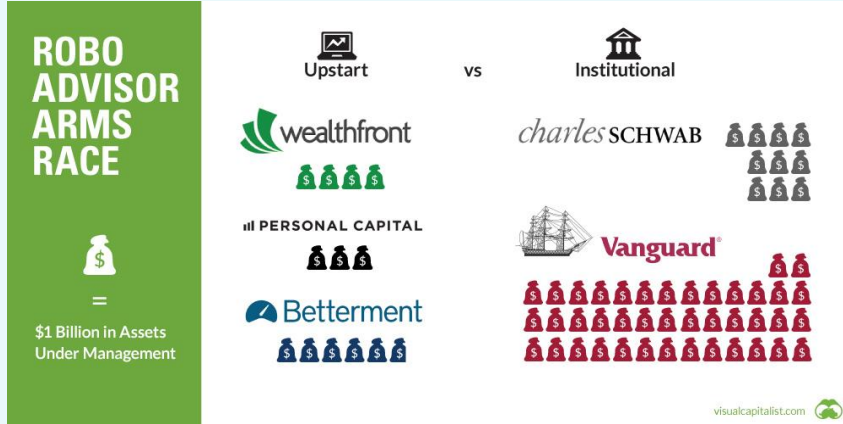


A white humanoid robot is shown from the waist up, holding a black book in its left hand and a mobile phone to its ear with its right hand. The robot has a smooth, white, glossy finish and a black neck and torso. The background is a solid light blue color.

Robot Advising - How It Changes the World of Financial Advising

Hao Peng | Cornell University | 2018.Feb

Introduction & What is Robot Advising?



From the financial crisis back into 2008, people started to realize how fast the world of finance has been changing. Catching up the trend is essential, but fully educated about what is going on is the most crucial thing that we need to stay alert on. In recent years, the financial services industry is transforming and assisting advisory services. Driven by the recent boom in technologies, this revolution happened in the right time that the market is in the greatest demand in the history. In order to ensure every individual can have access to get financial advices, new solutions have been added to the industry and this is what we called Robot Advising.

Just a few years ago, a completely new branch of advising services has emerged with many supports from wealth management firms. These companies or group of people leverage their client’s information, develop algorithms to build automated portfolio allocation, then distribute to each of their clients as investment recommendations. This format, then, is known as “robo-advising”. Compared to the traditional advisory, each client can have access to his or her feed-back easily for a considerably low fee.

Robo-advisors have gathered plenty of attentions from investors and institutions in understanding the changing landscape. Nevertheless, despite of the fast-growing speed, robot advisors occupy a very small portion of market shares relative to traditional financial advice providers. With computer-based technology, robot advisors renovate their portfolio management processes in the way that they build a variety of algorithms to optimize client’s current asset portfolio and tax management. Practically, these “robots” can provide trading recommendations in stock market. Actually, every robo-advisor is distinct from others in some ways. Since the algorithm that each firm is using is highly dependent on the manager’s investment philosophies and business models, the outcome should be different. Therefore, we can deem robot advisor as a tool for potential clients to have their philosophies matched with a digital machine. Also, if the philosophy from both sides is matched, robo-advisor has its meaning to that client.

Current Landscape for Financial Advice and Recent Trends



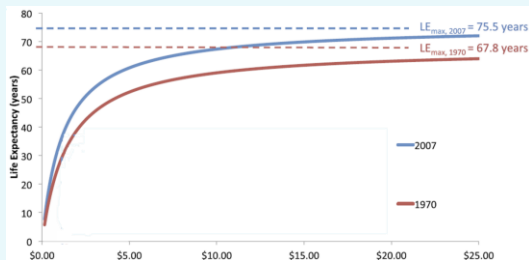
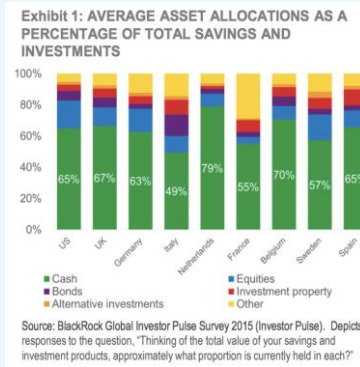
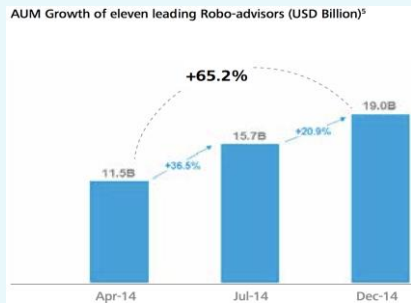
Together the leading eleven robo-advisor firms have seen explosive growth since market entry. At the end of 2014 these firms grew to ~19 Billion AUM, a ~65% growth from the previous eight months. However, these new market entrants are still nascent and represent a trivial amount relative to the \$25+ trillion retail investable assets in the United States. (BlackRock Dataset) Based on the report by BlackRock, I found out that there are currently four elements driving the demand for financial advice: (i) high levels of cash, (ii) increasing longevity, (iii) retirement income gap, and (iv) lack of engagement and access to advice.

(i) **High Levels of Cash:** This is a survey provided by BlackRock about average asset allocation for individuals. As we can tell, besides Italy, all countries in this survey have > 50% cash reserves. Holding a large chunk of cash or equivalents is not wise for individuals. If the inflation rate is high in a particular country, the purchasing power will decrease throughout the time. Therefore, people need to put their money into somewhere else.

(ii) **Increasing Longevity:** This portion of capital is mainly from the preparation of retirement for the labor force. Since pension funds usually manage a great amount of capital, stable investment recommendations are required. As for numbers, in the US, in 1940, a 21-year-old male had roughly a 54% chance of living to age 65.4 Today, life expectancies are closer to 80 years, and more than one in three Americans who are 65 today will live past 90.5 Studies project that consumers' retirement contributions will not be adequate to satisfy their financial needs throughout retirement.

(iii) **Retirement Income Gap:** As a result of these factors, we observe a growing retirement income "gap." To compound this challenge, the global trend away from defined benefit (DB) pension schemes towards defined contribution (DC) plans is shifting the responsibility for retirement planning from employers and governments to individuals. Even in the case where individuals have access to employer-sponsored DB plans or other social programs (e.g., Social Security in the US), the future solvency of these programs is not guaranteed, which could significantly increase the retirement income gap.

(iv) **Lack of Engagement and Access to Advice:** At a time when the need for financial advice is so great for so many, levels of engagement with financial advisors are disappointingly low. Approximately 17% of individuals surveyed in both the UK and Germany and 14% of individuals in the Netherlands currently use the services of an advisor. In the US, only 28% of individuals surveyed use a professional financial advisor. Further, more than one-quarter of those surveyed who previously used advice had stopped taking advice because it had become too expensive.



Potential Roles of Robot Advising in the Financial Scope

Exhibit 5: DIGITAL INVESTMENT ADVICE VALUE CHAIN

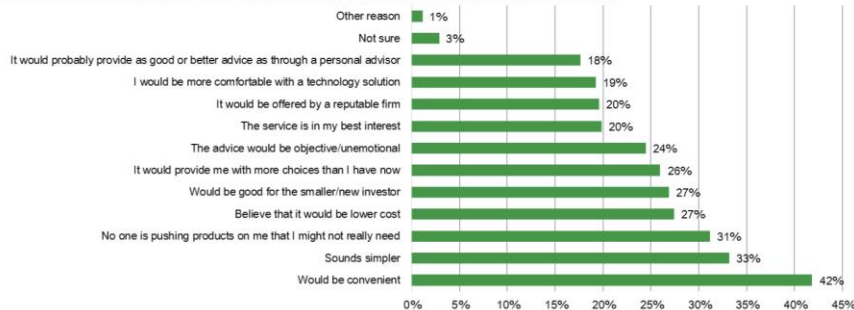


* Functionally typical in financial professional- and client-facing digital investment advice tools
 ** Functionally typical in financial professional-facing tools only

Source: FINRA 2016 Report.

Traditional investment advisory services have majorly targeted to institutional groups. Due to its high management expense, individual investors could not seek for help in this way. In addition, the millennials are used to read electronic forms in terms of communication. Walking to your consultant is too redundant for them. Therefore, for a large segment of the investing public, robot advisors have the convenience to reach them. These services are also beneficial for financial institutions by automating routine to assist with communications among clients. Here is the value chain of the robot investment advice in the financial landscape.

Exhibit 6: US CONSUMER PRIMARY REASON FOR INTEREST IN DIGITAL ADVICE



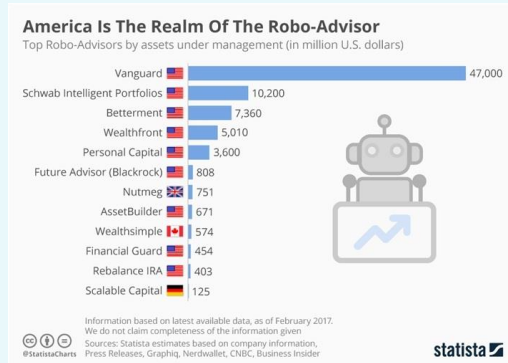
Source: Investor Pulse 2015. Depicts responses of US respondents to the question, "Why would you be interested in this type of service?"

With the value chain established, there are two sectors that robot advisors can help individual investors: (BlackRock) Increase Efficiency in Communication with Clients: One of the benefits of financial advice, whether automated or not, is the ability to help consumers achieve long-term investment goals by attempting to moderate consumer behavioral biases that contribute to less ideal outcomes, such as holding excessive amounts of cash or the tendency to buy high and sell low. Good service models, whether face-to-face or automated, will engage with consumers in times of market volatility and recommend appropriate courses of action to meet long-term savings objectives. Technology can offer advisors the ability to communicate more effectively with their clients, which is particularly valuable for client demographics that are comfortable with digital media as a communication tool. Technology can enable advisors to reach more clients, thereby increasing access to advice. Automated advice platforms can also benefit consumers by offering them the ability to retain and have easy access to client recommendations in an online vault. While electronic document storage is available in other servicing models, the design of automated advice services can facilitate its provision to consumers.

Allow Clients to Access Advice in the Comfort of their own: Homes Many people simply don't know how or where to start investing. Online models may be less intimidating than approaching a financial advisor directly. The findings from our Investor Pulse survey show that ease of access and greater alignment with consumers' needs are the primary drivers of the shift towards digital advice for many individuals, especially younger generations.

Additionally, many consumers are concerned that they don't have sufficient investible assets to be worthwhile for a traditional advisor. Given this sentiment, the ability of digital advisors to offer transparent services to cost-conscious consumers provides one potential solution to the advice gap. Our Investor Pulse survey found that approximately 40% of the 4,000 US respondents (averaged across age groups) indicated that they were very/somewhat interested in digital investment services. We surveyed these respondents on why they would be interested in such services, asking investors about their reasons for accessing savings solutions through digital platforms or advisory services, with the backup option of speaking to an advisor via telephone or other means, rather than meeting with advisors for face-to-face advice. As illustrated in Exhibit 6, the most popular answers were that digital advice would be convenient (42%), sounds simpler (33%), and would not push products that the consumer may not really need (31%).

Conclusion



Digital, automated advice will likely become a standard expectation for the mass-affluent and mass-market segments. But we have seen only the beginning of what automated advice can become. Big data and advanced analytics have the potential to broaden the scope of robo-advice dramatically, incorporating financial planning into broader retirement, health, and wellbeing, and enabling quasi institutional research. Robo-advice could then impact all investor segments, not just the mass-market and mass-affluent retail investors. Robo-advice is here to stay and poised to evolve into much more disruptive and wide-ranging forms of advice. All wealth management firms should take notice.

Notes

Robo-Advisors: Capitalizing on a growing opportunity

<https://www2.deloitte.com/content/dam/Deloitte/us/Documents/strategy/us-cons-robot-advisors.pdf>

BlackRock: DIGITAL INVESTMENT ADVICE: Robo Advisors Come of Age

<https://www.blackrock.com/corporate/en-at/literature/whitepaper/viewpoint-digital-investment-advice-september-2016.pdf>

Accenture: The Rise of Robo-Advice

https://www.accenture.com/_acnmedia/PDF-2/Accenture-Wealth-Management-Rise-of-Robo-Advice.pdf