

MEMORANDUM



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Automated investment advice

It is likely that automated services will play a greater role on the financial market. Finansinspektionen (FI) views an online market with simplified investment advice as a step in the right direction in terms of achieving an independent market for investment advice that reaches a wide number of consumers. FI therefore takes a positive stance to the developments that are occurring, but would like to emphasise that it is the interests of the client that must remain at the centre of these developments.

The background to this memorandum is the FI Forum about automated investment advice held on 2016-12-14 in Stockholm. The forum can be viewed on YouTube.

Summary

When a firm develops automated tools for investment advice, client protection must be the primary focus. In order for this to happen, the firm must understand the needs of the client.

Advisory tools need to be designed in such a way as to promote the best interests of the client. When used properly, automated advisory tools can both decrease the risk for conflicts of interest when providing investment advice and generate opportunities for firms to meet the documentation requirements they are obliged to follow.

However, firms need to understand the limitations of an advisory tool and carefully monitor the tool and its results. For example, the tool needs to be constructed in such a manner as to gather necessary information from clients by asking questions that are clearly worded and do not require self-interpretations by the client.

The boards of directors, CEOs and control functions for compliance, risk management and internal audits need to be knowledgeable about and able to assess the risks associated with automated advisory processes. Operations that are based around automated tools (IT systems) are subject to specific requirements on control and management of operational risks.

Cloud services often increase the flexibility of a firm's operations, but firms need to ensure that the agreements it enters into live up to the requirements placed on the outsourcing of IT activities, including, for example, that FI must have access to information that is part of the outsourced activity.

Definition

Automated investment advice

For FI, the term “automated investment advice” refers to personal advice about financial instruments that is provided without human interaction, or limited human interaction, and often online.

Some automated advisory tools are fully automated, while others include some human contact at some point during the process. Both variations are included in what FI is calling “automated investment advice”, but this term does not include traditional investment advice at offices where the advisor is supported by IT tools.

Investment advice

When personal advice is provided regarding financial instruments, this refers to “investment advice” as defined in the Securities Market Act (2007:528), regardless of the manner in which the advice is given, i.e. whether the advice is given through contact with an actual advisor or via automated advisory tools. These activities are thus subject to authorisation and must comply with the requirements set out in the Securities Market Act and Finansinspektionen's regulations (FFFS 2007:16) regarding investment services and activities.

For example, when providing investment advice, firms must conduct a suitability assessment of their clients, manage conflicts of interest and document the advice that was provided. In conjunction with the implementation of the new EU directive on the securities market, MiFID II¹, firms will also be required to determine in advance a target market (end clients) for each financial instrument, distribute the instrument within the determined target market and report some information back to the product manufacturer. This will have an impact on businesses that offer investment advice.

However, all advice regarding financial instruments is not considered investment advice from a legal perspective. Investment advice that is not subject to authorisation can be conversely interpreted from the definition of what does constitute investment advice.

¹ Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU

The term “investment advice” refers to a personal recommendation to a client at their own request or at the initiative of the investment firm in respect of one or several transactions that relating to financial instruments.

A “personal recommendation” refers to a recommendation that is presented as suitable for the person in question or that is based on a consideration of the circumstances of the person in question.²

“Transactions in financial instruments” refers to one of the following measures:

- to buy, sell, subscribe for, exchange, redeem, hold or underwrite a particular financial instrument, or
- to exercise or not to exercise any right conferred by a particular financial instrument to buy, sell, subscribe for, exchange or redeem a financial instrument.

Such advice must refer to a specific financial instrument, for example a specific share or bond.

A recommendation is normally not considered to be personal if it is only issued through distribution channels or to the general public and does not target a specific person. A recommendation is also not personal if it refers to advice regarding financial instruments in general, for example advice provided to a client regarding the percentage break-down of a portfolio into shares, bonds and cash. This normally is not considered “investment advice”.³

However, if these general recommendations are provided in conjunction with specific investment advice, they are considered to be part of the advice that is subject to authorisation.

The client’s perception of the advice also factors in here. If the client had cause to perceive the information as personal advice, it should be considered as such; the “principle of legitimate trust”.

It is also important to analyse how and to what extent certain information is provided to determine whether it falls within the scope of activities that are subject to authorisation. Guiding someone through a decision tree in a digital environment can thus in some cases fall within the scope of activities that are subject to authorisation as investment advice, while in other cases fall outside this scope.

² See Bill 2006/07:115 p. 313-315. It can be noted that the definition of “investment advice” is the same as in MiFID II.

³ However, this kind of advice could be subject to the Financial Advice to Consumers Act (2003:862). Finansinspektionen has not reviewed how this act considers financial advice without contact from a physical advisor.

This is ultimately decided by the type of questions that are asked – if personal data is gathered or if the information gathered is only of such a nature as to categorise the client. Furthermore, it is also crucial how the results are presented – if the advisory tool presents a personal recommendation or what the client could reasonably consider to be a personal recommendation. This is different from a situation where the client makes their own investment decision from a list of products that correspond to the client's criteria. The difference lies in whether the advisor makes any judgements or only presents the facts.

Provision of advice

Investment advice contains three critical elements:

- 1) gathering sufficient information about the client and performing an adequate analysis of this information,
- 2) managing contradictory information, and
- 3) matching the client's investment profile with appropriate financial instruments or investment strategies.

A major part of the advice is selecting financial instruments and at the same time properly managing conflicts of interest.

With regard to an automated service, knowledge about the advisory tool, its opportunities and limitations and the risks associated with the tool are also important.

Information gathering and suitability assessments – client profiling

Profiling clients is a critical element of all advice, since it forms the basis for the advice that is given. It is in this area that FI often sees deficiencies. Too little information is often gathered about the client, and the information that is gathered is often difficult to interpret, in part due to the advisor not asking enough questions and in part because of the formulation of the questions that are asked.

The Securities Market Act requires firms to gather information from the client about their knowledge and experience, their economic circumstances and the objective of the investment. The firm must make an assessment about whether the advice is suitable for the client. The firm must have reasonable grounds for assuming that the specific transaction that is recommended meets the client's objective for the investment. This includes, for example, the client's willingness to take on risk and that the investment is of such a nature that the client can financially bear the risk. It should also be possible to assume that the client has the necessary knowledge and experience to be able to understand the risks of the investment.

With regard to automated investment advice, a firm needs to consider whether it is possible to obtain sufficiently detailed information about the client in

relation to the financial instruments that it intends to offer via the service.⁴ With regard to advice provided by a physical advisor, it is possible for the person to ask follow-up questions. In an entirely automated advisory situation, it could be difficult for a pre-programmed questionnaire to ask the kind of questions that are required in order to gather relevant and sufficient information about the client.

Another challenge with automated investment advice is ensuring that the information gathered about the client is reliable. For example, the tool should include control questions when contradictory information is given and as needed through regular updates. Just like when receiving advice from a physical advisor, it is important that the questions be formulated in such a manner as to avoid the client having to interpret what they mean and that the answers make it possible to determine, for example, if the client's view of risk is in line with the firm's. The latter can be exemplified in that it is difficult to determine what risk the client is willing to take if the question asks whether the client is willing to take "low, medium or high risk". It is similarly difficult to determine what knowledge the client has about a certain type of financial instrument by merely asking if the client has "little, average or considerable knowledge" about the instrument.

When providing advice, it is important that the client not skip necessary information. Here, it can be advantageous to use automated tools since it is possible to prevent clients from not providing some information. It should be mentioned that the firm may not provide any advice if information is missing.⁵

There is no ban against a firm using previously gathered information about the client when providing advice, but if clients need to answer all of the questions that serve as a basis for the advice at every advice occasion, it will help ensure that investment advice is more often based on complete and updated information. When it comes to automated investment advice in particular, the importance of answering the questions completely and truthfully should be made clear for the client.⁶ Even the firm's investment philosophy and the manner in which the financial instruments are selected must be clearly presented to the client.

As previously mentioned, MiFID II will require that the target market for each financial instrument be determined in advance. The primary rule is that the

⁴ The provisions of the law allow some flexibility. The information that must be gathered from the customer can vary based on the type of financial instrument that the advice refers to and the type of customer receiving the advice. For example, the firm must gather more information about the customer when it provides advice to an inexperienced customer about the purchase of complex or risky instruments compared to what is requirement for individual advice occasions regarding less complex financial instrument or financial instruments with low risk. See Bill 2006/07:115, p. 438.

⁵ Chapter 15, section 6 of FFFS 2007:16.

⁶ This should be a prerequisite for the firm to be able to rely on the information, see Chapter 15, section 10 of FFFS 2007:16.

distributor will distribute the financial instrument only within the established target market. An automated advisory tool could have the advantage of having built-in blocks to prevent the suggestion of financial instruments outside of the target market.

Principles and methodology for client profiling

The following principles serve as a basis for the client profile:

- Identify the information that is necessary for determining the client's profile based on the Securities Market Act and Finansinspektionen's regulations (knowledge and experience, financial situation including the capacity for absorbing losses and investment targets including risk appetite).
- With regard to risk, both the client's risk appetite and the client's capacity-bearing risk must be assessed.
- An automated advisory tool should have the capacity to identify and manage contradictory information.
- An automated advisory tool should be able to determine which investment is appropriate for the client, or if savings or payment of debt is more appropriate.
- There is nothing preventing the use of information previously gathered from the client, but if such information is used when providing advice the firm should ensure that it is still relevant.

The firm should also determine:

- Whether the tool has gathered all relevant information.
- If not, is there reason to believe that some of the information is not necessary?
- Are the questions specific enough?
- Which criteria and assumptions determine whether a financial instrument or investment strategy is appropriate for the client?
- Does the tool tend to favour certain financial instruments Why? Has this been made clear to clients?
- Does the tool take into consideration concentration levels, and if yes at what level?

Some automated advisory tools match investors with pre-determined portfolios. It is also important here for the fundamental objectives to be that the portfolio is appropriate for a given investor profile and that conflicts of interest have been taken into consideration.

Conflicts of interest

An important element during the provision of advice regarding financial instruments is the management of the conflicts of interest that may arise between the firm and the client or between clients. For example, it is a conflict of interest if the firm offers its own or products or products of closely related firms or if the firm receives compensation or other benefits from the product manufacturers or trading venues.

The most obvious conflict of interest, which FI has observed to have a major influence on the advice given, is when the firm receives commission from the product manufacturer. The parties designing and calibrating the advisory tool carry a large responsibility when it comes to this.

The rules in place today require firms to identify conflicts of interest and prevent the client's interests from being negatively affected by these conflicts. If the firm has not successfully managed a conflict of interest in such a manner that the client's interests are not affected, the firm must inform the client about the nature and source of the conflict.⁷

MiFID II⁸ will introduce stricter rules that allow a firm to receive or pay commissions only if it can show that the payment raises the quality of the service and does not have a negative effect on the client's interests. Only minor, non-monetary compensation may be received and kept for independent advice. Requirements will also be introduced about when investment advice may be called "independent". For example, the firm must provide a wide selection of products. It is FI's assessment that it is inappropriate for a firm to call itself "independent" if it offers its own products.

FI believes that it should be possible to construct an automated advisory tool that fulfils the requirements of the law and minimises conflicts of interest. Automated investment advice could in fact be able to offer an advantage in that it should be possible to construct advisory models in which a conflict of interest is of no importance when providing advice. An advisory tool is not exposed to the same emotional influences as a physical advisor when it comes to conflicts of interest. However, this assumes that these are taken into consideration when the tool is constructed and calibrated.

There is also a risk in the opposite situation, i.e. that an automated advisory tool may be misused in that conflicts of interest are built into the tool or calibrated to the benefit of the firm. For example, the tool could be programmed such that the client always receives one product that is more expensive than the other products. This risk must be controlled by firms themselves through their internal control functions. FI assumes that the tools will not be used in this manner and also intends to check this within the framework of its supervision activities.

Transparency and information to the client

When using automated investment advice, it is very important for the tools to give the client transparent and clear information. In contrast to traditional investment advice, there are limited possibilities for identifying situations where the client does not understand, and limited possibilities for a client who does not understand to ask questions to get an explanation.

⁷ Chapter 8, section 21 of the Securities Market Act

⁸ Article 24(7)-24(9) MiFID II.

It is important that the client receive information about the service and the conditions for the advice that is being given. The company's investment profile, fundamental assumptions and selection of the financial instruments that serve as the basis for the automated tools should therefore be clearly presented to the client. If the investment advice only refers to the firm's own products, this needs to be clearly specified. The client also needs to be clearly informed if the advice is:

- isolated or part of a portfolio
- one-off advice or ongoing advice

As previously mentioned, automated advisory tools can have blocks to prevent the client from not providing necessary information. However, there is a risk that the client does not understand the importance of answering the questions in the decision tree with sufficient care and thus receives incorrect advice. Investment advice is never better than the quality of the information that is gathered. Therefore, the client needs to be informed by the advisory tool about the purpose of the suitability assessment, why questions are asked and the importance of these questions being answered correctly.

Naturally, a client must also receive information about the costs and fees associated with the investment when the advice is provided through an automated tool. The importance of the client also receiving clear information about conflicts of interest that could not be managed in another way has been mentioned earlier.

There is a risk inherent in automated investment advice that the client will receive too little information or not understand the information while at the same time not having any opportunity to receive more in-depth explanations. There is also a risk in the reverse, i.e. that the client will receive too much information and therefore cannot absorb all of it. FI has noted this in its supervision on recurrent occasions. FI believes that it is particularly important for firms in their automated investment advice to focus on ensuring that the information is sufficiently clear and of such a specific nature that the client has a reasonable possibility of understanding it.

Documentation requirement

When providing investment advice, the information gathered about the client and the advice provided must be documented. It should be possible to see ex ante the conditions on which investment advice was based.⁹

FI has also identified the documentation obligation to be a problematic area in traditional advisory operations. There is frequently not enough information to

⁹ Chapter 8, section 12 of the Securities Market Act, Chapter 16, sections 9-13 of FFFS 2007:16.

be able to assess the advice that was provided or the information has been documented in such a way that it is not possible to determine if the information served as the basis for the actual advice. The latter is the case if the information is available for the firm but it is not possible to determine whether the information was used for the advice.

Even in this respect an automated advisory tool could have an advantage, assuming that the tool saves the information from each individual advisory occasion. Even information taken directly from, for example, a client's bank needs to be documented in the automated advisory tool and stored if it serves as a basis for advice. In this situation, version management becomes important so it shows the actuality of the information. Information that served as a basis for earlier advisory occasions may not be deleted, since it would then not be possible to follow up whether the advice followed the requirements set by law and regulation.

Through documentation procedures in an automated advisory tool, both internal and external reporting will become easier. The re-reporting of sales of financial instruments that a distributor must submit to the product manufacturer and that is implemented by MiFID II is one example of this kind of reporting.

Requirement on management

It was mentioned earlier that investment advice is subject to an authorisation requirement. These activities, for example, constitute what is called "securities business". The board of directors and CEO of a securities business are subject to special requirements.

The board of directors always bears ultimate responsibility for the firm fulfilling its obligations. Therefore, a person who will be a member of the board of directors or the managing director, or the deputy for any such persons, must have sufficient knowledge and experience to participate in the management of a securities company and in general also be suitable for such an assignment.

It is the board of directors as a whole that must be sufficiently knowledgeable and experienced to lead the company.¹⁰ A wide range of skills and knowledge must therefore be considered when appointing the board of directors.¹¹ The board of directors must understand the risks in the business. This means that it may not rely entirely on external competence.¹²

The new technology associated with automated financial services can be assumed to place new requirements on the board of directors. FI makes that assessment that it may be advantageous if the management of a firm which

¹⁰ Chapter 3, section 1, points 5 and 6 of the Securities Market Act

¹¹ Chapter 6, section 5b of the securities regulations

¹² Bill 2013/14:228 p. 163 ff.

provides automated investment services demonstrates some technical skills in addition to knowledge about financial operations and the requirements placed on such operations.

Function for compliance, risk management and internal audit

New technology also places new requirements on control functions. The organisational requirements are the same for firms intending to provide automated investment advice as they are for firms providing traditional advice.

However, there is a requirement on functions for compliance, risk management and internal audit. It is the firm's responsibility to ensure that the control functions have the knowledge required to assess and control the risks in its operations.

One particular risk related to automated investment advice is that the service can easily increase in scope and that any errors in the execution of the service could affect many clients in a short period of time. It can therefore be appropriate to conduct more frequent controls and reporting to the Board than what was the case for traditional investment advice.

The scope of the control functions is dependent on the nature, scope and complexity of the business. When making this assessment, no line is drawn between a business with automated investment advice and one with traditional advice. This means that the assessment of necessary scope needs to be determined on a case-by-case basis.

Controlling and monitoring technology

The core of the automated advisory tool is a set of instructions in the tool (the algorithm). In order to handle the information entered into the system and translate it to investment advice, the algorithm uses different financial models and assumptions.

The investment advice that is generated is expected to correspond to the firm's view on sound advice and the aim of the advice. This in and of itself places requirements on the algorithm. If the algorithm is not adequately well designed for its task, this could lead to systematic errors in the advice that is given, which could have negative consequences for clients. With regard to automated investment advice, an incorrect algorithm can affect a large number of clients in a short period of time. It is therefore very important that the firm be knowledgeable about the automated advisory tool it is using and exercise effective supervision of the tool. One condition for this is that the firm understands the algorithm, the information the tool uses and the results it produces.

When developing the advisory tool, testing it and monitoring its operations, the firm should control that the methodology and the assumptions that the tool uses are appropriate for the results that are to be achieved.

Before an automated advisory tool is taken into use by clients, sufficiently comprehensive tests should have been conducted to ensure that the results are in line with the expectations. Once the tool is introduced, it should be tested regularly. More frequent controls should be conducted when it is first taken into operation. FI considers at this stage that daily controls are reasonable. Tests should also take into consideration that unexpected events could occur, for example sharp falls in prices due to political events or natural catastrophes.

It is appropriate for the firm to appoint persons responsible for this tool and its ongoing monitoring. The methodology and the assumptions that the tool uses should be monitored based on whether they are appropriate given the development on the market. Regular tests should be conducted to control that the results agree with the expectations. Functionality and any deviations should be reported upward in the organisation.

FI assumes that firms offering automated investment advice can answer questions from FI regarding time intervals for testing and ongoing control of the advisory tool, security issues and how and with what frequency reports are submitted to management.

Firms' risks

The law states that a firm with authorisation to provide investment advice shall identify, measure, govern, report internally and control the risks associated with its business.¹³ These requirements are governed in more detail in Finansinspektionen's regulations and general guidelines (FFFS 2014:4) regarding the management of operational risks and (FFFS 2014:5) regarding information security, IT operations and deposit systems.

These regulations and general guidelines state, for example, that the firm must monitor and regularly evaluate its systems, internal control mechanisms and procedures. A firm must ensure in particular that its credit risks, market risks, operational risks and other risks as a whole do not jeopardise its ability fulfil its obligations. Methods should be in place for identifying and measuring the operational risks and regularly assessing the probability that they will occur and the consequences of such a course of events. Incidents must be managed, documented and analysed. There are also rules regarding risk appetite for operational risks and measurable limits linked to the risk appetite. In order to be able to carry out all of this, the firm must have internal rules that take into consideration the nature, scope and complexity of the business.

When provided advice through an automated advisory tool, it is of particular importance that the firm's control functions conduct frequent controls of the

¹³ Chapter 8, section 4 of the Securities Market Act (2007:528)

tool's functionality and the firm's management of operational risks. Errors in the functionality of the advisory tool can easily and quickly have major consequences.

IT systems

When providing investment advice, IT systems are often very important today, for example offering functions for documentation of data, categorisation of clients and selection of financial instruments. However, IT systems are absolutely fundamental to the provision of automated investment advice. The functionality of the advisory tool correlates directly to the results of a firm's investment advice business.

Operational risks have been discussed above, and Finansinspektionen's regulations and general guidelines regarding information security, IT operations and deposit systems were mentioned. These regulations and general guidelines focus on security issues, for example, by establishing requirements on management systems for informational security and general requirements with regard to IT systems. One such requirement is that there should be a clear distribution of responsibility at the firm, a list of all of the systems the firm uses and documentation of each individual IT system. Processes should be documented with regard to operational processes, security back-ups, change management and tests. The documentation should describe the manner in frequency with which the IT systems are reviewed and how often reports should be submitted to the board of directors.¹⁴

Cloud services

Cloud services are a type of IT service that has become more common in recent years. Cloud services create new opportunities for firms. By using cloud services, a firm can create more flexibility in its IT use, for example by adapting its computer capacity to meet its need and thus lower its costs. However, cloud services also entail some risks. Responsibility is one issue, control of information another.

FI does not distinguish between outsourcing of IT operations to cloud service providers and other outsourcing of IT operations. Hence, the firm must ensure that both the providers' business and the outsourcing contracts that it enters into meet the demands imposed by FI on governance, risk management and control. The firm must also specifically analyse how the outsourcing affects the IT security of the firm. Outsourcing of IT operations to cloud services providers is subject to the same requirements for notifying FI as other outsourcing of IT operations.

Providers of cloud services often use standard contracts to regulate rights and obligations between the customer and the provider. FI has noted that in many

¹⁴ See Chapters 2 and 3 of FFFS 2014:4.

cases related to “public cloud services” the standard contracts have contained limitations on the firm’s, its auditor’s and FI’s possibilities for gaining access to the provider’s premises and obtaining information about the outsourced operations. FI does not find such limitations to be consistent with the requirements applicable to outsourcing operations because they make the firms’ own risk management and control, and FI’s supervision, more difficult. Firms intending to use cloud services must therefore be attentive to the terms and conditions of contracts and ensure that the contracts they enter into, or have entered into, do not contain limitations that make risk management, control and supervision more difficult or impossible.

FI is aware that it is not always possible to gain direct access to suppliers of IT services and the importance of direct access naturally depends on the type of operations or the service that is outsourced as well as the type of information that is managed by the service provider. However, it is important that the firm itself have access to all relevant information and ultimately, it is the firm’s responsibility to ensure that FI can get required information. Access by FI to all relevant information is a fundamental prerequisite for being able to exercise effective supervision.