

Technology Advisory Committee

Review and Assessment of Interim Recommendations of the
Subcommittee on Data Standardization

Working Group #4: Storage and Retrieval of Financial Data

March 29, 2012

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Background

Background

The CFTC's final reporting rules require market participants to submit data from various stages throughout the existence of a swap to which they are a counterparty. The reported data is received and stored by swap data repositories ("SDR") that have a number of duties under 17 CFR Part 49, including accepting, validating, maintaining, monitoring, screening and analyzing swap data.

Working Group #4 was assigned to propose methods of data standardization to aid the storage, processing and retrieval of large amounts of data. This working group presented interim recommendations to the Technology Advisory Committee that relate to data standardization and ways to create efficiencies for SDRs in performing their obligations.

Background

Working Group #4 Members	Working Group Coordinator and Government Representatives
Marc Donner, Google	Andrei Kirilenko, CFTC
Adam Litke, Bloomberg	
Jim Moran, CME Group	

Background - Promontory Financial Group

- Promontory Financial Group, LLC (“Promontory”) is a financial services consulting firm headquartered in Washington, D.C. with 14 offices spread over four continents.
- Commissioner O’Malia requested Promontory’s assistance in vetting the interim recommendations of Working Group #4.
- Promontory does not have a proprietary interest in the Working Group #4 interim recommendations nor in their implementation. We did not approach the review of these recommendations from any one client’s perspective. Our clients include, or have included, the CFTC, existing DCOs and DCMs, and entities that will register as SDRs, swap dealers and major swap participants, as well as many institutions that are financial and commercial end-users of swaps.

Review Process

Considerations

Promontory conducted the review of Working Group #4's interim recommendations by assessing the recommendations against the following considerations:

- Consistency with Dodd-Frank Act Title VII statutory provisions and rulemakings and international standards
- Cost and ease of implementation by SDRs and reporting Swap Entities
- “Time-to-market”
- Consistency with current industry initiatives
- Actionability

The following slides identify these specific considerations where applicable to the assessment of the particular recommendation.

Promontory Assessments and Conclusions

Interim Recommendation: Data Format – 1a

The first step to standardize trade reporting across market sectors should be to develop a set of common XML elements and then work towards establishing a unified set of XML tags over time. Further, setting up a process to manage and evolve standards over time using the expertise of industry working groups is the best way to achieve success in standardization projects.

Assessment

Consistency with regulatory requirements:

- 17 CFR Part 45 does not require reporting to SDRs use a single data standard
- The CPSS/IOSCO Report on OTC Derivatives Data Reporting and Aggregation Requirements does not address data formats
- Any standardized data format would likely ease SDRs' burden of complying with the duty to maintain, screen and analyze reported data

Cost and ease of implementation:

- The use of XML would provide the industry with a flexible and extensible standard
- As the protocol is updated, systems that use XML will require software to be rewritten
- Costs will be attributed largely to development man hours

"Time-to-market":

- This initiative will likely continue to develop concurrently with other technology initiatives without a predetermined deadline

Current industry initiatives:

- There has been continuing development of the FIX, FIXML and FpML protocols
- It may be a challenge to find a solution that can replace any of these protocols

Actionability:

- This initiative will require active participation and input from a large majority of participants in the derivatives markets

Conclusion

We agree with the direction of this recommendation. Although the CFTC does not require the standardization of data reporting to SDRs across all market sectors, we believe that this recommendation would advance the goals of standardized reporting, and facilitate the CFTC's ability to query, analyze and compare information.

However, we do not believe that the CFTC should mandate or prescribe a standardized data format for reporting to SDRs; instead the CFTC should act as a facilitator to encourage the industry to be proactive in developing a standard. The TAC should recommend that the CFTC consider providing support and guidance for the initiative to develop a set of common XML elements and, subsequently, a unified set of XML tags.

Interim Recommendation: Data Format – 1b

The CFTC should not dictate the input format to the SDR as long as the SDR can produce output to the CFTC in a format that the CFTC finds acceptable.

Assessment

Consistency with regulatory requirements:

- This recommendation is consistent with 17 CFR Part 45, which (i) requires that an SDR transmit all swap data requested by the CFTC to the CFTC in an electronic file in a format acceptable to the CFTC and (ii) allows an SDR to permit reporting entities to use various facilities, methods, or data standards to report swap data

Cost and ease of implementation:

- Existing trade repositories have advised the CFTC that they are able to accept data in multiple formats or standards from different counterparties

“Time-to-market”:

- Minimal

Current industry initiatives:

- This recommendation will likely allow reporting entities to continue using, amongst others, the main existing data standards (FIXML and FpML)

Actionability:

- Complete

Conclusion

We agree with this recommendation, which, effectively, has already been implemented in 17 CFR Part 45. Implicit in this recommendation is that the CFTC defines acceptable data transmission output format(s) for reporting to the CFTC and disseminate these requirements in time for the SDRs to comply with the requirements.

Interim Recommendation: Storage – 2a

It is likely that there will need to be a way to reformat or transfer old records into newer media from time to time. SDRs will need procedures to do this in a way that still maintains the integrity of the original data, while maintaining the readability over time. In this area, it would be helpful to have further guidance to clarify best practices for developing and implementing such procedures.

Assessment

Consistency with regulatory requirements:

- SDRs must store and maintain swap data for a period of at least fifteen years following the final termination or expiration of the swap
- SDRs have a duty to provide data to the CFTC in a timely manner
- 17 CFR Part 49 requires SDRs to establish sufficient policies and procedures to prevent a valid swap from being invalidated

Cost and ease of implementation:

- Implementation of this initiative will consist mainly of converting the original electronic file to the newer format while retaining the original data
- There may be software costs over time
- There will need to be an audit trail as data migrates through systems

“Time-to-market”:

- This will be dependent on technological innovation and can only be addressed reactively

Actionability:

- The TAC should look to the procedures in place in other industries that require the storage of data over long periods of time

Conclusion

We agree with this recommendation. Storage issues associated with swap data that is required to be stored and maintained by the SDRs should be addressed immediately. It would be helpful for the industry if the CFTC issued guidance further defining "sufficient policies and procedures" that the SDR must establish to maintain the validity of swaps. In this regard, the TAC should recommend that the CFTC consider the value of robust change management policies and procedures that address periodically updating (i) storage media, (ii) databases, and (iii) associated application systems. The CFTC should also consider providing SDRs with further guidance on establishing a control framework that is reasonably designed to ensure that the data continue to be credible and usable over time.

Interim Recommendation: Storage – 2b

The long duration of some swaps may require that original data be maintained in its native format for extended periods. The term "native file format" appears to need further definition, as it is unclear whether this means the format created by a sender of data, the format that might exist in transmission, or the format that a receiver of data uses to state the data. The Working Group believes that for a cleared swap trade, the "native format" of the transaction record is that used and maintained by the DCO. For a privately negotiated trade reported to an SDR, the "native format" would be that used and maintained by the SDR.

Assessment

Consistency with regulatory requirements:

- No requirement to keep reported data in a "native format"
- Need to maintain credibility of data required to be held for a long period

Cost and ease of implementation:

- Greatest cost will be increasing storage space due to the need to retain the data in its original format
- Increased risk of reports or queries with identical parameters generating differing results as systems and software change over time

"Time-to-market":

- Long-term

Actionability:

- Instead of maintaining data in its native format, it may be less burdensome and equally effective to develop appropriate controls and a robust audit trail to keep data credible over time

Conclusion

Although there is no statutory or regulatory requirement that an SDR maintain reported data in a native format, it may be appropriate to conduct a legal analysis as to whether data in its native format may be necessary for any regulatory enforcement actions. Aside from that concern, we think the concept of maintaining a "native file format" may be too restrictive since the goal of maintaining the credibility of data may be achievable by less onerous means. It may be more appropriate for the CFTC to focus on the issues associated with storage and information content and consider ways to ensure the accuracy and credibility of information as it is transmitted, stored and retrieved over time.

The TAC should recommend that the CFTC consider providing guidance on developing appropriate controls and audit trails to ensure that stored data remains credible. Such controls may include verifying the consistency of file sizes, number of records, file names, date ranges and running a set of predetermined algorithms against the old file and the new file and checking that the results are the same.

Interim Recommendation: Versions – 3

Rather than allow every minor change to a product definition to result in a new and distinct product ID, keep product IDs stable by associating a version with product IDs. It will be important to match the product ID and the version, particularly when contract lifetimes are long compared to the duration of a given version.

Assessment

Consistency with regulatory requirements:

- The unique product identifier (UPI) has to satisfy the requirement of identifying and describing the swap asset class and sub-type within that asset class to which a swap belongs, and the underlying product for the swap, with sufficient distinctiveness and specificity

Cost and ease of implementation:

- No significant additional costs to SDRs or reporting entities are anticipated as a result of this initiative

“Time-to-market”:

- A final UPI system is not expected to be completed in the near-term

Current industry initiatives:

- The ISDA UPI initiative will involve versioning of the UPI and product taxonomy for all asset classes
- The identifiers currently used for CDS include versions

Conclusion

We agree with this recommendation since it is consistent with current industry initiatives, specifically the ISDA UPI initiative. Adding a version ID to a product definition is, in effect, changing/amending the product definition. We expect a table would need to be developed that defines the meaning of the different versions and the industry will need to access a "lookup table" to obtain a full understanding of what the product is. Depending on how this table is constructed, the lookup will consist of accessing the most recent version ID (in which case each new version needs to incorporate relevant portions of all previous versions) or all the versions to obtain the relevant changes over time.

Interim Recommendation: Access – 4a

In order to make it efficient for interested parties to retrieve data, every SDR should provide the same standardized API. Access to different parts of the data would be configurable so that all parties could use the same API.

Assessment

Consistency with regulatory requirements:

- SDRs have a duty to provide to the CFTC real-time access to reported data via the internet or web-based application and also to effect scheduled data transfers to CFTC systems
- SDRs must implement adequate firewalls to protect data
- SDRs are required to have a strong corporate governance framework and DR-BC plans in place, as well as confidentiality and indemnification agreements

Cost and ease of implementation:

- Using a single API implemented across all SDRs, as compared to multiple APIs, would be cheaper for market participants

“Time-to-market”:

- Near-term deliverable - dependent on internal software development by SDRs

Conclusion

We agree that this recommendation would assist the industry and the SDRs to comply with their reporting requirements and facilitate retrieval and analysis of the data.

Interim Recommendation: Storage – 4b

Swap participants should be given the ability to view all data reported to SDRs on swaps that they are party to over the life of such transactions. The reporting entity will need to be able to directly amend data, although this ability should be limited to reported data only. The counterparty should have the ability to report errors in data so that they may be corrected by the original reporting party or subject to some form of dispute resolution.

Assessment

Consistency with regulatory requirements:

- Access to data not publicly disseminated by market participants is prohibited, except for access to swap data by either counterparty to that swap
- SDRs have a duty to confirm the accuracy of data submitted
- The reporting counterparty must submit corrections as soon as possible after discovering errors or omissions to reported data

Cost and ease of implementation:

- The lines of connectivity established for reporting could be utilized for correcting errors and omissions
- Participants will need to maintain access controls to ensure that only authorized parties have access to this facility

Actionability:

- SDRs will need to consider security and connectivity when enabling counterparties to a swap to review data and propose corrections

Conclusion

We agree with this recommendation. We believe that SDRs should establish a framework that is reasonably designed to ensure that swaps data stored on their respective facilities is correct, and that such a framework should (i) allow counterparties to review reported data to ensure it is correct, and (ii) result in timely corrections to errors in swaps data. We do not believe, however, that the CFTC should prescribe the processes by which SDRs accomplish these tasks. For example, SDRs may find it cheaper and more efficient to (i) allow counterparties to a swap to review data submitted and propose corrections, as necessary, and/or (ii) use SDR staff to amend incorrect swaps data, rather than providing the reporting counterparty with the ability to directly amend data. SDRs may find that it is not practical to provide the reporting counterparty with the ability to directly amend reported swaps data since this will require additional security measures. We suggest that the TAC recommend that the CFTC provide SDRs with the flexibility to determine and implement the cheapest and most efficient processes to reasonably ensure that swaps data stored in SDRs is accurate.

Interim Recommendation: Access – 4c

The CFTC should establish more detailed requirements for the analysis of data by SDRs on a regular basis, as well as for ad hoc requests by the CFTC. Until the CFTC establishes more detailed requirements, including the expected types and urgency of requests, it is unknown what future functionalities SDRs will need to support, which has important implications from a software perspective. This information will also help SDRs determine the needed "computing horsepower" for their middle offices.

Assessment

Consistency with regulatory requirements:

- SDRs are required to make data available to authorized regulators
- SDRs have a duty to monitor, screen and analyze reported swap data prior to submission to the CFTC
- SDRs are expected to routinely monitor data for the purpose of any ongoing swap surveillance objectives the CFTC may establish as well as for *ad hoc* requests.

Cost and ease of implementation:

- Cost and implementation is based on the complexity of the request for analysis and the format of the reported data

"Time-to-market":

- Any analysis needs to be performed in a timely manner, but there may be a lag between the time the request is made to the time analysis is automated and done routinely, due to software development needs

Actionability:

- The CFTC may not know immediately what analysis is required from the reported swap data

Conclusion

We agree with this recommendation. Although SDRs are required to perform *ad hoc* analysis from time-to-time on the reported data before submitting to the CFTC, it would be beneficial for SDRs to have as much advance notice as possible of potential ongoing swap surveillance objectives that the CFTC may be considering. This will allow the SDRs to better plan and manage their own resources and operations and enable cost effective implementation when meeting their obligations. Knowing what analyses they will have to perform will allow SDRs to assess whether they have received the appropriate data.

Interim Recommendation: Timing – 5

The initial data loaded into SDRs should be OTC swap data, as the primary goal of the relevant portion of the Dodd-Frank Act is to bring transparency to this sector of the market. With this in mind, the Subcommittee recommends the following sequence for required reporting into SDRs:

- Phase 1: Insure that SDR requirements are international and applied consistently to avoid regulatory arbitrage
- Phase 2: Begin reporting of non-cleared trades
- Phase 3: Begin dissemination of public data on a real-time basis
- Phase 4: Require the reporting of cleared trades into SDRs
- Phase 5: Provide query functionality to regulators
- Phase 6: Provide more complex portfolio analytics to regulators

Assessment

Consistency with regulatory requirements:

- All reporting parties must be compliant with swap data regulatory and real-time reporting requirements by July 16, 2012 for credit and IR swaps, and by October 14, 2012 for other asset classes

“Time-to-market”:

- There is no sure way to ensure consistency internationally in a specified period of time, therefore, this should not be a prerequisite to the other tasks happening

Current industry initiatives:

- The political aspects of ensuring consistency across SDRs internationally are wide-reaching and are being discussed currently

Conclusion

We agree that each of the phases is needed for successfully implementing the required reporting to SDRs. We would, however, suggest the following sequence of events:

- i) Report cleared and non-cleared trades as mandated
- ii) Disseminate public data on a real-time basis
- iii) Provide query functionality to appropriate regulators
- iv) Provide more complex portfolio analytics to regulators

The consistent application of SDR requirements internationally should be pursued concurrently with the above phases. Although there is the risk of regulatory arbitrage, it may not be easily realized in the short term. Achieving international consistency may take some time but should not prohibit the domestic phases from proceeding. The amended sequence of events reflects a path of lesser resistance and easier transition. The reporting of cleared trades should be achieved fairly easily and will chalk up an early "win" and set the stage for successive phases.