



Braithwate

21 February 2023

Jennifer Piorko Mitchell
Office of the Corporate Secretary
FINRA
1735 K Street, NW
Washington, DC 20006-1506

Dear Ms Mitchell,

BRAITHWATE'S RESPONSE TO FINRA MACHINE-READABLE RULEBOOK INITIATIVE

Braithwate is pleased to submit its response to FINRA's request for comments on its *Machine-Readable Rulebook Initiative* (Special Notice 10/21/22).

As a globally active firm of financial services regulatory compliance advisors, Braithwate is heavily involved in helping our clients track, interpret and apply regulatory obligations to their businesses. Since the 2008 financial crisis, the breadth and depth of rules to which our clients are subject has expanded exponentially, to the point where it is practically impossible to manage using spreadsheets and memos; we are thus strong proponents of RegTech solutions to help firms manage their compliance obligations.

We have extensive experience working with regulated firms to select and implement RegTech solutions for regulatory horizon scanning, obligation analysis and compliance management and are engaged in industry and regulator-led initiatives in the UK, US and EU, including the FINOS open source forum.

From this work, one of our key observations on the state of the RegTech industry today is that it suffers from a lack of consistency in interpretation – that is, various RegTech tools could analyse the same regulatory text and each produce a different set of applicability statements. Using a standardised taxonomy to describe regulatory obligations is a critical first step to improving the consistency of interpretation and thus reducing risk and improving efficiency as regulated firms gain greater confidence in their RegTech tools.

Ultimately, as financial services become ever more digital, we believe that regulators should aim to publish machine-executable rules-as-code, with the written English version serving as guidance. We acknowledge that there are many technical and legal hurdles to achieving this goal, but we urge FINRA to be bold and to invest in research and development with this objective in mind.

One immediate change to the FINRA API we would suggest is to make all content free of charge to all users (albeit with the authentication requirement retained); this would encourage the development and adoption of third-party RegTech solutions, resulting in enhanced functionality for the FINRA broker-dealer community.

We commend the FINRA FIRST Taxonomy and API initiative and look forward to engaging in further conversations to support its development.

Yours sincerely,

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FINRA's questions

A. Interactions with the FINRA Rulebook

1. *Will your interaction with the FINRA rulebook change now that FIRST, the prototype search tool, and the related API have been launched? If so, how will it change? Do you plan to use FIRST or the related API? If so, which are you more likely to use, or are you likely to use both?*

[Braithwate] We will use the FIRST API where possible, in conjunction with our own in-house regulatory parser which processes other FINRA content which is not currently covered by the FIRST API.

2. *Are there other challenges that you currently encounter when searching for content on the FINRA rulebook that FIRST could help address?*

[Braithwate] From a technical perspective, it is always preferable to consume content from a dedicated API rather than scraping it from web pages. Having FINRA provided taxonomy tags is helpful to augment our proprietary regulatory search and classification tools.

3. *Are you more likely to use the summary topics or the detailed topics in FIRST to conduct your searches?*

[Braithwate] We will use both.

B. Uses of FIRST and FINRA's API

1. *Who will be the primary beneficiaries of FIRST and the related API? Are there concrete use cases that market participants could use that have not been contemplated above?*

[Braithwate] We expect that many FINRA member firms will look to the RegTech industry to integrate content from FINRA FIRST into new or existing RegTech solutions, rather than develop their own in-house tools. This is because many firms are subject to regulatory requirements from multiple regulators / supervisors and so it is easier to manage in a single platform.

2. *After reviewing this Special Notice and using FIRST and the related API, do you believe that your firm would use these tools to enhance its compliance procedures or practices? For example, how much do you believe that your firm would save annually in operational, compliance, legal or related costs? More broadly, what would be the tangible benefits to the industry as a whole?*

[Braithwate] As advisors to FINRA member firms, the FIRST taxonomy and API will help us provide a better and faster service to our clients, which in turn will help those firms to improve their compliance procedures. While it is difficult to put an exact figure on the benefit, it is likely to be substantial (i.e. in the hundreds of thousands of dollars per year).

3. *Does your firm currently rely on a taxonomy developed internally or by a third-party vendor? If so, how can existing taxonomies built by your firm most efficiently interact with a taxonomy developed by FINRA? Do you believe that the existence of a taxonomy developed by FINRA will make it more likely for your firm, and the industry as a whole, to incorporate new technologies into compliance functions?*

[Braithwate] We have developed our own taxonomies and classification systems to analyse regulatory content which we are in the process of aligning with the FINRA taxonomy. As set out in our covering note, having the FINRA taxonomy (especially if it were comprehensive for the entire rulebook) will make a big difference for the adoption of RegTech across the industry.

C. Feedback on Taxonomy Terms, FIRST and the API

1. *Are the taxonomy terms organized in a clear and intuitive manner? Is the distinction between the summary topics and the detailed topics clear to users?*

[Braithwate] While the overall taxonomy is useful, we do not feel that the distinction between "Summary" and "Detailed" topics is particularly intuitive. We generally look at regulatory interpretation as a three stage process:

1. **Who** – to whom does the obligation apply? For this, we need to know the types of firm, the capacity in which they act, the customer segments they are serving.

2. **What** – what is the actual obligation? For this, we need to know the topic of the obligation and the details of the obligation itself.
3. **How** – how should a firm comply with the obligation? For this, we need to know what systems / processes / controls / governance etc. is expected to be implemented to ensure compliance.

Our approach to regulatory interpretation is certainly enhanced by the FIRST taxonomy, but additional information would be helpful.

2. *Are there steps that you believe FINRA should take to explain more clearly to users how to use FIRST or the related API? For example, seminars, online tutorials, Q&As or virtual workshops?*

[Braithwate] FINRA has done a good job of communicating the FIRST taxonomy and API to the parts of industry with which we are engaged. However, RegTech adoption is still relatively limited and we would encourage FINRA to continue to communicate with the industry.

3. *FIRST and the related API documentation provide a disclaimer to users that it is meant to serve as an informational tool, or an aid, to help identify potentially applicable rules, rather than to offer regulatory or compliance advice. Ultimately, it is incumbent upon firms to ensure that they remain compliant with their regulatory obligations. Further, use or reliance on the search tool is not a defense to a failure to comply with FINRA rules. Would additional information or context regarding these issues be useful?*

[Braithwate] While we understand the use of this disclaimer in this proof-of-concept, ultimately as financial services become truly digital, firms will require rules-as-code which can be interpreted and executed by machines. We urge FINRA to work with other regulatory bodies to develop a legal framework for the development and consumption of rules-as-code.

4. *Are there specific aspects or functionalities of FIRST or the related API that you find particularly beneficial? Are there any that you find not to be beneficial?*

[Braithwate] Being able to access rulebook content via API, along with the FIRST taxonomy is very useful. There are no aspects which are not beneficial – we simply encourage FINRA to expand coverage to the rest of the rulebook.

5. *With respect to the browse functionality, do you find the selection process to be intuitive? As noted, this functionality allows users to expand or refine searches by selecting across, or within, the first-level terms. Do you find this feature to be useful for conducting searches?*

[Braithwate] Yes, this is intuitive. In the long-term, we expect most research to be conducted in other systems (developed by either member firms or RegTech vendors) and submitted to the FINRA API.

6. *What is your view on the overall depth, quantity and quality of the taxonomy terms? Could it be improved and, if so, how?*

[Braithwate] See our response to question C1 above. We would be happy to engage with FINRA on how the taxonomy could be enhanced to facilitate regulatory interpretation.

7. *To what extent would you benefit from conducting a reverse search by selecting a rule tag term within a particular rule, which will then list other rules to which that term has been applied? How likely are you to discover additional relevant rules based on such searches?*

[Braithwate] It would be very useful to be able to expand from a term and see the broader list of rules to which that term has been applied.

8. *Where would you like to see FINRA prioritize its focus in the future:*

- a) *facilitating the ability of others (including an open source community) to enhance the taxonomy and tag additional content;*
- b) *applying taxonomy terms to additional rules;*
- c) *applying taxonomy terms to other FINRA content (e.g., enforcement actions, regulatory notices and guidance);*
- d) *revising the taxonomy terms that have been currently applied (and if so, how?); or*
- e) *other steps?*

[Braithwate] We would like to see FINRA prioritise its efforts on (a), (b) and (c). We would also encourage FINRA to work with other regulatory bodies to standardise the use of the taxonomy across other regulatory content – e.g. working with the SEC to apply the taxonomy to 17 CFR.

9. *Does your firm currently use APIs? How likely is your firm to use the FINRA API now that it is being offered with the taxonomy terms for 40 rules as a way to help streamline the automation of compliance functions?*

[Braithwate] We make extensive use of APIs today and believe that as financial services becomes truly digital, firms will increasingly be API-first. As expressed above, we believe that FINRA should open the API to all authenticated users, free of charge, to encourage the development and adoption of RegTech solutions.

D. Future Development

1. *Are there any lessons that FINRA should account for based on experiences of other parties (regulators, industry participants, associations, etc.) that have considered the development of a taxonomy based machine-readable rulebook? What types of collaborations or partnerships would be beneficial in this space?*

[Braithwate] We strongly encourage FINRA to work with other regulatory bodies (in the US and overseas) to develop and promote the use of standardised taxonomies for regulatory content.

2. *Are there readily available technological tools that FINRA can consider to automate the identification and application of taxonomy terms to its rulebook?*

[Braithwate] We have developed in-house tools which leverage large language models (LLMs - e.g. OpenAI's GPT models) to categorise regulatory text. There are certain well documented pitfalls associated with LLMs but our experience shows that these can be overcome with a careful approach to data structures and model training.

3. *FINRA is considering how to avoid potential risks associated with the proliferation of regulatory taxonomies and user interfaces that regulators, firms and technology vendors use. What are the risks and challenges in this area? Would some form of harmonization or standards for regulatory taxonomies be beneficial, and if so, how can FINRA best contribute to such outcomes?*

[Braithwate] FINRA is absolutely right to focus on this risk. The main risks are (1) the proliferation of undocumented regulatory interpretations embedded in some compliance systems today (built by both firms and RegTech vendors) and (2) poor data mapping which produces incorrect regulatory analysis. In the short-term, by producing and promoting its standardised taxonomy, FINRA can help the industry avoid the first risk. In the longer term, FINRA should work with other regulatory bodies to develop a legal framework for the development and consumption of rules-as-code.

4. *Do you support making the taxonomy available through an open-source manner for public-private collaboration for further development of a taxonomy-based machine-readable rulebook? How could this initiative, on a going forward basis, benefit from open-source collaboration? Who could FINRA best collaborate with and how?*

[Braithwate] We believe that there are substantial benefits to the industry (and to FINRA's objectives) in making the taxonomy available as open-source. This would encourage adoption and the development of third-party solutions which will further support the broker-dealer community.

Such an initiative could be hosted at FINOS, who have recently taken over hosting the ISDA CDM data model for derivatives.

5. *Alternatively, should FINRA devote additional resources to further building out this search tool and keep development largely internal?*

[Braithwate] We think that FINRA should continue to lead the development of FIRST until the point that it has been widely adopted within the industry. This does not preclude making it available as open-source.

6. *What other forms of future collaboration from FINRA would best serve the objectives of this initiative? What role should vendors and member firms play in the adoption, development and ongoing maintenance of a taxonomy-based machine-readable rulebook?*

[Braithwate] We would like to see FINRA collaborating with the vendor community, firms and their advisors to develop a framework for the development and consumption of rules-as-code. This will be an essential piece of regulatory infrastructure to position the US at the forefront of digital financial services.