

The background of the entire page is a complex data visualization. It features a dark blue base with numerous green and light blue elements. These include horizontal and vertical bars of varying lengths, clusters of small dots, and faint, illegible text that appears to be data or code. The overall aesthetic is that of a high-tech, digital environment.

DMIST

DERIVATIVES MARKET
INSTITUTE FOR STANDARDS

Average Pricing Standard

June 2024

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1. ACKNOWLEDGEMENTS

DMIST was formed as an outgrowth of industry conversations following high volume and volatility in February and March 2020, at the onset of the COVID-19 pandemic. DMIST's ultimate goal is to encourage widespread adoption of standards in the Exchange-traded derivatives industry that will help make markets more efficient, resilient, and competitive for all.

There are two levels of participation in DMIST: (1) Sponsor Board members who consider and approve standards; and (2) Ambassador members, including technology vendors, who are subject matter experts and who help identify, develop, and calibrate standards for the Sponsor Board's approval. For more information on participating in DMIST, [click here](#).

More information regarding the history and development of DMIST is available at: [DMIST: Annual Progress Report \(March 2024\)](#)

2. EXECUTIVE SUMMARY

DMIST published its *Improving Timeliness of Trade Give-Ups and Allocations (30/30/30 Final Standard)* in June 2023. The 30/30/30 Final Standard calls for Clients and Executing and Clearing Brokers to submit and process Allocation instructions within 30 minutes of the trade being confirmed or Allocation instructions received. At the same time, in order to support this Standard, DMIST published a *Consultation Paper on Average Pricing*. Based on comments received during the consultation period (see [Comments](#)) and further analysis by the Average Price Working Group, DMIST members revised the proposed standard.

This Average Pricing Final Standard calls for Clearinghouses (CCPs) globally to adopt certain minimum standardized average pricing functionality. Standardized functionality will help drive consistency and improve the current Allocation and timing issues associated with Average Price order workflows. In addition, standardizing average pricing functionality provides the following benefits:

- Improves operational efficiency;
- Improves operational resilience, particularly in times of market stress;
- Reduces operational, financial, and regulatory risk;
- Reduces internal and external technical overhead costs;
- Reduces the number of trades that are not processed on Trade Day;
- Reduces reconciliation issues on Trade Day +1; and
- Improves the overall Client experience.

Use of average pricing has increased along with trading volume. Electronic trading has significantly increased the number of orders being filled at varying prices, presenting a growing number of operational challenges for Executing and Clearing Brokers and their Clients. Clients typically want their prices “averaged” when an order or series of orders for one or more Clients is executed at multiple prices.

Lack of average price functionality across CCPs was one of the issues raised during the consultation process for the 30/30/30 Final Standard. Where functionality does exist, it does not follow a consistent or standard approach. This can require manual intervention and prevent trades from being processed on Trade Day (T+0). This lack of consistency impacts the timeliness of give-ups and Allocations and impedes compliance with the 30/30/30 Final Standard.

As a result of the lack of consistent, minimum average pricing functionality by CCPs globally, Clients and their Executing and Clearing Brokers must use a combination of on-CCP and off-CCP average pricing methods. This creates complexity in the system that makes processing more challenging, particularly in times of market stress.

3. WHAT IS AVERAGE PRICING?

Average pricing allows for Allocation of an entire order at one mathematically weighted “averaged” price. It eliminates the likelihood that some accounts are allocated trades with prices better or worse than the average. For fund managers, Average pricing helps them meet their regulatory obligation to make distribution of trades fair and equitable.

The following terms are used to define various stages in the Average pricing process:

- [Actual or True Average Price](#) is the volume weighted Average Price of all original transactions, without rounding.
- [System Calculated Average Price](#) is the Actual Average Price rounded to the number of decimals set out in the Exchange/CCP technical specifications.
- [Rounded Average Price](#) is the System Calculated Average Price rounded to the nearest tick value in the Exchange contract specifications.

Average pricing frequently results in a “remainder,” which is referred to as a “[Cash Residual](#).” The “Residual” is the difference in value between the Actual Average Price of an Average Price Group and the Rounded Average Price of the same Average Price Group. “Cash” refers to the amount per lot that can be split among the trades in the Average Price Group. The Cash Residual amount must be consistent with what is allowable in the currency in which the product is traded.

Off-CCP Average Pricing

Off-CCP average pricing takes place when trades are allocated to a Clearing Broker at their individual prices and the Clearing Broker accepts those trades and then internally averages them on its own books. Off-CCP average pricing exists today because of 1) lack of average price offerings available across CCPs globally, 2) lack of consistency among the existing CCP offerings. Clients may have their own average pricing system or use a Clearing Broker’s proprietary system because they want to apply the same average pricing methodology to all their transactions. Achieving consistency across CCPs will help alleviate bespoke processes that

Clients and Executing and Clearing Brokers put in place to address variances in CCP offerings.

On-CCP Average Pricing

Using a CCP's average price system has several advantages. First, it provides the ability to automate the average pricing process from order entry through clearing, using a broker's middleware system to interact with clearing. On-CCP average pricing can also significantly reduce the number of Allocations in the system by consolidating all fills into one Allocation group. This is most notable for large orders with many fill levels that are allocated across multiple Clearing Brokers. Off-CCP average pricing across multiple Clearing Brokers may lead to small differences in Average Prices across brokers and funds.

Not only will Clients benefit from less complexity when managing average pricing on-CCP, they also can be confident that using on-CCP average pricing will help them meet their regulatory obligations to achieve fair and equitable Allocations. If CCPs adopt an approach to average pricing that meets certain minimum standards, more Clients, Executing and Clearing Brokers are likely to use on-CCP functionality.

The purpose of this standard is to create a roadmap for CCPs to develop an average pricing system, promote consistency, and remove complexity from the Allocation process. Use of on-CCP average pricing functionality is not mandatory; this standard leaves open the option for off-CCP average pricing by Clients, Executing Brokers and Clearing Brokers.

4. FINAL STANDARD

The Average Pricing Final Standard applies to all CCPs globally. It calls for CCPs currently offering average pricing to review their functionality and adapt to the minimum functionality standards set out below. For CCPs that currently do not provide on-CCP average pricing, the Standard provides a roadmap to develop a globally recognized average pricing service.

DMIST acknowledges that the work needed to comply with this Standard goes beyond CCPs. While the initial build-out resides with the CCPs, vendors and Executing and Clearing Brokers must adopt the functionality in their products and platforms.

In addition to standardizing certain minimum average pricing functionality at the CCP level, this Standard establishes that:

- Use of average pricing systems should not be mandated. While this Standard supports on-CCP average pricing, brokers should have the flexibility to support both on-CCP and off-CCP average pricing as appropriate to meet Client needs.
- Executing Brokers should handle average pricing order adjustments, whenever practicable, and give them up to the Clearing Broker through the CCP API or GUI.

Functionality for CCPs	
General	
1	Average pricing functionality should be available for all products.
2	The number of transactions which can be average priced should be unlimited.
3	For each Average Price Group, the System Calculated Average Price and the Rounded Average Price with the Cash Residual per lot should be persisted via API and CCP GUI.
4	The CCP should support performing average pricing across different trade types, i.e., EFRP, block and order book transactions, as long as fees and commissions can be tied back to the original trades, and when not prohibited by regulatory authorities. Trades at Marker Price should be allowed to be grouped with other trades post-settlement.
5	Allocation messages should contain all Core Economic Fields, including fields leveraged for fees and commissions processing, such as trade type and execution method, e.g., Tag 1031, as may be defined by other DMIST standards.
6	The CCP system should support a minimum decimal precision of 7 and a maximum decimal precision of 10 for the System Calculated Average Price; however, the use of all 10 decimal places should not be required.

Average Price Grouping	
7	The CCP system should offer average price grouping functionality. All Average Price Groups must be uniquely identifiable on the Trade Date. During the trading day it should be possible to add or remove transactions.
8	<p>Minimum Product Grouping Criteria. Transactions may be grouped when they are the same contract, business date, member, buy/sell indicator, and applicable CCP segregation account.</p> <p>Transactions excluded from grouping include:</p> <ul style="list-style-type: none"> • Trades executed under different Exchange memberships; and • Transactions that were executed as part of a Basket Trade product. <p>Trade at Marker Price transactions can be grouped but will only be finalized when there is a settlement price.</p> <p>Products that may be excluded from average pricing: cross-exchange products, for example, which are traded and cleared at different Exchanges and CCPs, may not be eligible for average pricing.</p>
9	CCPs should consider offering an alternative workflow for average pricing trades where the APS group tracks the overall value or notional created, instead of calculating the average price and quantities.
10 Optional	Field available at order entry that specifies Average Price Group identifier.

Cash Residuals	
11	The CCP should automatically calculate the Cash Residual. The Cash Residual should always be an amount that can be payable. The Cash Residual should not be amendable at the CCP.
12	The Cash Residual should be maintained throughout the clearing process.
13	CCP end-of-day reports should include Average Price transactions/ Allocations and Cash Residuals.
14	All post-trade functions should be permissible on Average Price transactions (splits, give ups).
Documentation and Testing	
15	The CCP should provide transparent documentation which includes: <ul style="list-style-type: none"> • CCP Average Price calculation method; • Cash Residual calculation method; • Allocation method for all relevant fee information; and • Technical specifications for Allocation-related messages.
16	The CCP should provide a test environment to allow clearing members to test new Average Price functionality before it goes live.

5. METRICS AND MONITORING

Metrics need to be generated and reviewed consistently to allow the industry to continually monitor progress against the Final Standard, identify shortcomings and recommend strategic improvements to encourage and support adoption of the functionality laid out in the Final Standard.

The DMIST Sponsor Board will establish an Average Price Working Group to oversee implementation and adoption of the Final Standard. DMIST staff will conduct a survey to determine which CCPs: 1) do not have average pricing functionality, 2) have average pricing functionality that does not conform to the Final Standard, or 3) have average pricing functionality that conforms to the Final Standard. The purpose of the survey is to inform the discussion with CCPs about the Final Standard and answer any questions they may have. Survey results will be shared with DMIST participants only. The Average Price Working Group will oversee outreach to CCPs to educate them about the Final Standard and understand implementation and adoption roadblocks.

6. QUESTIONS/FURTHER INFORMATION

If you have questions about this Final Standard, wish to know more about DMIST, or have an interest in joining the initiative, further details can be found here. You may also contact Don Byron at dbyron@fia.org or Staci Parrish at sparrish@fia.org for more information.

7. GLOSSARY

Capitalized terms used in this document are defined below.

“Average Price”

- **Actual or True Average Price:** Volume weighted Average Price of all original transactions without rounding (which should have an equal or greater number of decimal places than the System Calculated Average Price). It’s important to note that the actual Average Price will be constrained by the number of decimal places that a CCP can maintain. (Example: if a CCP’s decimal precision is 12 decimal places: 25.527542789161)
- **Rounded Average Price:** System Calculated Average Price rounded to the nearest tick value in the underlying contract specifications. This may include a Cash Residual.
- **System Calculated Average Price:** Actual Average Price with rounding to the number of decimals set out in the underlying Exchange/CCP technical specifications. (Example: if Exchange/CCP’s decimal precision is 7 decimal places: 25.5275428)

“**Allocation**” – An allocation takes place when trades are grouped for average pricing purposes and allocated to one or more accounts for clearing.

“**Average Price Group**” – A group of executions that are combined for the purpose of allocating at a mathematically weighted “average” price.

“**Basket Trades**” – A collection of related transactions that were executed at the same time.

“**Cash Residual**” – The difference in value between the Actual Average Price of an Average Price Group and the Rounded Average Price of the same Average Price Group. This amount will be evenly distributed, per lot in the Average Price Group, with the remainder (a bookable amount) applying to the entire group. For example, a 1,000-lot Average Price Group has a remainder of U.S.\$0.03, which would be applied to the entire group.

“**Clearing Broker**” – An individual or organization that accepts a Completed Trade from a Client or an Executing Broker (on behalf of a Client) and clears such Completed Trade with the CCP.

“Clearinghouse (CCP)” – A CCP (central counterparty) is a financial institution that interposes itself between counterparties to trades that have been executed at an Exchange. It becomes the buyer to every seller and the seller to every buyer and takes on the counterparty risk and provides clearing and settlement services to its customers/members.

“Client” - An individual or organization, typically an end-user, asset manager, proprietary trading firm or similar party, who initiates an order to buy or sell a product in the Exchange-traded market.

“Core Economic Fields” (include, but are not limited to) – trade date, buy/sell, quantity, product, Exchange, expiration date, price/premium, put/call, strike price.

“Exchange” - A marketplace where participants can trade (buy/sell) standardized products as defined and listed at the exchange. An Exchange will have a relationship with a CCP to facilitate the clearing and settlement of the trades.

“Executing Broker” – An individual or organization that accepts an order from a Client to buy or sell a product in the Exchange-traded market but does not clear the Completed Trade resulting from such order.

“Notional Value Average Pricing” – A method of allocating trades to a group of accounts that have been pre-selected by the account manager. The notional value is calculated by multiplying quantity times price. Members can then specify the quantity and prices to be allocated as long as the prices remain within the high and low prices of the group and the overall notional (Qty x Price) is not breached.

“Trade at Marker Price” – a type of trade that allows a trader to enter an order to buy or sell an eligible futures contract during the trading day at a differential that represents a not-yet-known price. Examples include Trade at Settlement and Trade Markers that use the close of the futures market or an underlying cash market as the final price.

APPENDIX

DMIST STANDARD PROCESS

The process that DMIST follows for a proposal to become a standard is:

- **Step One:** Proposed standard is received from any member of the public (including, but not limited to, Sponsor Board Members or Ambassadors).
- **Step Two:** Sponsor Board determines whether the initial proposal meets certain required criteria (e.g., the submission contains sufficient requisite information, the proposed standard addresses a topic that is considered in scope for DMIST's consideration, the proposed standard relates to a topic that would significantly benefit the industry to standardize).
- **Step Three:** DMIST forms Ambassador Working Group(s) for review and consideration of the proposed standard.
- **Step Four:** Sponsor Board meets to consider the feedback of the Ambassador Working Group(s) and votes to publish proposed standard for public comment.
- **Step Five:** DMIST issues the proposed standard for public comment.
- **Step Six:** At the end of the comment period, the Ambassador Working Group(s) used to vet the standard as initially proposed will meet to review and consider the comments.
- **Step Seven:** Sponsor Board votes to approve the standard based upon feedback and recommendations from the Ambassador Working Group(s). Once approved, the standard is considered final and is published.
- **Step Eight:** The success of DMIST requires commitment to transparency with regards to adoption and implementation of standards. Each final, approved standard will specify transparency expectations for Sponsor Board Members regarding whether or not they have chosen to adopt or implement such standard. Each final approved standard must also specify metrics, to be measured on an ongoing basis, related to implementation, adoption, usage, and/or effectiveness.

Public Consultation – Questions and Points Raised

During the public consultation process, commentary was received from multiple sources based on a list of questions. The comments submitted during the consultation period can be found at: [Derivatives Market Institute for Standards \(DMIST\) | FIA.](#)

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