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Dear Sir or Madam

FCA Call for Input: Using technology to achieve smarter regulatory reporting

The City of London Law Society ("**CLLS**") represents approximately 17,000 City lawyers through individual and corporate membership including some of the largest international law firms in the world. These law firms advise a variety of clients from multinational companies and financial institutions to Government departments, often in relation to complex, multi-jurisdictional legal issues. The CLLS responds to a variety of consultations on issues of importance to its members through its 19 specialist committees.

This letter has been prepared by the CLLS Regulatory Law Committee (the "**Committee**"). The Committee not only responds to consultations but also proactively raises concerns where it becomes aware of issues which it considers to be of importance in a regulatory context.

We welcome the opportunity to comment on the role that technology can play in regulatory compliance in response to the FCA's Call for Input on using technology to achieve smarter regulatory reporting. We have focused our response on the potential legal consequences associated with a move toward machine executable reporting (Call for Input question 16) and the governance of this work (Call for Input questions 12 to 14).

Summary

We welcome the regulators' work in this area to identify and facilitate opportunities for efficiencies in regulatory compliance, such as the increased use of automation. We also welcome collaboration between the regulators and the industry to provide a clearer interpretation of reporting requirements.

The Call for Input does not specify who would interpret the current reporting requirements more prescriptively so that they could be read and executed by a machine. The legal analysis will be

determined by the choice of approach for creating and maintaining these machine-readable rules. Subject to further clarity on what the preferred model is, we have commented on general legal considerations such as liability, the legal status of the machine-readable rules, and the need for transparent processes for rule changes.

It is also important to acknowledge the limitations of what can be achieved via automation. This use of technology may lend itself to some data reporting requirements but not to the vast majority of the regulatory rulebook.

Techsprint proof of concept

The Call for Input describes the steps that were taken to develop the proof of concept at the FCA and Bank of England's techsprint in November 2017. The techsprint focused on automating one cell of a regulatory report: the reporting of retail customer liabilities (line 25 SUP 16.12 FSA001). As well as automating the reporting of that data, a real time rule change was simulated which automatically changed the data that was reported.

Who would be responsible for the machine-readable rule interpretation?

A crucial element of the techsprint's process was rewriting the original FCA rule in a way that reduced the ambiguity in the language of the rule.

Currently, most regulation is written in a natural language which is not sufficiently standardised format to allow them to be read by a machine. Terms may be defined broadly or not at all. Human judgement is required to determine whether and how rules apply to the facts.

The first step towards automation therefore requires someone to review the current regulation and rewrite it in a more prescriptive way, reducing sufficient ambiguity from the rule to make it machine-readable. This is likely to require that person taking a narrower interpretation of the scope of that rule. Whoever takes on this responsibility for rewriting the rule also takes the risk that its narrower interpretation does not capture the full scope of the original rule. It is possible that someone adhering to the prescriptive, machine-readable version of the rule might not comply with the original rule.

According to the Call for Input, the rule that was the subject of the techsprint was not specific enough to allow the rule to be rewritten in a machine-readable way and the FCA and Bank of England had to produce more detailed definitions for this purpose.

The Call for Input does not specify who would perform this function as part of the next stage of development of the technology. There is a range of approaches which could be taken to create and maintain machine-readable rules. For example:

- **Regulator-led approach:** The regulators could replace existing requirements with more detailed rules (and so benefitting from the statutory consultation process) which are intended to be read by a machine. These could be presented as code for regulated firms to apply to the data they hold. Alternatively, code could be provided as guidance which would demonstrate compliance with the underlying rule.
- **Firm-led approach:** Alternatively, each regulated firm could adopt its own interpretation of the requirements and apply automated operations to them to the extent possible.
- **Industry-led approach:** The Call for Input suggests that, "if an appropriate forum or mechanism existed", regulated firms could collaborate and effectively crowdsource a machine-readable interpretation of the regulations.

The legal consequences will depend on the detail of the model which is adopted (e.g. determining where the responsibility for the machine-readable rule interpretation lies).

Crowdsourcing regulatory interpretation

If the regulators preferred model is to encourage industry to agree a machine-readable interpretation of the rules, we assume that the regulatory requirements would remain unchanged and individual regulated firms would continue to be held responsible for the reports that they submit to the regulators, even where the industry-standard interpretation is relied upon.

A significant risk for a regulated firm under this model is that the interpretation is deficient in some way and results in that firm submitting non-compliant reports to the regulator. We anticipate that regulated firms would need assurance that the industry-standard interpretation does in fact meet the relevant requirements for the data they submit.

A broader risk of this approach is that any deficiency in the interpretation would be shared across many regulated firms. Errors in interpretation which today may only affect single reports or single regulated firms could be magnified to affect the whole industry.

If an industry-led model is preferred, we recommend that a governance framework is established to manage the development of automatable rules. This would necessarily be an approach that brings the industry and the regulators together. Under this framework the industry may take the lead on agreeing a standard interpretation of the rules but with the prospect of a sign-off or similar endorsement from the regulators that this interpretation is sufficient for compliance.

The role of the regulators in this framework should also be to ensure that all impacted regulated firms are represented in the future development of the technology and to act as a counterweight to regulated firms' vested interests. The regulators would need to ensure that the automated reporting regime does not excessively benefit some regulated firms, such as those with the resources and IT infrastructure to benefit from such a change, and disadvantage others.

Such a governance framework could not end once the technology is established but rather crowdsourcing an industry-standard interpretation would require ongoing maintenance to reflect changes in that interpretation over time. Without this, the standards may ossify and increase the risk of gaps in compliance.

Interaction between machine-readable rules and other rules

The next stage of development of this technology may involve the regulators either producing new machine-readable rules for certain parts of their rulebooks and/or endorsing a more prescriptive interpretation of current rules agreed by a group of industry participants. While the technology is being developed and automation is being piloted, it is important to ensure legal continuity and certainty for compliance with the remainder of the rulebooks.

We recommend that any directory of regulatory interpretation created specifically for automating reporting should, at least initially, be a self-contained rule environment. Any definitions applied in those rules should only apply to the automated reporting regime and not to other rules. This would help to draw a clear distinction between the rules that are intended to be machine- and human-readable and those which continue to rely on human interpretation.

Regulated firms that participate in the development of automating regulatory reports are still required to meet overarching standards of conduct (e.g. the FCA's Principles for Businesses). We recommend that the regulators provide guidance to participating regulated firms on how they are expected to meet these standards when applying binary logic to their compliance procedures.

Rule changes and straight-through processing

The techsprint explored the potential for real time changes to reporting requirements. To simulate a rule change, thresholds in the definitions developed by the FCA and Bank of England's machine-readable rules were changed. When the code was re-run, the data that was reported changed accordingly without any human intervention.

This was possible because the simulated data store had been recalibrated in a way that corresponded with the more prescriptive machine-readable rule. If this were replicated across the industry, the regulators would effectively be able to pull certain data from firms' data stores on demand, i.e. straight-through processing of regulatory reporting.

In relation to that standardised data, external consultations on proposed rule changes in the automated reporting regime could be considerably shorter or even dispensed with on the basis that the regulators would have access to the data in any event and could produce the reports they need on demand (although this would likely need a change in the regulators' powers under legislation).

If this approach is taken, we recommend that legal safeguards are put in place on the use of this data and transparent processes to inform regulated firms of what data is taken, when, and how it is used. Where possible, this information should be disclosed before the data is taken.

There should also be clear internal processes at the regulators for the approval of rule changes within the automated reporting regime. Proposed rule changes should be put before the FCA Board or a specific committee designed to consider changes to the automated reporting regime.

We recommend that, once it is established, significant changes to the automated reporting regime (e.g. where new inputs are required) continue to be open to consultation as for the existing process. Individual regulated firms and/or any industry group setting the standard interpretation would then be able to comment on the feasibility of the proposed change and work with the regulators on the change that is required to the standard interpretation and/or the storage of regulated firms' data.

We also recommend that the process for rule changes is built into an ongoing governance framework. The regulators have an important role to play to ensure that any rule change does not excessively benefit some regulated firms to the disadvantage of others.

Liability for reports

Depending on the model which is adopted, we assume that individual regulated firms will continue to be held responsible for the accuracy of the reports that they submit to the regulators.

We recommend that the regulators provide specific guidance on the liability for an error in an automated report. Errors which result from an agreed prescriptive interpretation of a rule or a standardised code should be treated more leniently than errors which result from firms' data not being held correctly or failures in the systems and controls in relation to the automated reporting regime. While technology is being developed during the pilot phase, we recommend that firms are given the option of participating in a sandbox environment which allows them to test the new technology under enhanced regulatory supervision.

Careful consideration should be given as to what status the prescriptive interpretation of a rule or the standardised code has in law. Subject to further clarity on what the preferred model is, we expect that the original rule which is retained in the regulators' rules continues to be authoritative and that this is what would be referred to in the event of any enforcement action.

Finally, it is also important to clarify what the responsibility of a firm should be where it does not agree with the prescriptive interpretation of a rule (or rule change) in the automated reporting regime. The governance framework to develop the technology should take this into account.

Individual accountability

In addition to our assumption that regulated firms will continue to be held responsible for the accuracy of their reports, we also assume that any individual responsibility with respect to those reports will also remain unchanged.

We do not think that the application of technology for regulatory compliance changes the fundamentals of firms' governance arrangements. However, the relevant Senior Managers and Approved Persons would benefit from additional guidance from the regulators regarding how best to exercise their responsibilities when relying on a standardised interpretation of rules.

Monitoring reports

In the context of transaction reporting, regulated firms must have appropriate systems in place to check the accuracy of transaction reports that are sent to the regulators.

Similarly, we recommend that any automated regulatory reports which the regulators receive from regulated firms are made available to those firms to allow them to cross-check their accuracy against the data they hold.

Next stage of development

According to the Call for Input, the techsprint focused on the reporting of retail customer liabilities partly because it applies to a wide range of regulated firms.

We recommend that the next stage for this work should bring together a smaller number of firms who have most to gain from this type of automation of regulatory compliance (most likely those with the resources and IT infrastructure to benefit from automated reporting). If successful, these pilots could then be rolled out to other rules with broader application.

Identifying automatable rules

Some rules are more amenable to being automated than others. Rules which require regulated firms to process and report on large amounts of data are the most likely to be adaptable to a form of Boolean logic and so be made machine-executable.

It should be acknowledged that the vast majority of regulatory requirements, including possibly many reporting requirements, are not amenable to being reproduced in a machine-readable format without considerable change to their scope. This may be because the data inputs which are required for a given rule are not stored or storable in a machine (for example, the FCA's fair, clear and not misleading rule). It may also be because the rule has been written to include deliberate ambiguity or human judgment (for example, where catch-all language has been used because the draftsman cannot itemise every possible outcome which the rule is intended to cover).

To ensure the success of this work, we recommend that its future development recognises the limitations of the technology and continues to focus on the limited number of practically automatable regulations i.e. technical, data-driven requirements. We anticipate that automating even only these rules would still have a significant benefit on the overall burden of regulatory compliance for the industry.

Standardising rules

In addition to the work to automate certain regulatory reports, an alternative and complementary approach could be taken to standardise the remainder of the regulatory rulebook. For example, if the FCA were to adopt a particular standard such as Semantics of Business Vocabulary & Business Rules or develop its own syntax and apply it consistently over one or more of its sourcebooks, this would help the interpretation of the rules by humans as well as machines.

If you would find it helpful to discuss any of these comments then we would be happy to do so. Please contact Karen Anderson by telephone on +44 (0) 20 7466 2404 or by email at Karen.Anderson@hsf.com in the first instance.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Karen Anderson', with a small flourish at the end.

Karen Anderson
Chair, CLLS Regulatory Law Committee

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**THE CITY OF LONDON LAW SOCIETY
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