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David A. Stawick
Secretary of the Commission
Commodity Futures Trading Commission
3 Lafayette Centre
1155 21st Street, NW
Washington, DC 20581

Re: [Release No. 34-63423; File No. 4-620]: Acceptance of Public Submissions on a Study Mandated by the Dodd-Frank Wall Street Reform and Consumer Protection Act, Section 719(b)

Sir,

I appreciate the opportunity to submit comments to the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC) on its mandate to conduct a study on the feasibility of requiring the derivatives industry to adopt standardized computer-readable algorithmic descriptions which may be used to describe complex and standardized financial derivatives. I intend for these comments to form a part of the public record of this discussion.

I submit my comments in my personal capacity as a derivatives professional with extensive experience designing and building computer systems used in the analysis, pricing, trading and risk management of both complex and standardized financial derivatives. Experience acquired over the last 16 years as an employee of and consultant to some of the largest broker-dealers and hedge funds dealing in financial derivatives; including current experience consulting for the Lehman Brothers Estate in its unwind of an extensive derivatives portfolio valued according to some public sources at $100bn and spanning the gamut of complexity from standardized contracts to highly customized complex transactions.

Section 719(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act mandates both the CFTC and the SEC to conduct the Study to examine the feasibility of requiring the derivatives industry to adopt standardized computer-readable algorithmic descriptions to be used to describe complex and standardized financial derivatives; and be designed to facilitate computerized analysis of individual derivative contracts , calculate net exposures and serve as the binding legal definition of derivatives contracts.

For such a framework of standardized algorithmic descriptions to be relevant not just currently but in a forward looking fashion that enables it keep abreast with an industry that has innovation at its core, I humbly propose an additional implementation requirement to those outlined in the preceding paragraph. **That is for the framework of algorithmic descriptions to be designed not only to describe and manage existing derivative contracts but also to anticipate the structure of as yet un-invented derivative products; and have designed into the framework the capacity to implicitly carry forward any adopted guidelines and best practice on to these future derivatives**.

Innovation in derivatives structuring is at the core of the industry's objective of creating transactions and contract types to better capture new and existing financial risks and enable participants to more precisely hedge or take advantage of these risks.

Over-The-Counter (OTC) derivatives as privately negotiated bilateral contracts are by design (almost) infinitely customizable and thus flexibly complex. While over time successful contracts that gain market traction become standardized in order to grow the market, the profit incentive is such that the largest gains (and risks) are to be had designing or structuring contracts that aim to capture some hitherto ill-defined market view. Hence any regulatory regime that depends on a taxonomy of current derivative contract types would run the risk of obsolescence even before it rolled off the printing press.

The Counterparty Risk Management Policy Group III (CRMPG III) - an industry policy group - in its August 2008 report in response to the unfolding crisis[1] have this to say on the topic:

The definition of a high-risk complex financial instrument is itself a complex subject. For example, while it is easy enough to say that subprime CDOs are a high-risk complex financial instrument, it is impossible to solve the definitional issue by compiling a list of such high-risk instruments, if for no other reason than any such list would be almost immediately out of date.

This is a widely understood definitional problem in the industry and in the design of systems and protocols to manage derivatives products. When these systems lag the innovation process, it results in a critical control and oversight gap. This gap manifests itself in processing backlogs, delays or (worse) inaccuracies in classifying derivative products for regulatory treatment or/and internal risk management, and inconsistencies in the hedging and netting of behaviorally similar derivatives - problems magnified as new successful derivative types become widely adopted by the marketplace e.g. as happened with credit default swaps.

Fortunately, the complexity of derivatives contract design is not entirely chaotic and may be tackled systematically by the type of algorithmic specification being proposed by Section 719(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act. **But only if this specification is defined at the right level of abstraction to enable it evolve in tandem with the evolutionary pace of the contracts whose structure, risk profile and contractual obligations it is supposed to describe**.

One widely adopted specification that has emerged in the industry for OTC derivatives is the Financial Product Markup Language (FpML) and it is not unexpected that it would be considered as a strong candidate for adoption as a specification as proposed in Section 719(b). However, while FpML has been very successful as a messaging protocol, relying on its ubiquity in the industry, it however falls short in 2 critical areas that in my opinion are central to resolving the definitional problems of anticipating innovation in OTC derivatives, and implicitly propagating established guidelines and practices to these new structures as they emerge.

1. FpML is not designed to be compositional:
Much of the complexity and innovation of new financial derivative products derives from the possible permutations and combinations of a relatively finite, stable and small set of compositional contract terms or primitives. Not dissimilar to how a complex, and dynamic

[1] CRMPG III Report - Containing Systemic Risk: The Road to Reform

language like English derives from a relatively finite and stable set of words, word classifications (i.e. nouns, verbs and tenses etc), rules and idioms governing the combination of these in sentence construction.

To be forward looking, a derivatives specification would need to formally and rigorously describe the compositional terms that a derivative contract is combined from, as well as the operators and rules used in combining them. That would be the correct level of abstraction - a change in the combination of these compositional terms should be a relative non-event, while the addition of new terms would be significant but expected to happen very infrequently.

A specification set at too high a level of abstraction would not be unlike trying to describe English grammar by enumerating an exhaustive list of all English sentences, and by design would be backward looking relying on the existing body of sentences written - invariably a creative writer will come up with an as yet un-codified but grammatically correct, creatively crafted sentence. Much of the intelligence in understanding the similarities in sentence construction would also be lost in the perceived variety of sentences.

FpML relies on an existing body of contract type definitions, defined at too high a level of abstraction and thus it lags transaction innovation. This lag is often managed internally by the use of proprietary extensions to FpML; which further introduces inconsistencies between parties and sometimes incomplete representations of the full economic terms and contractual obligations of a contract.

2. With FpML you cannot consistently derive "what a Derivative <u>does or should do</u>" from "what <u>it is</u>":
Similarly, a specification should be able to describe in a consistent and standardized form how to extract the behavior or expected analyses of an OTC derivative contract, based on the constituent parts of its structure and how they are combined.

Keeping with the language metaphor, this is equivalent to how one would extract the semantic behavior of a Declarative, Conditional, Imperative or Exclamatory sentence based on the words used in the sentence itself and how they were combined.

It is not difficult to see how classification rules or indeed regulatory requirements defined into this extraction process can be implicitly propagated forward to future derivative structures. This stands a much better chance of baking adopted regulatory rules into the innovation process, by default.

Both of these limitations in part account for why FpML is often viewed as insufficient as a specification language in the operational and analytical processes where a high degree of responsiveness to new derivative structures is required e.g. in structuring, pricing and front office risk. Several derivatives participants thus evolve more robust and flexible but unfortunately proprietary derivatives Domain Specific Languages (DSLs) of their own for this reason.

The industry would benefit greatly from the development and adoption of a rigorous, flexible and standardized derivatives DSL.

Having the CFTC and the SEC explore this possibility and - as part of the study - conduct a review of existing research and available vendor offerings that could form a basis for this derivatives DSL would be a step in the right direction.

I would be pleased to discuss my comments and recommendations in this letter with you or your staff in more detail.

Sincerely

Olu Oni