

Report on the IOSCO Social Media and Automation of Advice Tools Surveys



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Chapter 1 - Introduction

IOSCO's Committee on the Regulation of Market Intermediaries (C3) undertook a project to study the use of social media and automated advice tools in the capital markets by market intermediaries and how regulators are overseeing the use of these tools.¹ C3 studied these issues because technology, and particularly the use of the Internet, is continuing to change the ways in which market intermediaries interact with both potential and existing customers.

Among other things, social media² provides a means to multiply the number of interactions between investors and market intermediaries, while at the same time, presents regulators with numerous challenges. Indeed, the growth and widespread use of social media for business communications, such as blogs and social networking sites, has impacted how market intermediaries interact with investors. As a result, the use of social media may affect how regulators oversee market intermediaries that use these evolving mediums as well as the tools they use to approach social media-related regulatory issues.

From an intermediary's perspective, providing customers advice through an automated means presents an opportunity to formulate and deliver advice in a cost effective way. At the same time, however, use of automated tools presents numerous challenges to regulators. Market intermediaries have used some form of automated tools in the provision of advice for more than a decade. Use of these types of tools is, however, expanding as intermediaries seek to provide advice in a more efficient and cost effective manner. In addition, consumers, whether by choice or because they cannot afford (or do not wish to pay for) the traditional advisory services of an intermediary, at times choose to manage their own portfolios directly using online tools.

As regulation has evolved, and the use of Internet-based technology has advanced, so too has the sophistication and range of functionalities and analytics that social media and automated advice tools provide. In addition, the complexity of financial products has increased making some products more difficult for investors to understand.

¹ The term "intermediaries" should generally be understood as defined in the IOSCO core principles. As stated in the IOSCO Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation (Oct. 2011), "*Market intermediaries generally include those who are in the business of managing individual portfolios, executing orders and dealing in, or distributing, securities.*" According to the methodology, a jurisdiction may also choose to regulate as a market intermediary an entity that simply provides advice regarding the value of securities or the advisability of investing in, purchasing or selling securities as well as an entity that engages in proprietary trading, securities underwriting or the placing of financial instruments without a firm commitment basis. When we use the term intermediaries in this proposed mandate, we intend to include representatives of the entity. Notwithstanding the above, for purposes of this report, the term intermediary in the U.S. securities sector refers to registered broker-dealers, not investment advisers. Also, in the course of this report the terms intermediaries and firms are used interchangeably.

² As the staff of the US Securities and Exchange Commission has noted, social media is "an umbrella term that encompasses various activities that integrate technology, social interaction and content creation. Social media may use many technologies, including, but not limited to, blogs, microblogs, wikis, photos and video sharing, podcasts, social networking, and virtual worlds." See *National Examination Risk Alert, Volume II, Issue 1, Investment Adviser Use of Social Media*, fn. 2 (January 4, 2012). For purposes of this Report, when we use the term social media, we are referring to Internet-based applications within the definition above which include such sites as Facebook, Twitter and LinkedIn.

To better study these matters, during the latter half of 2013, C3 surveyed market intermediary and regulator practices in the use and oversight of social media and automated advice tools to accomplish two overarching goals: (1) to gather data to understand more fully how market intermediaries are using social media and automated advice tools today and their plans for future use and how regulators are overseeing such usage today and (2) to determine what unique challenges the use of social media and automated advice tools present to regulators (if any) and whether it is appropriate to devise recommendations or principles that regulators should consider in overseeing market intermediaries that use social media or automated advice tools.

In total, C3 utilized four surveys – one to intermediaries addressing the use of social media, one to intermediaries addressing the use of automated advice tools, one to regulators addressing the supervision of social media and one to regulators addressing the supervision of automated advice tools in their jurisdictions.³ Across all surveys, nearly 200 intermediaries from 20 jurisdictions participated in the study as well as 21 regulators from 20 jurisdictions. (See Table 1 in Appendix 2 for the participating regulators).

This Report presents the key results from the various surveys and makes certain conclusions.⁴

³ In addition to specific questions, the surveys also contained definitions of certain terms to help ensure a common understanding across all jurisdictions. The definitions of key terms from the surveys are used in the same manner in this Report. See Appendix 1 for how key terms are defined.

⁴ As this Report makes clear, the use of social media and automated advice tools by intermediaries is at various stages of development around the world, particularly related to how intermediaries interact with customers in selling financial products and making recommendations. In this regard, IOSCO's *Final Report on the Suitability Requirements with respect to Distribution of Complex Financial Products* (available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD400.pdf>) should be considered in addressing the issues raised here.

Chapter 2 – Background

2.1. The Importance of Social Media

Social media is touching virtually all areas of society and, as such, is reshaping the way individuals, companies, governments and other organizations interact with one another. Its usage will likely continue to evolve rapidly as technology advances and new concepts and methods for social media-based interaction are developed. These changes affect the financial services industry as well. Market intermediaries and their representatives are using social media to communicate with existing customers as well as to attract new ones. In addition, social media allows for more dynamic interaction than in the past, with the opportunity for users to communicate with each other and, in turn, create new content.

Significantly, social media communication often occurs outside traditional channels used by market intermediaries in the past, and it can be more public than some of the traditional channels. These factors pose challenges for market intermediaries' supervisory and compliance policies, procedures, and structures. These factors also raise potential concerns about the nature of social media usage and its impact on customers. For example, the ability to communicate information to a large group of individuals by simply posting that information to social networking sites, the potential for information to become outdated or redundant, the quantum of information available and the ease of accessibility, all raise certain challenges for internal compliance units and regulators.

To date, regulators have approached the oversight of social media by using traditional regulatory approaches such as the fundamental rules and guidelines already established for advertising, product disclosure, risk warnings, record keeping, and general supervisory control requirements.⁵ In addition, regulators have conducted on/off-site inspections and thematic reviews of how intermediaries employ these evolving mediums. Despite these efforts, certain questions arise such as whether regulators are applying rules designed to regulate traditional telephone and email correspondence to an entirely new medium of communication. Prior IOSCO work has established that fundamental principles of securities regulation do not depend upon the use of a particular medium.⁶ Nevertheless, we also recognize that as communications mediums have continued to evolve, we must re-examine the approaches currently used to best achieve the purposes underlying those principles.

⁵ See, e.g., Australia Securities and Investment Commission, *Regulatory Guide 234, Advertising financial products and advice services (including credit): Good Practices guidance* (Nov. 2012); US Securities and Exchange Commission, *National Examination Risk Alert, Volume II, Issue 1, Investment Adviser Use of Social Media* (Jan. 4, 2012); Investment Industry Regulatory Organization of Canada (IIROC), *Guidelines for the review, supervision and retention of advertisements, sales literature and correspondence* (Dec. 7, 2011); FINRA *Regulatory Notice 10-06, Social Media Web Sites* (Jan. 2010), and FINRA *Regulatory Notice 11-39, Social Media Websites and the Use of Personal Devices for Business Communications* (Aug. 2011).

⁶ See, e.g., <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD83.pdf> (Report on Securities Activity on the Internet I, 1998); <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD120.pdf> (Report on Securities Activity on the Internet II, June 2001); and <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD159.pdf> (Report on Securities Activity on the Internet III, October 2003).

Technology vendors have entered the market to provide compliance systems that assist market intermediaries to supervise, archive and retrieve business communications conducted through social media. While these compliance systems can be customized to meet the regulatory requirements of multiple jurisdictions, a shared understanding of IOSCO member jurisdictions' current regulatory approaches to intermediary use of social media could potentially facilitate the refinement and updating of regulatory approaches, thus simplifying compliance by firms with those requirements. Ultimately, this process may serve to enhance both investor protection and market efficiency.

Another key aspect of social media that causes concern is the growing use of personal mobile devices by employees of intermediaries to access business applications and to engage in business communications with customers. This trend highlights the need for both market intermediaries and regulators to be able to identify and distinguish communications that are subject to securities regulation from personal communications.

The intermediaries' survey focused on the use of social media on firms' business communications, including ways market intermediaries are using mediums such as Facebook, Twitter and LinkedIn to promote products and services. The regulators' survey addressed how regulators are overseeing these mediums today in the context of intermediaries' business communications. Specifically, the social media survey sent to intermediaries focused on three broad themes:

1. Detailed operational issues – that is, precisely how intermediaries are actually using social media in their interactions with clients in the context of financial promotions (*e.g.*, are representatives using sites such as LinkedIn to attract clients and/or transactions).
2. How intermediaries are satisfying key regulatory disclosure concerns when they use social media.
3. Key questions confronted by intermediaries that use social media, including what compliance processes and procedures intermediaries have in place to properly oversee financial promotion activity and whether these are sufficient.

2.2. The Importance of Automated Advice Tools

While market intermediaries have been using some form of Internet-based automated tools to support personal recommendations that they provide to clients (*e.g.*, financial planning, portfolio selection, investment suggestions), these firms have also been offering these tools to customers on execution-only/customer-directed platforms to assist investors in making their own investment decisions. Going forward, however, some market intermediaries are interested in delivering specific advice and recommendations on securities to investors exclusively, or with limited human intervention, through the use of automated tools.

There is a spectrum of Internet-based automated investment selection tools being used today. At a basic level, there are simple financial planning models that are offered on intermediaries' web-sites. A second level of tools provides a list of securities, investment funds or model portfolios that may be considered low, medium, or high risk for investors to choose from based on the customer's risk appetite but without detailed information about the individual customer. A third level of tools allows an intermediary or customer to indicate an investment goal and input personalized investor information such as age, financial condition, and risk tolerance and

run simulations to estimate the probability the customer will meet his/her objective with their current portfolio. Many of these tools then produce a recommended asset allocation (*e.g.*, 50% large cap, 25% small cap, 25% bonds) to address investment allocations. More sophisticated tools may then generate either a more general or specific list of securities or model portfolios that a market intermediary could recommend or that the investor could choose to buy to meet his/her investment goal. In summary, there are a wide variety of automated tools available today, and it is reasonable to expect more in the future.

To address the regulatory challenges presented by market intermediaries providing automated advice, the automated advice survey focused on three broad themes:

1. How firms are using Internet-based automated advice tools today and how regulators are overseeing their use.
2. The circumstances under which the output from an automated tool on a customer directed/execution only platform should be subject to the applicable suitability obligation.
3. Whether intermediaries are exercising appropriate care and diligence in carrying out their suitability assessments (or fiduciary duties, if applicable) when providing recommendations to clients or are they simply defaulting to the output from automated tools/model portfolios when providing such advice.

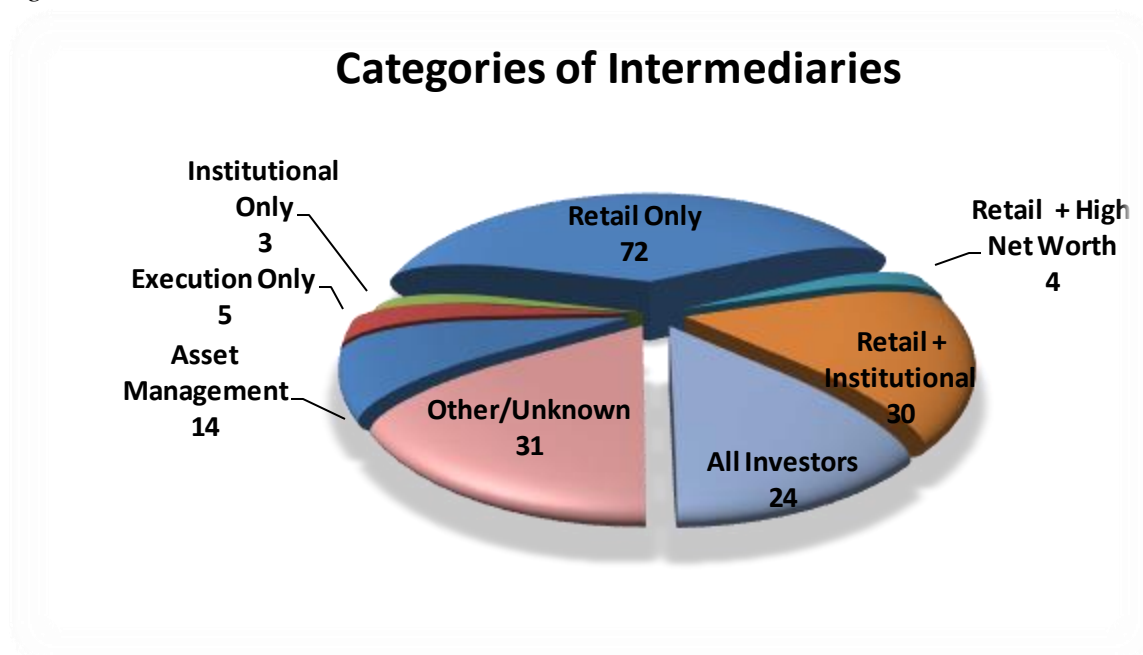
Chapter 3 - Analysis of Intermediary Use of Social Media and Automated Advice Tools

3.1 Methodology

A C3 drafting committee prepared two surveys for intermediaries that contained background on the nature of the exercise, definitions and a set of questions that were to be answered by each intermediary. The social media survey consisted of more open-ended queries, while the automated advice tools survey contained a combination of both multiple choice and open-ended questions.

There were no specific criteria as to which intermediary firms were to receive the surveys, and the distribution within each jurisdiction was left to the national regulator. The goal for each jurisdiction was to secure responses from three-to-five intermediaries from a representative sample of firms with various business models. Most jurisdictions were able to meet this goal, while others exceeded it with additional survey responses. Figure 1 represents the range of business models represented by the intermediaries that responded to the surveys.

Figure 1



3.2 Structure of the Surveys

3.2.1 Social Media

The social media survey was built around five key themes:

- **Overview questions** including whether intermediaries even permit the use of social media sites by their employees, and if so, what policies and procedures firms have in place to specifically address the use of these sites.
- **Recordkeeping questions** including whether and how intermediaries maintain records of social media business communications (versus personal communications).

- **Content questions** including what, if any, policies intermediaries have in place to control the content of social media business communications, whether any limitations are product specific and whether firms distinguish between static and interactive content.
- **Supervision questions** including whether intermediaries supervised their employees' use of social media for business purposes, whether pre-approval was required and what supervisory policies and procedures firms have in place and
- **Third-Party questions** including whether intermediaries permit the use of endorsements and testimonials, and what requirements firms have related to third-party posts or hyperlinks.

Table 2 in Appendix 2 provides a high-level overview of the number of firms that responded to the survey from each jurisdiction, and the business model of the intermediaries represented.

3.2.2 Automated Advice

The automated advice tools survey consisted of thirteen sections, each of which sought to capture specific data points regarding if, and how, intermediaries use these tools. The questions were grouped around various themes:

- **Overview questions** including whether firms use these tools, and if so, who uses them (customers, associated persons, or both); what types of recommendations these tools make; and whether firms have written policies and procedures in place to oversee the use of automated tools.
- **Target audience and product questions** including what types of customers use automated tools; what methods and information firms use to determine customer profiles to make recommendations to or on behalf of customers; and what types of products automated tools recommend.
- **Functions and support questions** including whether the automated tools facilitated trade execution and if so, whether execution is manual or automated; who builds the tools used by firms and how they are supported, monitored and updated.
- **Customer use questions** including what types of recommendations the automated tools provide, and what controls intermediaries have in place regarding recommendations made by these tools.
- **Third-party tools questions** including whether intermediaries use third-party tools, and, if so, how many automated tools firms provide to their customers.

Table 3, in Appendix 1, provides a high-level overview of the number of firms that responded to the survey, and the type of intermediaries represented.

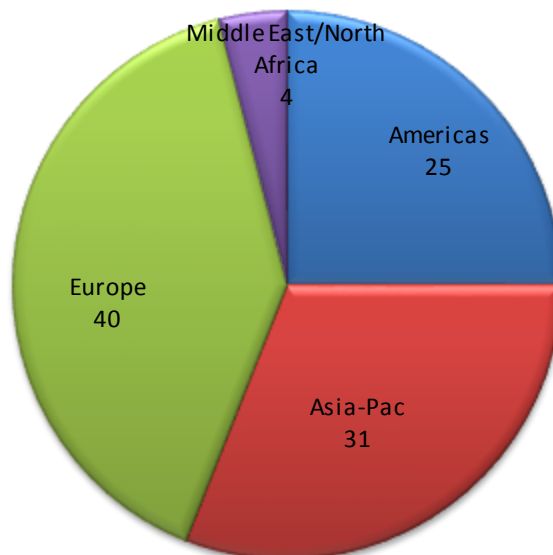
3.3 Survey Results

3.3.1 Social Media Results

As noted in Table 2 of Appendix 2, 100 firms from around the world responded to this survey. Figure 2 represents the geographical dispersion of responses:

Figure 2

Geographical Areas



Key findings from the responses include:

General Information and Limitations on Use

A substantial number of intermediaries responding to this survey (25) do not allow the use of social media for business purposes. Of those that do, general usage by sales staff is not allowed and, in most cases, the use of social media was permitted only to a small group of more senior managers (*e.g.*, corporate communications staff, marketing and research staff or compliance staff). For the most part, even those intermediaries that do allow the use of social media for business purposes only allow the use of certain select sites such as LinkedIn, Twitter, Google+, Facebook and YouTube.

One exception to these general observations was the US, where intermediaries permit a wider range of employees to use social media for business purposes. For example, of the 11 responses to the survey that came from intermediaries in the US, virtually all permit their sales staff to access social media sites. In some cases, the total sales staff using social media number in the hundreds, while in one case, the number exceeded 1,200 users.

Nevertheless, one key finding consistent across all intermediaries responding to the survey is that no firm allows its staff to use social media to deliver product recommendations or investment advice. Rather, intermediaries permit their associated persons to use personal social media postings to seek potential clients by disseminating business profiles and pre-approved information about the firm's products and services.

Of the 75 intermediaries that permit the use of social media sites for business purposes, all implement some type of registration within the firm to:

- Track users as well as their postings on the sites;
- Define the universe of users that must be trained on proper usage of the sites; and

- For supervisors, define the universe of users whose postings must be preapproved or otherwise monitored.

These same 75 intermediaries also memorialized specific usage guidelines in either the firm's code of conduct, internal policies and procedures related to advertising and marketing generally, or in specific social media guidelines.

Use of Personal Devices

Well over half of the intermediaries responding to the survey (63) indicated that they permit their associated persons to use personal communication devices such as mobile telephones when interacting with customers. About half of this number had established written policies or procedures governing the use of these devices, while the rest did not. In cases where personal devices are permitted, virtually all intermediaries require pre-approval for use of the firm's name and/or logo and limit associated persons to one user name and password. Interestingly, in one case, the intermediary requires all associated persons using a personal device to sign an agreement with the firm whereby the associated person assumes full responsibility for the use of the device for business purposes.

Recordkeeping

All intermediaries that permit the use of social media sites require that records be kept for this activity. Firms have defined social media communications that trigger a recordkeeping requirement in a number of ways, including:

- Any social media communication that references the intermediary's brand, name, regulated activities or products sold;
- All communications emanating from a business email address;
- Information posted on a firm's website such as press releases, market data and advertisements; and
- An associated person's static profile.

There was a very wide diversity of how intermediaries keep records related to social media use with no clear trend or pattern. Among other ways, intermediaries address this issue by:

- Using a spreadsheet which is uploaded to an in-house tool for analysis;
- Using an in-house email capture and tracking system;
- Using third-party software tools that maintain an electronic copy of all postings;
- Using storage capabilities provided by the social media site;
- Keeping duplicate copies of all postings when communications need pre-approval; and
- Printing all advertising materials and keeping hard copies.

Similarly, there was no clear retention period for records specified by the survey respondents. All firms, however, kept records no less than 1 year, and in some cases, for 10 years.

Content

The overwhelming majority of survey respondents treat social media communications like all other business communications and, in this regard, false or misleading statements, and unjustified promises are all prohibited.

The results indicated that the vast majority of intermediaries do not require that associated persons use balanced content standards in their communications, and do not differentiate between static content (content that does not change) and interactive content (content that does

change). Nevertheless, about half of the firms require that the firm name be listed on the communication, and in a number of cases, particularly with respect to products, intermediaries require the use of pre-authorized information, such as the information that appears on an intermediary's website.

Supervision

A majority of intermediaries responding to the survey (51) require that social media communications be supervised by trained individuals within the firm. Most of these utilize staff from compliance, legal or branch managers to conduct this supervision. And, less than half of the intermediaries (40) have specific written supervisory procedures related to the production, approval or distribution of social media communications; the same number rely on general business communications requirements (*e.g.*, written supervisory procedures) and about a fifth of the responses indicated that they had no requirements in place.

Intermediaries use a wide variety of tools to supervise social media communications and some of the more popular choices include Google Alerts, Twitter monitoring, YouTube, Hearsay, Hootsuite, and Actiance Social Media. Some of the responding intermediaries (18) monitor these communications in real time, while a number of intermediaries (27) do so daily. For firms that do not monitor these communications in-house, several rely on third-party vendors to provide supervision systems, including Socialware, SMARSH, Brandwatch, Google Analytics, Gokana RADAR, and CA DataMinder.

Third-Party Issues

Almost half of the responding intermediaries (42) indicated that they do not prohibit the use of endorsements or testimonials in social media communications. Of those that do have some restrictions, they include such things as ensuring inaccuracies are corrected, prohibiting use of client statements regarding earnings or specific financial products, and ensuring that a customer consents to the use of the endorsement or testimonial. Finally, the vast majority of intermediaries (79) do not have particular internal requirements that address hyperlinks.

3.3.2 Automated Advice Tools Results

As noted in Table 3 in Appendix 2, 83 intermediaries from around the globe responded to the survey. Key findings include:

Overview Questions

The survey results revealed that 36 intermediaries from across the world offer automated tools to their customers. Of these 36 firms, 15 offer the use of automated tools to their customers and 13 require their staff to use the tools. Intermediaries stated that they generally use automated tools to assess a customer's profile before making investment recommendations, including assisting with suitability and know your customer requirements. Accordingly, a firm's automated tools typically take into account a wide variety of factors including a customer's age, income, educational level, time horizon, investing experience, risk tolerance, investment objectives and current assets. Firms stated that they also use automated tools for, among other things, portfolio margining, surveillance and monitoring of intermediaries' interactions with customers, and providing an objective and consistent approach to customer interactions. One intermediary stood out in that it uses automated tools to help control proper voting of shares.

Of the 36 firms that use automated tools, 12 stated that their customers can independently use the same tools as the firms' investment professionals. In these cases, customers can determine their own investor profile and risk tolerance, and they have access to their personal information, asset allocations and the tools' output. The tools can also be linked to self-directed trading accounts.

Most of the 36 firms that permit the use of automated tools have written policies and procedures governing their use that are updated at least annually or as and when required by new or changes to regulations. Six firms have no written guidance for their staff.

With respect to the supervision of the use of these tools, all but nine of the 36 firms reported that they had no difficulties in their oversight. One intermediary, however, had to rebuild the suitability assessment within the tool with a new, more detailed questionnaire.

Most of the responses (24) indicated that the intermediary has no ability to override the results coming from the tools.

In cases where intermediaries seek guidance from regulators, they fall into two broad categories. First, some intermediaries would like their regulators to set a bright line on when use of a tool crosses the line into becoming advice versus providing an execution only platform. Second, intermediaries seek guidance on the specific policies and procedures firms should have in place when using automated tools such as who should be permitted to use these tools, what type of education and training should investment professionals have prior to using the tools and what type of supervision firms should use in overseeing staff that use the tools.

According to the survey results, almost all of the intermediaries that provide recommendations through automated tools do so with respect to asset classes. Two-thirds of the firms (*i.e.*, 24 of the 36) that use automated tools provide asset allocation calculators. In addition, the vast majority of the tools make recommendations related to collective investment schemes/mutual funds, equities, ETFs, and fixed income products. Only seven firms that use automated tools recommend more complex products such as warrants and futures.

When asked how intermediaries ensure that they gather sufficient information about each customer using their automated tools, responses fell into three broad categories:

- Intermediaries claim that their tools cover the mandated regulatory requirements;
- Intermediaries claim that their tools will not permit recommendations to be made unless all necessary information is obtained; and
- Intermediaries claim that they rely on firm account opening policies irrespective of whether the account is opened on-line or in person.

Of the 36 firms that use automated tools, 14 indicated that they use information obtained from customers to group them into a limited number of customer profiles (sometimes also referred to as investor profiles). Risk levels and investment strategy or objectives are the most common ways to categorize profiles. Common categories included conservative, moderate risk, dynamic and aggressive, income, balanced, growth or aggressive growth. To ensure that customers understand these various categories as well as the nature, scope and costs of services that firms provide, 13 of the intermediaries that use automated tools rely on standard disclosure documents and standard acceptance clauses. In addition, eight other firms stated that they assess whether

customers understand the disclosures in the course of interactions between the customer and the firm.

Of the 36 intermediaries that use automated tools, 17 stated that they updated their customer profiles with information that is inputted into the tools in relation to trading activity. Firms indicated that they notify their customers of this updating in a variety of ways including at account sign-on, by a firm supervisor, or by an authorized person. According to the survey results, however, most of the tools used by most intermediaries do not update customer profiles for trigger events (*See Appendix 1 for definition of trigger event*). Rather, firms rely on the customer or the firm representative to initiate any change in life circumstances.

Target Audiences and Products

As noted earlier, a large number of intermediaries stated that they do not use or provide access to proprietary or third party automated tools that make or facilitate recommendations to customers. In fact, according to the result, only 19 intermediaries stated that they use or provide access to automated tools that allow recommendations. More specifically, these firms stated that their tools are designed to recommend limited, specified products such as exchange-listed instruments, mutual funds or ETFs. In general, intermediaries stated that they strive to match the risks of the products with the customers' profile and risk tolerance.

According to the survey results, a firm's decision regarding the types of products available through an automated tool is typically made by some combination of management and staff in the investment, risk, legal and compliance departments of the intermediaries. One firm, however, stated that its marketing department made the selections. The survey results showed no clear pattern concerning the frequency with which intermediaries make decisions about which securities are available for recommendations by the automated tools. Similarly, the timeframes for review of product selections varied from once per month to once every three years.

Of the firms that responded that they do use automated tools to make recommendations, all noted that they do not receive any compensation (cash or non-cash) for making a specific product available through the tool. Only a small number of firms (11) indicated that they recommend proprietary products and in most cases, some human intervention is required when recommendations are made. Finally, according to the survey results, most tools only provide a recommendation when requested – only five intermediaries stated that they provide recommendations on a continuous basis.

Function and Support

As a general conclusion, the survey results revealed that intermediaries do not provide automated trade execution functionality through their automated tools. Some intermediaries, however, stated that they facilitate manual execution of recommendations made by the tools, with some firms conducting pre-execution reviews and approvals and some conducting post-execution reviews. A few firms stated that they do provide execution capability through their automated tools, but clearly noted that they perform supervisory reviews either pre-execution or post-execution.

According to the survey results, only nine intermediaries provide portfolio rebalancing or asset allocation monitoring services. These nine firms typically rebalance a customer's portfolio based upon the risk of specific instruments and the customer's investment strategy. More specifically, these firms rebalance a customer's portfolio when model portfolio changes are

made, after periodic reviews of a model portfolio's risk level and the customer's profile, and/or upon the customer's request. Generally, however, rebalancing is the responsibility of the customer.

Many of the automated tools used by intermediaries incorporate data feeds. The most common of these feeds are price quotes, general market news, and news specific to a particular instrument. According to the results of the survey, firms use the information from these data feeds to populate their automated tools, inform customers, analyze risk trends and make or update recommendations.

The survey results did not provide a clear trend with respect to the development of the tools used by intermediaries. Some firms have developed these tools in-house, while others have used third-party vendors or affiliates. Firm's authorized persons often provide technical input to the external vendors so they can customize the tools. Some of the specific providers of third-party tools that were mentioned included:

Advisys (EchoWealth)	Comarch	EMoney Advisor, LLC
HiQ Invest	Microsoft	MoneyGuidePro
Morningstar	PieTech 2	Zywave (Profiles Premium)

Of the intermediaries that responded to the survey, only 30 actually test their tools to ensure they are working as designed. The frequency of testing varied from weekly to sporadically (e.g., when regulations changed). These 30 firms typically test such things as the functionality of the tool, compliance with securities laws and whether changes that are made have been properly incorporated. Of these 30 firms, most conduct their testing activities in-house using staff from various departments including operations and technology, compliance, legal, sales and marketing and internal audit. Only a small number of firms (11) track customer complaints as a way to determine whether the automated tools are working as designed. However, 16 firms apply some type of regular accuracy assessment process (e.g., human intervention) to review for suitability issues.

According to the survey result, intermediaries use a variety of methods and controls (with no clear trend) to test for the suitability of recommendations. These controls include things such as:

- Review by a registered person of the recommended investments prior to trade execution;
- Prohibition of an unsuitable recommendation and/or trade embedded in the tools themselves based upon the customer profile;
- Use of exception reporting and notification to clients of exceptions; and
- Review and authorization by a registered person if a customer seeks to trade a product other than what was recommended by the tool based upon the customer profile.

Customer Use

The survey results revealed that most intermediaries from various jurisdictions do not offer their customers direct use of any automated tools. Only a small minority of responses (15) indicated that they do offer customers direct use of these tools. The customers of these 15 firms typically use the automated tools to receive recommendations on asset classes, asset categories, ETFs, mutual funds, equities and fixed income products. To help ensure that incorrect information is not put into the automated tool by a customer, almost all firms have some precautionary protocols in place which primarily entail having a human intervene to check the data. For the

most part, intermediaries that offer these tools do not typically exercise discretion regarding which customer are permitted to use them.

Third Party Tools

Only four intermediaries stated that they allow their staff to use third party tools. Three of the four firms have a list of approved third party tools that can be used. These four firms stated that they review various criteria to assess whether to use a new tool, including the tool's functionality, whether it is consistent with the investment approach of the firm, whether it is an industry standard tool, the longevity of the sponsor of the tool and the types of disclosures contained in the tool. Among these four firms, the number of users range from about 20 to a few hundred per firm, with three firms having more than 250 users.

These intermediaries typically use only five of the available third-party tools, including those listed in the table above.

Chapter 4 – Analysis of Regulators’ Oversight of Social Media and Automated Advice Tools

4.1 Methodology

Similar to the surveys prepared for intermediaries, C3 also decided to create two separate surveys for regulators. The surveys contained background on the nature of the exercise, definitions and a set of questions that were to be answered by each regulator. Both surveys consisted of more open ended queries, related to the supervisory rules and regulations in place in various jurisdictions.

The surveys were distributed to all jurisdictions represented on C3 and the vast majority of those jurisdictions responded to the two separate surveys. The structure of the surveys and the results are discussed below.

4.1.1 Social Media

Similar to the social media survey sent to intermediaries, the survey sent to regulators was built around five key themes:

- **Overview questions** including whether regulators define the term social media in their jurisdictions, whether they have collected information related to how intermediaries use social media in their business activities, and whether regulators prohibit intermediaries from using social media sites.
- **Recordkeeping questions** including whether, and how, regulators require intermediaries to maintain records of social media business communications, particularly related to advertisements, sales literature, electronic communications and suitability determinations as well as the length of time records must be kept.
- **Communications and Related Supervision questions** including whether specific regulations govern the content of social media communications, and if so, how regulators assess a market intermediary’s compliance with specific requirements, whether regulators believe their regulatory framework is effective in this area and whether regulators have issued guidance to intermediaries related to how to comply with any restrictions.
- **Third-Party questions** including whether regulators permit the use of endorsements and testimonials, and what requirements regulators have in place related to third-party posts or hyperlinks.
- **General Regulatory questions** including whether regulators use social media themselves in their oversight of intermediaries, whether they have inspected intermediaries in their jurisdictions specifically related to the use of social media, and what challenges regulators have encountered in this area.

4.1.2 Automated Advice

The automated advice survey sent to regulators consisted of eight sections which sought to capture the approaches regulators use to oversee automated tools in their jurisdictions. In general, the survey topics clustered around the following themes:

- **Guidance and Rules questions** including whether regulators prohibit intermediaries from using automated advice tools in any form; and what guidance, if any, regulators have issued as well as any rules either in place or being considered.
- **Recommendation questions** including how regulators oversee recommendations made by the automated tools, including such things as portfolio rebalancing; the types of compensation intermediaries receive as a result of making specific financial instruments available through the automated tools; and the types of customers who are permitted to use these tools.
- **Customer and Information questions** including whether regulators prohibit certain types of customers from using automated tools; what types of information are intermediaries required to collect prior to having their tools issue recommendations; whether individuals using automated tools must be authorized and subject to appropriate training; and whether there are rules regarding the use and updating of customer profiles.
- **Trading and supervision questions** including whether regulators oversee the execution of trades after a recommendation is made by an automated tool, and the updating and testing of the tools (*e.g.*, requirements around the testing of the tools).
- **Regulatory questions** including ongoing concerns regulators have regarding the use of automated advice tools and the type of guidance that would be helpful from IOSCO.

4.3 Survey Results

4.3.1 Social Media Results

As noted above, 21 regulators responded to the survey, representing all of the members of C3. Key findings include:

Overview

Based upon the survey responses, no market regulator expressly prohibits the use of social media in its jurisdiction, nor has any regulator defined the term “social media.” Rather, in several cases, because regulators’ rules are largely principles based, and technology neutral, general communications rules with customers will also apply to social media. Most responses also indicated that regulators have not taken steps to collect information from intermediaries on how they are using social media in their businesses. One notable exception, however, is Italy. The Italian market regulator, CONSOB, has a rule requiring intermediaries to provide information on their use of social media as part of the intermediaries’ ongoing reporting obligation to the regulator. On a related note, the Spanish market regulator, the CNMV, developed software with the objective of identifying messages on social media sites that contain certain text.

In a small number of jurisdictions responding to the survey (4), intermediaries asked the regulators for clarification or guidance regarding the use of social media. In one case, the combined response of Canada’s OSC and the Quebec AFM reported that, according to the Investment Industry Regulatory Organization of Canada (IIROC), intermediaries have inquired about whether pre-approval is required, whether firms are required to monitor third-party content and whether hyperlinks to third-party sites create legal exposure to the intermediary.

Most regulators indicated that Facebook, Twitter and LinkedIn are the most popular social media sites being used for business purposes. To a lesser extent, Google+, Pinterest and some

local services such as Weibo in Hong Kong and Kakaotalk in Korea have also been used. Only one regulator (CONSOB) explicitly places restrictions on the types of business that intermediaries may conduct via social media. As the CONSOB explained:

The promotion and placement of financial products or third parties' investment service through means of distance techniques (including social media (...)) shall be carried out by intermediaries duly authorized to perform the investment service of "placement".

Moreover, according to [Consob regulations], the promotion and placement of investment services and financial products cannot be made through distance marketing techniques when retail customers have explicitly objected to it. Intermediaries are under a duty to inform individual retail customers about their right of objection to the use of distance marketing techniques.

In addition, the use of social media by market intermediaries is subject to the general rules governing the provision of investment services and activities. This means that intermediaries using social media have to comply with each and all conduct of business provisions.

One regulator (Australia's ASIC) also pointed out that the intrinsic characteristics of each social media service may limit how it can be used; for example, Twitter's 140 character limit could render it inappropriate for some types of business communications. For example, if the content of a communication triggers the need for a specific risk warning, compliant communication by character-limited media such as Twitter will not be possible, unless hypertext links to other communications containing the warning are permitted.

Recordkeeping

Virtually all jurisdictions, with one exception, require that intermediaries keep records of their social media business communications with clients. At the same time, only one regulator (FINRA in the United States, as discussed below) has specific rules in place related to social media communications. Rather, regulators rely on general record keeping requirements that apply to advertisements, client transactions and business communications.

FINRA is the only regulator to specify a particular method or manner in which social media communications must be kept. FINRA requires the intermediaries it oversees to use WORM technology (*i.e.*, write once, read many) to help prevent the user from accidentally or intentionally altering or erasing data. In this regard, some regulators explicitly prohibit intermediaries from erasing content on social media, while others are silent on this topic. A few regulators noted in their responses that erasure of content would violate record-keeping requirements.

As to the maintenance of records, all regulators that have recordkeeping requirements specify a time period ranging from two years (*e.g.*, Romania's FSA) to seven years (*e.g.*, Australia's ASIC, Canada's QAMF/OSC, and Hong Kong's SFC).

Communications and Related Supervision

Most regulators do not have specific rules that regulate the content of intermediaries' social media business communications. Rather, these regulators rely on general requirements that typically mandate that communications be fair, clear, and not misleading. One regulator (FINRA) does have specific requirements for social media content. FINRA has published guidance on recommendations for using electronic media, requiring both market intermediaries and their associated persons to identify the firm in its social media business communications.

FINRA also differentiates between static content (that must be pre-approved), from interactive content (that can be approved post use). IIROC makes a similar distinction.

FINRA permits firms to employ risk-based principles to determine the extent to which the review of incoming, outgoing and internal electronic communications is necessary for the proper supervision of their business, including those communications occurring through social media. Under FINRA's requirements, intermediaries must adopt policies and procedures reasonably designed to ensure that their associated persons who participate in social media sites for business purposes are appropriately supervised, have the necessary training and background to engage in such activities, and do not present undue risks to investors. For FINRA, firms must have a general policy prohibiting any associated person from engaging in business communications in a social media site that is not subject to the firm's supervision. Firms subject to FINRA's rules must also require that only those associated persons who have received appropriate training on the firm's policies and procedures regarding interactive electronic communications may engage in such communications.

Several regulators view their regulatory regimes in this area as being effective (*e.g.*, QAMF/OSC, CONSOB, the UK's FCA, and FINRA). Most responding regulators rely on general supervisory procedures already in place in their jurisdictions, but virtually all monitor overseas regulatory developments to determine whether specific policy initiatives will be warranted in the future.

Third Party Issues

Almost all regulators indicated that they do not have rules that prohibit intermediaries from using testimonials or endorsements in social media communications; instead, they rely on their general rules of conduct which also apply to social media. Most responding regulators indicated that intermediaries must ensure the accuracy and the completeness of the information displayed on their website and should have policies and procedures for the review and supervision of social media websites. Nevertheless, most regulators do not have rules that hold market intermediaries responsible for third-party content posted to the intermediary's web site or social media sites. Several regulators (*e.g.*, ASIC, CNMV, FSA (Poland), IIROC, QAMF/OSC), however, require that firms have monitoring systems in place that would allow the intermediaries to verify third-party posts. With respect to the use and monitoring of hyperlinks, the vast majority of regulators indicated that they do not have any rules or guidance in place. Again, most rely on general communications requirements that information be fair, clear and not misleading.

General Regulatory Issues

Approximately half of the surveyed regulators (including The Netherlands' AFM, Brazil's CVM, CONSOB, FCA and SFC) indicated that they use social media tools in their supervisory work. In these instances, regulators use social media for two general purposes: (1) to identify potential relationships between parties suspected in market abuse or insider dealing matters or as a source of information and (2) as a source of general information for investigations and enforcement actions where the regulators believe it might yield additional intelligence about a particular transaction for example.

For the most part, regulators have not changed their supervisory practices to specifically address regulatory concerns arising from the use of social media. In some instances, however, regulators do conduct inspections of intermediaries that focus on social media use, as well as the policies and procedures firms have in place to oversee this activity within their firms. While

most regulators have not yet inspected an intermediary's use of social media, in the jurisdictions where inspections have occurred, the most common findings are related to (1) intermediaries not having the proper procedures in place, (2) not supervising their employees' use of social media sites and (3) not maintaining adequate records of the business communications made through social media.

With respect to challenges regulators face, most have not encountered any challenges, but some have expressed a variety of concerns, including how to verify the authenticity of social media comments, and how to guide their inspectors when visiting a firm. Finally, three regulators (FCA, FINRA and Singapore's MAS) have brought actions against intermediaries/unlicensed persons related to the use of social media.

4.3.2 Automated Advice Tools Results

Key findings from regulators responding to the survey regarding automated advice tools include:

Guidance and Rules

As a general rule, none of the regulators responding to the survey prohibit intermediaries from using or providing customers access to either proprietary or third-party automated tools. In addition, no regulator has published specific **guidance** (as opposed to rules) regarding the use of these types of tools. Nevertheless, a number of regulators have provided guidance on such issues as required disclosures, supervision, anti-money laundering (AML), know your customer and suitability, all of which would apply to intermediaries that offer automated tools to their customers. Two regulators (ASIC and SFC), however, refer to automated tools in the context of guidance regarding the provision of information and disclosure to customers. They note, for example, that intermediaries are responsible for delivering and ensuring receipt of adequate disclosure to customers who use their automated advice tools.

Similarly, four regulators (ASIC, FCA, FSA (Romania), SFC) provided guidance on the use of automated tools in the context of assessing customer suitability and the reasonableness of the advice/recommendation. They noted that if a firm's computer models seek information about a customer's circumstances, the automated advice tools should take into account all the relevant information the firm has obtained about the client to assess the reasonableness of the advice and/or recommendation. Two regulators (ASIC, FCA) also linked this assessment to existing 'know your customer' rules and processes in their jurisdictions, and noted that these rules are equally applicable to the design and supervision of automated tools.

No regulator has provided any specific guidance or rules concerning the technology that must be employed in connection with the use of automated tools. Most regulators note that their guidance on areas such as disclosure, the provision of advice, supervision, AML, advertising and assessment is technology neutral. That is, the regulators' guidance applies irrespective of whether the advice is given by telephone, email, internet, face-to-face or by a combination of these or other ways.

Two regulators (Mexico's CNBV and FINRA) stated that they have specific **rules** (as opposed to guidance) governing the use of automated tools. For example, under CNBV rules, intermediaries are required to:

- assess their customer's investor profile;

- identify employees responsible for assessing the customer's investor profile;
- ensure those customers who use the intermediary's automated tools have adequate knowledge and understanding of those tools;
- determine the purpose(s) for which the automated tools are designed; and
- have procedures in place to review the advice provided by the automated tools in light of the purpose of the automated tools and the customer's investor profile.

Four European regulators (France's AMF, CONSOB, FCA and FSA (Poland)) noted that while there are not specific Europe-wide rules related to automated advice tools, the use of a tool to provide a personal recommendation would fall within the Markets in Financial Instruments Directive (MiFID). The relevant MiFID provisions that apply are: the general MiFID provisions, provisions related to compliance and internal audit, and the obligations to act in the best interests of the customer and assess the customer's suitability to the investment(s).

Finally, none of the regulators stated that they had any planned/proposed rules or amendments specifically targeting the use of automated tools.

Recommendations

All but one regulator responding to the survey stated that the rules governing advice/recommendations apply irrespective of whether the advice/recommendations were made by automated tools or otherwise. Various regulatory obligations apply irrespective of the medium used to deliver advice/recommendations, including:

- ensuring that the advice/recommendation is appropriate for the customer, having regard to customer suitability criteria (such as the customer's risk profile, investment objectives and experience) (ASIC, CONSOB, CNBV, CNMV, FSA (Poland), SFC) ;
- having a reasonable basis for the recommendation (e.g., investment research or financial analysis) (ASIC, CNBV, SFC); and
- acting honestly, fairly and professionally in accordance with the best interest of the customer (ASIC, CONSOB, CNMV).

The survey asked a number of questions about whether regulators have rules related to automated portfolio rebalancing and the receipt of cash or non-cash compensation for making a specific financial instrument available through an automated tool. Although no regulator stated that it had specific rules related to portfolio rebalancing when using an automated tool, a number of regulators noted that rebalancing is captured by general regulatory guidance. In particular, some regulators pointed out that, among other things, intermediaries must ensure that rebalancing occurs within the parameters set out in the advice/recommendation or mandate and that the rebalancing is in line with the customer's investment objectives.

With respect to compensation, no regulator stated that it had rules governing whether an intermediary could receive cash or non-cash compensation specifically related to automated tools. However, most responses indicated that the relevant regulatory obligations around cash or non-cash compensation (including fees, commissions and non-cash benefits) applied to intermediaries irrespective of whether they used automated tools to provide advice.⁷

⁷ It is interesting to note that the degree to which commissions or incentives are permitted under the technology neutral regulatory obligations around adviser compensation appears to vary between jurisdictions. For example, two regulators (FCA, CNBV) noted that in their jurisdictions, advisers are prohibited from receiving commissions from product providers. One of these regulators (FCA) noted that advisers should have fee structures (both on-going and initial) based on the level of service provided, as

Customer and Information Issues

None of the regulators participating in the survey have any rules that identify the types of customers that may use automated tools. Nevertheless, one regulator (FINRA) stated that its rules governing the types of customers who may engage in certain complex or risky securities transactions or investment strategies involving securities apply regardless of whether an automated tool is involved. Furthermore, many regulators stated that in the absence of specific rules governing automated tools, their general regulations governing intermediary activity continue to apply such as their suitability requirements (*e.g.*, ASIC, CONSOB, CVM, FSA (Romania), QAMF/OSC, SFC).

No regulator stated that it had specific rules regarding the type of customer information that must be collected and entered into an automated tool. Nevertheless, most respondents stated that their rules of general applicability apply regardless of the platform used. In particular, several regulators (*e.g.*, CNMV, QAMF/OSC, MAS) stated that their rules require intermediaries, including operators of automated tools, to collect information from the customer in order to make suitable recommendations (*e.g.*, goals, financial situation, experience with the types of services to be provided, educational background, and risk tolerance) prior to making recommendations. These general rules also require that intermediaries update investor information to keep it current.

Trading and Supervision

No regulator stated that it had specific rules governing how trades recommended by an automated tool should be executed. However, most regulators noted that they have rules that apply to the execution of trades generally that would also apply to any trades executed as a result of recommendations made by an automated tool, such as best execution and short sale rules. Among other things, several regulators (*e.g.*, FCA, QAMF/OSC) cited their generally applicable rules regarding customer approval of trade execution. More specifically, many regulators stated some form of customer consent is typically required before a recommended trade can be executed, although some regulators look at the nature of the relationship between the firm and the customer to determine whether customer approval is required. For example, if the intermediary is acting on a discretionary basis, it may not need approval; if it is acting in an advisory capacity, it is more likely to need approval.

Only one regulator (FINRA) stated that it has specific rules governing how a firm should supervise the use of automated tools and provides guidance to assist firms with their compliance. Otherwise, most other regulators indicated that their general rules governing compliance and supervision apply equally to automated tools, including rules related to disclosure matters. In particular, several regulators (AFM, FSA (Poland)) stated that they have rules governing firms' supervision of information technology infrastructure, focusing, for example, on the importance of maintaining the integrity/security of the information stored in a firm's information technology system; preparing for business continuity of a firm's information

opposed to the fees being linked to the particular product or provider the adviser recommends. Two other regulators (FSA (Poland), CNMV) stated that commissions or incentives must only be paid where there is an enhancement of the quality of advice or service provided, without compromising the firm's duty to act in the best interests of the customer – which is the current MiFID requirement on inducements.

Two of the regulators (FCA, SFC) emphasized the importance of clear disclosure to the customer of all benefits, cash and non-cash, paid to the intermediary. These regulators noted that this disclosure should include benefits received up-front and on an on-going basis by the intermediary, and noted that this is particularly important where the intermediary is receiving a commission or incentives.

technology system (*i.e.*, disaster recovery); and validating and testing the results as well as any algorithm used by their automated tools.

No regulator stated that it had specific rules on the type of authorized persons who can use an automated tool, or the registration and training requirements of those authorized persons. Rather, most regulators responded that their general regulations continue to apply, including requirements related to registration, training, and conducting suitability analyses. With respect to supervision, three regulators are particularly noteworthy:

- As stated above, one (FINRA) stated that it has specific rules governing how intermediaries should supervise automated tools, including guidance to assist firms in supervising the authorized persons who use these tools; and
- Two regulators (CNBV and CONSOB) stated that they have specific rules that require intermediaries to ensure that their employees have adequate knowledge and understanding of the use of their firm's automated tools.

Regulatory Concerns

Approximately half of the regulators stated that they were not aware of any issues that intermediaries had encountered in implementing and using automated tools. They did, however, identify some interesting issues:

- One regulator (FCA) stated that a firm in its jurisdiction published a disclaimer that it was not providing advice and was not responsible for its customers' decision to use its automated tools; the same firm then recommended, through its automated tools, portfolios that did not match its customers' risk descriptions and consequently did not match their risk tolerance.
- Another regulator (ASIC), stated that a firm used an automated tool that was "too automated" and did not allow for human input or override; consequently, the tool recorded results that were too narrow, which did not ensure that the advice provided was appropriate given the individual circumstances of the customer.
- Other regulators (*e.g.*, AFM, FCA, and FSA (Poland)) stated that some firms claim that they do not have to perform suitability analysis because their automated tools are not providing investment advice (*i.e.*, recommendations).
- Another regulator (AMF) stated that it identified a licensed firm that used unlicensed affiliates to automatically generate forex contracts for different orders that were executed in the accounts of customers of that firm. This appeared to be (unlicensed) portfolio management, but because customers are allowed to modify the software themselves, the distinction between customer-generated orders and automatically generated orders was blurred.

No regulator stated that it has taken formal regulatory action against intermediaries specifically related to the design or implementation of their automated tools. One regulator, however, (FCA) stated that it has taken action against an intermediary regarding the use of its automated tools.

Regulators identified a number of concerns related to the use of automated tools, including:

- Firms classifying the output of automated advice tools as something other than a recommendation (*e.g.*, non-personal promotional material) to avoid regulations or to engage in regulatory arbitrage.

- Firms not regularly updating customer information used for a suitability analysis.
- Customers not providing sufficient information for the automated tool to provide appropriate responses.
- Customers, believing that they received advice, buying riskier, unsuitable products.
- Conflicts of interest between a firm and its customers result in an automated tool making recommendations that favor the firm at its customers' expense (*e.g.*, recommending proprietary products, churning, favoring preferred clients).
- Firms lacking sufficient internal controls to adequately supervise the use of automated advice tools.
- Whether firms are providing their customers with sufficient information/disclosure about using automated tools (*e.g.*, instructions and risk disclosures).
- Whether firms are properly applying suitability requirements when they recommend complex or illiquid products to retail customers.

Finally, while premature to do so at the present time due to the varying state of development of automated tools across the globe, regulators identified three areas where they believe additional guidance from IOSCO would be helpful in the future:

1. **Best practices for intermediaries providing advice via automated tools (*e.g.*, how best to comply with suitability obligations).** This would include such things as the circumstances under which the output from an automated tool on a customer directed/execution only platform should be subject to the applicable suitability obligations (if permissible under the applicable legal framework); in complying with suitability obligations, how to best reflect an investor's risk preference in an automated tool; whether, and if so, a firm can satisfy its suitability obligations by mechanically matching a customer's risk tolerance with a product rating; and can/should a firm execute a trade recommended by an automated tool.
2. **What principles should an intermediary consider when designing an automated tool?** This would include such things as IT integrity, including recordkeeping and data storage; AML implications, if any; identity theft and other privacy concerns; and the types of and potential risks associated with automated tools, including the methodologies/algorithms the tools use.
3. **What principles should regulators consider when regulating intermediaries that use automated tools?** This would include such things as how to improve communication among regulators to enhance sharing their experiences in regulating automated tools (*e.g.*, online access to regulators' relevant rules, regulations and guidelines); identifying risks unique to providing advice through automated tools that may require targeted regulation (*e.g.*, testing and ex-post review of recommendations); and providing guidance on the types of and potential risks associated with automated tools, including the methodologies/algorithms they use.

Over the coming 12-24 months, Committee 3 intends to revisit these issues to assess the status of development of these areas and determine if further work is warranted.

Chapter 5 - Conclusions

The IOSCO social media and automated advice tools surveys represent the first comprehensive effort by IOSCO member jurisdictions to better understand how intermediaries in numerous countries are using these newer technologies in their respective businesses and how regulators are supervising this activity. This work represents an important international initiative to obtain data on issues that were previously unknown and where use and oversight of these mediums is still evolving.

Results from these IOSCO surveys provide an interesting snap-shot of how regulators and intermediaries are using (or not using) and overseeing these technologies.

With respect to social media, key results include:

- The use of social media by intermediaries is in its nascent stages, but across the globe, firms permitting its use prohibit their staff from making recommendations or providing investment advice.
- The most commonly used sites are Facebook, Twitter and LinkedIn.
- Regulators have neither defined the term social media, nor prohibited its use by intermediary firms.
- Increasingly, regulators are using social media sites in conducting their supervisory activities of firms to identify personal relationships between parties and as a source of general information.

With respect to automated advice tools, key results include:

- The use of automated advice tools is growing around the world. Intermediaries are using these tools to assist with their suitability and Know Your Customer (KYC) obligations.
- When making recommendations, the vast majority of firms do so with respect to asset classes and as to specific products, collective investment schemes, mutual funds, ETFs and equity classes are the most common.
- No regulator that responded to the survey indicated that it prohibits the use of automated advice tools, but very few have specific rules or guidance related to their use. Rather, most regulators rely on, among others, their general suitability, disclosure, supervision and record keeping rules.

Because the adoption of social media and automated advice tools in many parts of the world remains in its early stages, it is not possible at this point to identify unique challenges that these mediums present nor can we draw definitive conclusions relating to best practices in the use and oversight of these mediums. As the survey results demonstrated, there were virtually no clear trends either in intermediary use, or regulatory oversight of, these sites and tools. Nevertheless, this exercise has helped regulators develop an understanding of how intermediaries use these tools, the challenges in overseeing them, and how others are approaching technological and supervision issues that arise as these areas continue to develop.

Going forward, as these mediums develop further, it might be possible to take additional steps (e.g., developing a list of sound practices for regulators to consider in carrying out their

supervisory responsibilities) to foster a more effective regulatory approach on a cross-border basis regarding intermediary use of social media and automated advice tools. Over the coming 12-24 months, Committee 3 intends to revisit these issues to assess the status of development of these areas and determine if further work is warranted.

APPENDIX 1: Definition of Key Terms

Associated Person of an intermediary means any partner, officer, director, or branch manager of such intermediary (or any person occupying a similar status or performing similar functions), any person directly or indirectly controlling, controlled by, or under common control with such intermediary, or any employee of such intermediary, except that any person associated with an intermediary whose functions are solely clerical or administrative shall not be included in the meaning.

Automated tool means an interactive tool that either broadly or specifically produces recommendations for asset allocation, an investment strategy, or specific financial instruments.

Business Communication means any communication to existing or potential consumers that, based upon its content, relates to any aspect of a market intermediary's business, including such things as its products, services, staff, and affiliates.

Endorsement means a statement of approval of an intermediary's or an associated person's actions, business acumen, or other business related activity, by for example, a customer or colleague.

Investor or customer profiles means customer profiles that are pre-populated with information based on specific factors such as risk tolerance, investment objectives, time horizon, net worth, age, and employment.

Market Intermediary or intermediary firm means those who are in the business of managing individual portfolios, executing orders and dealing in, or distributing, securities. According to the IOSCO methodology, a jurisdiction may also choose to regulate as a market intermediary an entity that simply provides advice regarding the value of securities or the advisability of investing in, purchasing or selling securities as well as an entity that engages in proprietary trading, securities underwriting or the placing of financial instruments without a firm commitment basis. As used in this survey, the term intermediary includes representatives of these entities. Notwithstanding the above, for purposes of this survey, the term intermediary in the U.S. securities sector refers to registered broker-dealers, not investment advisers.

Personal Communication means any communication by an employee of an intermediary firm that is not a business communication.

Portfolio rebalancing means periodically adjusting the holdings of an investment account to maintain a certain asset allocation.

Recommendations for asset allocation/specific financial instruments means advice specific to an individual client (or group of clients) to purchase or sell particular financial products (or refrain from purchasing or selling particular financial products) as well as financial strategies. This includes portfolio management.

Testimonial means a written or oral recommendation from a satisfied customer affirming the performance, quality, and/or value of a product or service of an intermediary or individual employed by the intermediary.

Third party means an entity not associated in any way with an intermediary firm.

Third party tool means an automated advice tool not designed, developed or maintained in-house by an intermediary firm, but designed, developed or maintained by an independent party.

Trigger events means an event such as marriage, divorce, birth of a child, retirement, inheritance, etc.

APPENDIX 2: Tables

TABLE 1: List of Regulators Participating in this study

	Country	Regulator
1	Australia	ASIC
2	Brazil	CVM
3	Canada	OSC and QAMF (combined response)
4	France	AMF
5	Hong Kong	SFC
6	Hungary	MNB (Central Bank)
7	Italy	CONSOB
8	Japan	JFSA
9	Korea	FSS
10	Mexico	CNBV
11	Morocco	CDVM
12	Netherlands	AFM
13	Pakistan	PSEC
14	Poland	PFSA
15	Romania	RFSA
16	Singapore	MAS
17	Spain	CNMV
18	Turkey	CMB
19	UK	FCA
20	USA	CFTC
21	USA	SEC/FINRA

TABLE 2: Social Media Responses from Intermediaries

Jurisdiction	Number of Responses	Type of Intermediary
Australia	4	Retail focused and execution only
Brazil	3	Retail focused
Canada --OSC	3	Retail focused
Canada -- QAMF	3	Retail focused
France	6	Asset managers and retail focused
Germany	3	All investors
Hong Kong	3	Asset managers and retail focused
India	3	Retail focused
Italy	3	Execution only, asset manager and firm that caters to all investors
Japan	9	Retail and institutional focused
Korea	0	Firms in Korea do not use either auto advice or social media tools

Mexico	5	Execution only, retail focused, HNW and institutional
Morocco	4	Retail and institutional focused
Netherlands	6	Retail focused
Pakistan	8	Asset managers and retail and institutional focused
Poland	4	Asset manager and retail focused
Romania	3	All investors
Singapore	4	Retail and HNW firms
Spain	2	Retail focused
Turkey	10	Retail and institutional focused
UK	3	Asset manager and niche firms
US (CFTC)	3	Institutional focused
US (SEC/FINRA)	8	Retail focused and all investors
TOTAL	100	

TABLE 3: Automated Advice Tools Responses from Intermediaries

Jurisdiction	Number of Responses	Type of Intermediary
Australia	2	Retail focused
Brazil	3	Retail focused
Canada --OSC	4	Retail and institutional focused
Canada -- QAMF	3	Retail focused
France	2	Retail focused
Germany	1	All investors
Hong Kong	1	Asset managers and retail focused
India	3	Retail focused
Italy	3	Execution only and asset manager
Japan	10	Retail and institutional focused
Mexico	4	All investors
Morocco	3	Retail and institutional focused
Netherlands	7	Retail focused
Pakistan	5	Asset managers
Poland	1	Retail and institutional focused
Romania	5	All investors
Singapore	4	Retail and HNW focused
Spain	7	Retail focused
Turkey	10	Retail and institutional focused
US (SEC/FINRA)	10	Retail focused and all investors
TOTAL	83	