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Future of Robo-Advisory

The role of Robo-advisory in wealth management

What are Robo-Advisories (RAs)?

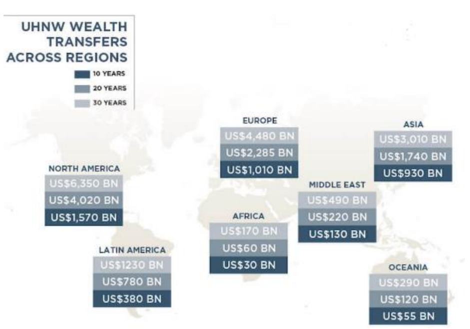
Robo-Advisory are automated financial services that minimize human interaction. These RAs provides portfolio allocation, balancing and monitoring. Financial institutes offering Robo-Advisories services typically charge a lower flat fee and requiring little to no minimum investment compared to in-person financial advisors.

Generally, all RAs involves[1]:

1) Asset Universe Selection
2) Investor profile identification
3) Asset Allocation/portfolio optimization
4) Portfolio monitoring and rebalancing
5) Performance review and reporting

RAs assets allocation conforms to a more passive style of investing which minimizes risk by allocating more portion towards bonds and ETFs.
The rise of RAs can be attributed to the 2008 financial crisis which resulted in a loss of confidence in traditional financial institutes. This sparks a wave of innovation in the financial sector. One example of this is Betterment which founded in 2008. Betterment uses technology to perform portfolio allocation and automate investment decision to manage. As of 2020, Betterment manages $22 billion USD with more than 500 thousand registered users[2].

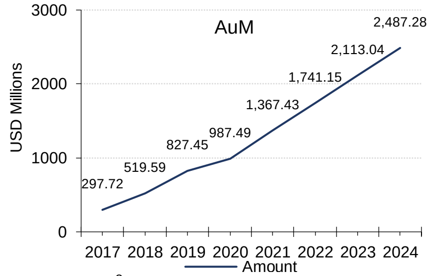
Changing Demographics & Wealth



Source: Wealth-X[3]

The "Great Transfer" of wealth which is still happening right now where assets are inherited from the greatest generation (Born between 1920s~1930s) to the Baby Boomers generation (Born between 1946~1964)[4]. The Baby Boomer Generation experienced a period prosperity post-world war II which have resulted in amassing huge wealth and becoming the wealthiest generation in our time. The transfer of wealth from the Baby Boomer Generation to their heirs (Born 1965 and later) will create an unprecedented opportunity for Robo-Advisories. The "Greatest Wealth Transfer" in history will occur over the next decade from the Baby Boomer Generation to the more tech-savvy Millienial[5]. This change in demographics and wealth are the key drivers to robo-advisories as millennials are quick to adopt new technology as compared to the preceding generation. This inter-generation transfer of wealth will result in 90% of heirs changing advisors[6]. This presents a huge growth opportunity for Robo-Advisories to gain traction among tech-savvy investors who prefer greater control over their financials[7].

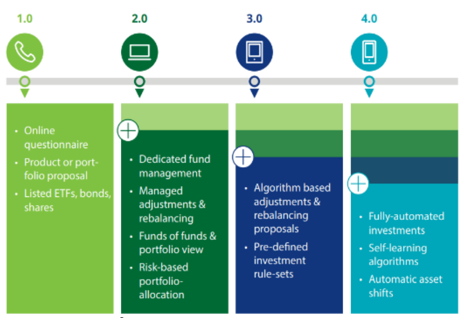
The projected growth of Robo-Advisories



Source: Statista[8] (Forecast Adjusted for expected impact of Covid-19)

The assets under management by RAs are project to reach US$2.5 trillion by 2024 with a compounding annual growth rate of 26%. The number of users of RAs is expected to triple from 150 million users in 2019 to 450 million users by 2024. While the forecasted growth has been adjusted for the Covid-19 Pandemic, there are still many unknown factors that could affect the growth of RAs. The Pandemic has accelerated the digital transformation of online banking and wealth management. Conversely, the pandemic has also resulted in declining capital investments and lower household budgets due to loss of jobs.

The Evolution of Robo-Advisories



Source: Deloitte[9]

RAs (1.0) were simple online interfaces that recommended portfolio allocations based on user inputs into questionnaires or assessment. The algorithms used in RAs (1.0) only recommends the most optimal portfolio allocation according to the risk profile of the user. The key distinction of RAs (1.0) is that the user has to manage the portfolio by himself as RAs (1.0) were basically recommendation robots. There is no financial entities or manager coming up with predefined investment product for the user. An example of an RAs (1.0) would be the free to use Vanguard's investor Questionnaire tool which recommends a suggested allocation only. RAs (2.0) takes users risk profile and match accordingly to portfolio allocation defined by financial managers. The key difference between RAs (2.0) and RAs (1.0) is that the portfolio is no longer managed by the user but the investment manager.

All investment decisions in RAs (2.0) are made by the investment manager. An example of an RAs (2.0) would be Phillip SMART Portfolio which is managed by professional portfolio managers.

RAs (3.0) uses more advanced algorithms to monitor and rebalance the user portfolio. Final oversight is still needed by investment managers as RA (3.0) proposed investment still based on pre-defined rules which may not be the most optimal decision. The key difference between RA (3.0) and RA (2.0) is that now the performs portfolio rebalancing is done automatically. Some RAs (3.0) allows user to personalize their portfolio. An example of an RAs (3.0) would be Wealthify which still requires investment managers oversight of the RA.

RAs (4.0) uses advanced machine learning algorithms to perform all the task RAs (3.0) without human supervision. The key difference between RA(4.0) and RA(3.0) is that now all investment decisions are made by the RA including reallocation of assets due to sudden market changes. An example of an RAs (4.0) would be Blackrock's FutureAdvisor.

Advantages of Robo-Advisory

The benefits that the application of robo-advisory brings to the table include lower fees, lower capital required, free from biases and personalization of portfolios at a low cost. The customers who originally paid exorbitantly high prices for the services of wealth managers can now manage their portfolio at a much lower cost. This coupled with the flexibility of lower investment makes it even more attractive. Also, using the Robo 3.0 it is possible to personalize the portfolios according to the risk profile and other preferences of the customer instead of the straitjacket standard portfolios available in the market[10]. One big drawback of human wealth managers is that they are subjected to emotions and biases something that robo-advisory completely does away with.

Disadvantages of Robo-Advisory

On the flip side there are some drawbacks that must be kept in mind when using robo-advisors. While they do not take into consideration human emotions and biases, however, they also miss out on the human experience that conventional wealth managers possess. It is not possible to gain personal advice from robo-advisors. Also, robo-advisors usually plan for the long-term which makes them an unapt choice for investors with personal objectives and crises like combating financial crunch.

Additionally, 80% of the robo-advisors are still in Robo 3.0 that work on the basis of predetermined investment criteria[10]. This makes them ineffective in times of market turbulence and financial crises where the market conditions are unstable and there are new trends affecting the market. This problem has been mitigated in Robo 4.0 which involves the use of Artificial Intelligence algorithms that consider the changes in the ecosystem and business environment.

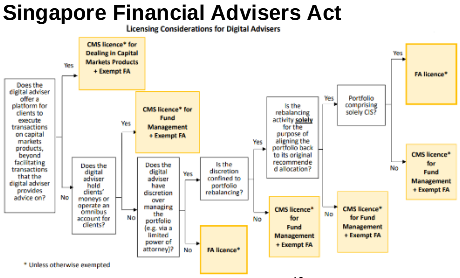
Current Robo-Advisors

Robo-advisory finds application in a variety of activities ranging from the setting up of an account to portfolio management involving a host of other services like goal planning, account services, comprehensive education and security features. The top five robo-advisors are Wealthfront, Interactive Advisors, Betterment, M1 Finance and Personal Capital. Wealthfront with its financial planning tool Path is the leader[11]. The company Interactive Brokers uses robo-advisory for lower end portfolios while the higher range is looked after by the wealth managers.

Betterment and M1 finance allow personalization of one's portfolios depending upon the quantum of the investment and provide an overview of one's assets after syncing of all of one's financial accounts. Both of these have a separate premium offering that has additional tools regarding aspects like goal planning and additional trading opportunities. These provide the benefit of a free standard trading platform to the customers.

Firms need to combine both the conventional wealth managers and the robo-advisors to come up with hybrid models like the one used by Vanguard to actualize the potential that lies in wealth management. This would help firms in utilization of the experience of the wealth managers at the same time protecting themselves from the biases and emotions of the wealth managers.

Singapore Financial Advisers Act



Source: Monetary Authority of Singapore[12]

Singapore has a strict legal framework on robo-advisories. For companies to operate their robo-advisories services, they would have to comply with The Financial Adviser Act. This means that depending on the stage of the robo advisories they would require at least a Financial Advisor license. A Capital Market Services license is required for RAs which can execute trades, fund management, and providing custodial services on behalf of the users. Since RAs involves the usage of algorithms, the law requires the Board, Senior Management, and digital advisers to be responsible for the RAs.

This is to minimize the financial risk to consumers during market failures or bias in the algorithms causing monetary losses to users. The requirement of digital advisors also limits technology risk such as terrorist group or underground societies washing money through robo-advisories to finance their illegal activities. There is ongoing compliance on the part of the digital advisor with respect to the business conduct requirements as per SFA, FAA and other regulations. As most of the tools are algorithm-driven the digital advisers need to make arrangements to mitigate these risks as per the guidelines. All technological risks need to be addressed by the digital advisers to prevent malicious cyber-attacks. Any gaps against the Notices FAA-N18 and CMG-N02 need to be bridged to ensure smooth business operations.

Digital advisers need to comply with the advertisement requirements as under regulations 46 to 46AD of SF(LCB)R and regulations 22 to 22D of the Financial Advisers regulations. When advertising their financial services, digital advisers need to consider a client's investment objectives, financial situation, and other particular needs and therefore, they should not advertise specific model portfolios on their digital platforms.

All the regulations require strict adherence to the norms which otherwise could call for strict legal and legislative action.

Are consumers willing to use Robo-Advisors?

In a survey of 1800 investors in the United Kingdom, 57% of them reject robo advice due to financial illiteracy, fear of technology and mistrust in big corporations [13]. While there might be still some resistance towards Robo-Advisors, it is surveyed that 50% of the millennial generation and 24% of baby boomers planned to increase their investments with robo-advisors within five years' time, indicating their willingness to use robo-advisors to manage their personal finance within a single application or website [14].

Robo-advisors can be accessed online which traditional financial advisors are unable to do so. Additionally, they could benefit from the price transparency, low cost and entry minimums of robos. This signifies that the younger generation have an increased propensity to migrate away from traditional financial advisors and towards an automated platform for investing – Robo-Advisor. Thus, robo-advisors will continue to be on the rise, with global assets under management of $830 billion in 2019 projected to grow vastly, to $2.5 trillion by 2024.

Trends that steer growth of Robo-Advisors

1. Covid-19's impact on the adoption of Robo-Advisors

Amid the volatility and uncertainty due to coronavirus, there is an increase in investment via robo-advisors, signifying that investors enjoy the goal-based planning while managing their risk and thereby, it minimizes the impact of short-term economic shocks.

2. Growth through partnerships

In recent years, banks have rev up robo-advisory push in Singapore. For example, CGS-CIMB Securities partnered with Saxo Bank subsidiary Saxo Capital Markets and WeInvest and launched a robo-advisory platform called CGS-CIMB eWealth in late August 2018[15]. Through forging more alliances with financial sectors, robo-advisors can increase their product scope and trade referrals.

3. Digitization

In response to the evolving demands of consumers, banks have boost technology spending in data management, analytics and artificial intelligence to improve consumers' experience. For instance, OCBC Bank launched its own robo-investment service called called OCBC RoboInvest in August 2018, targeting the young investors by offering a relatively accessible initial investment of $3,500 and presenting a variety of investment "themes"[16].

Opportunities for Robo-Advisors

Robo-advisors will continue to disrupt traditional wealth management with the competition, innovation and new technology with the increased robo-advice capabilities in the future. They can tailor portfolios based on individuals' needs and wants despite them being peculiar by customizing robo-advice using the ever more complex algorithms. Data analytics techniques such as artificial intelligence and machine learning will be used to improve investment recommendations. Take for instance, robo-advisors can manage clients' behavior and needs through the analysis of saving and spending behavior and assets and liabilities [17]. In addition, insights gathered from clients' trading patterns, fund investing would improve robo-advisors risk measurement processes and create an optimal investment recommendation.

We anticipate emerging technologies such as cognitive computing to power upcoming major advances in robo-advice capabilities. With advances in technology to perform complex reasoning and interaction with humans, we anticipate an evolved automated advisor assistant that can provide complex advice and clients would be served more effectively.

Next Steps for Wealth Managers

With robo-advisors making automated portfolio management more accessible, affordable and convenient, wealth management companies can leverage on these highly personalized services to satisfy each client's needs and preferences. Recognizing the growth of robo-advice matches up with industry trends indicates that investors are seeking more collaboration and integration with the human advisors. The key role of relationship managers is to assist clients by mitigating the trade-offs in returns, risks and costs and achieve the most desirable investment and personal needs in the given market constraints [16].

This hybrid model for financial advising of combining the two will create a cost-efficient, highly performing hybrid advisor platform. Implementing robo-advisors into more financial process will save traditional financial advisors many hours of work and could better use the time in improving sales, client relationship and building trust with clients. Thus, it is vital for them to consider how to best implement robo-advice services[18].

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Sources:

[1] Beketov, M., Lehmann, K. & Wittke, M. (2018) Robo Advisors: quantitative methods inside the robots. J Asset Manag 19, 363–370. Retrieved from: https://link.springer.com/article/10.1057/s41260-018-0092-9

[2] Ryan W. Neal. (2020) Betterment surpasses $22 billion AUM in 500,000 user accounts Retrieved from: https://www.investmentnews.com/betterment-grows-500k-accounts-189575

[3] Wealth-X. (n.d) The Five Countries With The Largest Expected Wealth Transfers Retrieved from:https://www.wealthx.com/five-countries-largest-wealth-transfers/

[4] Karime Abdel-Hay, Edward Blomquist,Alistair Clark, Patrick Heath, Gregory Mak,and Riley Nelko. (2015). The Greater Wealth Transfer. Retrieved From: https://www.accenture.com/us-en/~/media/accenture/conversion-assets/dotcom/documents/global/pdf/industries_5/accenture-cm-awams-wealth-transfer-final-june2012-web-version.pdf

[5] Mark Hall. (2019). Greatest wealth transfer Retrieved from https://www.forbes.com/sites/markhall/2019/11/11/the-greatest-wealth-transfer-in-history-whats-happening-and-what-are-the-implications/#552b656b4090

[6] Gauthie Vincent & Jared Goldstein (2015) 10 Disruptive trends in Wealth Management (The aging of advisors & upcoming transfer of wealth) . Retrieved from: https://www2.deloitte.com/content/dam/Deloitte/us/Documents/strategy/us-cons-disruptors-in-wealth-mgmt-final.pdf

[7] Gauthie Vincent & Jared Goldstein (2015) 10 Disruptive trends in Wealth Management (Science vs. Human-based advice). https://www2.deloitte.com/content/dam/Deloitte/us/Documents/strategy/us-cons-disruptors-in-wealth-mgmt-final.pdf

[8] Statista. (2020). Retrieved From: https://www-statista-com.libproxy.smu.edu.sg/outlook/337/100/robo-advisors/worldwide#market-revenue

[9] Deloitte (2016). The expansion of Robo-Advisory in Wealth Management. Retrieved from: https://www2.deloitte.com/content/dam/Deloitte/de/Documents/financial-services/Deloitte-Robo-safe.pdf

[10] Nancy M. Jackson (2018). Should you use a Robo-Adviser? Retrieved from https://www.hermoney.com/invest/financial-planning/robo-advisers-the-good-and-the-bad/

[11] Theresa W. Carey (2020). Best Robo-Advisors. Retrieved from https://www.investopedia.com/best-robo-advisors-4693125

[12] Montary Authority of Singapore.(2018). Financial Advisers Act (CAP.110) Retrieved from: https://www.mas.gov.sg/-/media/MAS/Regulations-and-Financial-Stability/Regulations-Guidance-and-Licensing/Securities-Futures-and-Fund-Management/Guidelines-on-Provision-of-Digital-Advisory-Services--CMGG02.pdf

[13] Loukia Gyftopooulou. (2019). More than half of investors reject robo-advice FCA finds. Retrieved from: https://citywire.co.uk/wealth-manager/news/more-than-half-of-investors-reject-robo-advice-fca-finds/a1299831

[14] Imogen Tew (2019) FCA study finds substantial resistance to robo advice. Retrieved from: https://www.ftadviser.com/your-industry/2019/11/28/fca-study-finds-substantial-resistance-to-robo-advice/

[15] Broadridge Financial Solutions (2016) Broadridge targeting the digital generation. Retrieved from: https://www.broadridge.com/_assets/pdf/broadridge-targeting-the-digital-generation.pdf

[16] Singapore Business Review. (2018) Banks rev robo advisory push in Singapore. Retrieved from: https://sbr.com.sg/financial-services/in-focus/banks-rev-robo-advisory-push-in-singapore

[17] Ilker Koksal. (2018). How AI is expanding the applications of robo advisory. Retrieved from: https://www.forbes.com/sites/ilkerkoksal/2020/04/18/how-ai-is-expanding-the-applications-of-robo-advisory/#386dcea555c3

[18] Chris Monaco. (2016). An analyst perspective on the future of robo advisors. Retrieved from: https://seismic.com/company/blog/an-analysts-perspective-on-the-future-of-robo-advisors/