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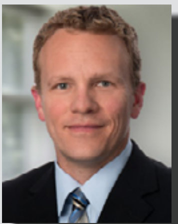

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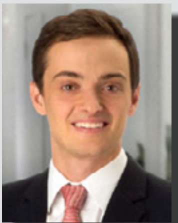

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Meet HAL, Your New Robo-Adviser

SEC Regulatory Guidance ForRobo-Advisers

By Richard B. Levin, Peter F. Waltz and Robert W. Wenner

"Hello, Dave. You're looking well today." In the iconic science fiction movie, *2001: A Space Odyssey*, the HAL 9000 computer courteously greeted his astronaut human companion Dave Bowman. HAL was a Heuristically programmed ALgorithmic computer that was designed to control the systems of the Discovery One spacecraft on which Dave and his fellow astronauts travelled. HAL went on to eliminate members of the crew and attempted to eliminate Dave. For several decades the fear of artificial intelligence ("AI") was perpetuated by movies like *2001: A Space Odyssey* and The Terminator.[1] In late 2013, the fear of artificial intelligence garnered new attention when two Oxford academics released a paper claiming that 47 percent of current American jobs are at ''high risk'' of being automated within the next 20 years.[2]

Unfortunately, when regulators around the globe think of the interactions between humans and AI or robotic investment advisers, some still fear HAL and other forms of AI portrayed in movies. The reality is that AI is coming to many industries, including the financial services industry, and the growth of robo-advisers presents a real opportunity to revolutionize the investment advising business, creating efficiencies and reducing costs.

Luckily, not all regulators fear HAL or other forms of AI. Earlier this year, Michael Piwowar, the acting Chairman of the U.S. Securities and Exchange Commission, noted:

1 HAL is one of the earliest motion picture representations of a malevolent or emotionally obtuse form of artificial intelligence ("AI"). Other motion picture AI villains include: Skynet from the Terminator movies and the WOPR from War Games. More approachable forms of AI include IBM's Watson.

2 Carl Benedikt Frey and Michael A. Osborne, *The Future Of Employment: How Susceptible Are Jobs To Computerisation?* (Sep. 17, 2013).

> As technology continues to improve and make profound changes to the financial services industry, it's important for regulators to assess its impact on U.S. markets and give thoughtful guidance to market participants.[3]

Chairman's Piwowar's sentiments were echoed in guidance the SEC published earlier this year to the public and registered investment advisers on the growing field of automated investment advisory platforms, more commonly known as robo-advisers.[4] This guidance is welcome in an industry that has seen rapid growth over the last couple of years. The guidance was following the SEC Office of Compliance Inspection and Examinations' priorities letter in January 2017,[5] that identified electronic investment advice as an area of focus for 2017, and the 2016 FinTech Forum, where the growth of robo-advisers was discussed in depth.[6]

The SEC's guidance sets forth a series of recommendations for robo-advisers to help them meet the disclosure, suitability, and compliance obligations under the Investment Advisers Act of 1940 (the "Advisers Act"). The guidance consists of both high level as well as more specific recommendations to help ensure compliance in these areas. The SEC's guidance focused on retail robo-advisers that provide their services to clients over the internet. The guidance is instructive for all robo-advisers.

Robo-advisers

In recent years, a growing number of investment advisory firms have begun offering investment advice through digital platforms using proprietary algorithms instead of traditional human advisors. Robo-adviser services are being offered through fully automated means in which the customer only interacts with the digital platform, as well as through hybrid means in which human services are paired in varying degrees with the digital offerings.[7] In both circumstances, the advisory firm is able to offer their services to clients at a lower cost by offering them passive investments that do not need a human adviser and the fees that comes with it. The popularity of robo-advisers is growing rapidly, with major financial firms such as Charles Schwab and Goldman Sachs developing online advisory platforms.[8] Robo-advisers "create personalized investment portfolios, obviating the need for stockbrokers and financial advisers."[9] A.T. Kearney predicts that approximately $2 trillion will be managed by robo-advisers by 2020.[10]

Proponents of digital investment advice have argued that robo-advisers are able to handle all of an investor's portfolio needs while keeping costs low and avoiding potentially costly human error and bias that can occur in investment services.[11] Properly constructed and tested robo-advisers may also help to reduce the incidence of fraud and errors in the provision of advisory services by eliminating humans that are at times driven by greed or other nefarious motives. Critics argue that while robo-advisers may be able to complement the services provided by traditional human advice, the former will never replace the latter due to the personal element provided by traditional investment services and the nuances involved in investment advice.[12]

Regardless of one's opinion on the virtues of robo-advice,

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3 SEC Acting Chairman Michael Piwowar, SEC Staff Issues Guidance Update and Investor Bulletin on Robo-Advisers (Feb. 23, 2017), available at: https://www.sec.gov/news/pressrelease/2017-52.html.

4 *See Guidance Update: Robo-advisers*, Securities and Exchange Commission (Feb. 23, 2017), available at: https://www.sec.gov/investment/im-guidance-2017-02.pdf and Investor Bulletin: *Robo-Advisers*, Securities and Exchange Commission (Feb. 23, 2017), available at: https://www.investor.gov/additional-resources/news-alerts/alerts-bulletins/investor-bulletin-robo-advisers.

5 *See SEC Announces 2017 Examination Priorities*, Securities and Exchange Commission (Jan. 21, 2017), available at: https://www.sec.gov/news/pressrelease/2017-7.html.

6 *See SEC FinTech Forum Transcript*, Securities and Exchange Commission (November 14, 2016), available at: https://www.sec.gov/spotlight/fintech/transcript-111416.pdf.

7 *Can Robo Advisers Replace Human Financial Advisers?* The Wall Street Journal (Feb. 28, 2016), available at: https://www.wsj.com/articles/can-robo-advisers-replace-human-financial-advisers-1456715553.

8 See Aziz Abdel-Qader, *Goldman Sachs Onboards Fintech Developer as Robo-Advisers in The Works*, Finance Magnates (Mar. 21, 2017), available at: http://www.financemagnates.com/fintech/news/goldman-sachs-onboards-fintech-developer-robo-advisers-works/ and *Hype vs. Reality: The Coming Waves of "Robo" Adoption*, A.T. Kearney 2015 Robo-Advisory Services Study (June 2015).

9 Nathaniel Popper , *The Robots Are Coming for Wall Street,* New York Times (Feb. 25, 2016), available at: https://www.nytimes.com/2016/02/28/magazine/the-robots-are-coming-for-wall-street.html?_r=0.

10 *Id.*

11 *Id.*

12 *Id.*

the recent growth of the industry raises a unique set of regulatory questions and how exactly robo-adviser services fit under existing supervisory frameworks. Though the SEC has not adopted new rules that are tailored to robo-advisers, the recent guidance seeks to guide robo-advisers compliance with existing laws.

Explanation of Business Models

With the growth of any new product or service offering that falls within the SEC's jurisdiction, it is critical that consumers understand how the services are being provided. This is of particular importance with robo-advisers, as they use technology with which many consumers may not be familiar. In the guidance, the SEC encourages robo-advisers to provide clear disclosures, in addition to what is usually required of advisers on the Form ADV, including information about the adviser's specific business model and related risks. Among other items, the SEC noted the disclosures should include "[a] statement that an algorithm is used to manage individual client accounts" and "[a] description of the particular risks inherent in the use of an algorithm to manage client accounts."[13] The SEC believes the disclosures will help to familiarize customers with how robo-advisers make investment determinations and what specific risks are inherent with such a business model.

The SEC believes risks include issues related to algorithms, such as problems with automatic rebalancing of client accounts, or the possibility that an algorithm may not have the capacity to address prolonged changes in market conditions.[14] While robo-advisers bring added efficiency and cost-effectiveness, the rapid growth of technology and the unique problems inherent in the robo-adviser business model in the SEC's view justify additional disclosures. It is advisable that when a robo-adviser is considering the disclosures it plans to make to its customers, to look at the list provided in the SEC's guidance and any unique factors in its product offerings that may create risks beyond what is already noted.

13 *See supra* note 4.

14 *Id.*

Effective Compliance

Like traditional investment advisers, robo-advisers must comply with Rule 206(4)-7 of the Advisers Act. Rule 206(4)-7 requires advisers to establish an internal compliance program to ensure compliance with the Advisers Act. Such compliance includes developing policies and procedures "reasonably designed to prevent violations of the Advisers Act" while taking into consideration the nature of the firm's operations and the specific risks that are created. The SEC guidance notes the robo-adviser business model is unique, raising novel compliance concerns. Such concerns include the increased risks created by the robo-adviser providing advisory services over the internet. The risks should be addressed in the adviser's written policies and procedures and in disclosures to the client regarding changes in the underlying algorithm and the ongoing prevention and detection of cyber security threats.[15] The SEC believes the online provision of advisory services lends itself to compliance that goes beyond the traditional requirements under the Advisers Act. It is critical that robo-advisers make note of the risks that are inherent in their particular products and services and design a compliance program that addresses them in sufficient depth and sets forth a plan for continued protections as the underlying technology continues to develop.

Testing of Algorithms

An important part of the SEC's guidance on robo-advisers' compliance programs is a recommendation that robo-advisers test and back test the code that underpins the algorithms that drive the advisory platform, with continued monitoring of its performance. Digital advisory services offer the potential for great cost-savings and efficiency by using computer programs rather than traditional human advisers. The use of code, however, presents a unique set of challenges to ensure that the advice provided is accurate and that client funds are kept safe. Proper vetting of the code can help mitigate these risks, as can continued monitoring.

The issues that befell Knight Capital Group in August of

15 *Id.*

2012 provide a clear example of what can happen when algorithms are not properly tested and monitored. Due to an undetected error in the software behind their market-making platform, the group lost $440 million in thirty minutes.[16] The error caused erratic trades to be made on nearly 150 different stocks, buying high and selling low.[17] The error caused a loss that was larger than Knight's market cap of $296 million at the time, putting the firm's future in jeopardy.[18]

Firms can reduce to the likelihood of such issues through effective testing and monitoring procedures. It is advisable that firms of all size that are entering the robo-adviser market use caution as they develop the algorithms and software that underlie their services. The SEC notes the importance of testing and monitoring algorithms as a larger component of effective compliance, but likely does not give it attention that it deserves. Algorithms are the basis for all robo-adviser offerings and therefore require critical testing and monitoring to ensure that clients are not improperly advised or that their funds are not misused.

An International Perspective

Given the relatively recent rise of robo-advisers, regulators around the world are working to develop effective systems to oversee their activities. In the European Union (the "EU"), no formal regulatory regime has been put into place, but European supervisory authorities have issued a "Discussion Paper on Automation in Financial Service."[19] The paper seeks comments from consumers and firms to help the agencies identify risks or other areas where specific regulation might be necessary. This is likely a first step in the EU's development of a more tailored regulatory approach.[20]

Australia has taken a different approach. Instead of developing specific regulation for digital advice, the Australian Securities and Investments Commission ("ASIC") has positioned its regulation as "technology neutral."[21] Under this system, the regulations that apply to traditional advisers will also apply to robo-advisers.[22] A distinction is instead drawn between personal and general investment advice, rather than along technological lines, focusing on competence to provide the advice as well as general compliance measures.[23]

In Hong Kong, no specific action has taken place with regard to robo-advisers. The Securities and Futures Commission has formed a Fintech Contact Point and Committee, however, with a goal of looking deeper into the regulation of digital investment advice.[24] As the regulations currently stand, though, digital advisory services are regulated under the same regime as traditional investment advice.

Conclusion

It remains to be seen whether the SEC will take specific regulatory action regarding robo-advisers, but for the foreseeable future they must comply with the Advisers Act. The SEC's guidance identifies a variety of potential risks the industry must address to comply with the Advisers Act. Successful compliance can be achieved through careful consideration of the risks associated with a robo-adviser's particular business model and properly crafted disclosure to customers.

Any firm that is planning to offer robo-adviser services should proceed with caution. Similarly, anyone looking to use a robo-adviser services should make sure the adviser offering the services is registered with the SEC and should carefully review the disclosures by the adviser. Due to the lack of clearly defined guidance with respect to how existing laws, rules, and regulations apply to robo-advisers, it is important that you engage experienced counsel to assist you in navigating the regulatory requirements that may apply to robo-advisers.

16 Matthew Philips, *Knight Shows How to Lose $40 Million in 30 Minutes*, Bloomberg (Aug. 2, 2012), available at: https://www.bloomberg.com/news/articles/2012-08-02/knight-shows-how-to-lose-440-million-in-30-minutes.

17 *See id.*

18 *See id.*

19 *Digital Investment Advice*: *Robo Advisors Coming of Age*, BlackRock (Sept. 2016), available at: https://www.blackrock.com/corporate/en-at/literature/whitepaper/viewpoint-digital-investment-advice-september-2016.pdf.

20 *Id.*

21 *Id.*

22 *Id.*

23 *Id.*

24 See SFC FinTech Contact Point, available at: http://www.sfc.hk/web/EN/sfc-fintech-contact-point/.

For More Information

For questions regarding this alert or to learn more about how it may impact your business, please contact one of the authors, a member of our **Financial Technology (FinTech) and Regulation** practice, or your Polsinelli attorney.

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