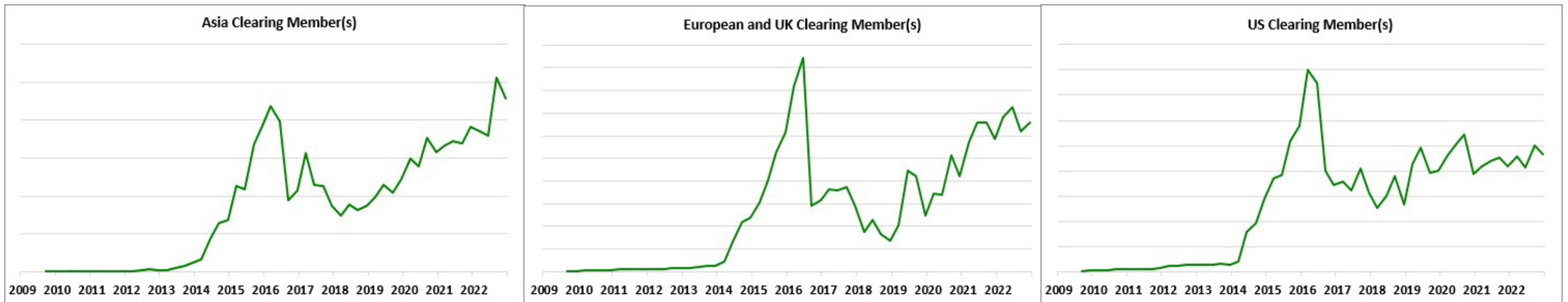
- There have been a downtrend in clearing of proprietary (house origin) commodities exposure, but client commodities exposures have increased significantly.
  - Several Bank-related Clearing Members no longer have in-house commodities trading desks. This could impede their ability to price and warehouse the risk during an event of default of their clients.
  - In extreme events, it might impede their ability to fulfil their default management obligations to central counterparties where default auctions are conducted.
- Lower proprietary participation from diverse membership could have led to concentrated positions in fewer Clearing Members.

# Trends of commodities exposure

Chart A: Proprietary (House-origin) Positions cleared by various groups of Clearing Members



Chart B: Client Positions cleared by various groups of Clearing Members



# Thank you

Singapore Exchange

Commodities | Equity Derivatives | Fixed Income | FX | Indices | Securities

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## **Global Market Advisory Committee, U.S. Commodity Futures Trading Commission**

PANEL I: GLOBAL MARKET STRUCTURE AND ACCESS TO MARKETS

Part II Clearing (Perspectives on key issues from central counterparties  
and futures commission merchants)

### **U.S. Swap Customer access to non-U.S. Exempt DCOs**

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Tetsuo Otashiro

Senior Head of Global Policy and Regulation

Japan Securities Clearing Corporation

13<sup>th</sup> February 2023



## Background : U.S. Customer Desire for Clearing Choice in non-U.S. Markets

### **Higher liquidity in some non-U.S. markets** <sup>(\*1)</sup>

Without access to these markets, customers must trade and clear at disadvantageous prices compared to their non-U.S. peers<sup>(\*2)</sup>. In times of market stress, they may be exposed to even higher risks as they are unable to efficiently hedge risk in these liquid markets.

\*1. e.g., around 70% of yen IRS are cleared through JSCC.

\*2. e.g., JSCC is allowed to clear for swap customers in Japan, EU, UK, Switzerland, Australia, and Hong Kong under the relevant license.

### **Improved Price Efficiency**

Customer Participation<sup>(\*3)</sup> in swap trading across DCOs, as the prices can differ due to the occasional imbalances in supply and demand, has increased price efficiency and contained negative effects of market fragmentation.

\*3. i.e., the first hedge funds started clearing at JSCC in 2018.

### **Cross Margining & Unique Products**

Some non-U.S. DCOs exempted from registration (“Exempt DCOs”)<sup>(\*4)</sup> provide cross-margining between futures and swaps, enabling investors to manage their exposures in the relevant currencies more efficiently. Furthermore, some products are only available at Exempt DCOs in a currency’s home jurisdiction<sup>(\*5)</sup>.

\*4. e.g., ASX and JSCC

\*5. e.g., USD/CNH and USD/HKD Cross Currency Swaps at HKEx OTC Clear

## Background : Difficulty for U.S. Customers to access Exempt DCOs

### Legal Conflicts

- Customer swaps must be cleared only through FCMs at registered DCOs. However, to register, non-U.S. clearinghouses must ensure customer protections under the U.S. Bankruptcy Code without any regulatory deference/comparability to the home country regime. The same is true for FCM registration.
- This creates unresolvable legal conflicts for some non-U.S. clearinghouses, despite having robust and comparable domestic bankruptcy regimes.

### Onboarding Costs for FCMs

- Most major U.S. financial groups have already onboarded their non-U.S. affiliates or local branches as clearing members of Exempt DCOs. So, it would not be justified from their business perspective to additionally onboard U.S. FCMs in Exempt DCOs solely for swap customer clearing.

**Thus, customers who desire to expand clearing choice to Exempt DCOs <sup>(\*1)</sup> inevitably have been rejected, absent a level playing field over their non-U.S. peers.**

\*1 ASX Clear (Australia), HKEx OTC Clear (Hong Kong), JSCC (Japan) and KRX (South Korea), with others going through the application process for exemption. They are allowed to clear U.S. clearing member (which are large financial groups), but not for U.S. persons that are not clearing members.

## However, U.S. Customers can access “foreign futures” widely under Part 30 Regime

- Exempt DCOs may clear foreign futures for customers through foreign brokers in an omnibus account structure carried from U.S. FCM. And subject to Part 30.10 exemption, clearing members of Exempt DCOs may directly clear for customers.
- Thus, FCMs do not have to onboard at a non-U.S. clearinghouse to clear for their U.S. customers, with no bankruptcy legal conflicts between the U.S. and non-U.S. regimes.
- CFTC Regulation Part 30 sets forth the treatment of customer funds.
- U.S. retail customers can access foreign futures markets widely, whereas U.S. swap customers, who are highly sophisticated market participants (i.e., **Eligible Contract Participants**) have limited access.

## Moving Forward

- Industry supported the CFTC's efforts to establish a framework for customer clearing of foreign swaps through Exempt DCOs, including at the December 2020 GMAC meeting. In November 2020, the former Chairman and Commissioners publicly supported continued discussions. (\*1, 2)
  - \* 1 CFTC finalized the rules on registration with alternative compliance for non-U.S. DCO in September 2020, but this framework still applies the U.S. Bankruptcy Code for customer clearing, with no deference/comparability.
  - \* 2 Release Number 8312-20 (November 18, 2020) : CFTC Unanimously Approves Final Rule for Granting Exemptions from Derivatives Clearing Organization Registration (86 Fed. Reg.949 (Jan.7, 2021))
- We would like to propose a solution, based on existing CFTC Part 30 regime as mentioned in a 2017 FIA/SIFMA whitepaper<sup>(\*3)</sup>, with some additional safeguards - e.g., customer clearing through U.S. FCMs or foreign brokers (as is the case of part 30.10), bankruptcy risk disclosure, mitigation of systemic risks flowing from non-U.S. markets, and comparability on Exempt DCO's risk management.
  - \* 3 Promoting U.S. Access to Non-U.S. Swaps Markets: A Roadmap to Reverse Fragmentation, Dec. 14, 2017

# Cleared repo market development

**A European perspective**

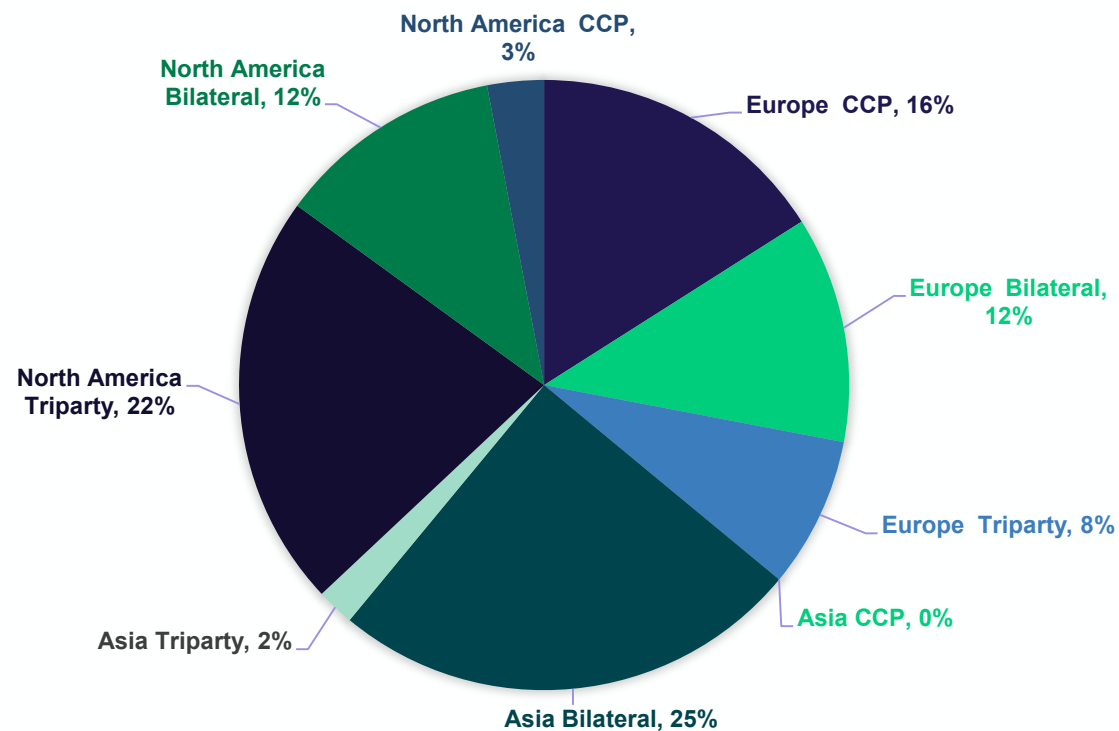
**Panel I: Global Market Structure and Access to Markets**

13<sup>th</sup> February 2023



# Global repo market structure

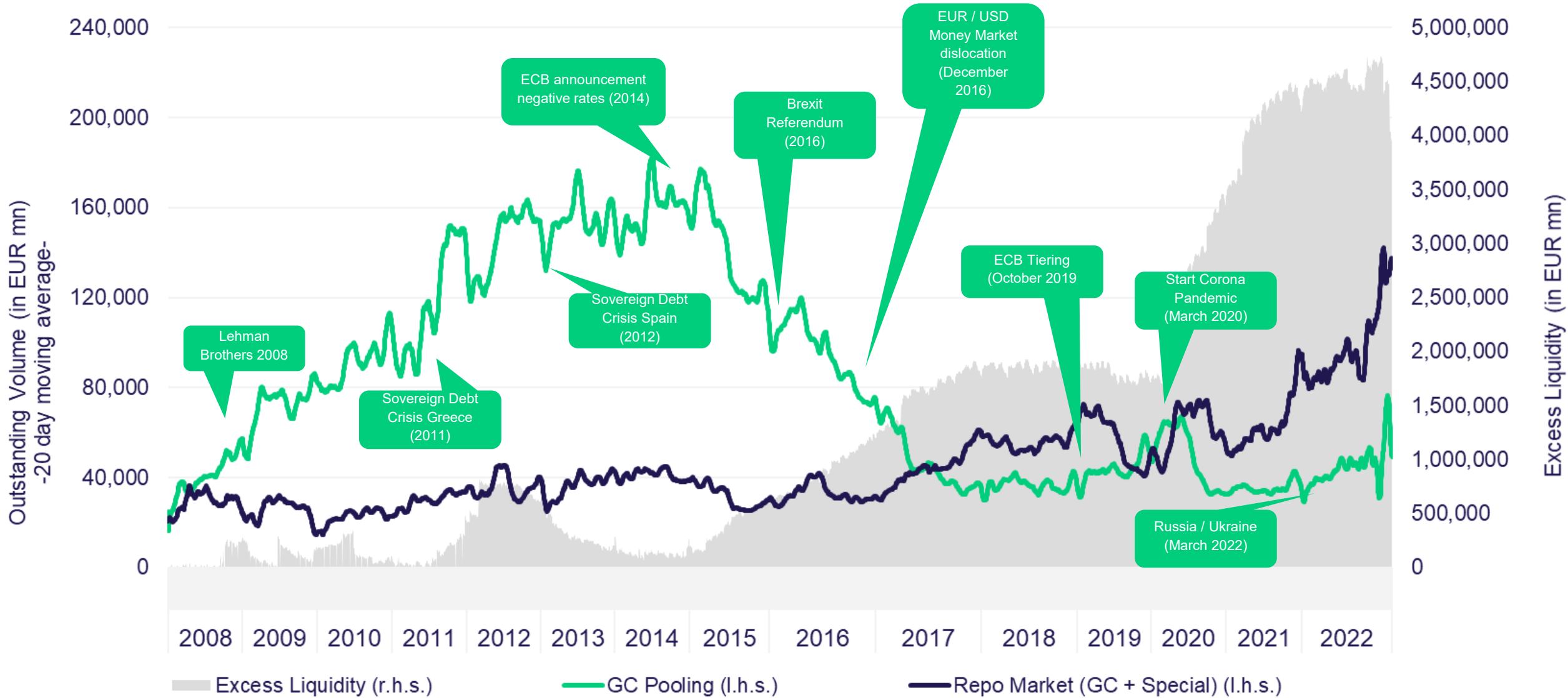
Global repo market is estimated to be c. US\$15 Trn



Source: Finadium (2021)

- 1. Differences in market structure between Europe (incl. UK) and the US** have arisen out of a number of factors:
  - government collateral landscape is fragmented across European states;
  - legal differences (pledge vs title transfer, NY law vs English law);
  - structured securities are a material component of collateral in US markets;
  - higher prevalence of term repo in European markets; and
  - interbank trade negotiation in Europe is increasingly via electronic repo trading systems followed by subsequent clearing through a CCP.
- 2. Bank balance sheet constraints** and the need for regulatory capital efficiencies will be the **principal drivers** of further shifts towards **cleared repo markets**.
- 3. Uncleared Margin Rules** Phase V & VI implementation (c.1,000 new counterparties in scope – mainly buy-side), **requiring mandatory variation margin and initial margin exchange**, has created unprecedented demand for liquidity management solutions (including repo), which **will put further pressure on the management of bank's financial resources**.

# Eurex's cleared repo markets continue to grow as Eurozone excess liquidity peaked



20 day moving average / single counted // Source: ECB and Eurex Repo  
40



# Cleared repo markets help mitigate systemic risk



Balance sheet constraints are a key driver of liquidity squeezes in the repo market. Through central clearing, balance sheet netting can be achieved on an effectively multilateral basis, creating capacity in times of market stress.



Next-generation direct access clearing models reduce vulnerability to bank balance sheet scarcity for the buy-side and provide a path to all-to-all trading, without the 'shadow banking' risks of peer-to-peer alternatives.



As the nexus of all trades, a CCP provides credit intermediation for market participants, transparency to regulators, and can simplify the operational and legal complexities of transactions.



Robust margin methodologies provide a critical line of defence, indirectly limiting excessive leverage and risk-taking. Margins can be assessed without yielding to the competitive pressures that can drive a race to the bottom in the bilateral market.



Comprehensive and routinely tested default management procedures can address clearing member defaults efficiently and expediently, and limit contagion to the wider financial sector.

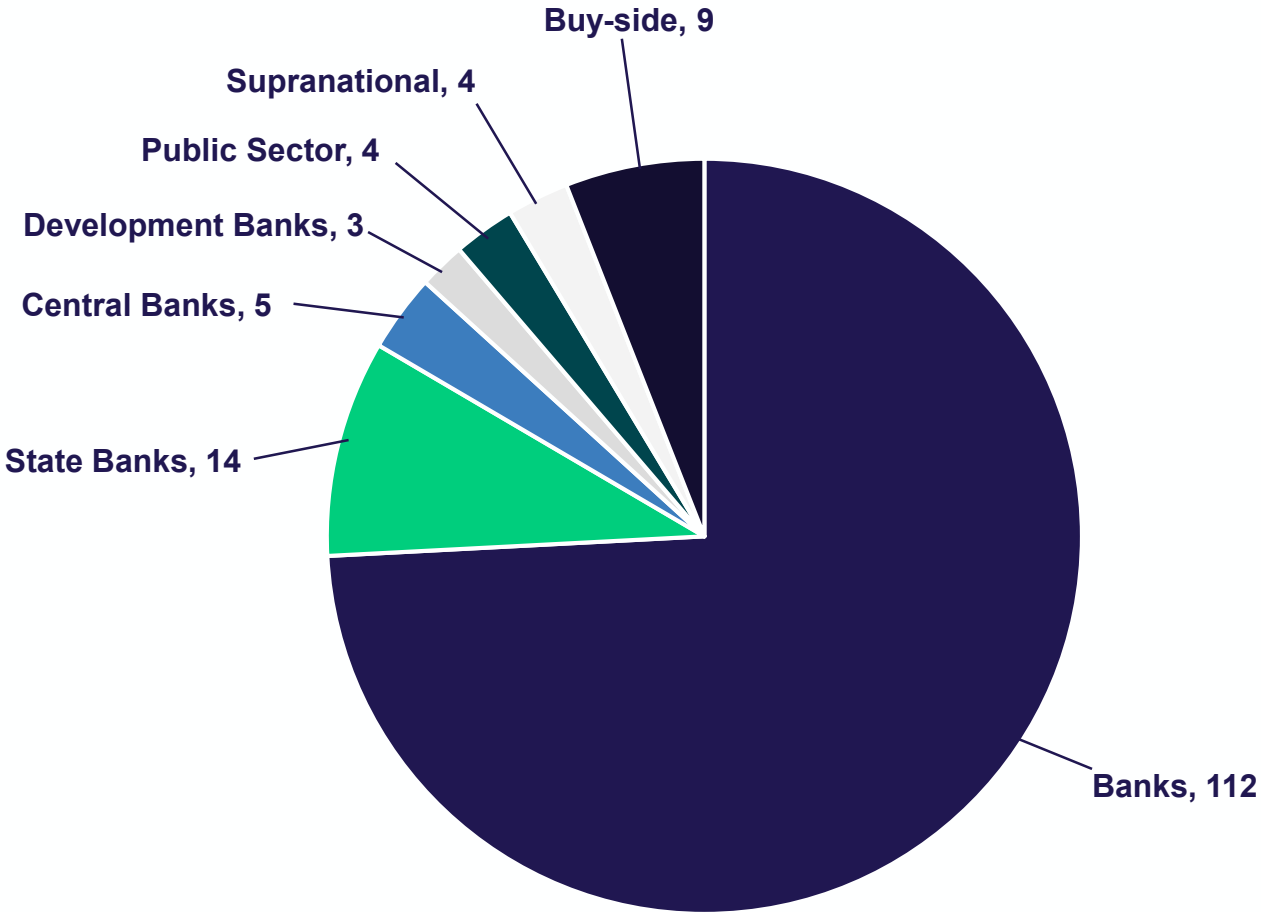
## Future outlook



CCPs are a logical single-point-of-entry for central bank emergency liquidity support for NBFIs in times of extreme market stress.

# Cleared repo markets offer diversity of market participants

Eurex's repo market participant distribution



One master netting agreement gives access to repo markets with over 150 participants.



Central Banks, Public Sector and Supranationals participation has risen steadily.



Buy-side has the highest growth pipeline<sup>†</sup>, facilitated by innovative direct access models.

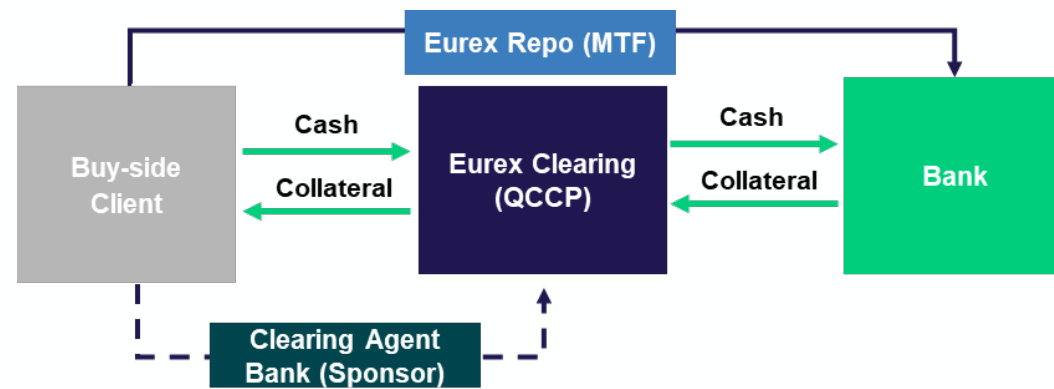
<sup>†</sup> Driven by the June 2023 expiry of the exemption for Pension Funds in the EU from mandatory clearing, and Uncleared Margin Rules Phases V & VI.

# Buy-side: Eurex's direct access models for repo

- Eurex's buy-side repo business gained significant momentum with the onboarding of the largest Dutch pension fund and strong trading performance by existing buy-side clients, delivering a win-win for dealers and clients on the platform.
- Strong pipeline of clients and sponsors for the Indemnified Sponsored Access Model.

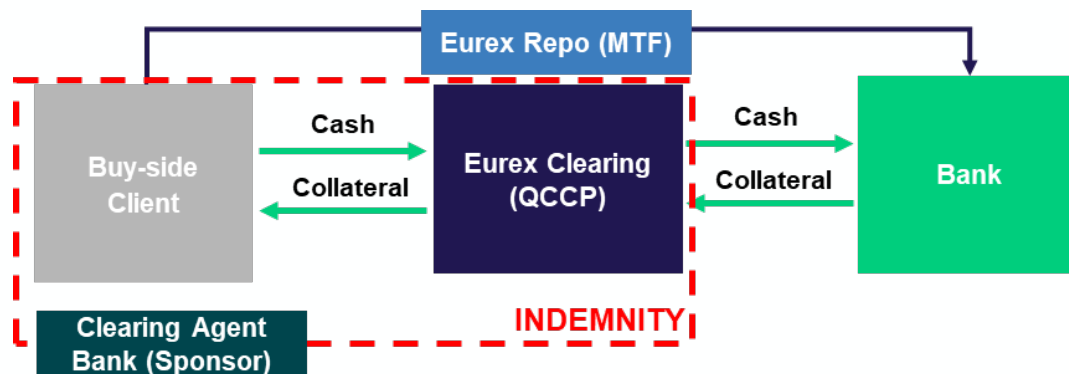
## Sponsored Access Model

Client types: Pension Funds, Insurance etc



## Sponsored Access Model with Indemnity

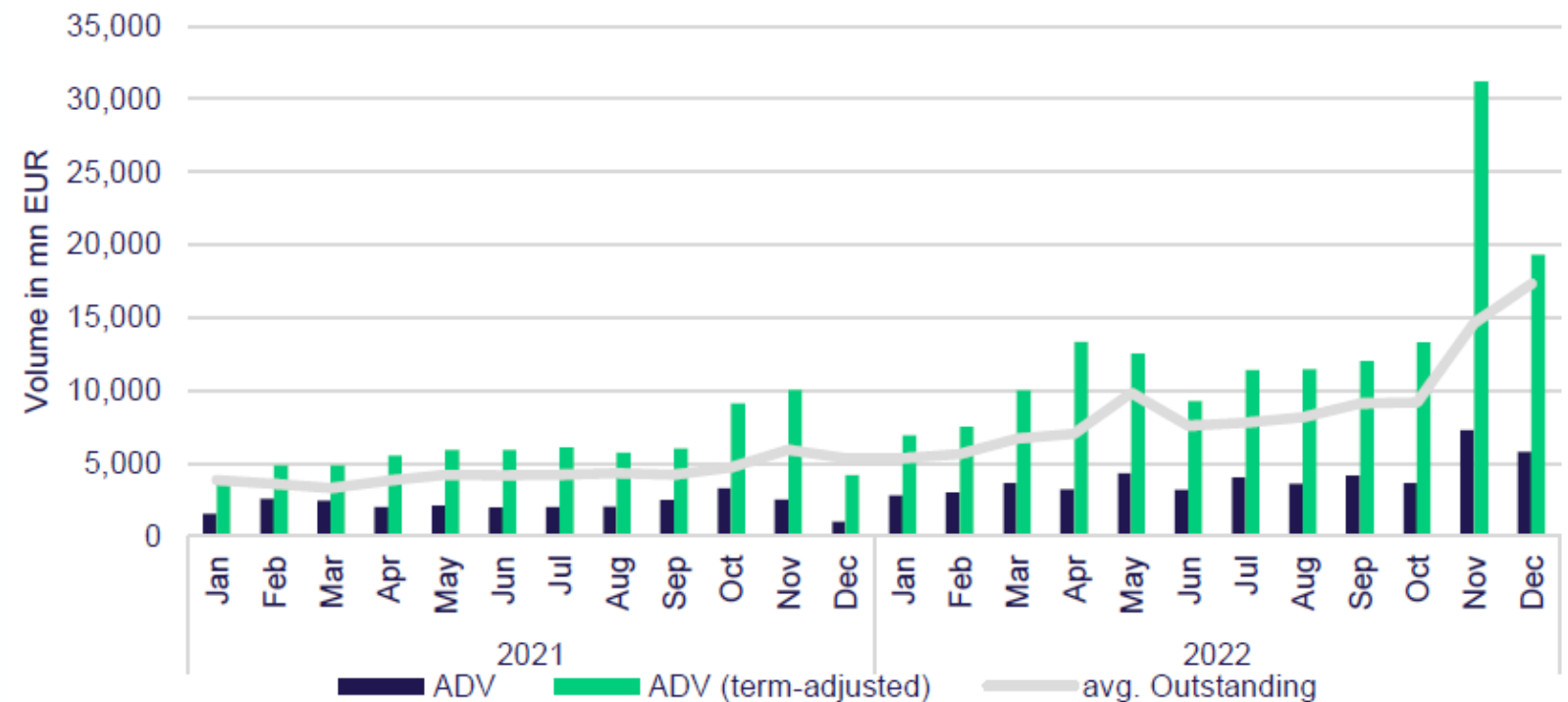
Client types: Hedge Funds



**EUREX**

MTF: Multilateral Trading Facility  
QCCP: Qualifying Central Counterparty

## Buy-side Volume Development



# Market outlook

## European Asset Managers and Pension Funds are driving strong demand and innovation in liquidity management solutions

- Expiry of the exemption of Pension Funds from mandatory clearing
- UMR Phases V & VI implementation



## Excess liquidity in the Eurozone will remain substantially elevated in 2023, but the uneven distribution across European economies may pose funding and liquidity risks

- ECB's Targeted Long Term Refinancing Operations (TLTRO), a major contributor to excess liquidity, will be materially wound-down by June 2023



## Collateral scarcity in Europe will continue in 2023

- The ECB's Asset Purchase Programme during COVID-19 materially impacted the free float of European sovereign HQLA, driving repo specialness and impairing the transmission of monetary policy.
- Quantitative Tightening will begin in Q1 2023 at a "measured and predictable" pace



## Direct Access Models:

- provide comprehensive benefits to the buy-side through operational flexibility and promotion of competition among dealers; and
- enable banks to offer balance sheet-efficient liquidity management solutions, while still maintaining strategic client relationships.

## GC Pooling®

- As the leading cash-driven repo market in Europe, it is the logical secured funding alternative as banks reduce their reliance on the TLTRO.
- With c. 80+ active participants, the buy-side benefits from deep liquidity, competitive pricing and reduced vulnerabilities to scarce bank balance sheet capacity.

## Special Repo

- Eurex is a leading venue for European government bond and SSA repo liquidity. Banks can efficiently fund their Specials trading via GC Pooling® trades with the buy-side.
- Buy-side can leverage the income opportunities from European collateral scarcity, through repoing assets into the Specials market.

**Erik Tim Müller**

Chief Executive Officer

Eurex Clearing AG

Mergenthalerallee 61

65760 Eschborn

Germany



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# U.S. Commodity Futures Trading Commission Global Markets Advisory Committee

Panel II: Global Market Structure and Access to Markets  
Part II: Clearing

John Horkan  
LSEG Post Trade and LCH Group Chief Operating Officer and LCH Head of Americas

February 13, 2023



**LSEG**



# **GLOBAL MARKETS ADVISORY COMMITTEE U.S. COMMODITY FUTURES TRADING COMMISSION**

GLOBAL MARKET STRUCTURE AND ACCESS TO MARKETS

Trade Reporting

February 2023



# Background

- ❑ 2008 - DTCC Trade Information Warehouse data used by prudential regulators assessing global exposure to CDS
- ❑ 2009 - G20 Commitment to report OTC derivatives (cleared and uncleared) to trade repositories
  - Improve transparency
  - Market abuse prevention
  - Systemic risk mitigation
- ❑ 2010 - Financial Stability Board (FSB) report
  - “...as the data must be able to be readily aggregated on a global basis, by end of 2011 CPSS and IOSCO, ... should develop ..... (i) minimum data reporting requirements and standardised formats, and (ii) the methodology and mechanism for the aggregation of data on a global basis”
- ❑ 2012 - CFTC first regulator to implement trade reporting and public dissemination of data
- ❑ CPMI/IOSCO issue recommendations for reporting standards
  - Unique Transaction Identifiers (UTI) - Feb 2017
  - Unique Product Identifiers (UPI) - Sep 2017
  - Critical Data Elements (CDE) - Apr 2018
- ❑ 2020 - Regulatory Oversight Committee (ROC) given governance and oversight role of UTI, UPI, CDE
- ❑ 2022 – CFTC first to implement revised rules incorporating UTI and CDE with Phase one rewrite
- ❑ Implementation of these standards in other jurisdictions (and UPI by CFTC) scheduled for 2024-25

## Current and future state

- ❑ New and proposed rules include universal and consistent adoption of 53 of 110 CDE elements across jurisdictions\*
  - 53 arguably include key economic fields that could be amalgamated, analyzed and used for systemic risk oversight
  
- ❑ Implementation differences could undermine the ability to amalgamate data in future e.g.
  - Transition from old to new rules could mean UTIs not included on all trades
  - Trade correction differences can result in same trade reported to two different jurisdictions with different UTIs
  - FX Swaps have two different UTIs for buy and sell in some jurisdictions and one in others
  - CFDs in EU can be reported at either trade or transaction level and transaction only in other jurisdictions
  - Differences in reporting entities booking and reporting systems lead to reporting inconsistencies
  
- ❑ UPI and ISO 20022 implementation could further impact the data e.g.
  - Possible differences between underlying data values and those derived from UPI
  - Possibility of different UPI reported by two counterparties to the same trade
  - Possible differences in ISO messages and accepted values for same CDE data fields

\* Analysis of CFTC, EMIR, MAS and ASIC revised rules

## Conclusion

- ❑ Assuming the ability to amalgamate data sets from multiple global repositories remains a regulatory goal further cooperation amongst regulators will be needed
- ❑ ROC must be supported in respect to the consistent implementation of CPMI/IOSCO recommendations
- ❑ Impediments to amalgamation will need to be addressed e.g.
  - Solve for data and implementation issues
  - Ensure consistent approach to UPI and ISO implementation
  - Create data sharing and governance framework (bilateral agreements or federated model?)
  - Assess available amalgamation technology solutions and operators

GLOBAL MARKET ADVISORY COMMITTEE  
U.S. COMMODITY FUTURES TRADING COMMISSION

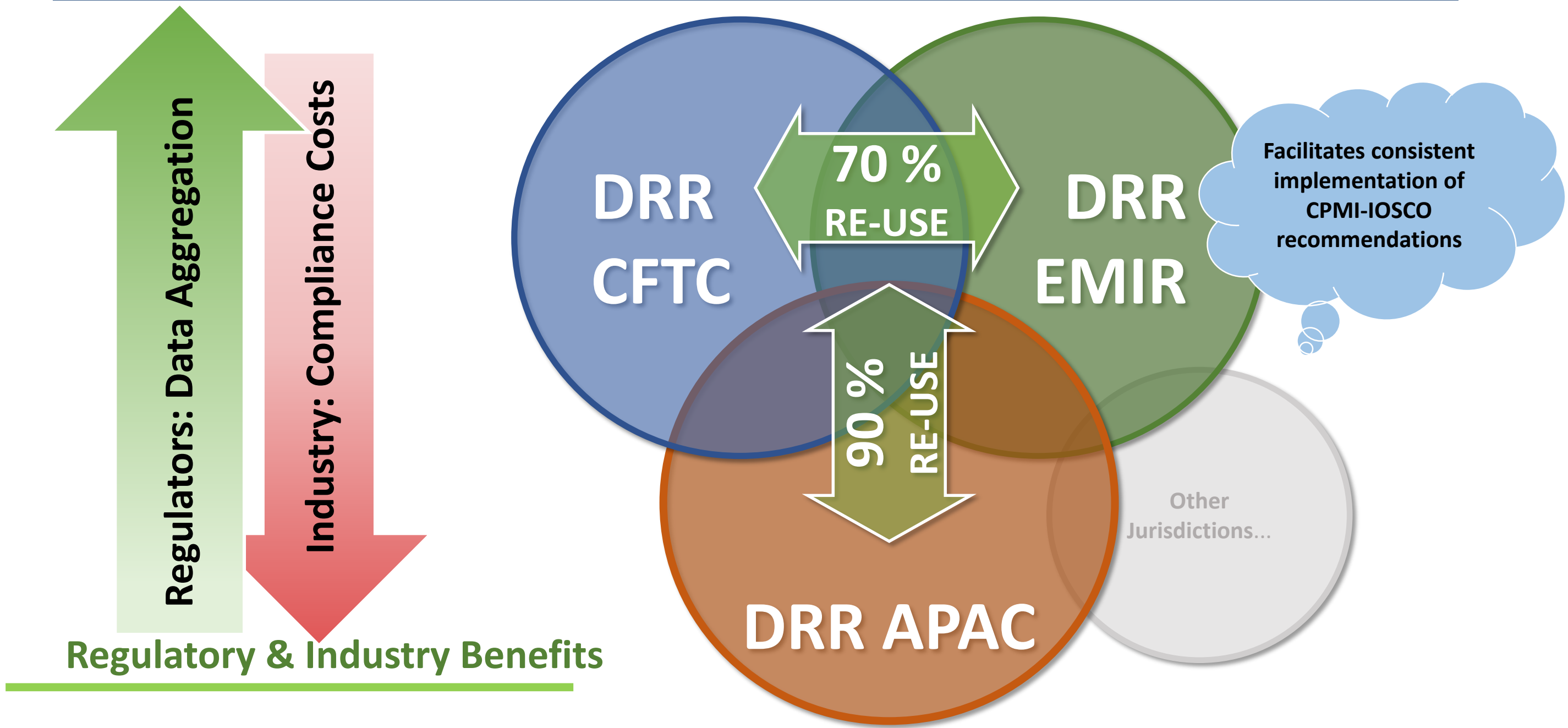
GLOBAL MARKET STRUCTURE AND ACCESS TO MARKETS

Trade Reporting

February 2023



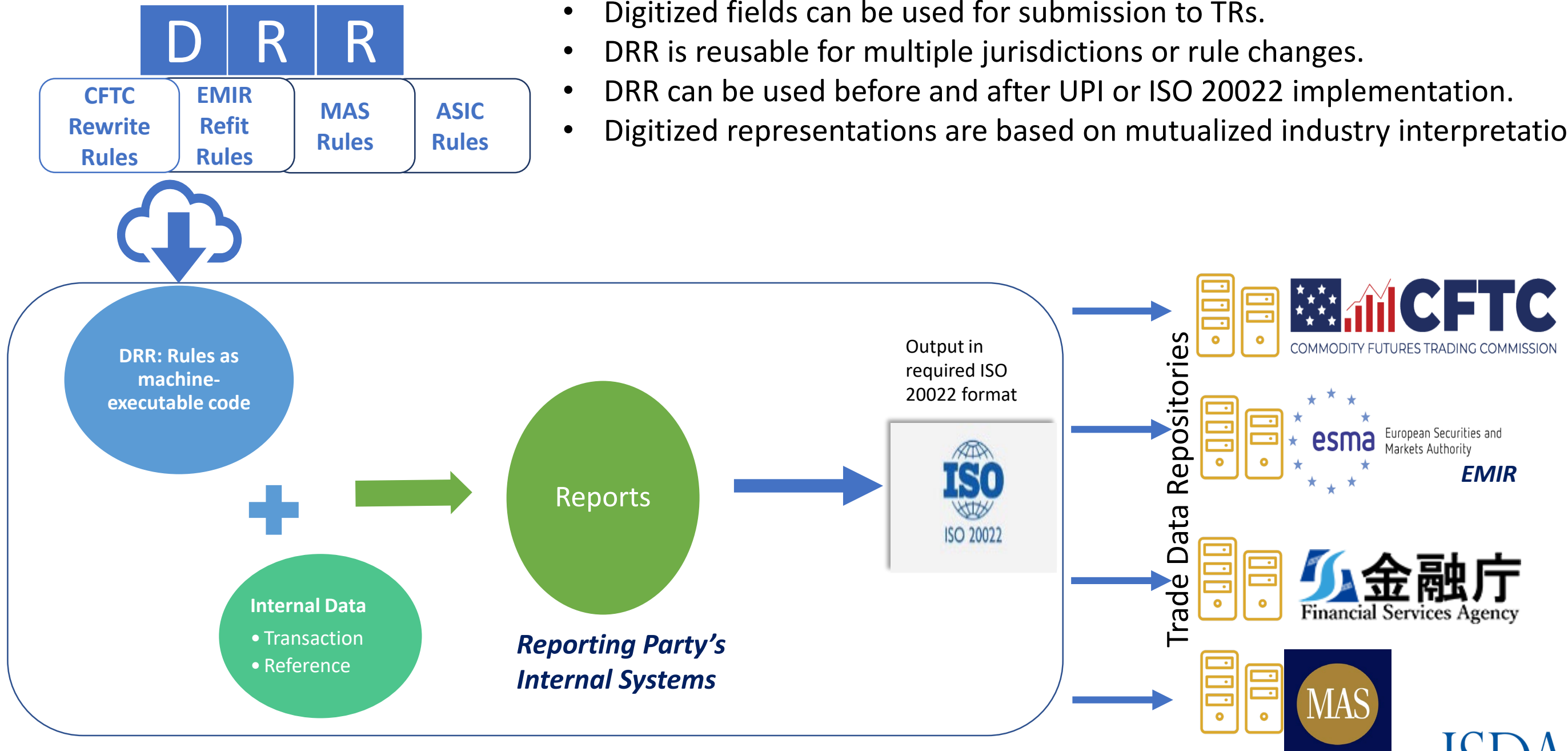
# DRR Digital Regulatory Reporting (DRR): Facilitates Consistent Implementation



Digitize core regulatory reporting ruleset and CPMI IOSCO recommendations only once

Reusable and scalable for multiple jurisdictions: centralized DRR model changes

# DRR Digital Regulatory Reporting (DRR): Mutualized Representation for Reporting



- DRR turns trade reporting rules into machine-executable, open-access code.
- Digitized fields can be used for submission to TRs.
- DRR is reusable for multiple jurisdictions or rule changes.
- DRR can be used before and after UPI or ISO 2022 implementation.
- Digitized representations are based on mutualized industry interpretations.

- Facilitates consistent implementation of the CPMI-IOSCO recommendations across multiple jurisdictions.
- Reduces inconsistencies between the way individual firms interpret and build rules.
- Time, effort, cost needed by industry to build to new or amended reporting rules is reduced.
- Improves the quality of data reported to TRs.
- Facilitates the ability of regulatory authorities to aggregate data to analyze.



**MEMBER DISCUSSION**





**BREAK**



**PANEL II: GLOBAL COMMODITY MARKETS  
VOLATILITY**

# Commodity Market Performance

Julie Winkler  
Chief Commercial Officer, CME Group

February 13, 2023  
*GMAC Meeting*

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# CME's 'Super Cycle' indicator retreats in 2023

After two years of relentless price growth, CME's 'super cycle' indicator slows sharply

CME Group - "Super Cycle" Indicator



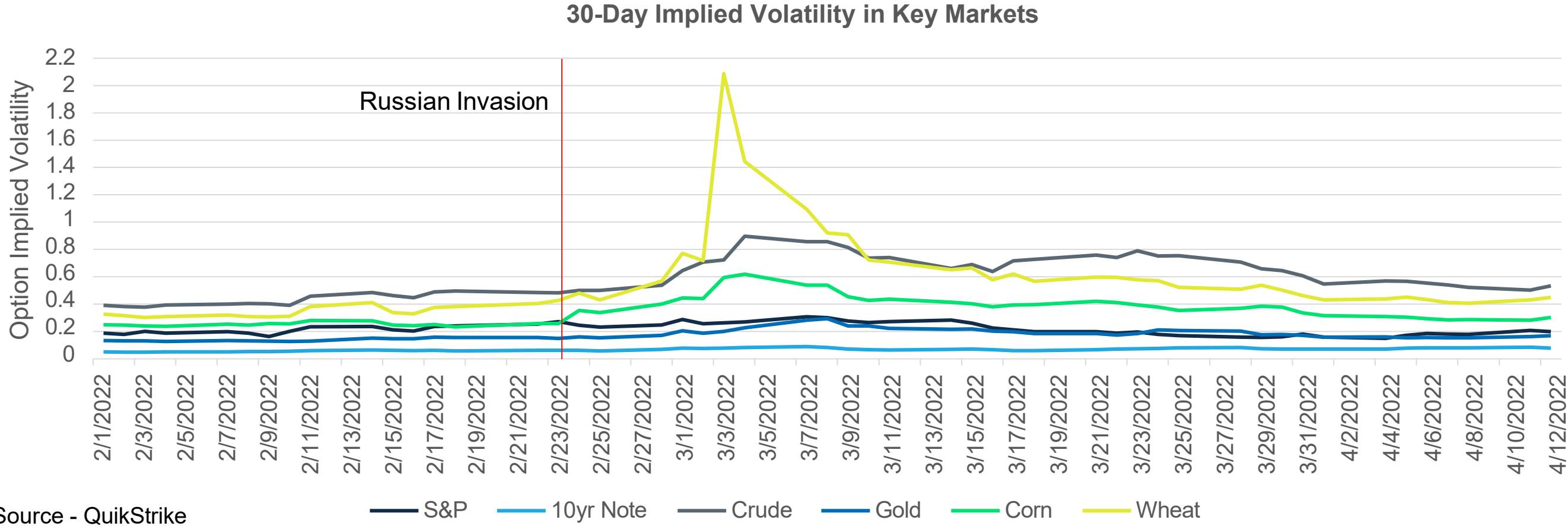
Source: CME Group

\*Simple monthly index based on the average performance of an equally weighted commodity basket consisting of COMEX Copper, HRC Steel, Cobalt; NYMEX WTI crude oil, RBOB Gasoline, NY Harbor ULSD, TTF Natural Gas; CBOT Soybeans and Corn, CME Lumber

- Previous super cycles were linked to significant transformations in economic development:
  1. The rapid industrialization of the U.S. (1910s)
  2. The re-industrialization of Germany and Japan following World War II (1950s)
  3. The growth in BRIC countries (early 2000s)
- The recent price rally appears to be less to do with a major economic transformation and more to do with the recovery from COVID-19, exacerbated by the impact on commodities of the Russian invasion of Ukraine
- So far in 2023, economic challenges and the establishment of a 'new normal' are calming prices

# Russian invasion boosted commodity prices and volatility

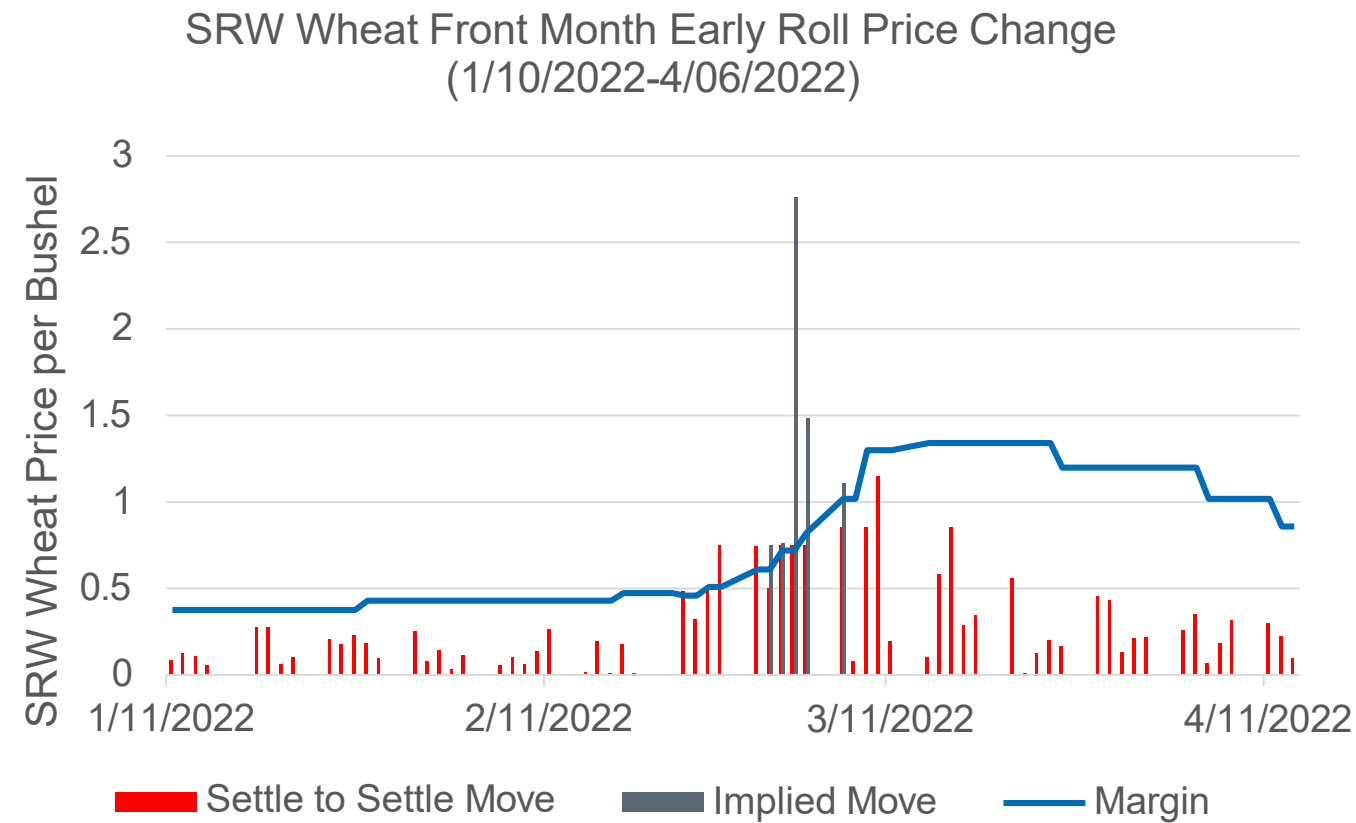
- Major increase in volatility occurred a week after invasion, primarily affecting energy and wheat markets
- As the notional value of commodities increased with rising prices, margins were increased to keep pace
- Most of the 1Q 2022 contract margin increases in commodity markets were due to price inflation
- Margins have started to decrease in some contracts as volatility and prices have subsided



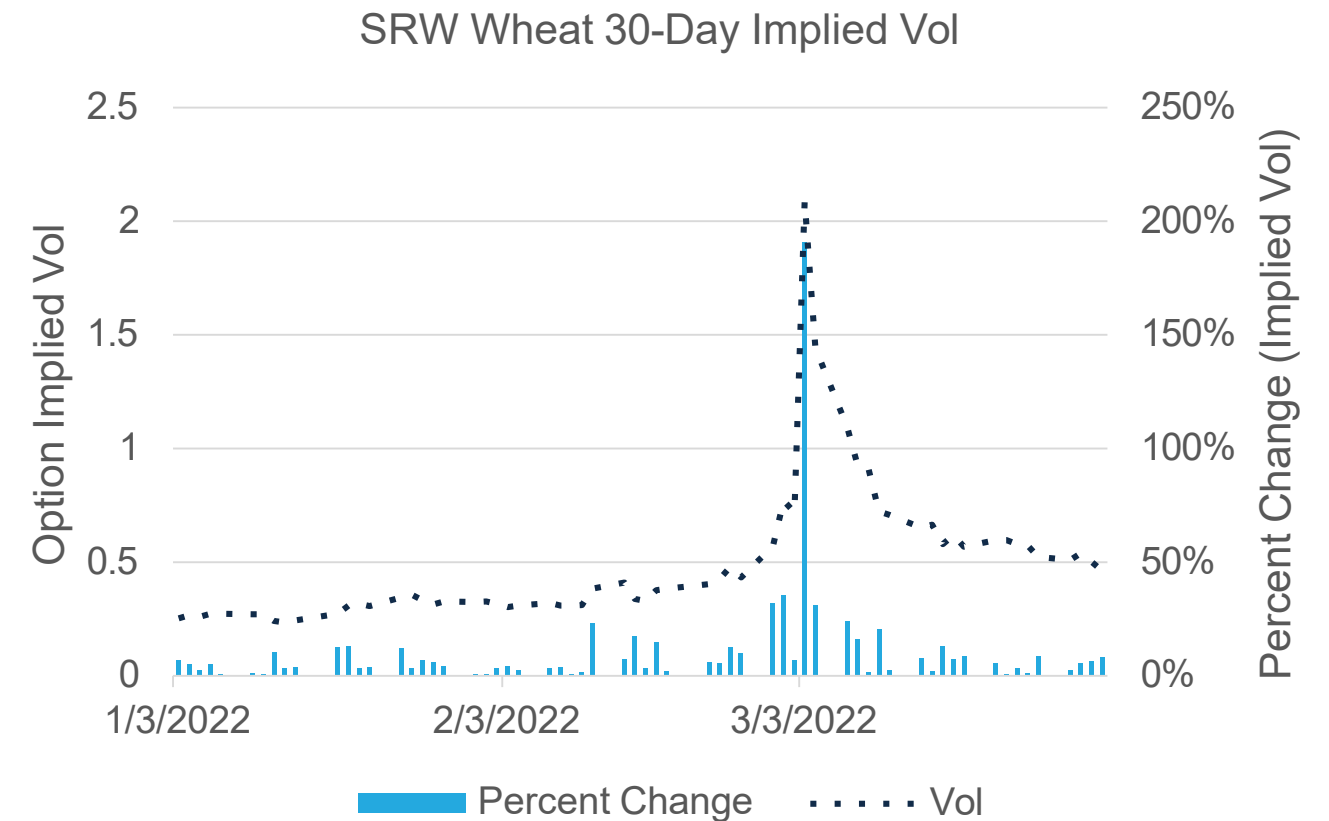
# Agricultural volatility was extreme, now calming

Russia's invasion of Ukraine generated high prices and volatility across key agricultural markets

- Wheat prices increased over 70% from January to March; the largest options-implied wheat daily price move was 26% up on March 3<sup>rd</sup> (vs. a 7.1% hard limit that day)
- CME increased margins several times ahead of the invasion and during the first few weeks of the war. With expedited approval from the CFTC, CME increased wheat price limits from 50 cents to 85 cents
- CME incorporated a mechanism in Chicago and Kansas City wheat that will allow price limits to increase during future volatile periods without expedited approval



Source: CME

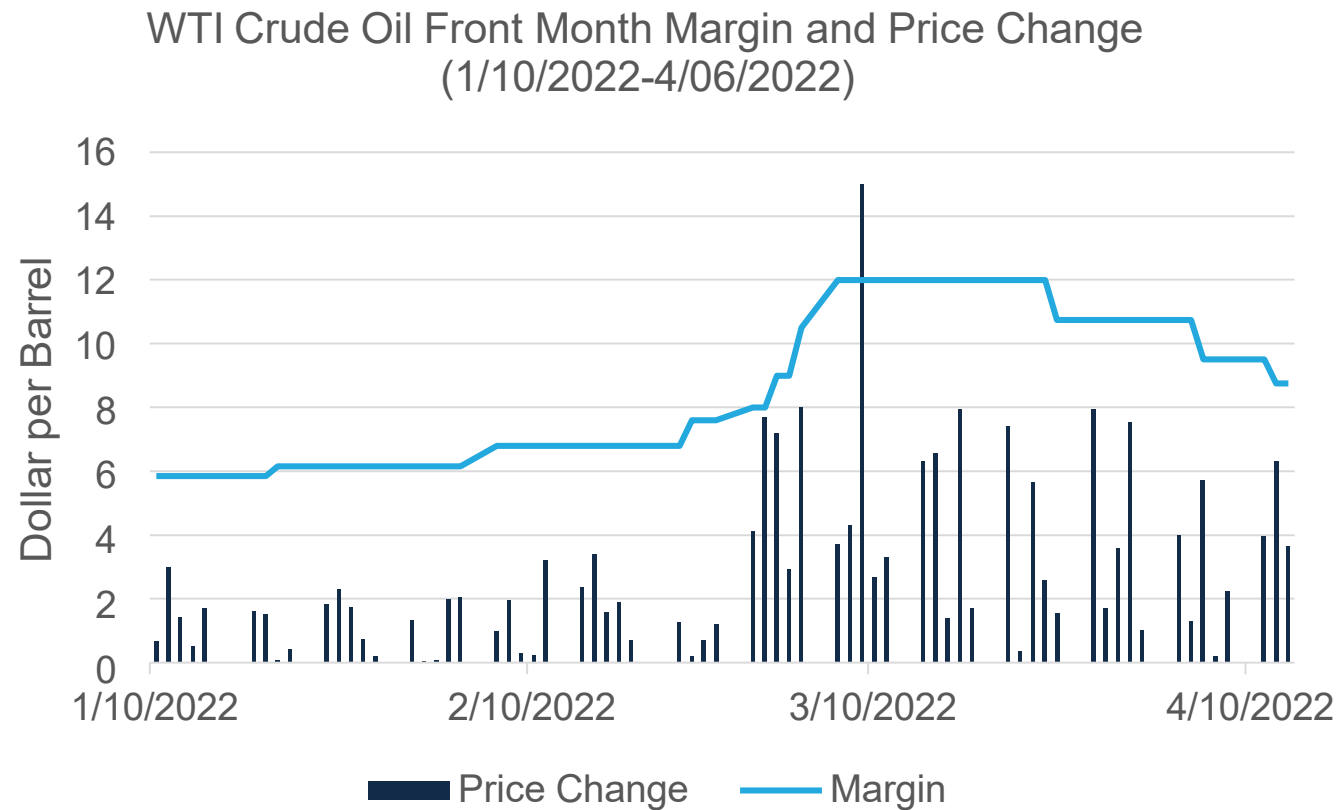


Source: QuikStrike

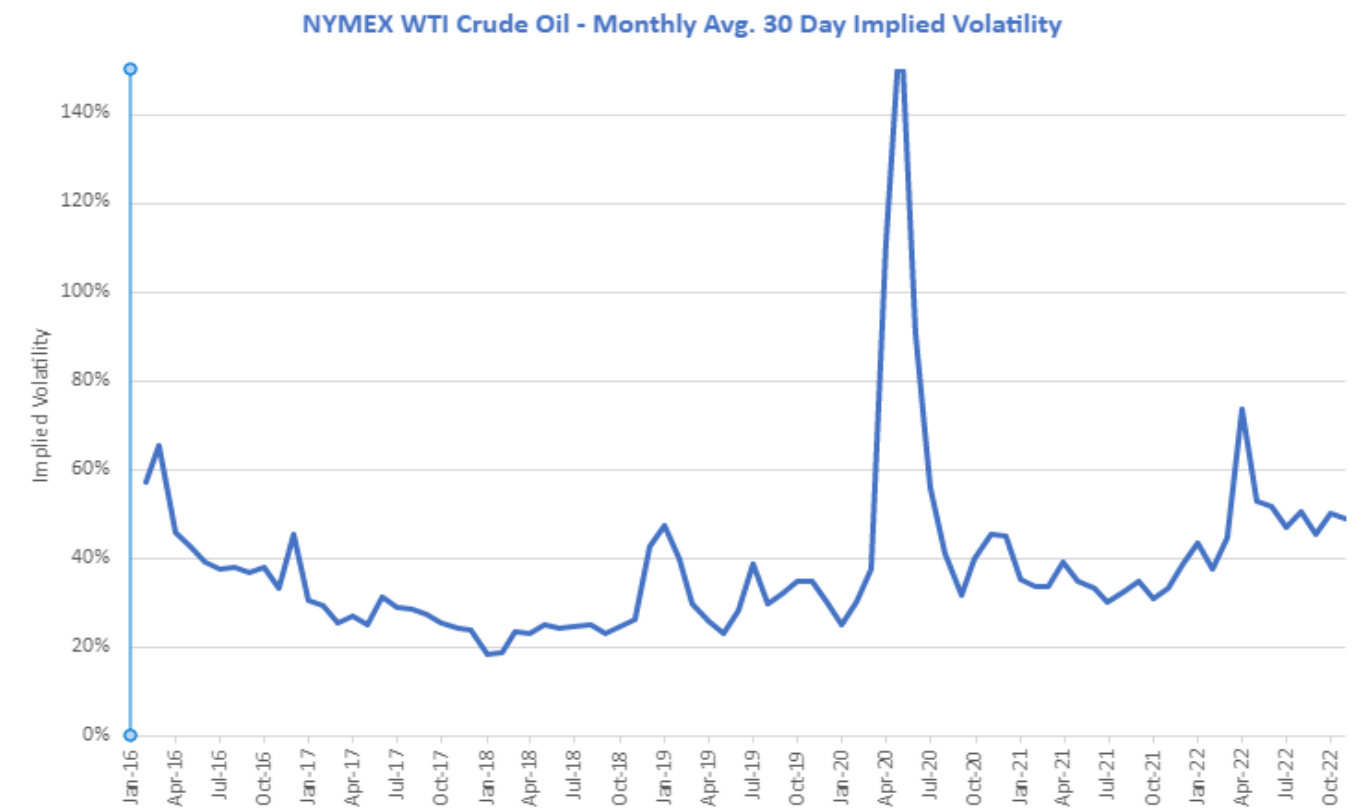
# Energy prices remain elevated, but volatility retreats

An already volatile environment for energy was exacerbated by the Russian invasion

- Following the invasion, WTI prices increased over 60% from January to March highs
- WTI experienced the highest spike in implied volatility on upside price risk for more than 10 years
- CME increased margin in several increments ahead of the invasion and throughout the first few weeks of the war consistent with increased volatility and price
- Proactive and measured increases resulted in only a single outright breach



Source: CME



Source: QuikStrike





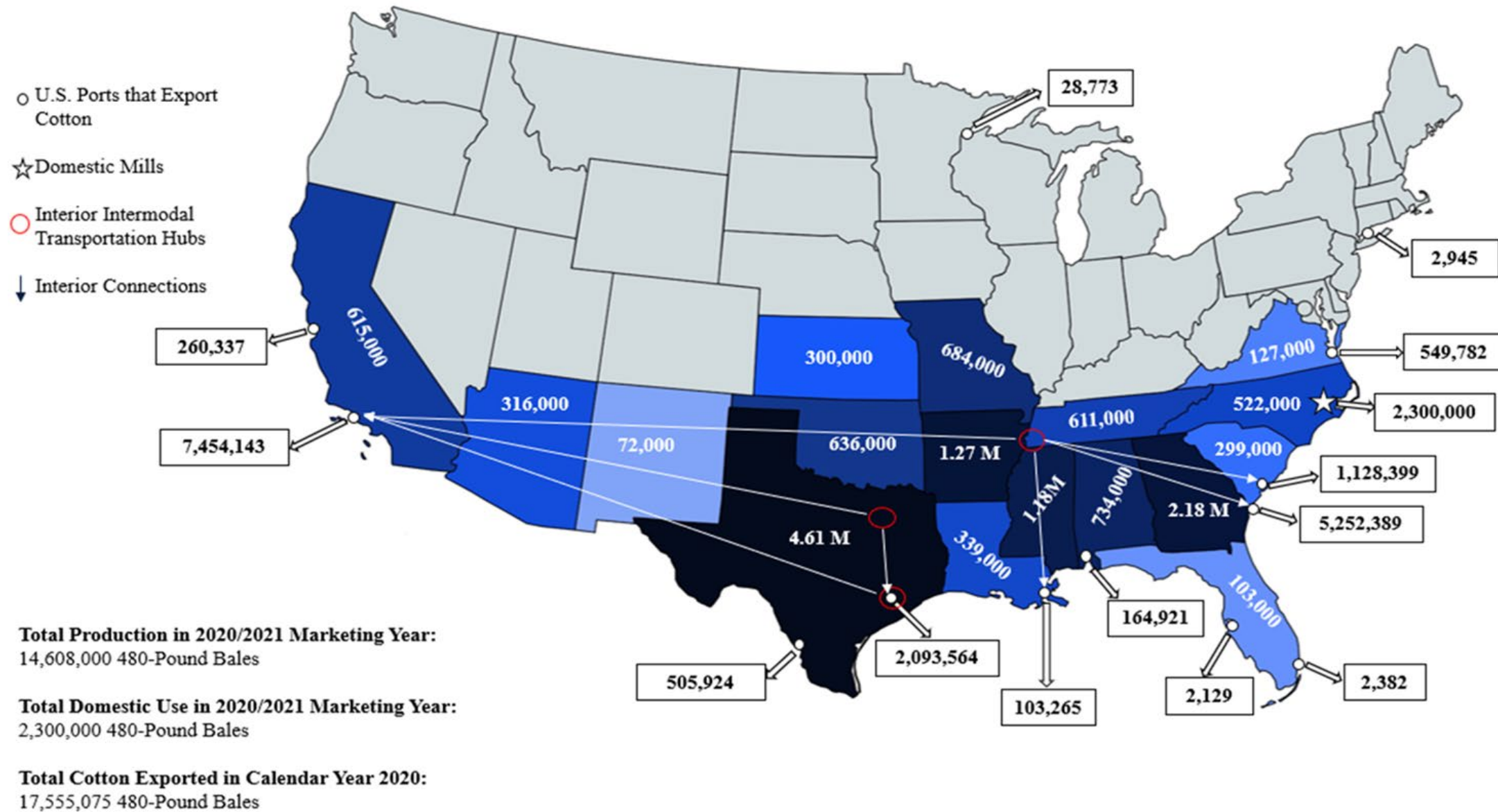
**Bill Bolton, CFO, Refining, Products, and Low Carbon  
Americas Trading and Shipping, bp**



# Supply Chain Disruptions Affecting Markets

Joe Nicosia, Louis Dreyfus Company  
Global Markets Advisory Committee Meeting  
February 13, 2023

# U.S. Cotton - Production, Domestic Consumption and Exports



# Modes of Transportation Required

- Most agricultural products are grown in the interior of the U.S.
- Given that we export off the coast, it requires coordination of...
  - Trucks
  - Chassis
  - Containers
  - Railroads
  - Barges
  - Ports
  - Ocean Carriers
- Disruption to the supply chain ultimately causes disruption to the markets



# Largest Container Exporters – Many are Ag Related

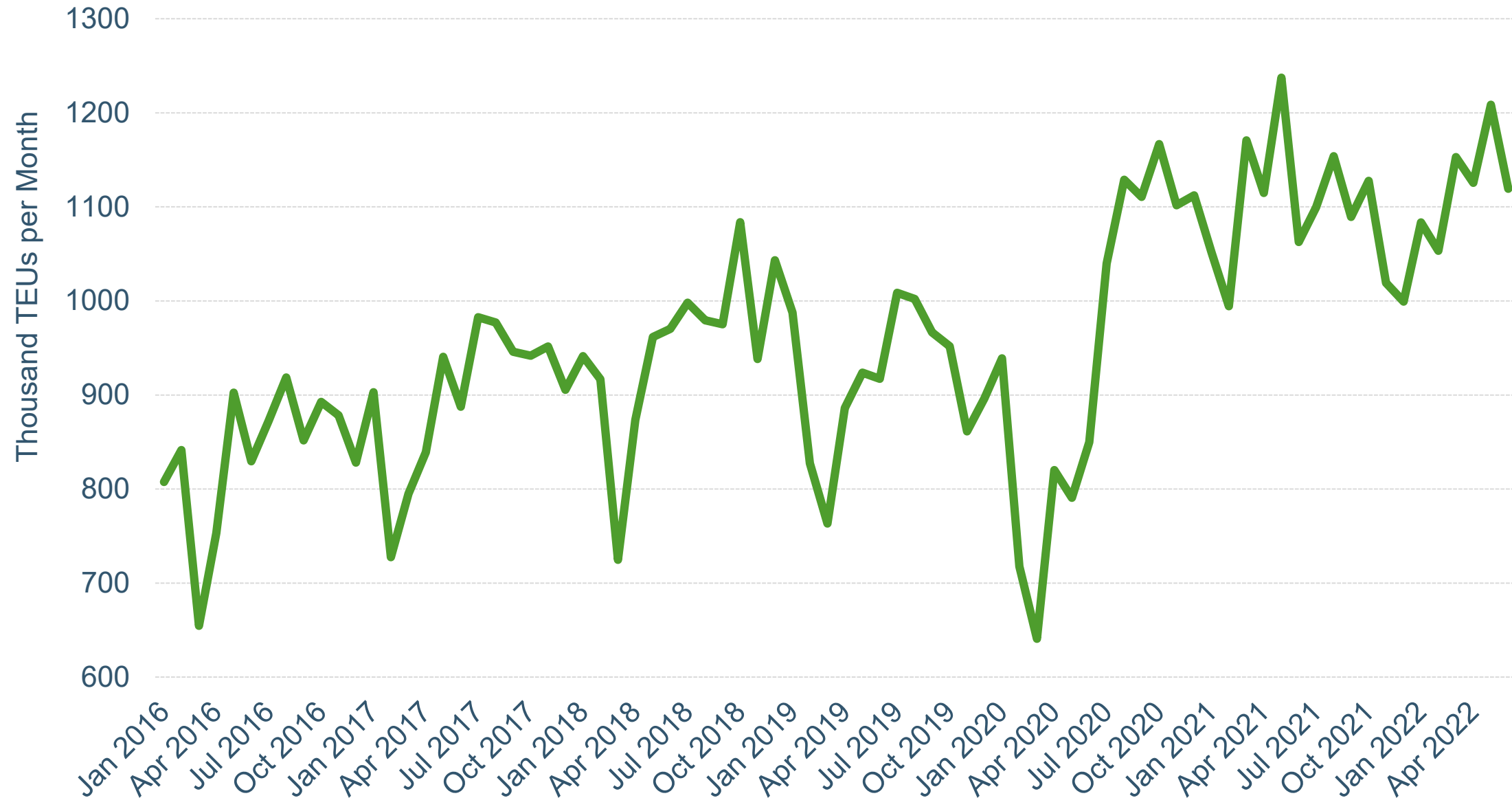
## 2021 Top 10 Container Exporters

Rank	Name	TEUs in 2020	Sector
1	Koch Industries	283,286	Conglomerate
2	International Paper	218,391	Paper/packaging
3	CellMark Group	191,280	Diversified
4	DeLong	156,314	Animal Feed and Grain
5	America Chung Nam	153,347	Paper and plastics recyclables
6	Louis Dreyfus	117,440	Cotton
7	International Forest Products	109,600	Packaging/paper products/pulp/forest products/recyclables
8	Winfibre	97,677	Paper/Recyclables
9	Scoular	93,000	Animal Feed and Grain
10	BMW of North America	74,741	Automotive goods

Source: *The Journal of Commerce*

# U.S. Imports Surged as the U.S. Emerged from COVID

## Total Inbound Containers: Port of Long Beach, Port of Los Angeles, & Georgia Ports Authority

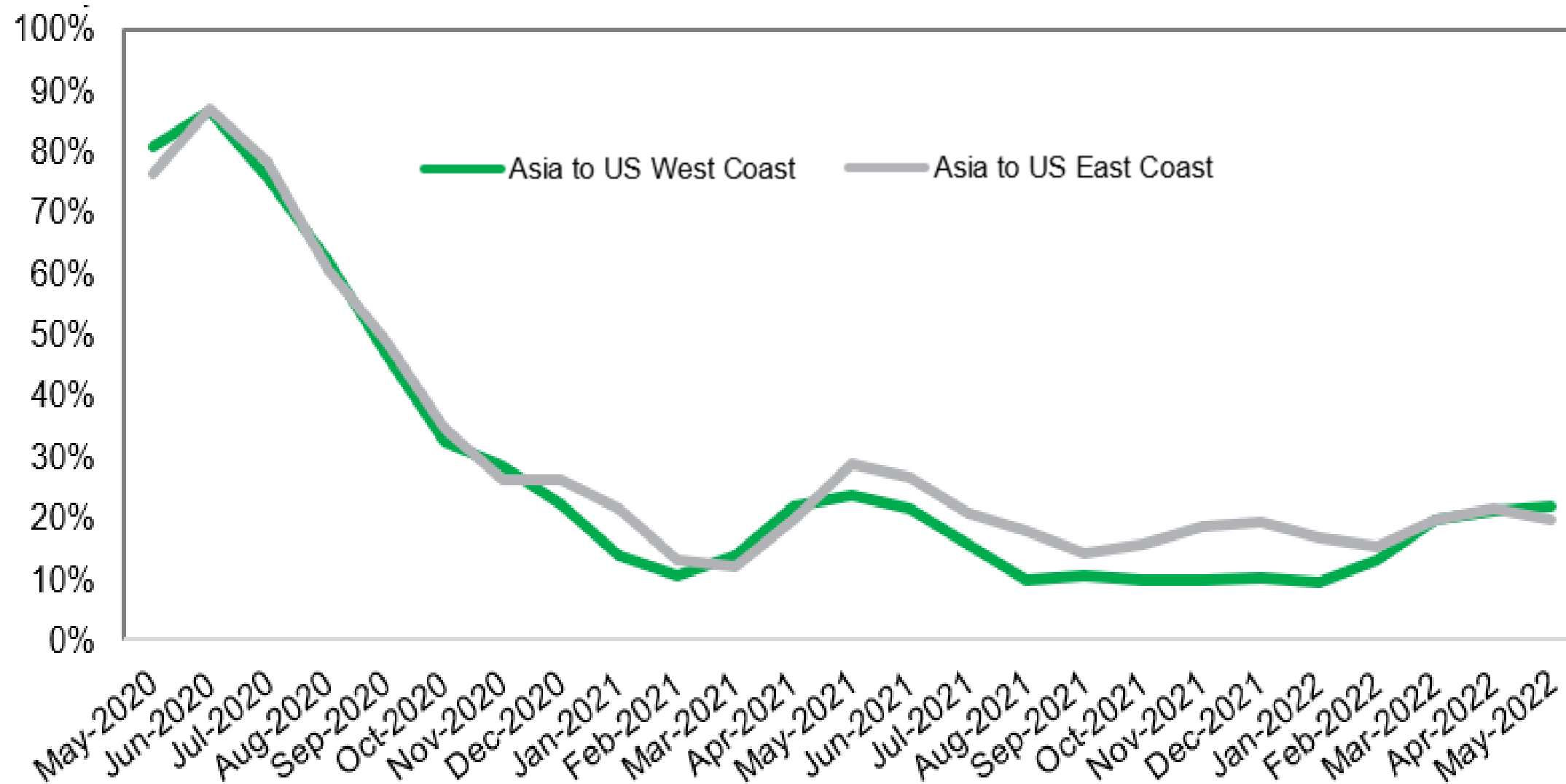


Sources: Port of Long Beach, Port of Los Angeles, Georgia Ports Authority

## 111 Container Ships Waiting Off the Coast of California



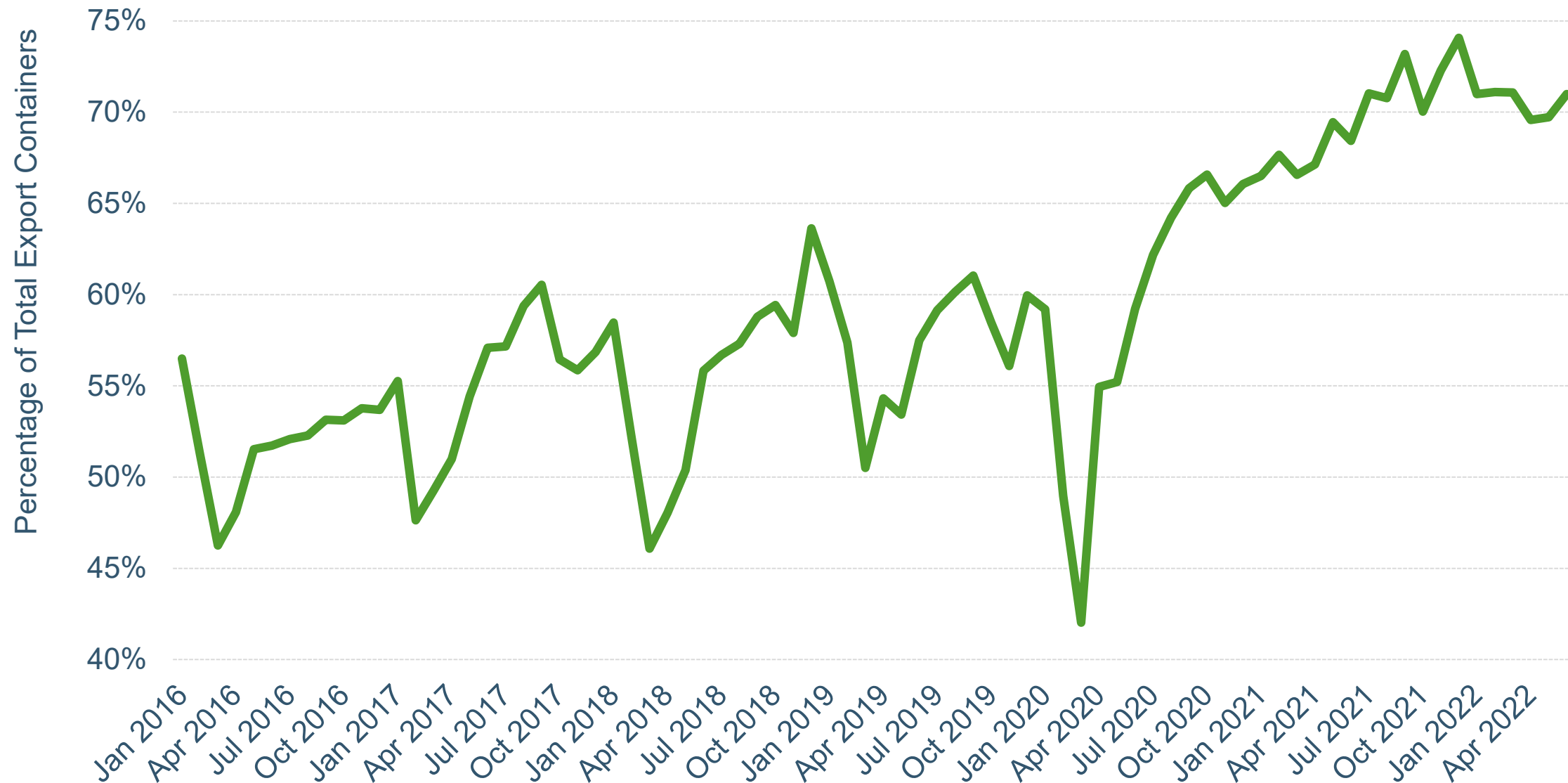
## Trans-Pacific Schedule Reliability Through May of 2022





# Ocean Carriers Prioritized Empty Container Sailings

## Empty Outbound Containers: Port of Long Beach, Port of Los Angeles, & Georgia Ports Authority

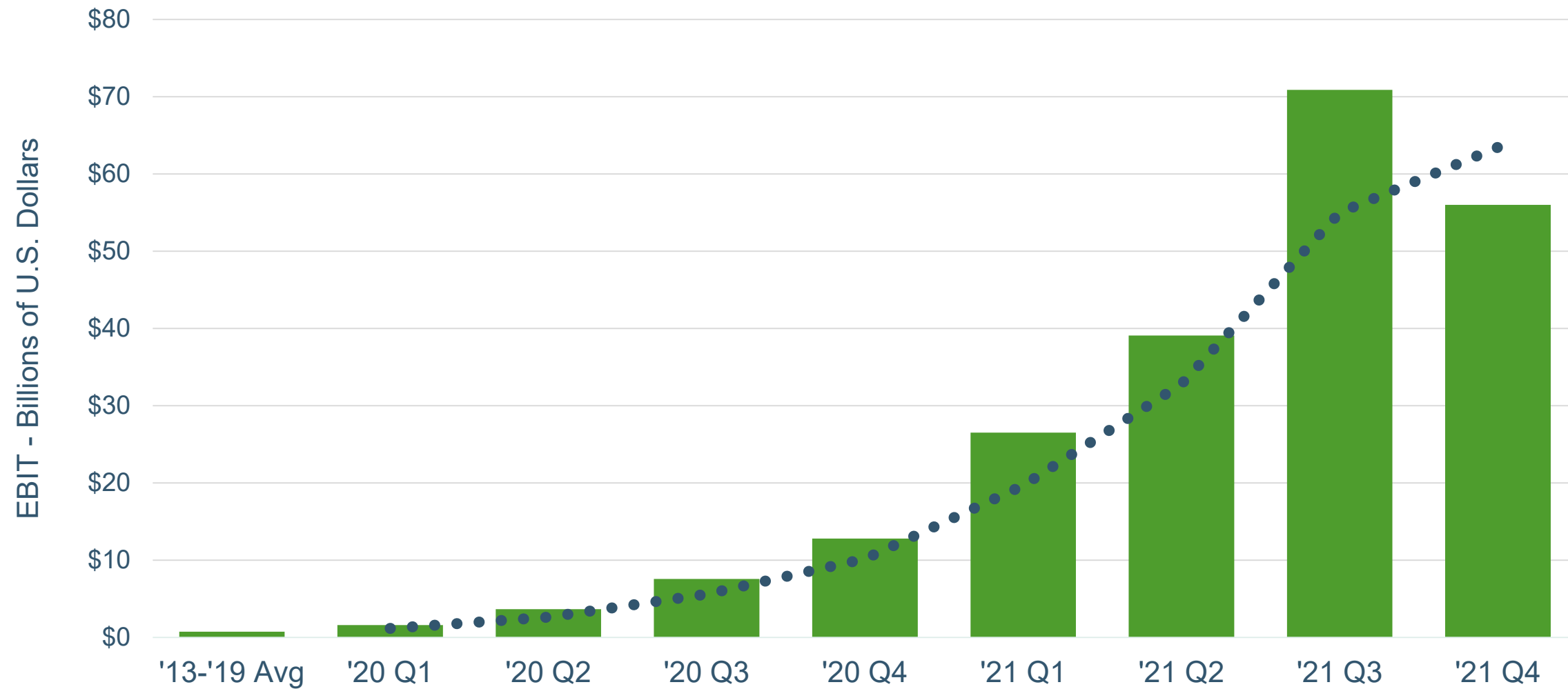


Sources: Port of Long Beach, Port of Los Angeles, Georgia Ports Authority

- Creates shortages of supply
- Basis levels are impacted
- Increase in costs (i.e., demurrage/detention, additional storage costs, late pick-up fees)
- Long lead times are needed
- Loss of sales
- Increased counterparty risks
- Geopolitical disruptions further exacerbate supply chain problems
  - Black Sea
  - Trade Disputes
  - Tariffs
  - Labor Disruptions
  - Pandemics (i.e. COVID-19)

# Ocean Carrier Profitability Soared During this Period

## Quarterly Earnings for the Ocean Carrier Industry (Before Interest and Taxes)





# Commodities Futures Trading Commission Global Markets Advisory Committee

## Panel II: Global Markets Volatility

Market Fundamentals and end users

*Perspectives on key issues from producers and merchants*



**2/13/2023**

**Thane Thomas Twiggs**

# How the Global Commodities Markets Impact the End User?

Whether you are a commercial end user, a farmer or part of the global supply chain, your success is subject to the global commodity markets based on the nature of your business.

With COVID, the past years identified some global supply chain disruptions, relatively good demand for feed and food commodities, bio industrial fuels growth, and volatility; now what?

- **Macroeconomic**
  - Currency impacts to market volatility
  - Central Banks' monetary policy
  - COVID: Production and the supply chain
- **Geopolitical**
  - Regional conflicts between countries that are high exporters of commodities
  - National policies on isolationism or internationalism
- **Environmental**
  - Drought in heavily exporting regions may change the flow of commodities
  - Impact of commodities used for food and fuel



**Stuart Williams, COO, ICE**



**John Murphy, Global Head of Futures Division, Mizuho  
Americas (for Commodity Markets Council)**



# Global Commodity Markets Volatility

*Global Markets Advisory Committee (GMAC)  
US Commodity Futures Trading Commission  
February 13, 2023*

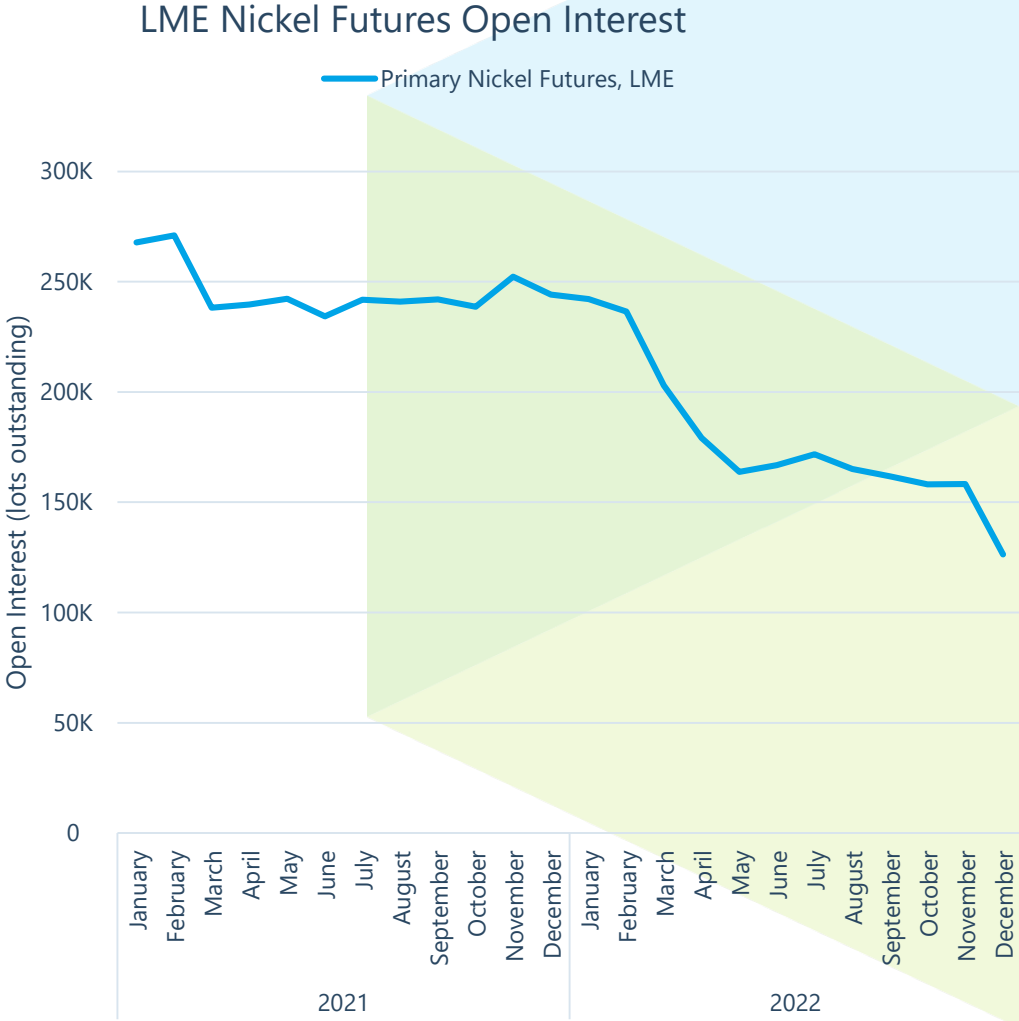
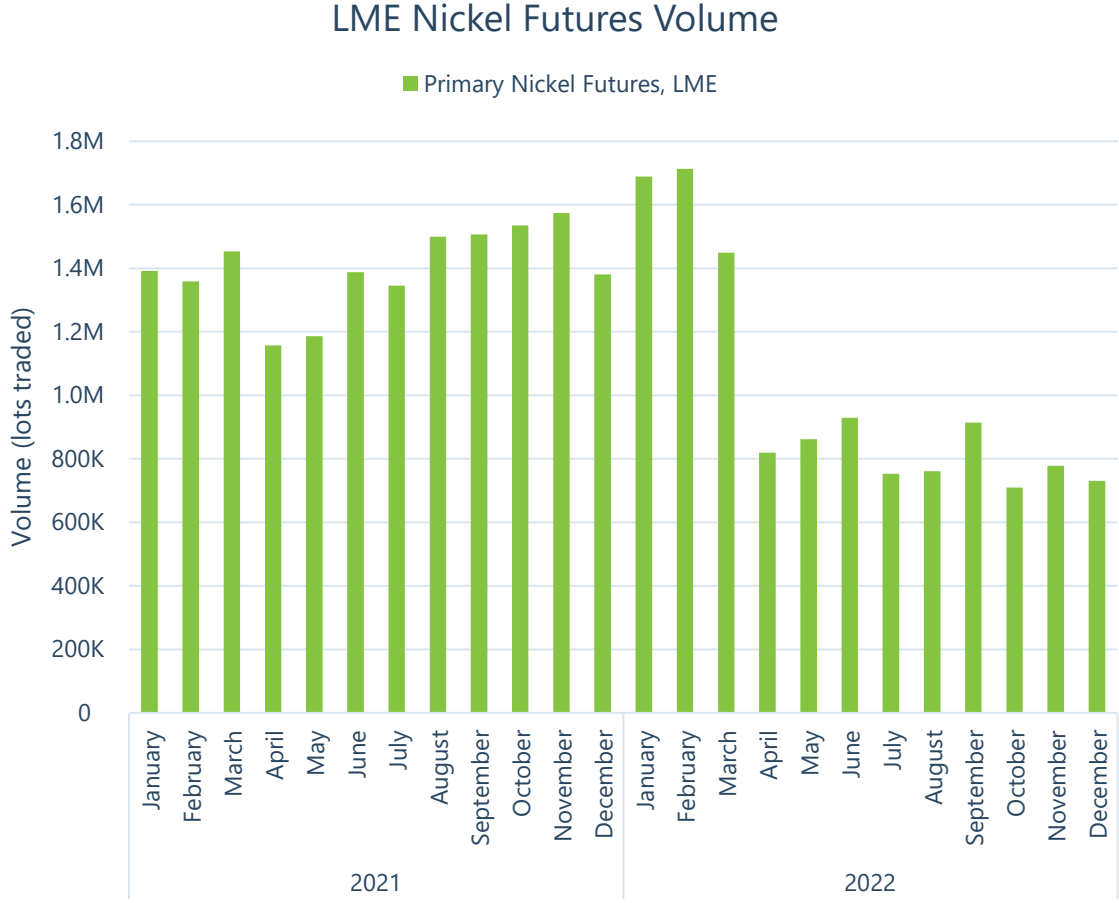
*Jacqueline Mesa, Chief Operating Officer and  
Senior Vice President, Global Policy*



# LME: Oliver Wyman Independent Review

- March 3, large price increases across all metals and increases in margin calls
- In Nickel:
  - large exposed short positions,
  - more buying to hedge risk,
  - further pushing prices up and increasing margin
- Between March 4-8, nearly 16bn in margin calls met by members
- Price of Nickel increased 270% over 3 days
- Due to threat of numerous defaults, LME suspended trading on March 8 for a week and canceled 3.9 billion in trades

# Impact of Nickel Crisis



# LME: Oliver Wyman Independent Review

- Report did not look at governance and decision making
- Report identified recommendations, including:
  - Monitoring and addressing risks in the OTC market
  - Setting position/accountability limits that are tailored to the market/product
  - Putting in place volatility controls to slow down extreme price movements (circuit breakers)
  - Rehearsing default management, such as orderly closing out positions
  - Providing a clear vision for how LME will respond to events and rebuild liquidity

# IOSCO Principles For Regulation and Supervision of Commodity Derivatives Markets

**Price Limits and Trading Halts** Price limits, which set boundaries for daily price moves, price-quality bands, trading halts and circuit breakers have been used by markets to address market volatility. Market Authorities may adopt price limits, trading halts and circuit breakers to:

- 1) reduce or constrain price movements in a trading day that are perceived by the relevant Market Authorities as not being reflective of true market conditions, but might be caused by traders overreacting to new information;
- 2) provide a cooling off period for futures market participants to respond to bona fide changes in market supply and demand fundamentals that would lead to large cash and commodity derivatives contracts price changes;
- 3) allow additional time for the collection of margins in times of large price movements;
- 4) prevent excessive collateral damage to other market participants who base their trading on market levels created through error; and
- 5) enable the relevant Market Authorities to develop appropriate responses in the circumstances.

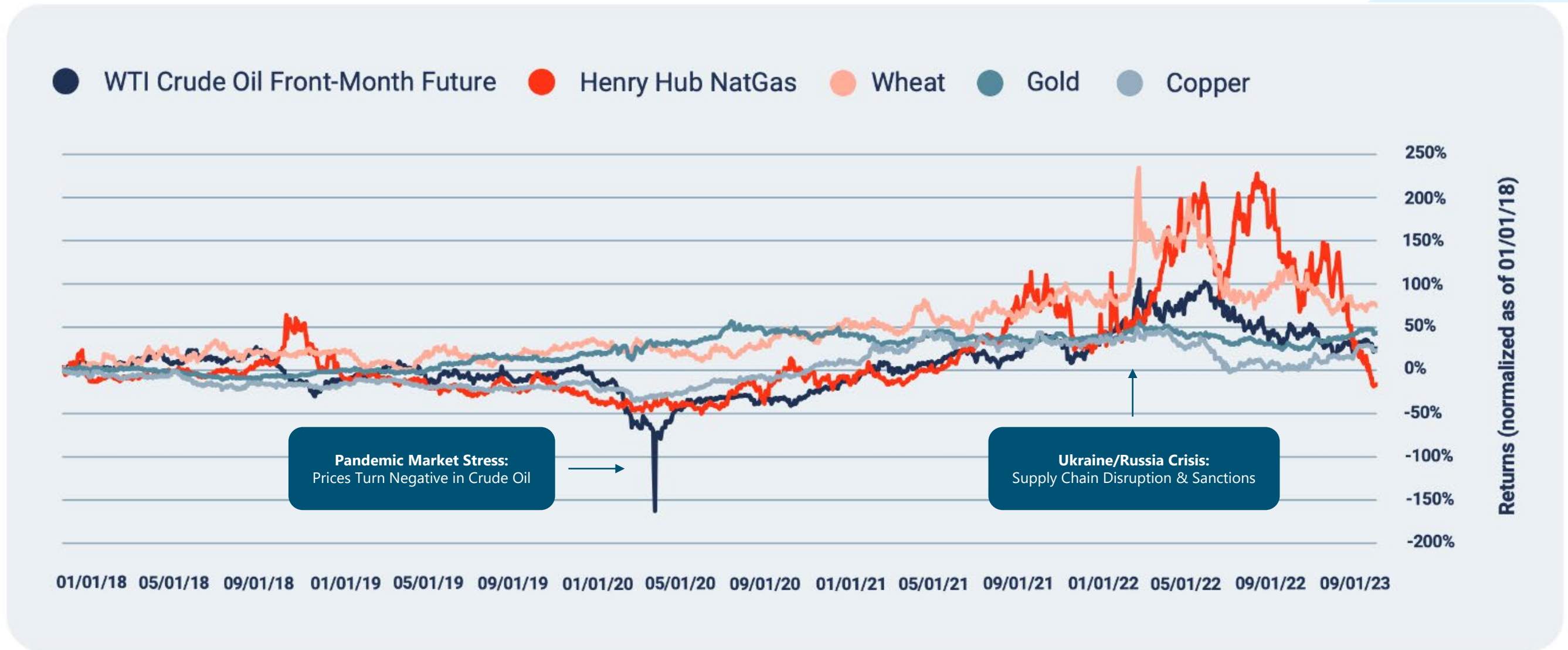


# Market Best Practices

—  
US Price Control Mechanisms

CFTC Global Markets Advisory Committee  
February 13, 2023

# Recent Commodity Market Volatility

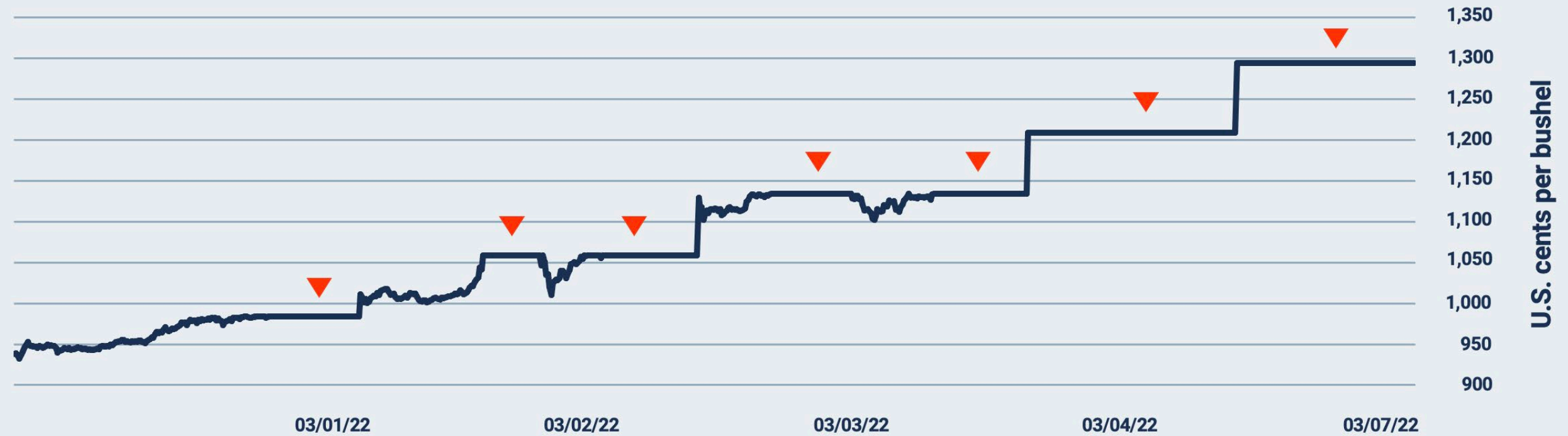


Source: Bloomberg LP. Note: Normalized as of 1/1/18.

# Price Controls in Action

## Limit up

● May '22 Chicago Wheat Future – Last price    ● Price limits



Source: Bloomberg LP

# Standard US Price Controls

Regulate price moves relative to previous settlement price or a rolling lookback

Venue	Product	Dynamic circuit breakers	Circuit breakers	Price Limits	No limits
CME	Rates	✓			
	Equities		✓		
	FX	✓			
	Ags			✓	
	Metals	✓			
	Energy	✓			
ICE	Select Ags			✓	
	Energy (Non-US)				✓
NMS Stocks	Single Stock		✓		
	ETFs		✓		

Source: Exchange rules.



# Short-Term Price Controls

Regulate price moves over extremely brief time periods

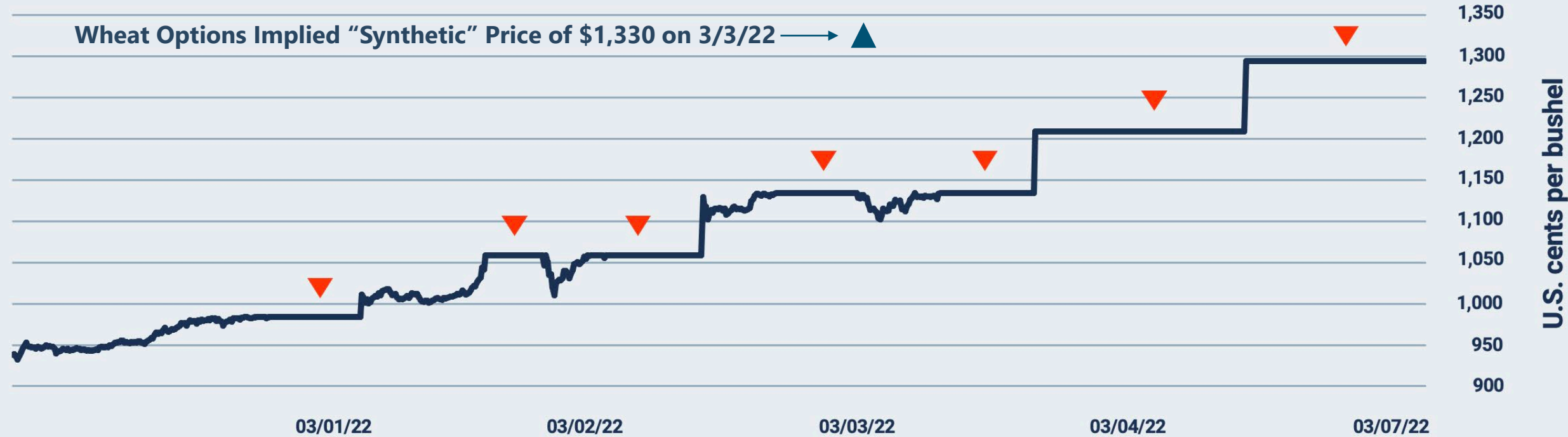
Venue	Product	Velocity logic	Interval price limits	Limit up - Limit down
CME	Rates	✓		
	Equities	✓		
	FX	✓		
	Ags	✓		
	Metals	✓		
	Energy	✓		
ICE	Select Ags		✓	
	Energy (Non-US)		✓	
NMS Stocks	Single Stock			✓
	ETFs			✓

Source: Exchange rules.

# Properly Functioning Markets Must Maintain Continuous Exchange of Risk

## Limit up

● May '22 Chicago Wheat Future – Last price    ● Price limits



Source: Bloomberg LP.



**MEMBER DISCUSSION AND SUBCOMMITTEE VOTE**



**BREAK**



## PANEL III: DIGITAL ASSET MARKETS

# State of the Crypto Markets

Update to the CFTC Global Markets Advisory Committee



**CUMBERLAND**

A DRW COMPANY

2.13.2023



# Agenda

## Trends

- Risk management
  - Stablecoins
  - Evolving liquidity landscape
- 

## Spot Trading

- U.S. exchanges
  - Non-U.S. exchanges
  - OTC
- 

## Futures

- U.S. exchanges
  - Non-U.S. exchanges
- 

## Options

---

## Decentralized Exchanges



# Where is the market focused?

## Risk management

- Separation of responsibilities vs. vertically integrated exchanges
  - Adoption of TradFi best practices, e.g., ISDAs
  - Exchange-based trading vs. bilateral trading without prefunding
- 

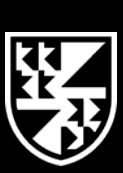
## Stablecoins

- Adoption for exchange trading and value transfer
  - New issuance driven by rising interest rates
  - Legislative and regulatory initiatives (U.S., Singapore, et al.)
- 

## Evolving liquidity landscape

- Dramatic lending market changes
- Repricing of VC opportunities
- Liquidity concentration

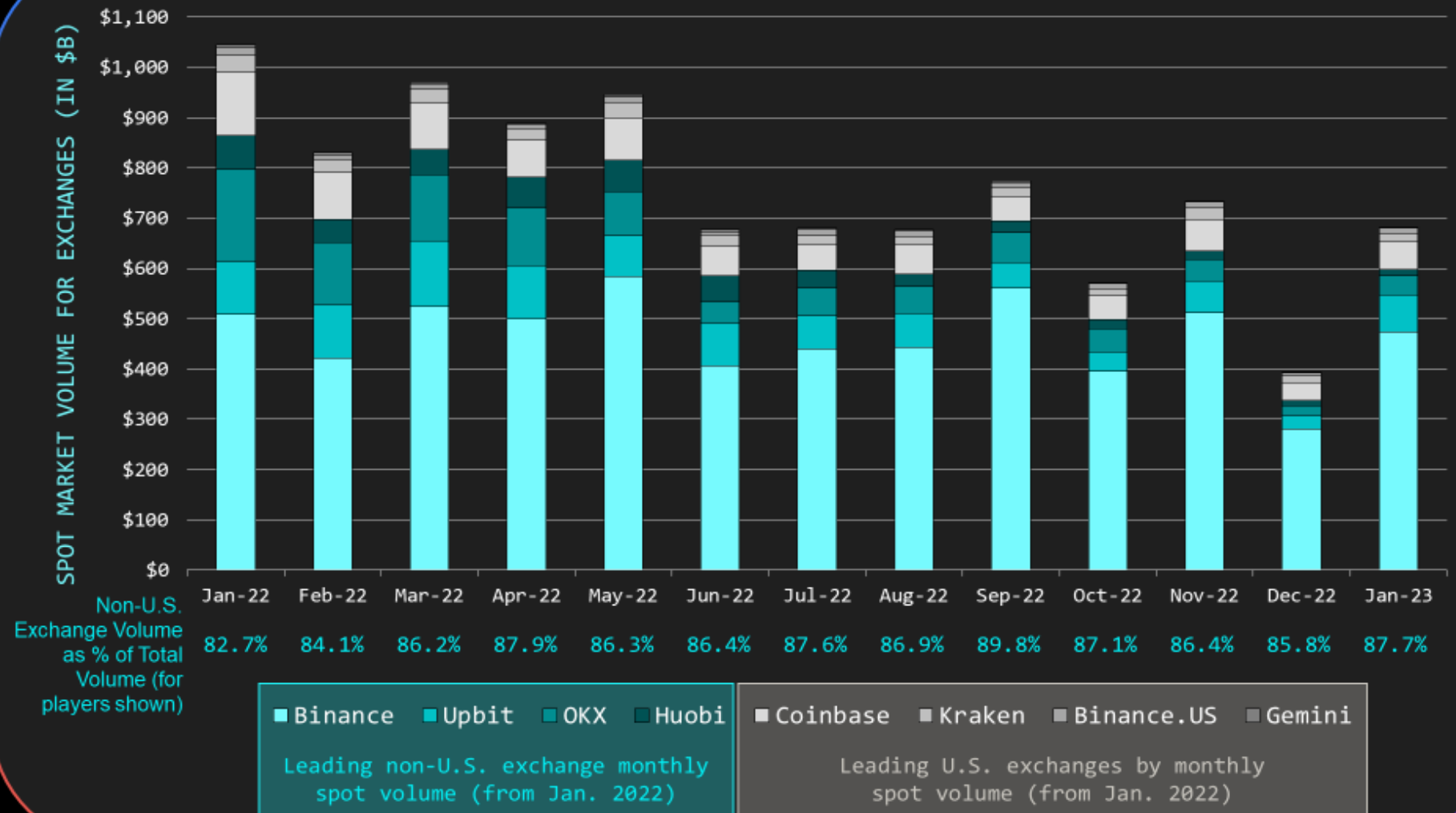




# Spot Exchanges

- **Leading exchanges are non-U.S. exchanges:**
  - Binance: majority of all exchange trading volume, with >60% of global market share
  - The largest U.S. exchange, Coinbase, holds <7% of global market share
- **Greater diversity in products traded offshore:** Many spot exchanges also support futures, options, and assets that may be deemed to be securities in U.S.
- **Crypto exchanges as more than just exchanges:** Many exchanges offer prime brokerage, custody, staking, education, borrowing, direct deposit, and NFT services, among others

## Breakdown of Spot Monthly Exchange Volume by Leading U.S. and non-U.S. Centralized Exchanges



Note: Spot market volumes for centralized cryptocurrency exchanges, shown in USD billions. Showing the top 4 non-U.S. and U.S. exchanges with reliable reporting of exchange volume metrics starting from Jan. 2022.

Source: The Block; CoinGecko | Updated 1/31/2023



# OTC Trading

**Observation:** Shift toward a more flexible structure similar to FX markets, where participants right-size operational risk by choosing different providers for their different needs.

- OTC liquidity providers
- Aggregators
- Custody providers
- Non-custodial wallet providers

## Liquidity Providers



jump-



WINTERMUTE

B 2 C 2

## Liquidity Aggregators

TALOS



## Custody Providers



## Wallet Providers





# Futures Exchanges

- **Market size and players:** The non-U.S. futures market (including instruments labeled as perpetual futures\*) is significantly larger than the U.S. market
- **Significant differences vs. U.S. market** in products traded, available leverage, margining, liquidation, and clearing & settlement
- **Retail vs. institutional:** Most retail trading activity is on non-U.S. exchanges
- **Path to growth of U.S. market:** We believe further progress on regulatory frameworks may increase U.S. market share

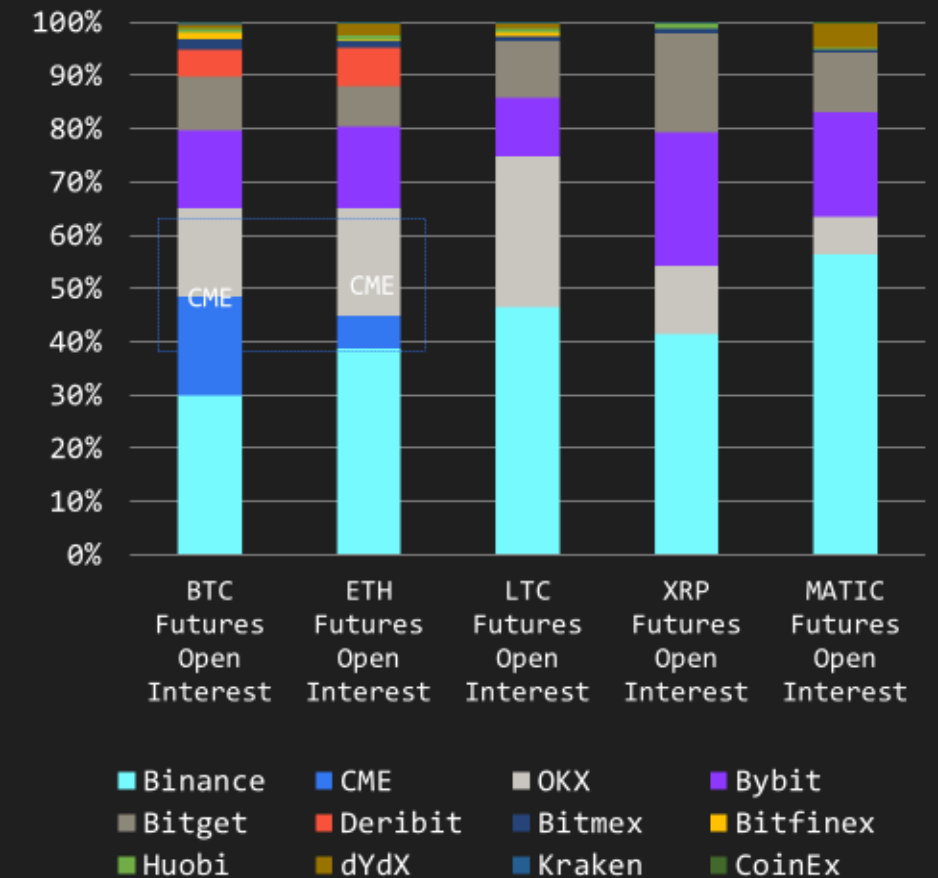
## Volume of Futures (Non-U.S. Exchanges vs. CME)

	Jan. 31, 2021	Jan. 31, 2022	Jan. 31, 2023
Binance	30.95B	32.71B	51.76B
Bitmex	3.25B	712M	939M
Bybit	6.31B	3.93B	13.57B
CME	4.15B	1.94B	1.640B
OKX	14.97B	12.24B	13.98B
Deribit	1.23B	453M	587M
Kraken	382M	159M	47M
Bitfinex	38M	87M	26M
Huobi	22M	1.70B	863M
Bitget	-	5.07M	8.69B
dYdX	-	674M	1.13B
<b>Total</b>	<b>83.08B</b>	<b>59.67B</b>	<b>93.79B</b>
<i>CME as % of Total</i>	<i>5.0%</i>	<i>3.2%</i>	<i>1.7%</i>

- Futures volumes on CME decreased over time, while volumes on Binance increased.

Note: In USD, reported on Jan. 31 of respective year  
Source: Coinglass | Updated 2/1/2023

## Share of Futures Open Interest Across Exchanges



Note: Open interest is calculated as estimated notional value of all open futures positions. Includes the largest exchanges with reliable reporting of exchange volume metrics. % shares as of Jan. 31, 2023.

Source: Coinglass | Updated 2/1/2023

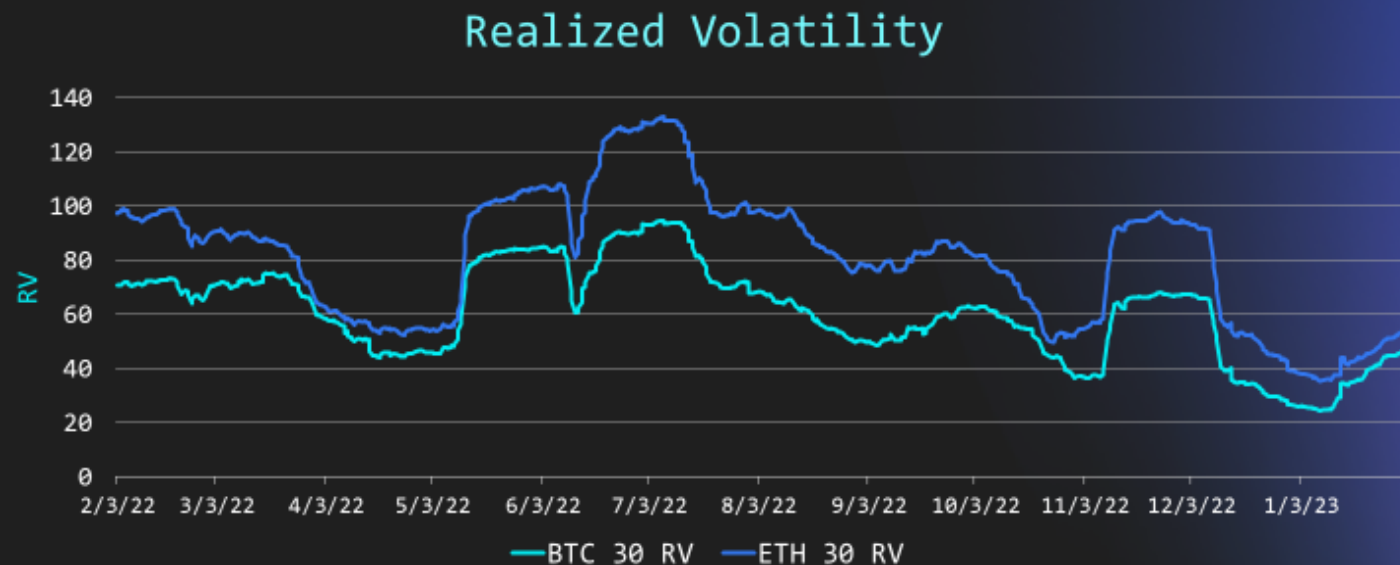
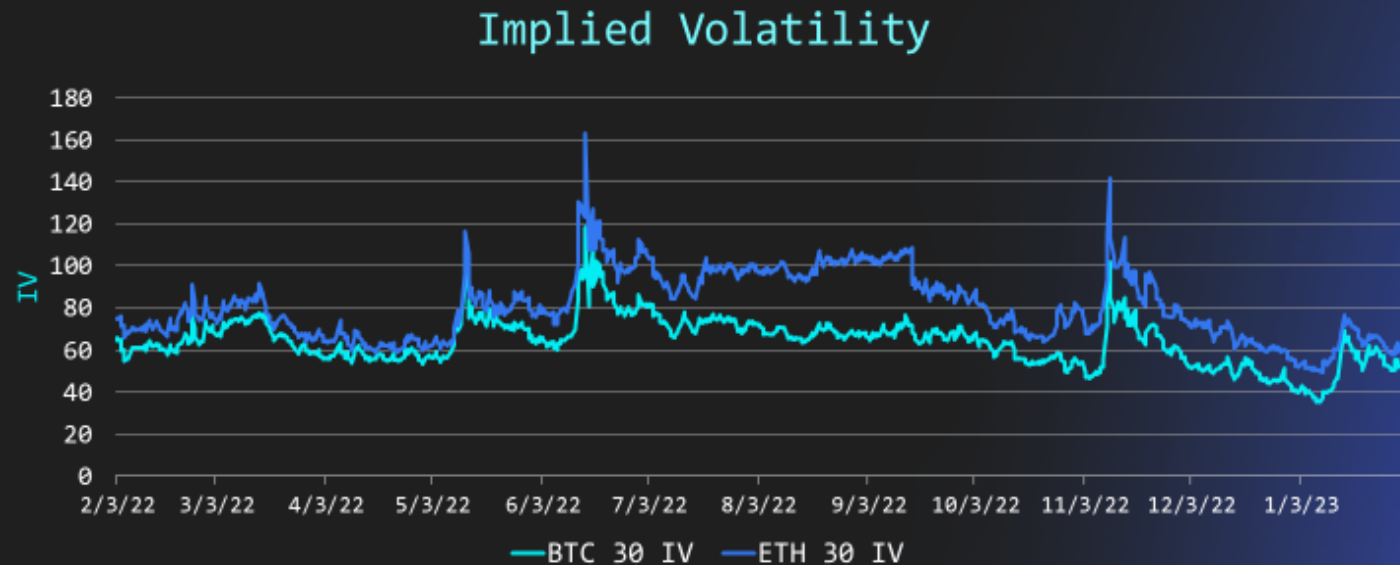
\* In a recent Complaint, the CFTC made clear that products labeled as "perpetual futures" may fall within the Commodity Exchange Act's "swap" definition.



# Options Market

- **Main mechanisms for trading crypto volatility** – while less mature than spot and futures markets, there are several markets for trading crypto volatility:
  - OTC / bilateral
  - CME
  - Deribit
  - Decentralized Options Vaults
  - Crypto-related equities
- **Observation:** Post-FTX significant uptick in interest in trading bilaterally under ISDAs.

## Implied vs. Realized Volatility



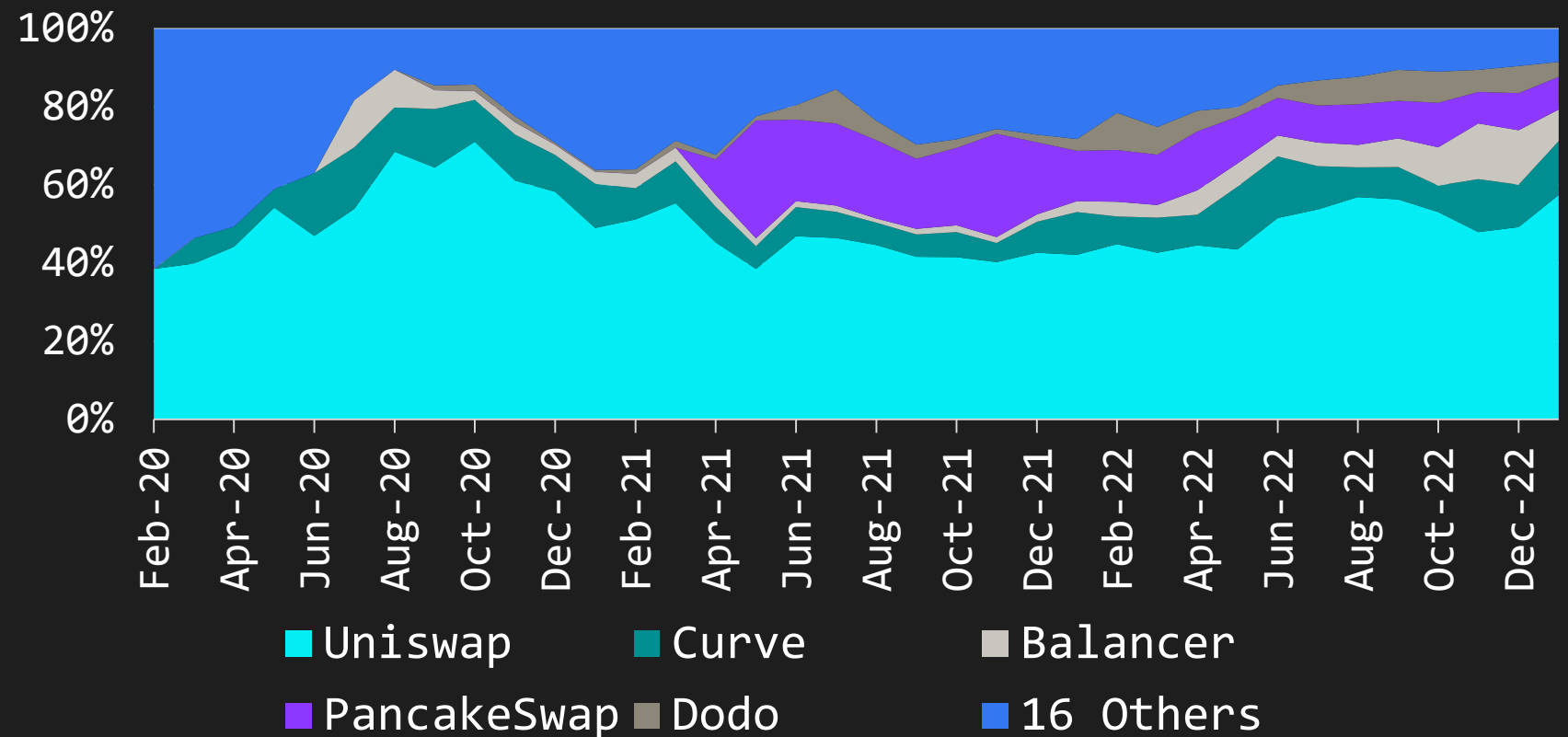
- Two largest spikes in IV over the last year were last June (UST/Luna implosion) and November (FTX)
- 90 and 365-day realized vol ratio for BTC/ETH sits at 75%, whereas IV ratios are ~90%



# Decentralized Exchanges

- DEX (Decentralized Exchange): P2P marketplace with no central intermediary where transactions are consummated via smart contracts
- DEX volumes accounted for 15–20% of total spot volumes at peak in 2021; now ~6% post-FTX
- While the market is highly competitive and fragmented, Uniswap remains the largest player by market share
- Some DEXes experiment with yields (token rewards) to attract new users to their platform
- Uniqueness of the innovations and KYC/AML limitations have prevented material institutional participation, but we believe this is changing

## Breakdown of Spot Exchange Volume Market Share by Leading Decentralized Exchanges



Source: The Block; The Graph; CoinGecko | Updated 2/1/2023



**Global Financial Markets Association  
CFTC GMAC Meeting 13 February 2023**

# Key Global Regulatory Themes



The below table highlights the latest priorities and workstreams announced by the Global Standard Setter setters on the topics of digitalization and operational resilience\*.

FSB	IOSCO	BIS Innovation Hub	BCBS	CPMI	G20
<p>FSB announced <a href="#">main priorities for 2023</a> at December 2022 Plenary Meeting. The announcement included the following efforts relating to digitalization and operational resilience:</p> <p>FSB plans to focus on “<b>advancing work on the global regulatory and supervisory framework for crypto-asset markets and activities.</b>” Details on the FSB’s Proposed Framework for International Regulation of Crypto-asset Activities are available <a href="#">here</a>.</p> <p>FSB will work towards “<b>enhancing cross-border payments.</b>” The <a href="#">FSB’s final report</a> on “Developing the Implementation Approach for the Cross-Border Payments Targets” was published in November 2022.</p> <p>FSB will focus on “<b>strengthening cyber and operational resilience.</b>” Details on the FSB’s workstream on “Achieving Greater Convergence in Cyber Incident Reporting” are available <a href="#">here</a>.</p>	<p>In July 2022, IOSCO published a <a href="#">Crypto-Asset Roadmap for 2022-2023</a>. The roadmap includes two initial workstreams on:</p> <p><b>1)Crypto &amp; Digital Assets (CDA)</b></p> <p><b>2)Decentralised Finance (DeFi)</b></p> <p>In July 2022, IOSCO published a <a href="#">final report</a> on “<b>Operational resilience of trading venues and market intermediaries during the COVID-19 pandemic &amp; lessons for future disruptions.</b>”</p>	<p>The BIS Innovation Hub (BIS IH) work programme for 2023 focuses on the following themes:</p> <p><a href="#">Suptech and Regtech</a></p> <p><a href="#">Next-generation FMs</a></p> <p><a href="#">Central Bank Digital Currency (CBDC)</a></p> <p><a href="#">Open finance</a></p> <p><a href="#">Cyber security</a></p> <p><a href="#">Green finance</a></p>	<p>The BCBS published its <a href="#">work programme and strategic priorities for 2023-2024</a>.</p> <p><b>Digitalisation of finance</b> was included as a key theme in the programme with expected efforts to:</p> <p>“<b>publish an analytical report on the bank and supervisory implications of the ongoing digitalisation of finance</b>”;</p> <p>“<b>continue to assess bank-related developments in cryptoasset markets</b>”;</p> <p>“<b>monitor the implementation of its prudential treatment of banks’ cryptoasset exposures</b>”</p> <p><b>Monitoring and review of existing standards and guidance</b> was included as a key theme with expected work on “<b>developing updated supervisory principles on banks’ outsourcing practices and reliance on third- and fourth-party service providers, building on work underway by the FSB</b>”</p>	<p>Key CPMI building blocks as part of the <a href="#">Cross-border payments programme</a> include:</p> <p><b>Building Block 18:</b> Fostering the soundness of global stablecoin arrangements for cross-border payments</p> <p><b>Building Block 19:</b> Factoring an international dimension into CBDC design</p>	<p>The Indian G20 Presidency’s <a href="#">Finance Track</a> established a Global Partnership for Financial Inclusion (GPII) that includes work areas on “<b>digital financial literacy and bridging the digital divide among others.</b>”</p> <p>The Finance Track also includes “<b>strengthening global financial system resilience</b>”, “<b>enhancing cross-border payments</b>” and “<b>assessment of risks from crypto-assets and policy approaches</b>” as key financial sector issues to be discussed directly at the level of the G20 Finance and Central Bank Deputies.</p>

December 2022, GFMA published a proposed approach for the classification and understanding of digital-assets as an annex to its response to the FSB on the “International Regulation of Crypto-Asset Activities – A Proposed Framework.”

## A. Value-Stable Digital-Assets

1. **Central Bank Digital Currencies (CBDC)** (e.g., e-Krona): Digital form of money that represents a liability of a central bank in a single fiat sovereign currency that may or may not pay interest
2. **Financial Market Infrastructure (FMI) Tokens** (e.g., USC): Digital form of money representing claims on an FMI and reflecting deposits held at a central or commercial bank in a single fiat currency that may or may not pay interest
3. **Tokenised Commercial Bank Money (e.g., Signet)**: A token evidencing a deposit claim for a fixed amount of fiat money denominated in a single currency by the token-holder against the token issuing bank or other similarly highly regulated depository institution. It may or may not pay interest.
4. **Stablecoins**: Tokens designed to minimise/eliminate price fluctuations relative or in reference to other asset(s) which are not issued by a central bank, FMI, bank, credit institution or highly-regulated depository institution. May represent a claim on the issuing entity, if any, and/or the underlying assets
  - a. **Asset Linked Digital-Asset** – value may be fixed or variable and in reference to individual structures or include a combination of:
    - Fiat currency linked (e.g., Tether, Paxos, USDC, Gemini)
    - Other real asset linked (e.g., Sendgold, Xaurum)
    - Digital asset linked (e.g., Maker)
  - b. **Algorithmic Digital-Asset**: Typically, not linked to any underlying assets and each token can be pegged to a price level or a unit maintained through buying, selling or exchange among assets or some other pre-determined mechanism



## B. SecurityToken

- Token issued solely on DLT or blockchain infrastructure that satisfies the applicable regulatory definition of a security
  - i. or financial instrument under local law (e.g., World Bank's 'Blockchain Bond')
- Token that represents on DLT or blockchain infrastructure underlying securities/financial instruments issued on a different platform (e.g., a traditional CSD, registrar, etc.), where such representation itself satisfies the definition of a security/financial instrument under local law.

## C. Cryptocurrencies

- Digital representations of value with no redemption rights against a central party and may function within the community (enabled through peer-to-peer networks) of its users as a medium of exchange, unit of account or store of value, without having legal tender status. They may also act as an incentive mechanism and/or facilitate functions performed on the network they are created in; their value is driven by market supply/demand therein.

## D. Settlement Token

- Representation on DLT or blockchain infrastructure of underlying traditional securities/financial instruments issued on a different platform (e.g., a traditional CSD, registrar, etc.) where such representation itself does not satisfy the definition of a security or financial instrument under local law and is used solely to transfer or record ownership or perform other mid/back-office functions (e.g., collateral transfer, recording of ownership)

## E. Utility Token

- A means of accessing a DLT or blockchain platform and/or a medium of exchange which participants on that platform may use for the provision of goods and services provided on that platform (e.g. loyalty rewards programs/systems, gift card rewards, credit points that are only usable within the DLT or blockchain platform, memory and network server space, and other utilities-based value); or
- Tokens that are not native to the underlying network but are used for accessing applications that are built on top of another DLT or blockchain infrastructure platform (dApp)

## F. Other Crypto-Assets (not structured as value-stable crypto-assets)

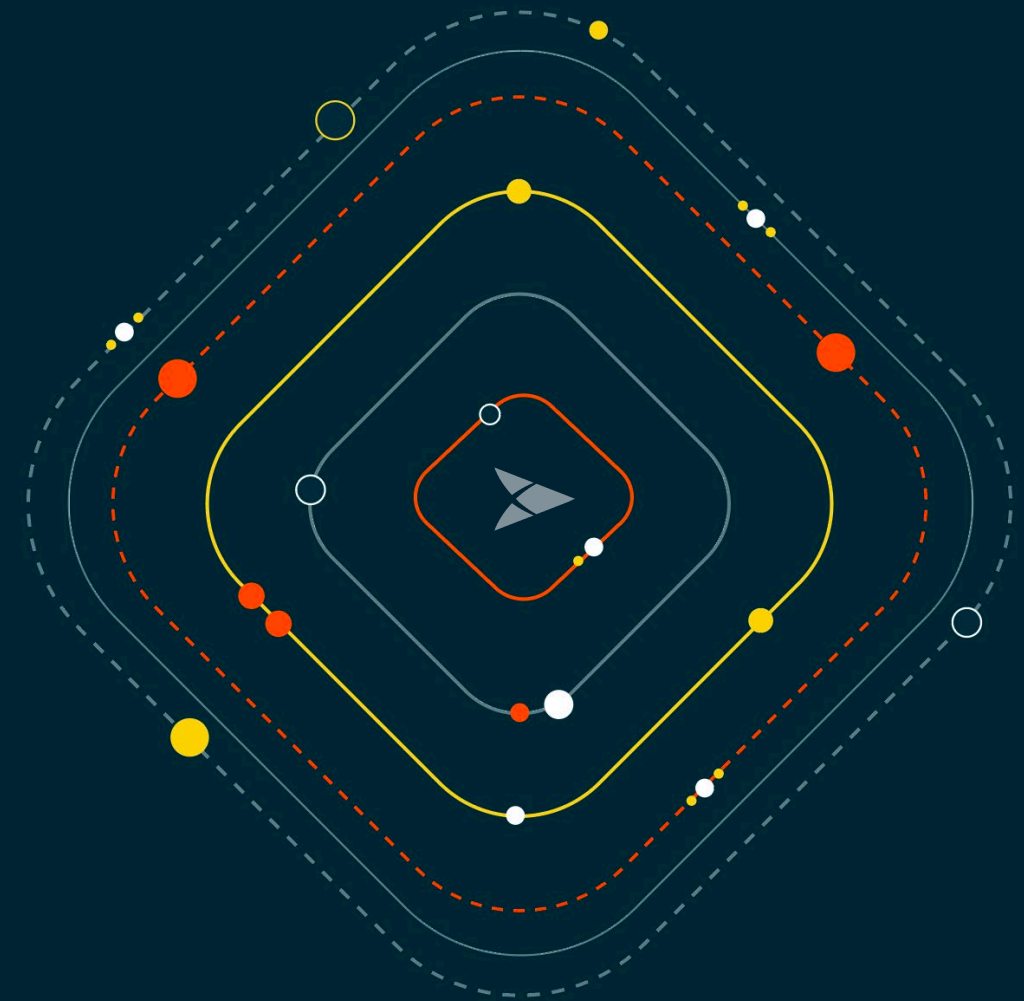
- Representation on DLT or blockchain infrastructure of ownership in tangible or intangible underlying assets or of certain rights in those assets (such as interest, e.g., loans), which are not securities or financial instruments (e.g., real estate, art, intellectual property rights, precious metals, grains, or non-fungible assets that only exist in digital form on a DLT network); they may represent a claim on the issuing entity or the underlying assets.

# PERSPECTIVES ON DIGITAL ASSETS

Global Markets Advisory Committee,  
U.S. Commodity Futures Trading Commission

Panel I: Digital Asset Markets, Part II

February 13, 2023



# A Defining Moment for Digital Assets

2022 Institutional Research\* on Digital Assets – Key Themes & Trends

## Accelerating institutional adoption of Digital Assets

Institutional investors know that digital assets are here to stay and are actively exploring the space

**76%**

are currently investing in or exploring various types of digital assets

**41%**

hold cryptocurrency in their portfolios today, with an additional **15%** planning to within the next 2-5 years

**88%**

are planning to move forward with adoption of digital assets, even in the midst of a crypto winter

## Digital Cash

Appealing value proposition for digital cash use cases among institutional investors

**93%**

see value in extending payment windows to move cash and securities 24/7/365

**88%**

are comfortable with digital representation of cash using blockchain based technology

**69%**

would only engage in 24/7/365 payment and settlement mechanisms with highly rated institutions

## Tokenization

Tokenization will revolutionize asset management and has strong support among investors

**97%**

agree that “tokenization will revolutionize asset management”

**91%**

are interested in investing in tokenized products

**70%**

are willing to pay extra for increased liquidity and faster asset turnover

\*BNY Mellon commissioned Celent to survey over 270 institutional investors (asset managers, asset owners, and hedge funds) around the globe. Research originally published October 2022. Celent is a member of the Oliver Wyman group, a global research & advisory firm. Celent developed this research; and the analysis, conclusions, and opinions are Celent's alone.

# Taxonomy Is Important – What Are “Digital Assets”?

While there is no single, widely-accepted definition of “digital assets,” it can generally be viewed through three lenses:

## CRYPTOCURRENCIES

- Virtual currencies not backed by assets
- Depends primarily on cryptography and distributed ledger or similar technology

## DIGITAL CASH

- **Deposit Tokens:** Represent traditional cash deposits on chain for intrabank transfer purposes
- **Stablecoins:** Privately issued; aim to maintain value relative to a specified asset or pool of assets and satisfy criteria related to redeemability and reserves
- **Central Bank Digital Currencies (CBDCs):** Publicly issued by central banks; complement existing forms of fiat in two forms: retail (households and businesses) and wholesale (financial institutions)

## TOKENIZED ASSETS

- Digital representations of traditional assets using cryptography, distributed ledger, or similar technology
- Potential for native issuance on a distributed ledger

# Increasing Interest in Tokenized Assets

Motivations vary – expanding access to investors, increasing liquidity, enhancing transparency etc.

## INVESTORS SEE BIGGEST BENEFIT OF TOKENIZATION AROUND ALT ASSETS ALTHOUGH INCREASED LIQUIDITY COULD BENEFIT ALL ASSETS

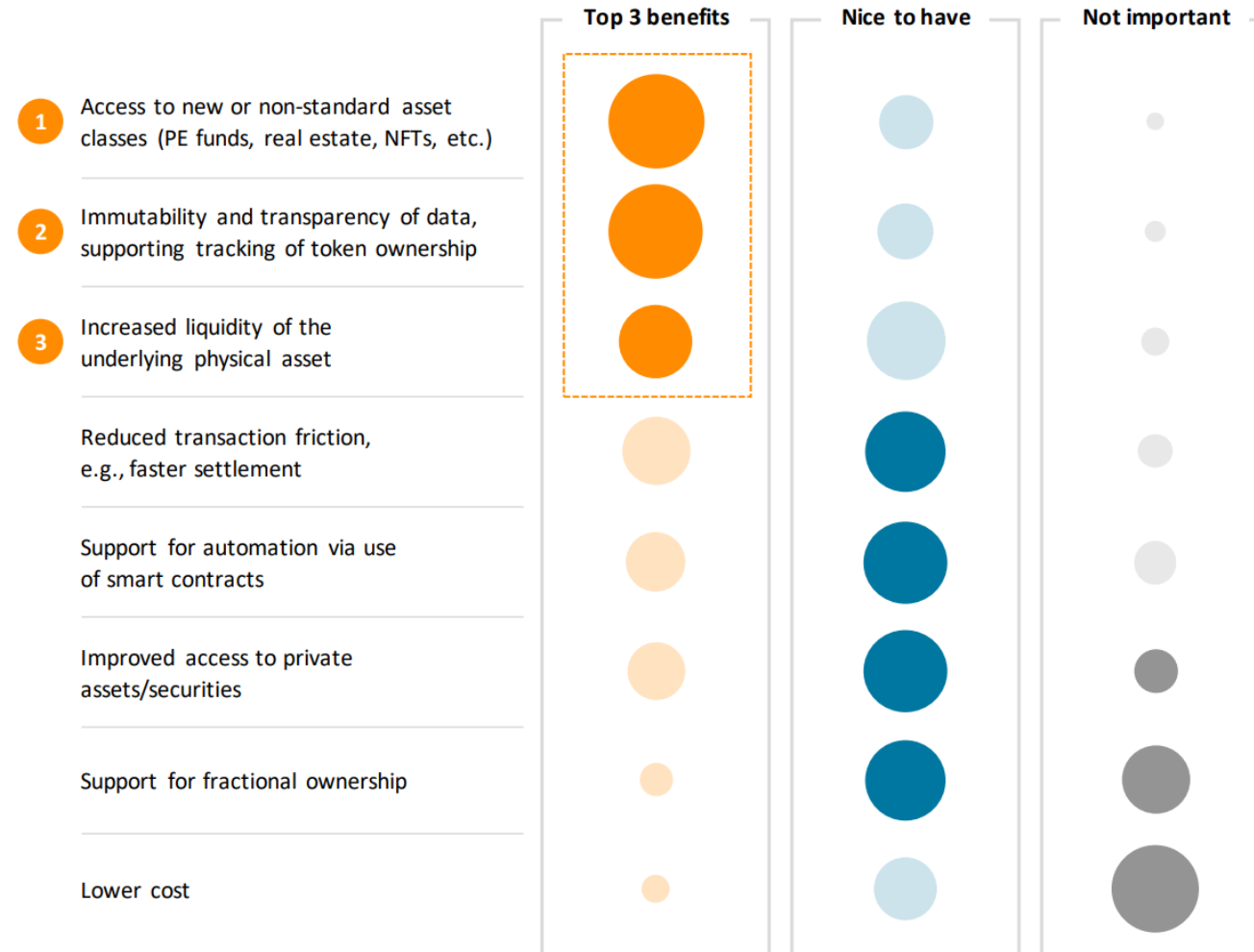
Benefits are focused on business drivers, while “lower costs” and “support for automation” were lower, indicating industry is excited more about the top-line potential of tokenization.

This correlates with the finding that tokenization will revolutionize asset management.

Regardless, the asset management industry will continue to focus on controlling costs and improving efficiency, which tokenization can also support.

●●● Bubble size/depth of colour indicates ranking of that option within each category

Q: Please indicate your **top three** benefits and categorize remainder as **nice to have** or **not important**



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# Embracing Innovation While Maintaining Trust

Essential to promote responsible innovation with clear regulation and guardrails

## STRATEGIC THEMES

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### Maintaining the US financial services sector's competitiveness in the global market

Achieving regulatory clarity is essential to maintaining the competitive edge of the US financial services sector and enabling it to take advantage of the transformative power of the underlying technology



### Developing regulatory frameworks that promote innovation

Developing a regulatory framework that enables the financial industry to prudently embrace the innovation behind DLT within appropriate regulatory guardrails



### Being mindful of unintended consequences

New frameworks and regulations must carefully consider interdependencies and avoid unintended consequences

## ISSUES TO TACKLE

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**Developing a taxonomy that distinguishes** cryptocurrencies / crypto assets from traditional financial instruments. This is critical **because risk profiles** differ based upon, among other things, public/permissionless networks and private/permissioned networks.



**Building on existing frameworks rather than starting from scratch** by identifying and incorporating net new factors and risks (e.g., technology risks) in existing regulatory frameworks, rather than introducing completely new ones



**Ensuring technology neutrality** for the distributed ledger technology (DLT). Activities of established asset classes and tokenized representations of them should not be treated differently due to the use of DLT

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# Stellar Aid Assist

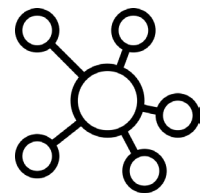
Global Markets Advisory Committee, U.S. Commodity Futures Trading Commission.  
Panel I: Digital Asset Markets. Use Cases: Digital Finance and Tokenization.  
February 13, 2023

# What is Stellar Aid Assist?

Stellar Aid Assist is a **first-of-its-kind aid disbursement system** powered by the Stellar blockchain network — supported by Circle’s USDC, Vibrant wallet, and MoneyGram International — that **enables the delivery of urgently-needed cash assistance** to vulnerable and displaced populations quickly and transparently.



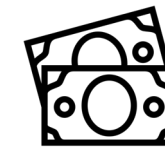
Digital dollars issued by Circle on Stellar network



Digital dollars distributed to approved recipients on Stellar



Aid recipients receive funds instantly in digital wallets

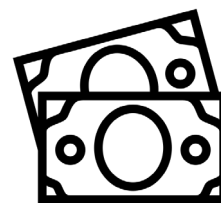


Withdraw cash at any MoneyGram location when needed or send to bank account

# Why Stellar Aid Assist?



Enables the delivery of cash assistance to vulnerable populations quickly through the Stellar blockchain.

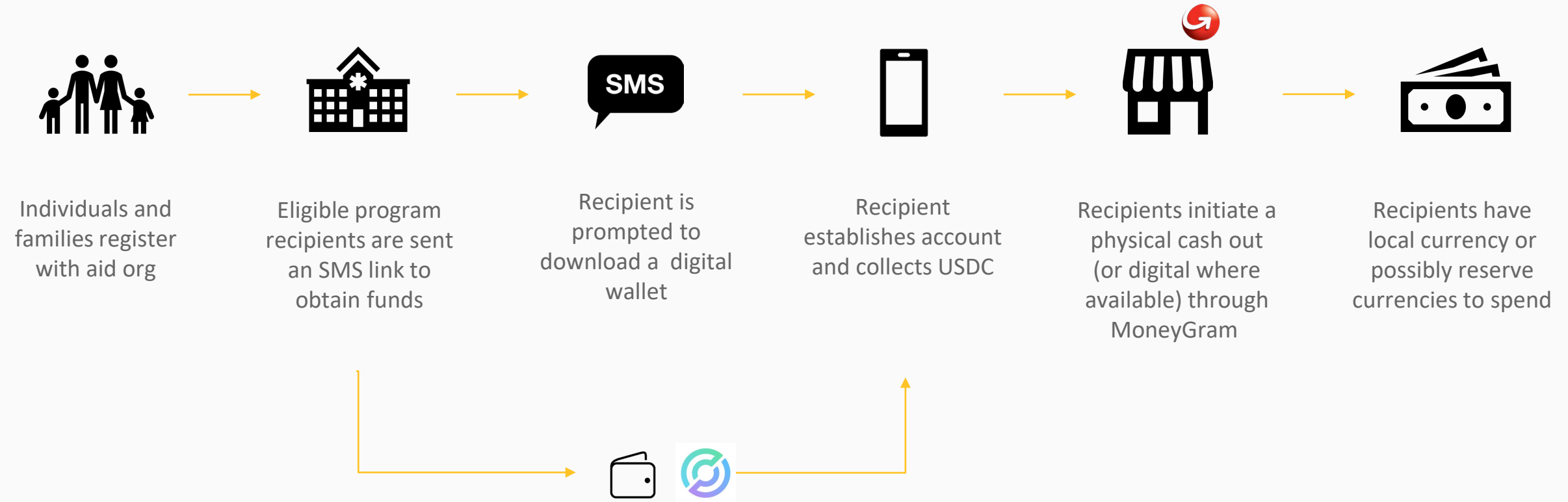


Allows individuals to receive digital dollars and either hold the value in a more stable store or exchange it for a local currency.



Provides greater efficiency, flexibility and transparency to traditional cash-based interventions for organizations.

# How Does Stellar Aid Assist Work?



The wallet verifies phone numbers with the aid organization to confirm program eligibility. The aid organization then authorizes the distribution of funds to eligible wallets.

# Benefits for Cash Assistance Programs

## Benefits

- **Transparency:** End-to-end traceability of funds help mitigate abuse
- **Instant (bulk) Disbursement:** Deliver aid instantly using the world's fastest-growing USD stablecoin
- **Accessibility:** Recipients don't need a bank account to receive aid
- **Stability:** Digital dollars sent via Stellar provide a more stable store of value to recipients
- **Portability:** Recipients are able to more safely transport and access funds
- **Global Cash Out:** The Stellar network's expansive geographic and physical reach supports cash out locations globally (~180 countries/territories) in multiple currencies.

## Benefits to Donors and Recipients

Benefits to aid donors	Benefits to recipients
<ul style="list-style-type: none"><li>• Realize benefits of the public blockchain (i.e. fast, transparent, low cost)</li><li>• Can be extended easily to support other countries and use cases (e.g. local payroll)</li><li>• Low-cost solution that can be implemented quickly</li><li>• Potential to reduce program fraud and facilitate better auditing</li><li>• Allows for future innovation, including end-to-end tracking of donor funds</li></ul>	<ul style="list-style-type: none"><li>• Supports the unbanked population</li><li>• For banked populations, digital cash out may be possible from the safety of home</li><li>• Simple-to-use wallet with <b>fast</b> funds availability</li><li>• Use of a global reserve currency to protect against potential inflation and local currency devaluation</li><li>• Funds can be cashed out in local currency</li></ul>

# Built by the Stellar Development Foundation and Partners



[Stellar Development Foundation](#) is a nonprofit organization whose mission is to create equitable access to the global financial system



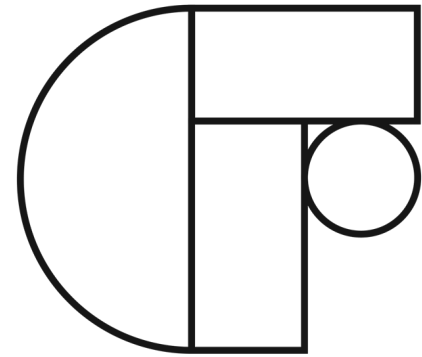
[Circle](#) is a global financial services company that issues and manages the USD Coin (USDC), a fully backed U.S. dollar stablecoin



[Moneygram International](#) is a global money service provider that operates in more than 180 countries and territories with a global network of 380,000 agent locations



[Vibrant](#) is a US-based digital wallet software provider that supports USDC operated by Sunship Inc, a subsidiary of SDF



# CoinFund

Global Markets Advisory Committee  
Commodities and Futures Trading Commission  
“Non-Financial Activities and Web 3”

February 13, 2023



# The history of the internet and rise of the creator economy

## **Web 1:**

Basic HTML, Email

Fragmented;

Decentralized

“Hunters and gatherers”



## **Web 3:**

Blockchain enabled decentralization

Trustless; permissionless; peer to peer

Token incentives and governance

Private property in the internet!

“Democracy”

## **Web 2:**

Rise of centralization

Social media

Oligopolistic control of user data

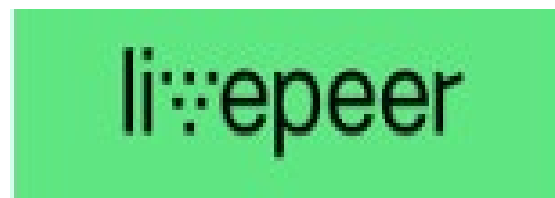
Data and information centric

“Monarchy/Oligopoly”

# Creators and players can actually own assets in web3

## Non-Fungible Tokens (NFTs):

- Infinite use cases around title and internet ownership.
- Most successful consumer product since the smartphone; ~\$50bn trading volume in last 2 years
- Profile Pictures; art, music, video, collectables
- Real World Assets



## Web3 Gaming:

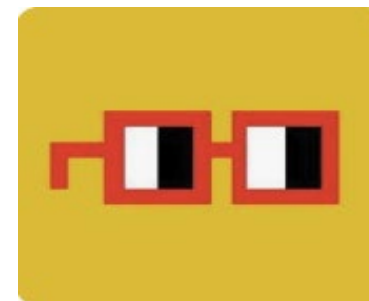
- Play to Earn (P2E) gaming
- Earned, in game assets can be financialized to enable new studio and player business models
- User experience is improving quickly
- Today, gaming industry is \$200bn and growing
- Web3 is poised to unlock next generation of gaming and users



# Web3 enables token governance and user data sovereignty

## Decentralized Autonomous Organizations (DAOs)

- **Token-enabled governance and communities not controlled by central authority**
- **Treasury raised and deployed based on community values and ideals**
- **Democratic voting principles**



## Web3 User Data Sovereignty

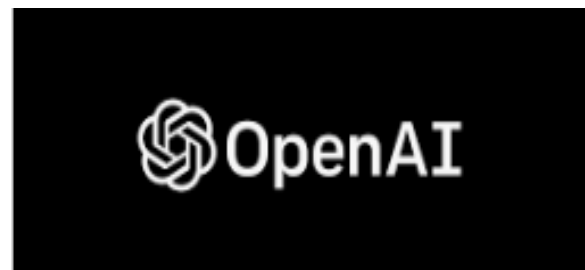
- **Users are compensated for the data they deliver**
- **Decentralized Social Media**
- **The individual is no longer the product; they are the beneficiary**



# Open source Web3 provides a foundational layer for new applications

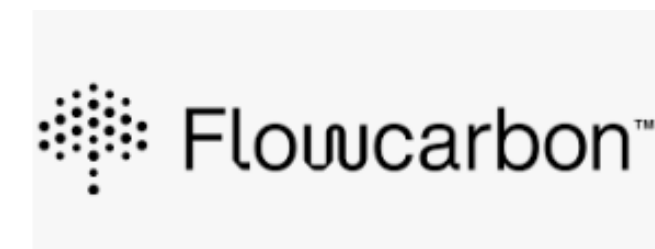
## Artificial Intelligence

- In web2, key data sets are closed source.
- Web3 infrastructure for AI could introduce open source development, community ownership and governance, and universal access that create new models and efficiencies in developing these new technologies.



## The Environment

- The immutability of blockchain technology unlocks new ways to identify carbon credits--eliminating the “double spend” problem
- Widespread transition to Proof of Stake consensus mechanisms has also made web3 more environmentally friendly.



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# Digital Asset Markets: Blockchain Technology

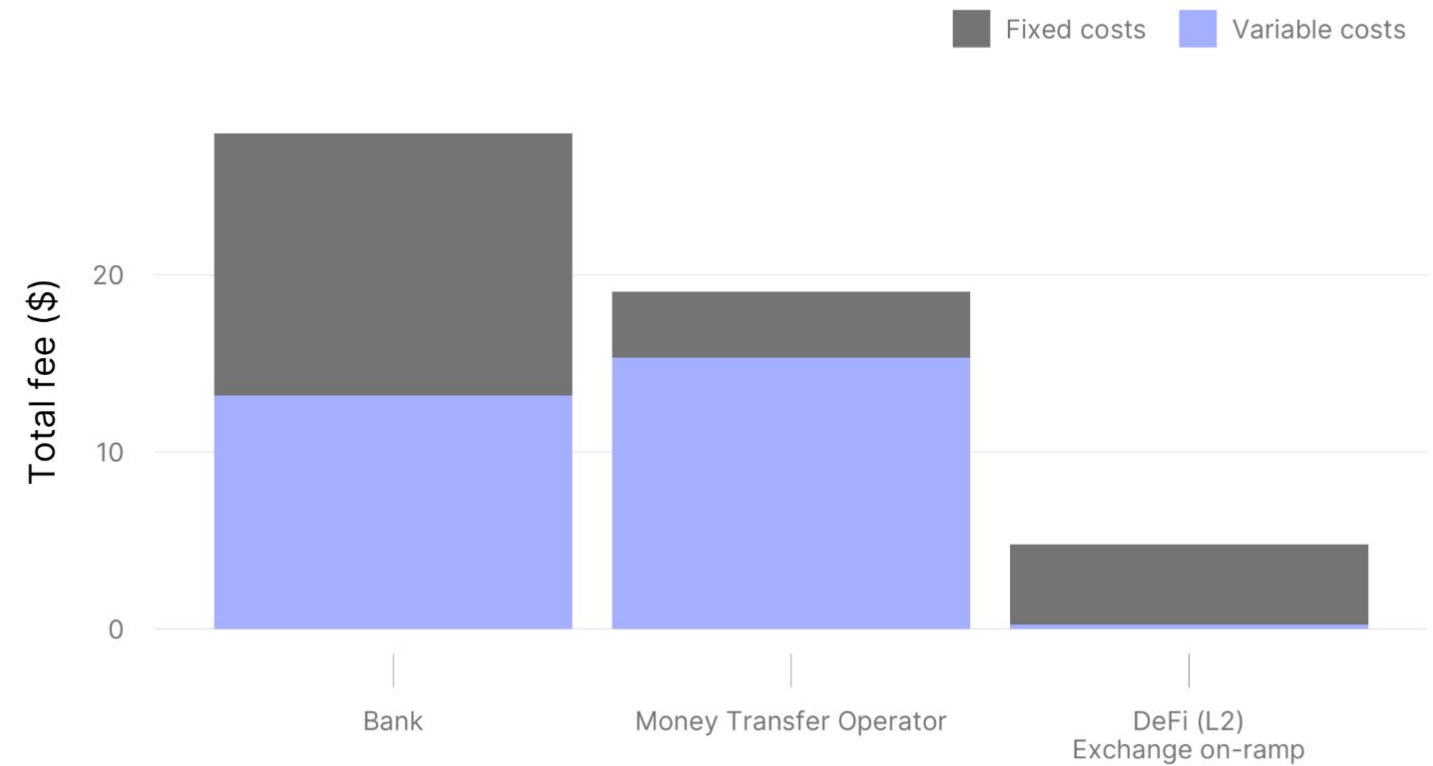
Global Markets Advisory Committee,  
U.S. Commodity Futures Trading Commission  
February 13, 2023



# Why is blockchain good?

Blockchains combine **data storage** – such as messaging and recordkeeping – and **money movement**

- This can lower costs by removing friction and operational overhead – and allows for nearly instant settlement
- In Ethereum and other blockchains that support smart contracts, multiple asset types operate on the same tech and operational infrastructure in a standardized digital format



Source: The cost estimates for banks and money transfer operators are from the World Bank Remittance Prices Worldwide database (KNOMAD). DeFi estimates are Uniswap Labs' staff calculations and can be found [here](#), [here](#), and described [here](#).

# Blockchains can be open or closed

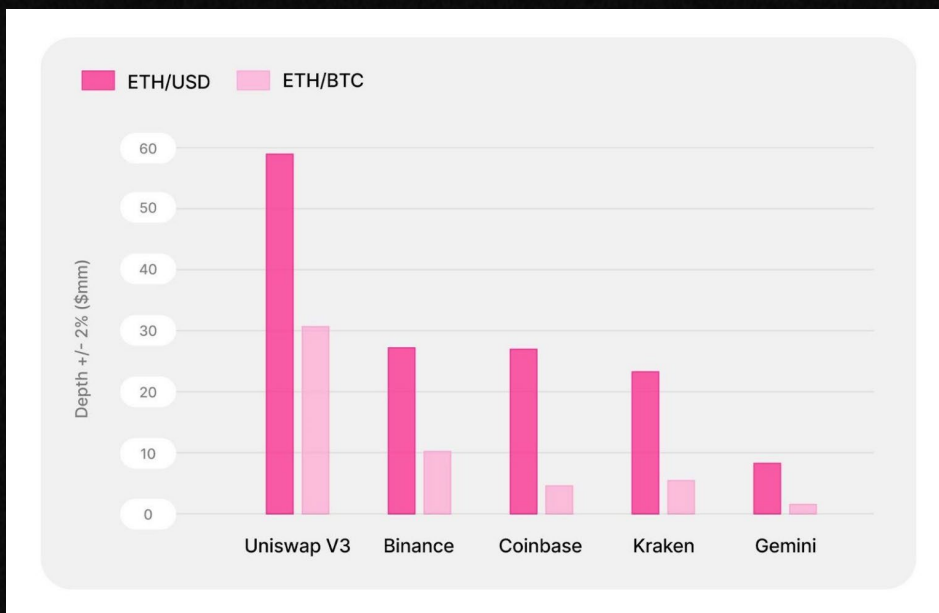
Open systems allow for interoperability, improved security and transparency

- **Interoperability:** Market activities — lending, swapping — can be developed as modules. These can integrate with each other without requiring bilateral agreements
- **Security:** Publicly-released code allows for rapid identification of vulnerabilities
- **Transparency:** Anyone can trust and verify transactions and that the system is running as expected in real time

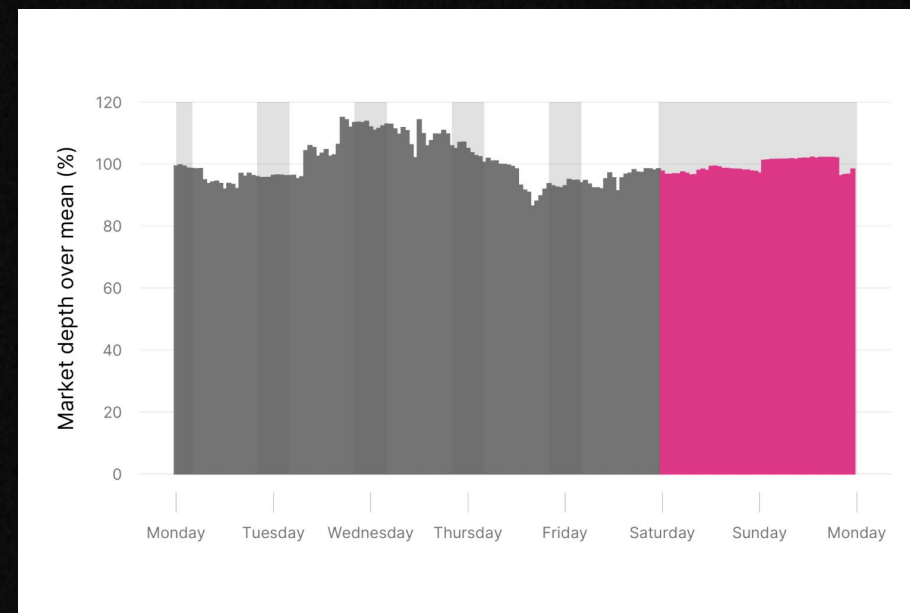


# Central banks are experimenting with Automated Market Makers because of their **structural advantages**

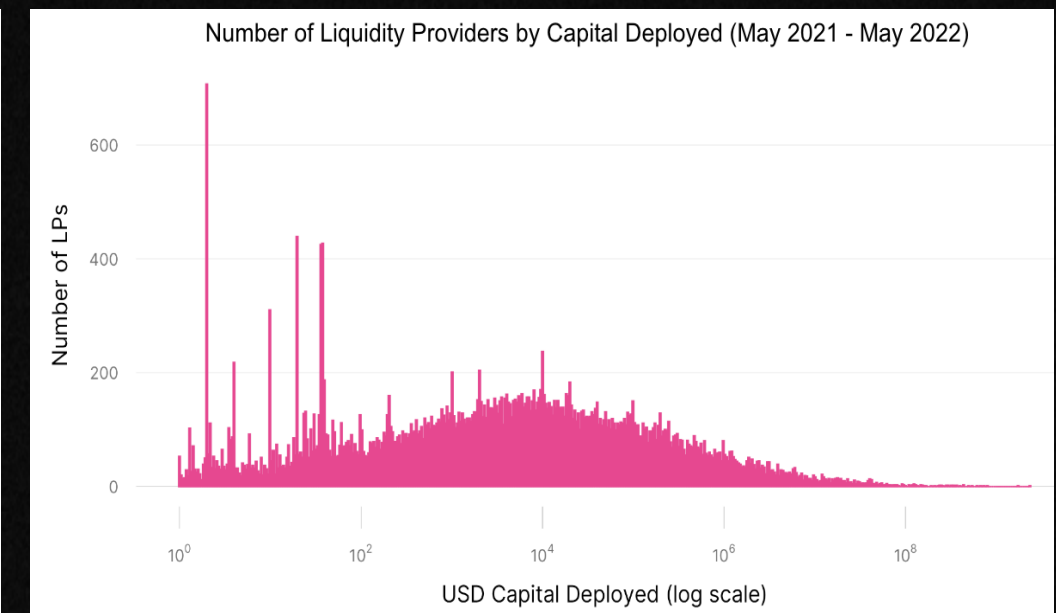
Examples: MAS' Project Guardian, BIS' Project Mariana



**>50% deeper liquidity** on Uniswap Protocol vs. centralized exchanges



**Consistent liquidity** across time and day



**Democratizes liquidity provision** by allowing 100k+ participants

# Analogue: Railroad standardization

>20 different gauges of railroad tracks were used in the 19th century U.S., leading to accidents, service disruptions, etc.

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Gauge was standardized by Pres. Abraham Lincoln during the creation of the Transatlantic Railroad

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Standardized tracks allowed any railroad line to build businesses on top of them

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Interoperability and standardization allow for competition and innovation



# What might drive progress?

## Distinguish beneficial blockchain applications from hacks, scams and bad behavior

- Encourage public-private sector collaboration on DeFi
  - e.g., Monetary Authority of Singapore and Bank of Int'l Settlements' projects
- Highlight future financial and non-financial applications, e.g., patient records, tracking goods
  - California DMV plans to use blockchain technology to verify car titles and registrations
  - 94% of surveyed Fortune 500 executives have blockchain project plans

Thank you!



**MEMBER DISCUSSION AND SUBCOMMITTEE VOTE**



**CLOSING REMARKS**