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Insights

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Market Regulation

Blazing a new Consolidated Audit Trail

The Consolidated Audit Trail provides regulators with an overview of the U.S. equity and options markets. A critical tool for keeping markets safe and transparent, agreement on its most foundational measures nevertheless remains elusive. We set out our recommendations for improving the CAT.

Like most market participants, we at Optiver agree that the Consolidated Audit Trail ("CAT") gives regulators a useful tool for evaluating the U.S. equity and options markets. Mechanisms like the CAT, which help ensure markets remain fair, transparent and competitive, should be encouraged across our industry.

However, since the CAT's adoption in 2012, the securities industry – which includes exchanges, broker-dealers ("BDs") and proprietary trading firms – has been largely unable to reach a workable consensus on how the CAT should be run.

Agreement on foundational measures – the CAT's rules, how it's funded, its oversight and ownership – has proven elusive. In its current version, these measures have led to unconstrained and escalating costs, adversely impacting participants in U.S. equities and options markets, including end customers.

In this paper, we set out a series of recommendations for addressing what we see as the CAT's major issues. They include, among other measures, putting the CAT under SEC ownership and mandating that additional data requirements go through the agency's rulemaking process. The goal is to establish further oversight and a cost-conscious approach to funding the CAT, in a way that supports regulators and the markets they oversee.

Let's start with the basics of the problem.

History of the CAT

In the aftermath of the flash crash of 2010, the Securities and Exchange Commission ("SEC") tasked the Financial Industry Regulatory Authority ("FINRA") and the U.S. equities and options exchanges to create, implement and maintain a tool for improving regulatory oversight of U.S. markets. The stated goal was to "create a comprehensive consolidated audit trail that allows regulators to efficiently and accurately track all activity in NMS securities throughout the U.S. markets."[1] Many believe this tool would assist regulators in more effectively surveilling markets by providing them with the most comprehensive window possible into trading activity. The end result

[1] Release No. 34-67457; File No. S7-11-10 Page 6.

was the establishment of a consolidated audit trail for all National Market System ("NMS") equities and options: CAT NMS.

On July 11, 2012, the SEC voted to adopt Rule 613 under Regulation NMS requiring the national securities exchanges and national securities associations (collectively, the "SROs") to submit an NMS Plan to the SEC to create, implement, and maintain such an audit trail.[2]

What is the CAT?

Each day, participants (exchanges/SROs and broker-dealers) must:

- Submit to the CAT every quote, order, cancellation, modification and trade execution that occurs in any exchange-listed equity or option across U.S. markets.
- In the case of broker-dealers, provide the CAT with customer account information.

This data is collated and stored in order to provide a trade lifecycle to aid regulators. According to SEC Chair Gary Gensler, the CAT has already proven useful for producing the SEC's GameStop report in 2021 and for the agency's analysis of insider trading.[3]

Who runs the CAT?

The CAT is run by CAT NMS, LLC, an undertaking jointly owned and operated by the SROs. CAT NMS, LLC is steered by an Operating Committee comprised of one appointed member per SRO, holding one vote each. BDs, who pay a large part of the CAT's bill, do not have a vote on this committee, and thus have no direct say in the operating committee's decision-making process. While the SROs have selected a few BDs and other industry representatives to support the CAT Advisory Committee, which operates in a limited consultative capacity, these individuals have no voting authority.

In addition to the Operating Committee, the CAT takes direction from the SEC. For instance, the SEC has over the years been able to impose new requirements on the CAT, compelling participants to provide increasing amounts and types of market data to the CAT database. Paradoxically, the CAT operates without the oversight or supervision of the House Financial Services Committee or the Senate Banking Committee, both of which oversee the SEC.

Who pays for the CAT?

Prior to the approval of the CAT Funding Proposal, the creation and operation of the CAT was paid for by the SROs. Following a recent funding model change approved by the SEC, exchanges and alternative trading systems (ATS) pay one-third, while executing brokers for buyers and sellers pay the remaining two-thirds. Executing brokers are permitted to pass along these costs (both historical and ongoing) to investors. Thus, it's the end investor that ultimately pays for the cost of the CAT.

In addition to direct costs in the form of fees for the CAT, participants in the CAT also bear indirect costs, including (but not limited to) the costs of infrastructure, data and staff.

[2] Per catnmsplan.com
[3] https://www.sec.gov/news/statement/gensler-statement-cat-funding-090623

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Where are we now?

With these basic facts laid out, let's consider the current state of the CAT.

A project with the laudable goal of giving regulators an overview of U.S. financial markets has regrettably become mired in ballooning costs and 'scope creep.' This is largely because the SEC has been able to add new requirements to the CAT Operating Committee with limited industry input, and without Congressional oversight or input into the budgeting of increased associated costs.

While this is a serious problem for all involved, it's a fixable one. In the sections that follow, we spell out our recommendations for restructuring the CAT in a way that is sustainable, cost efficient and practical.

Operations and implementation

While an Operating Committee currently runs the CAT, there is limited transparency into the decision making of this body and how it implements its measures. As a result, CAT participants lack the ability to evaluate the CAT or to comment on its implementation. This makes it difficult to gain industry consensus and provide meaningful input on a regulatory tool that participants are not only required to use but are responsible for funding.

The CAT is also a regulatory database, and as such, bears more than a passing resemblance to FINRA's TRACE, which stores data about fixed income markets.

Accordingly, we recommend:

- **As a regulatory tool used by the SEC and FINRA, the CAT should be part of the SEC budget, managed by FINRA, and ultimately overseen by Congress.**
- **Market participants, including those who bear the cost of the CAT, should be provided greater representation on the CAT NMS, LLC Operating Committee, including voting rights.**
- **The CAT's annual operating budget should be defined by FINRA and the CAT NMS, LLC Operating Committee within the framework of the SEC rule.**
- **Adoption of a codified approach, per SEC rule, for the CAT NMS, LLC's review of the technology costs of data storage and processing.**

Through the introduction of governmental oversight, the application of standard budgeting practices for federal agencies and input from representatives of market participants, the CAT will gain additional transparency, cost control and guidance.

Scope creep and costs

Since the CAT's founding, the SEC has been able to expand its scope and use with minimal industry guidance and little transparency into the impact on costs. Increasing market activity also means that the amount of data collected by the CAT now significantly eclipses any projections made. As a result of these factors, annual operating costs that were estimated at $51 million in 2012 are now estimated at $200+ million in 2023.

Per the 2022 Operating Budget, technology costs account for 92% of the CAT's operating expenses. Cloud hosting fees make up a large portion of these costs, while processing and

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computing costs make up the remainder. Given the limited transparency into specific costs, it is difficult to determine what is driving these costs or whether this money is being efficiently spent. Further, because the CAT is funded outside of the SEC's traditional budget, Congressional oversight is limited.

As such we recommend that:

- **The SEC defines and implements a final set of rules to dictate the required data, the format of that data and the apparatus for data submission.**
- **Rules should be adopted that define any standardized reporting/outputs and the scope of regulatory investigations where the CAT is utilized.**
- **Any proposed additional requirements should be subject to the SEC rulemaking process.**

The above recommendations would limit scope creep by codifying the CAT's inputs and outputs. Further, the demands of the rulemaking process would encourage the SEC to seek only the most compelling enhancements to the CAT.

A better CAT

The goal of this paper is to further discussion on an industry issue that continues to accrue costs, create division and impose a growing tax to U.S. markets that is ultimately passed on to the end investor. We believe reasonable and principles-based guidelines for the future of the CAT will support the continued growth of the U.S. equity and options markets. If industry and regulators work together to adopt these recommendations, the CAT could more effectively meet its goals while lightening the burden on the ordinary investors that ultimately bear its costs.

Further reading

- The SEC rule mandating creation of the CAT.
- SEC Chair Gensler's recent statement on CAT funding.
- A website about the CAT from FINRA.
- A timeline about the creation of the CAT.

About Optiver

Optiver is a global market maker with offices in Amsterdam, London, Chicago, Austin, Sydney, Shanghai, Hong Kong, Singapore and Taipei. Founded in 1986, today we are a leading liquidity provider with close to 2,000 employees in offices around the world, united in our commitment to improve the market by competitive pricing, execution and thorough risk management. By providing liquidity on multiple exchanges across the world in various financial instruments we participate in the safeguarding of healthy and efficient markets. We provide liquidity to financial markets using our own capital, at our own risk, trading a wide range of products: listed derivatives, cash equities, ETFs, bonds and foreign currencies.