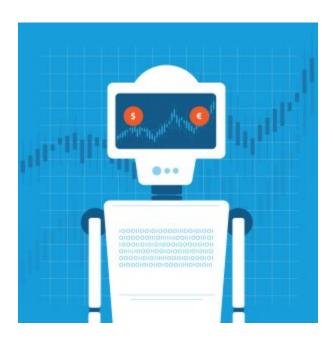
Could the Big Technology Companies of Today Be the Financial Advisers of Tomorrow?

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Although traditional financial services companies now offer mass-market financial advice via "robo-advisers," average U.S. customers seeking investment advice are still underserved — and platform-based digital powerhouses like Amazon are taking notice.



The past decade has seen unprecedented levels of technological disruption in business. As evidence, one need only look at the way Amazon.com Inc. has used its formidable strength and scale to enter more than a dozen different major industries, including fashion,

entertainment and web services ¹ , ² On June 16, 2017,

it announced its newest expansion with the acquisition of high-end natural foods supermarket chain Whole Foods Market Inc., leaving incumbent players in the supermarket industry shuddering. At what point should the leaders in the financial services industry fear a similar entry?

We argue that the answer is — immediately.

U.S. household assets are projected to grow from \$87 trillion to \$140 trillion by 2030. Of that \$140 trillion, \$64 trillion will be investable, equating to between \$150 billion and \$240 billion in wealth management fees. ³ At the same time, 68% of U.S. adults do not receive professional financial advice, and 45% do not know where to get the help they need. ⁴ This sizable underserved population has attracted a new class of wealth management advice providers: "robo-advisers." Robo-advisers are the brainchild(ren) of wealth management companies that leverage digital platforms to provide automated, algorithm-driven financial advice or portfolio management services with little to no human interaction. Robo-advisers have focused their value propositions on

offering low costs (usually 0.25% of assets under management, versus the 1% charged by most financial advisers), ⁵ attractive digital interfaces, and little (if any) required minimum account sizes to the millions who comprise America's financially underserved.

Robo-advisers have not only attracted mass-market individuals with a net worth of \$50,000 to \$200,000, 6 but they have also grown in popularity with affluent and high-net-worth individuals who have financial assets from \$200,000 to upwards of \$30 million. 7 This trend demonstrates a blend of new-market and low-end disruption, as based on Harvard Business School Professor Clay Christensen's model of disruptive innovation. ⁸ However, our research has shown that, given reasonable assumptions on customer acquisition costs of \$300 to \$1,000, the average client of a roboadviser will not generate a positive internal rate of return for at least 14 years. In a study of robo-advisers, Morningstar Inc. analyst Michael Wong estimates that the assets under management (AUM) necessary to have a break-even business model for a robo-adviser is between \$16 billion and \$40 billion. 9

Given the critical nature of scale, and the extraordinary costs of reaching it, the benefit to being an incumbent player in asset management is obvious; should you launch a "robo," your current client base will allow you to quickly reach a sustainable level of AUM. Vanguard's Personal Advisor Services (PAS) reached what Wong classifies as a sustainable level of scale after just one quarter by marketing to preexisting Vanguard retail clients. Meanwhile, despite nearly 10 years of operating, the largest stand-alone robo-advisers lag considerably. ¹⁰ In fact, incumbent product launches have already profoundly affected the space. Since the introduction of

Schwab Intelligent Portfolios (March 2015) and Vanguard PAS (May 2015), growth rates of the pioneer roboadvisers have declined 66%, according to the Form ADV disclosures of Betterment LLC and Wealthfront Inc. 11

However, in our view, the incumbent players that have entered the space are still woefully inadequate to capitalize on the opportunity for automated wealth management services for fear of fee cannibalization and a brand/trust gap.

The financial companies most capable of leveraging their existing client base to build a robo-adviser franchise are the least likely to do so for fear of cannibalizing their own high-margin financial adviser businesses. Consequently, many financial companies have pivoted their automated services from business-to-consumer (B2C) to businessto-business (B2B). Examples include BlackRock Inc.'s Future Advisor, and Invesco Ltd.'s Jemstep Advisor Pro. While independent advisers using these platforms to augment their businesses may improve their capacity to serve, they continue to focus their efforts on serving high-net-worth individuals who already consume financial advice. Consequently, the population of underserved mentioned previously remains without wealth management services.

Large companies in the wealth management space also face difficulty in launching robo-advice because they are still suffering brand repercussions from the financial crisis. The 2017 Harris Poll Reputation Quotient, which assessed companies' reputational strength based on the perceptions of more than 23,000 Americans across six corporate reputation dimensions, including social responsibility, emotional appeal, products and services, vision and leadership, financial performance, and

workplace environment, ranked only one asset manager among the top 50 corporations, with Fidelity at No. 37. 12 No banks made the cut. Trust is the most critical element in the decision of purchasing financial advice. No individual will invest with a company he or she does not trust, whether it is an exciting startup or a century-old bank.

The Opportunity: An **Underserved Market**

With disruptive entrants unable to establish viable business models so far, and with incumbents unwilling to cannibalize their fee revenues or unable to bridge the trust gap, the question remains: Who can take advantage of the opportunity posed by the financially underserved?

China's experience poses an interesting potential solution; large technology companies used their reach and brand loyalty to enter financial services, beginning with payment solutions and expanding into financial management to underserved populations. The process started in 2013, when e-commerce giant Alibaba Group launched Ant Financial Services Group to manage Alipay, an online and mobile payment platform. ¹³ Ant Financial provided users who held cash deposits on Alipay the opportunity to invest their idle cash into a money market fund to earn a return. Within the first 18 days, it boasted 2.5 million registered users. 14 Less than four years later, the money market fund claimed 324 million users and \$210 billion in assets. ¹⁵ Gradually, Ant Financial expanded its purview to online banking, fund management, and other financial services. Today, it is China's largest financial technology (fintech) company, overseeing the world's largest money market fund, internet bank, and wealth management provider. ¹⁶ This

explosive asset growth was realized despite the fact that Ant Financial has attracted mostly small, low-income investors with average investment accounts of 5,000 RMB, or \$750. 17

U.S. companies have not ignored the mobile payments space. However, despite their efforts, only \$8.71 billion in U.S. mobile transactions occurred in 2015, as compared with \$1.45 trillion in China. ¹⁸ Payments adoption in China is outpacing U.S. adoption because of the stark contrast in credit card penetration in the two economies, with the U.S. having over 50% penetration ¹⁹ and China having only 16% in 2014. 20 Alipay stepped into the void created by a low rate of credit card penetration and a fragmented financial services sector more broadly.

The success of Chinese technology players entering the financial market has already presaged similar success for U.S. technology companies. As of June 2016, Apple Inc. claimed its Apple Pay platform was growing at an impressive 450% year over year, leveraging Apple's international expansion as a tailwind. ²¹ Facebook is expanding its peer-to-peer payments to WhatsApp, announcing in April that it will enter India, where it has more than 200 million users, to compete directly with Alibaba's Paytm. 22

While the payments space has garnered considerable attention, we see it merely as a stepping-stone to the more lucrative business of wealth management. Though no major technology player has made the leap in the United States, we feel Amazon is in the best position. Though the scarcity of credit cards was Alibaba's door into wealth management in China, the ubiquity of credit cards in the United States is Amazon's way in.

Why Amazon Is Best Positioned to Take **Advantage**

Why should Amazon enter? It already is a leader in cybersecurity, is a highly trusted brand, and has a strong preexisting customer base. Amazon has a competitive advantage via its Amazon Web Services as well as its recent acquisition of cybersecurity company harvest.ai. 23 And while trust between millennials and financial institutions remains frayed, the 2017 Harris Poll Reputation Quotient recognized Amazon as the most reputable brand of America's 100 most visible companies. ²⁴ In a proprietary survey of 314 individuals across ages and incomes, 203 people listed Amazon, among companies like Google and Facebook, as their most trusted brand. Finally, Amazon boasts that 80 million people subscribe to its Amazon Prime offering, paying a flat fee each year for free shipping and other perks such as streaming video and music. This group represents fertile soil upon which to cost-effectively launch an investment product. ²⁵

Amazon credit card offerings present an interesting platform from which to launch. Consumer Intelligence Research Partners estimates that 15% of Amazon users hold either the Amazon credit card or the more recently launched Amazon Prime Rewards Visa credit card. ²⁶ Cash-back rewards from purchases made with either credit card offer an opportunity to launch investment services. Amazon could offer its credit card holders the option to hold their cash-back rewards in an automated investment product. The amount of money eligible for this opportunity could be sizable: Amazon Prime members spend nearly twice as much as non-members,

and Amazon credit card holders' average annual expenditure exceeds Amazon Prime members' spending by 16%. ²⁷ This opportunity can be structured to encourage further spending within Amazon's ecosystem by offering a bonus investment deposit should a user spend above a certain level. By enabling credit card users to invest their cash-back rewards via its robo-adviser, not only could Amazon eliminate barriers to customer adoption but also could achieve an immediate critical mass of clients with minimal customer acquisition costs.

The B2B Opportunity

Amazon should also launch a business-to-business offering for this new investment management service. Over 100,000 companies generate more than \$100,000 each in annual e-commerce sales on Amazon's platform. ²⁸ Having already established brand loyalty as a trusted vendor through holding those companies' cash deposits and handling their payments, a natural progression for Amazon would be to offer small business owners, who tend to have less time and resources to dedicate toward designing retirement plans, the opportunity to house their retirement plans at Amazon as well — one less thing for them to worry about.

Data collection from retirement plans would arm Amazon with important information on both small businesses and individual employees. This data could not only inform Amazon's marketing efforts to an individual, but could also be used in retirement product innovation. Today, retirement plans often provide participants a default investment vehicle, such as a target date fund, offering a portfolio tailored to a participant's age. Imagine if that portfolio could take into consideration all of the other data Amazon stores for customers beyond their age: A target level of income might be determined by the

amount an individual spent on groceries; higher allocations toward domestic equities might be prescribed to individuals working for an overseas employer; a 529 plan might be recommended for someone buying baby toys. If an individual had Alexa, Amazon's cloud-based voice service, retirement advice could be given at a customer's convenience in their own living room. The possibilities for innovation are limitless. Indeed, a simultaneous business-to-business and business-to-consumer go-to-market strategy would mitigate risk and improve Amazon's probability of success.

Managing the Risks of Fintech Innovation

Execution risk and financial regulations are considerable obstacles for any technology player with their crosshairs on investment management. To mitigate these risks, Amazon should partner with an incumbent, as they did with Chase Bank on their credit card. The question then remains: who? We feel that the largest asset managers, BlackRock and Vanguard, stand to benefit the most from partnering with Amazon, and vice versa.

Amazon would benefit from having Vanguard as a partner with which to tackle regulatory threats. In return, Amazon could offer Vanguard not only a gateway to millennials but also the world's most advanced

cybersecurity infrastructure, both areas of focus for Vanguard. ²⁹ Given their similar scale-oriented business models and customer-centric cultures, Amazon and Vanguard could afford to launch a joint robo-adviser for free. Amazon could gain deeper customer insights and increase its Prime membership and credit card users, while Vanguard could continue to achieve record fund inflows and grow its mutual fund and Personal Advisor Services businesses.

BlackRock would also benefit considerably from a partnership with Amazon. BlackRock operates primarily in the B2B realm, selling through intermediaries. Increased industry competition has dramatically compressed mutual fund margins and shifted leverage to these intermediary players. BlackRock is highly motivated to pursue margin-boosting opportunities. A consumerfacing wealth management business could provide an opportunity to sell direct-to-consumer; Amazon represents a prime opportunity to establish a foothold in the business to consumer space.

Incumbent financial institutions in America should be asking themselves, "How could Amazon disrupt financial services?" Every fintech start-up should be asking itself, "What can we offer that Amazon cannot?" Finally, Amazon should gaze across the business landscape and ask, "What's next?"

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