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Hungry Robo-Advisors Are Eyeing Wealth Management Assets

We Believe Wealth Management Moats Can Repel the Fiber-Clad Legion

Morningstar Equity Research
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Executive Summary

Robo-advisors such as Betterment and Wealthfront are a hot topic for equity investors. According to CB Insight, venture capitalists have bet over $300 million that they'll be able to disrupt the wealth management and investment services markets by better serving millennials and cost-conscious advice-seekers. We believe robo-advisory firms will have to eat through all of the capital they raised in order to reach a profitable scale. Additionally, our view is that the cost advantage, intangible asset, and switching cost moat sources of the full-service wealth managers and investment service firms will protect their assets and clients from hungry robo-advisors. In fact, we find it highly unlikely that stand-alone robo-advisors will ever be able to match Schwab's industry-leading scale efficiencies, and that Schwab Intelligent Portfolios is best-positioned to capture any economic rents from robo-advisory.

Key Takeaways

- With their low fee rate, robo-advisors need near industry-leading expense efficiency and substantially more scale to be profitable. Using a range of comparable companies, we estimate that the break-even client asset level for robo-advisors is from $16 billion to $40 billion, which is 8–20 times the current client asset level of leading robo-advisory firms.
- Robo-advisors will have to use much of the capital they raise to pay for the tens to hundreds of millions of marketing dollars needed to gather assets and reach a profitable scale. Even after they become profitable, their slim operating margin and low average account size imply that it could take a decade or more to recoup advertising costs.
- Schwab Intelligent Portfolios, or SIP, is illustrative of why we recently upgraded our economic moat rating for Charles Schwab to wide from narrow. A strong cost advantage and proprietary products allow the company to offer a robo-advisory solution that's both more profitable and less expensive to customers than stand-alone robo-advisors. In a bullish scenario, we estimate that SIP could increase the company's operating income and our fair value estimate by 16%.
- Names in the wealth management and investment services space that currently trade at a material discount to our fair value estimate include Raymond James Financial and TD Ameritrade, among others.

Companies Mentioned

Name/Ticker	Economic Moat	Moat Trend	Currency	Fair Value Estimate	Current Price	Uncertainty Rating	Morningstar Rating	Credit Rating	Market Cap(Bil)
Charles Schwab SCHW	Wide	Stable	USD	32.00	30.08	High	★★★	A+	39.80
Morgan Stanley MS	Narrow	Stable	USD	38.00	36.19	High	★★★	BBB	71.77
Raymond James Financial RJF	None	Stable	USD	63.00	56.94	High	★★★	NR	8.20
Stifel Financial SF	None	Stable	USD	59.00	54.04	High	★★★	NR	3.79
TD Ameritrade AMTD	Narrow	Stable	USD	43.00	37.08	High	★★★	A	23.20

Robo-Advisors Potentially Fill Niche Between Discount Brokerages, Traditional Wealth Managers
We define "robo-advisors" as firms that offer automated, semitailored strategic asset allocation investment portfolios directly to retail end customers. The "robo" or "robot" moniker has been attached to these firms, as there is little to no human interaction between the firm and the client. A risk-tolerance questionnaire usually algorithmically determines an appropriate portfolio composed of low-cost ETFs. Different robo-advisors may offer additional services, such as tax-loss harvesting or a higher level of human interaction (cyborg-advising).

Exhibit 1 Robo-Advisors Potentially Fill Niche Between Discount Brokerages, Traditional Wealth Managers

Source: Morningstar

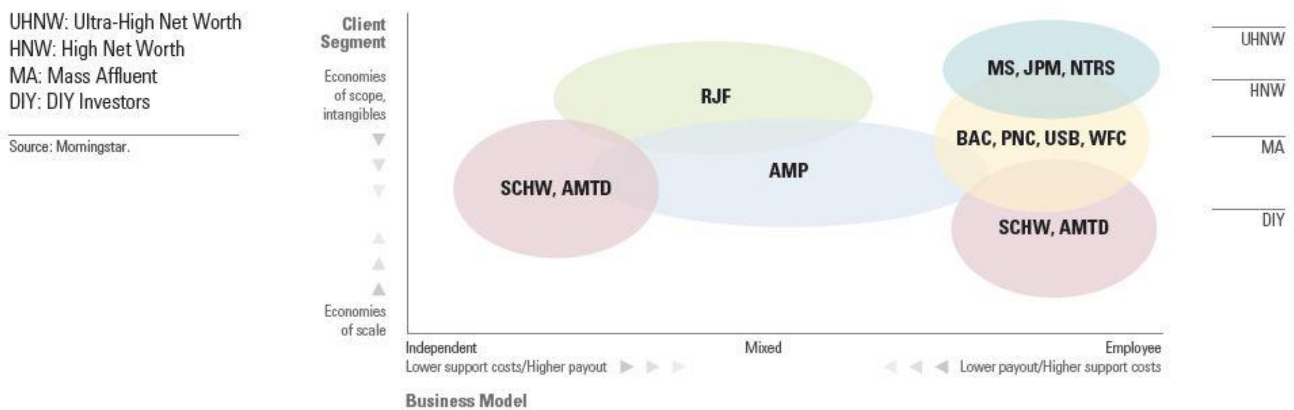
Using a value proposition type of framework, we see robo-advisors as being positioned in the area between discount brokerages and full-service wealth managers. If wealth managers' current clients truly want just a strategic asset allocation, or if the financial advisor is giving the client only a simple strategic asset allocation, then it would make sense for the client to go to a lower-cost robo-advisor. We believe that full-service wealth managers could lose their cost-conscious, relatively overserved clients as a result.

Wealthfront, Betterment Have Offerings for Online-Savvy Millennials, Frugal Advice-Seekers
We see the economics of the stand-alone robo-advisors such as Betterment and Wealthfront as challenging, and believe that few will be materially profitable and still standing several years down the road. The current legion of stand-alone robo-advisors will have to invest heavily in advertising, or consolidate to gain scale, be acquired or partner with established brokerages, or go out of business.

Wealth Management Economic Moats Can Protect Profits From Robo-Advisors

Even with increased marketing spend and any inherent attraction of robo-advisors, we believe that moaty wealth management and investment service firms can protect their profits and client assets. Within the broadly defined wealth management industry, different players utilize various strategies to gain a competitive advantage based on their target client segment and business model. For our overall view on the wealth management industry, please read our Sept. 6, 2013 Financial Observer Differing Strategies Will Contribute to the Evolution of Moats in Wealth Management.

Exhibit 2 Wealth Management Firms Must Choose Different Strategies to Compete Successfully

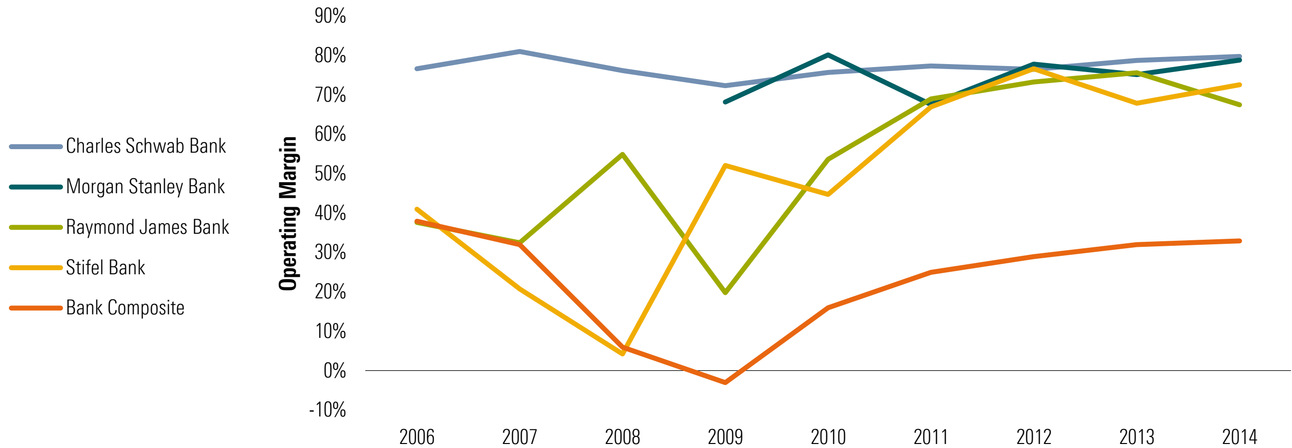


Source: Morningstar

We generally view more traditional wealth management players, such as narrow-moat Bank of America Merrill Lynch and narrow-moat Morgan Stanley, as deriving a competitive advantage through intangible assets and switching costs. A wealth management firm can have a brand, capabilities, or products strong enough to make it difficult for a financial advisor to leave for another firm or go independent. Additionally, even if a financial advisor were to leave, clients may choose to stay with the wealth management firm because of its brand value and capabilities.

We see a cost advantage as the primary moat source for nontraditional players in wealth management or investment service firms such as wide-moat Charles Schwab and narrow-moat TD Ameritrade. An electronic trading platform that served self-directed investors was at the original core of these firms. This platform allows them to process incremental trades at high profit margins. Additionally, many retail brokerage firms have a banking subsidiary that can be 2 times more profitable than traditional banks. The exceptional bank subsidiary profitability is due to not having to support a physical branch presence, trading clients that are less interest rate sensitive than traditional banking customers, and catering to generally higher net worth clientele with collateralized lending products.

Exhibit 3 Strong Banking Subsidiary Profitability Supports Retail Brokerage Moats

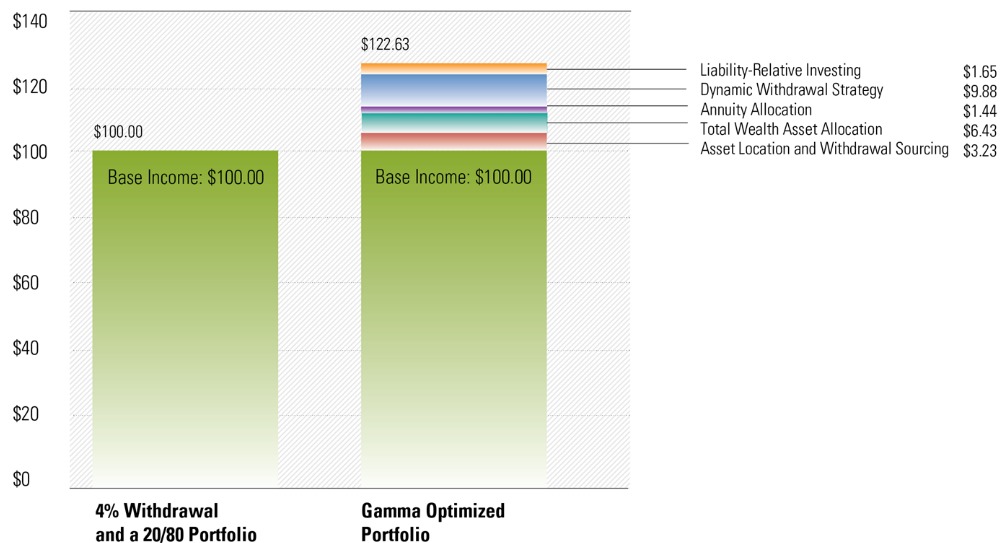


Source: Company filings, Morningstar

We Think Full-Service Managers Should Promote Advantages Over Robo-Advisors

To keep clients who may contemplate robo-advisor offerings, we believe that full-service wealth managers should focus on value-added services they can give to clients that robo-advisors can't, such as access to hedge funds and insurance, potential to generate investment alpha, and the benefits of more holistic financial planning. There are definite benefits to the more holistic financial planning that robo-advisors lack. For example, in our paper Alpha, Beta, and Now … Gamma, Head of Retirement Research Paul Blanchett, CFA, CFP and Canada Director of Research Paul Kaplan, PhD., CFA estimated that a retiree could generate 22.6% more certainty-equivalent income compared with a base case with five financial planning decisions: liability-relative investing, a dynamic withdrawal strategy, annuity allocation, total wealth asset allocation, and asset location and withdrawal sourcing. This would also be equivalent to a 1.59% investment portfolio alpha. Holistic financial planning also requires knowledge of a client's entire financial picture, such as assets not held by the robo-advisor, which the current online-advisory platforms can't do.

Exhibit 4 Effective Financial Planning Has Quantifiable Benefits That Can Trump Robo-Advisor Cost Savings



Source: Morningstar

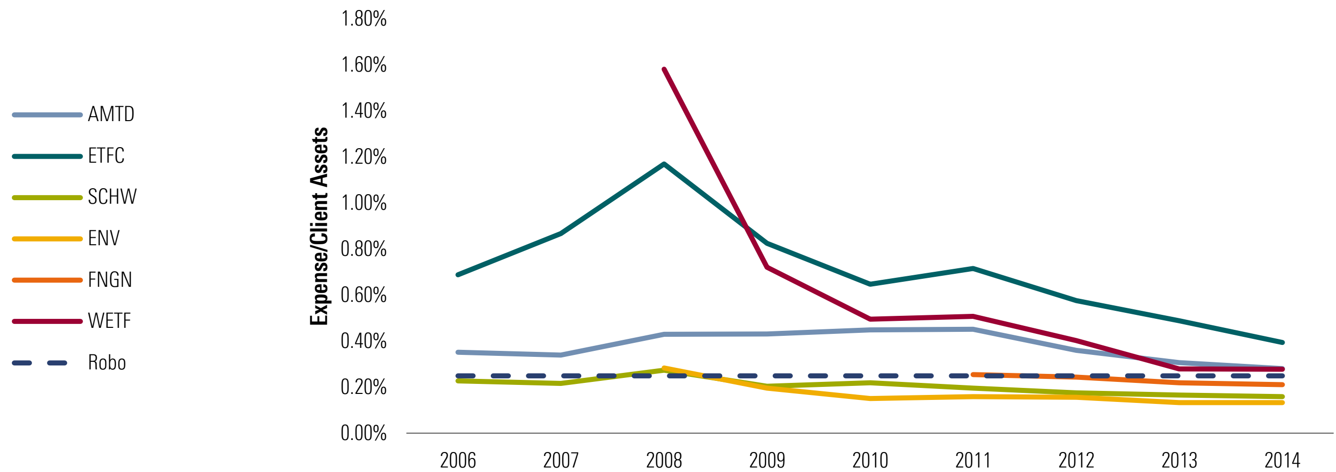
We believe the discount brokerages have little to fear about losing their highly profitable, do-it-yourself trading clients, as those clients value services such as low-cost trade execution, trading tools, and investment information. These clients want to generate investment alpha through trading and aren't primarily interested in the seldom-changing, strategic asset allocations that the robo-advisors offer. From this standpoint, TD Ameritrade's customer mix is relatively favorable.

That said, we believe that the robo-advisors may be attractive to, and may be able to garner assets from, the cost-conscious and relatively underserved, do-it-yourself, long-term investors of discount brokerages. These are clients who don't want or can't pay up for the services of full-service wealth managers, yet are uneasy about making their own investment decisions. An example would be investors with a handful of blue chip stocks or mutual funds that they've held onto for a decade. In order to retain these clients and assets, we believe that discount brokerages can pursue several strategies: partner with an existing robo-advisor, develop their own online advisory solution, or emphasize a comparable value-proposition product. A comparable value-proposition product could be a managed portfolio offering. The large discount brokerages should be able to provide a competitive product at a similar cost and higher profitability point than stand-alone robo-advisors because of the cost advantage.

Low Fee Structure Means Robo-Advisors Need Industry-Leading Expense Efficiency

Based on the fee schedules of two of the leading robo-advisors, Betterment and Wealthfront would need to have expense efficiencies on par with or better than many much larger and more established companies (such as TD Ameritrade and Schwab) to earn any profit for an account worth around $100,000.

Exhibit 5 Few Comparable Firms Have Expense Ratios Lower Than Robo-Advisor Fee Rates

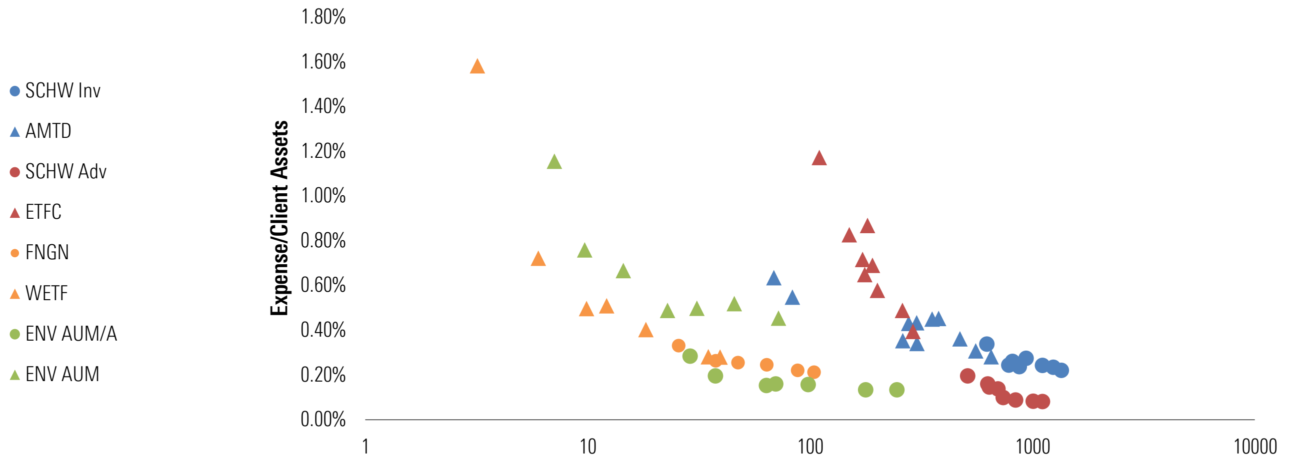


Source: Company filings, company websites, Morningstar

Besides the large, publicly traded online brokerage and investment services firms (Charles Schwab, E-Trade, and TD Ameritrade), we also looked at Envestnet, Financial Engines, and WisdomTree Investments to benchmark robo-advisors. Envestnet provides investment and practice management services to financial advisors, while Financial Engines primarily offers investment advice to retirement plan participants. WisdomTree is an Exchange-Traded Product, or ETP, asset management firm. Envestnet, Financial Engines, and WisdomTree all derive the majority of their revenue from asset-based fees. We believe that all of the companies that we chose are decent comparables because of their meaningful economies of scale (based on their assets under management or advisement), leveragable core technology infrastructure, and not having a high-touch, human capital-intensive business dependent on employing financial advisors.

Looking at Envestnet, Financial Engines, and WisdomTree, it seems that a robo-advisor would need around $40 billion of assets to approach break-even profitability. At the lower end, Envestnet needed combined assets under management and advisement of $30 billion–$40 billion to be at 25 basis points. Financial Engines wasn't able to lower its expense base to 25 basis points until it had around $50 billion of assets under management, while WisdomTree ended 2014 with nearly $40 billion of assets under management and still had an expense/client assets ratio of 28 basis points. Many may compare the online retail brokerages with the robo-advisors, but of the big three publicly traded firms, only Charles Schwab, with $2.5 trillion of client assets, has an expense base lower than 25 basis points. E-Trade (client assets of $300 billion) and TD Ameritrade (client assets of $700 billion) have expense/client asset ratios of near 40 and 30 basis points, respectively.

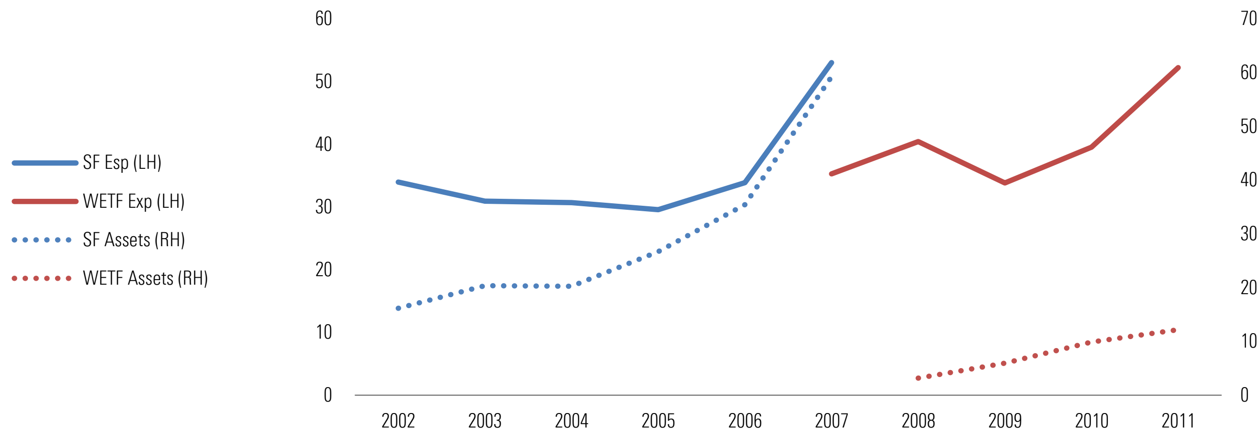
Exhibit 6 Even Firms With Scalable Platforms Don't Have Expense/Client Asset Ratios Equivalent to Robo-Advisor Fees Until Around $40 Billion of Client Assets



Source: Company filings, company websites, Morningstar

Looking at the potential break-even point for the robo-advisors from another angle, we would estimate the break-even point at $16 billion of assets. While WisdomTree Investments was running net losses from 2007 through 2010, a period when presumably it would run as lean of an expense base as possible, we calculate that the company needed $30 million–$40 million per year to support its business. Similarly from 2002 through 2006, before Stifel's wealth management segment expenses materially changed through a series of acquisitions, we estimate that the company needed $30 million–$35 million of core expenses to support its business. As many managed portfolio product firms, which can be likened to robo-advisors, operate as an investment advisory firm, Stifel's expense level after stripping out the majority of occupancy and compensation costs should be a decent proxy for a robo-advisor that doesn't pay for individual financial advisors or rent branch offices.

Exhibit 7 $30 Million–$40 Million Seems Like the Minimum Needed Expenses to Establish a Robo-Advisory Firm



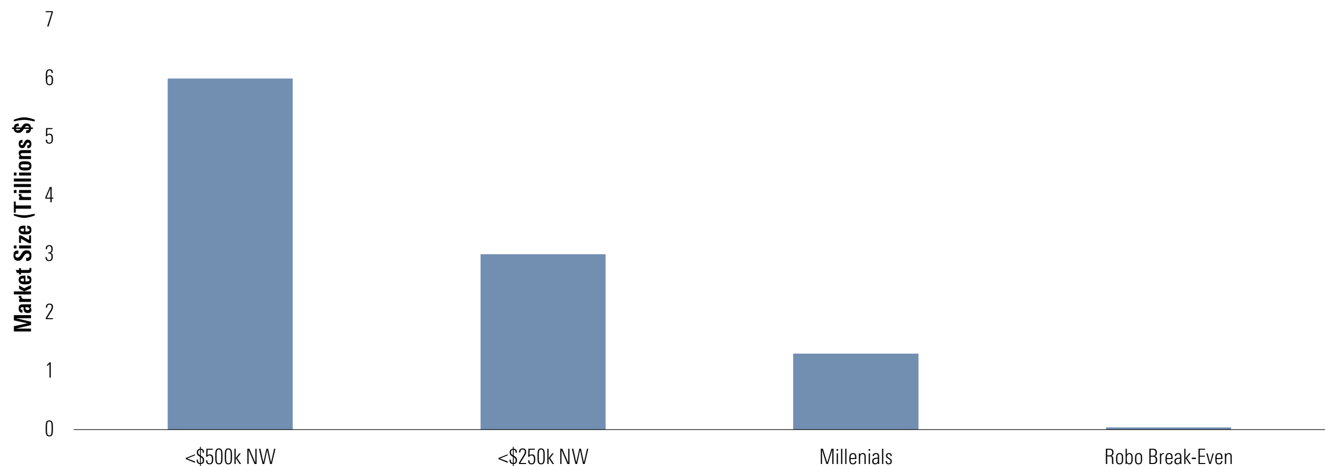
Source: Company filings, Morningstar

Assuming that robo-advisors charge fees of 25 basis points, a robo-advisory firm would need $16 billion of assets to generate $40 million of revenue to cover core operating expenses.

We See the Robo-Advisory Growth Opportunity as Large, but They'll Still Need Years of Geometric Growth to Reach Sufficient Scale

However, the $16 billion–$40 billion break-even point is achievable given the addressable market of the robo-advisors. Many robo-advisors are targeting either tech-savvy millennials or the lower net worth households that full-service wealth managers don't focus on. We roughly estimate that millennial households at the end of 2013 had $1.3 trillion of financial assets. By wealth, households with less than $250,000 of net worth had approximately $3 trillion of financial assets, and households with a net worth of between $250,000 and $500,000 had another $3 trillion of financial assets. Even if we were to adjust these totals for financial assets that robo-advisors can't easily touch, such as pension assets, there should be enough to go around.

Exhibit 8 $16 Billion–$40 Billion of Assets Looks Reasonable Compared With the Trillions of Addressable Market



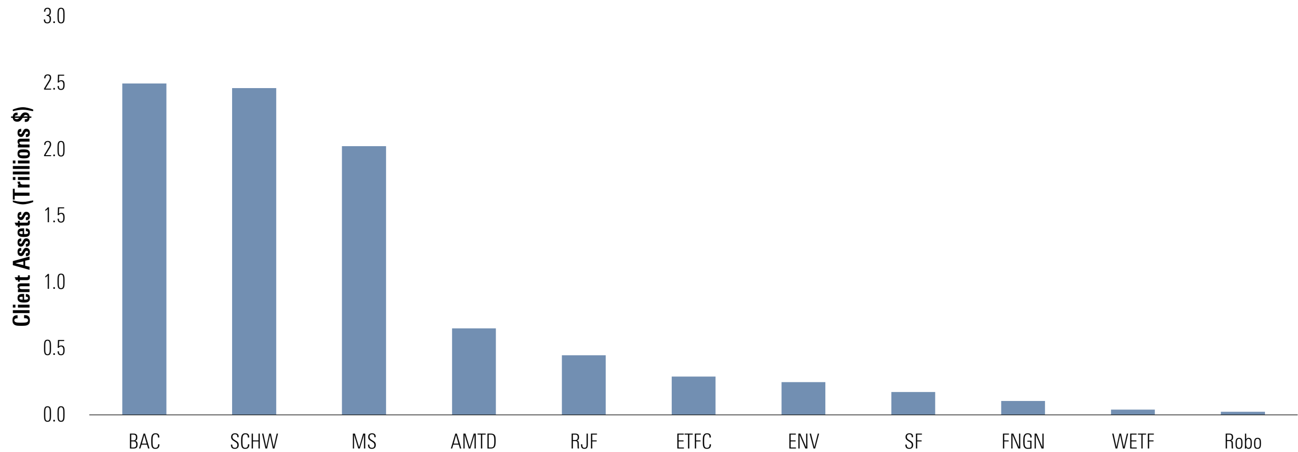
Source: U.S. Federal Reserve, Morningstar

While the break-even point looks small compared with the overall addressable market, the robo-advisors have penetrated only a sliver of that market despite being in business for years. At the end of 2014, the whole robo-advisor industry only had assets of $20 billion–$30 billion, based on Corporate Insight and our own adjustments. Moreover, the leading individual firms just have assets of around $2 billion. The minuscule penetration rate to date can be looked at either as a glass half empty or half full in regards to long-term prospects, but it's not debatable that it is likely to be a long time before individual firms are materially profitable, as they would need to be 8–20 times larger to reach our $16 billion–$40 billion client asset profitability threshold.

For perspective, traditional full-service wealth management behemoths, like Bank of America Merrill Lynch and Morgan Stanley already have more than $2 trillion each. Investment services players Charles Schwab and TD Ameritrade have $2.5 trillion and $700 billion of client assets, respectively. In other words, the leading wealth management and investment services players have nearly 100 times the

client assets and scale of the whole robo-advisory industry and more than 1,000 times the leading individual robo-advisor firms.

Exhibit 9 Incumbent Players Currently Dwarf the Whole Robo-Advisor Industry

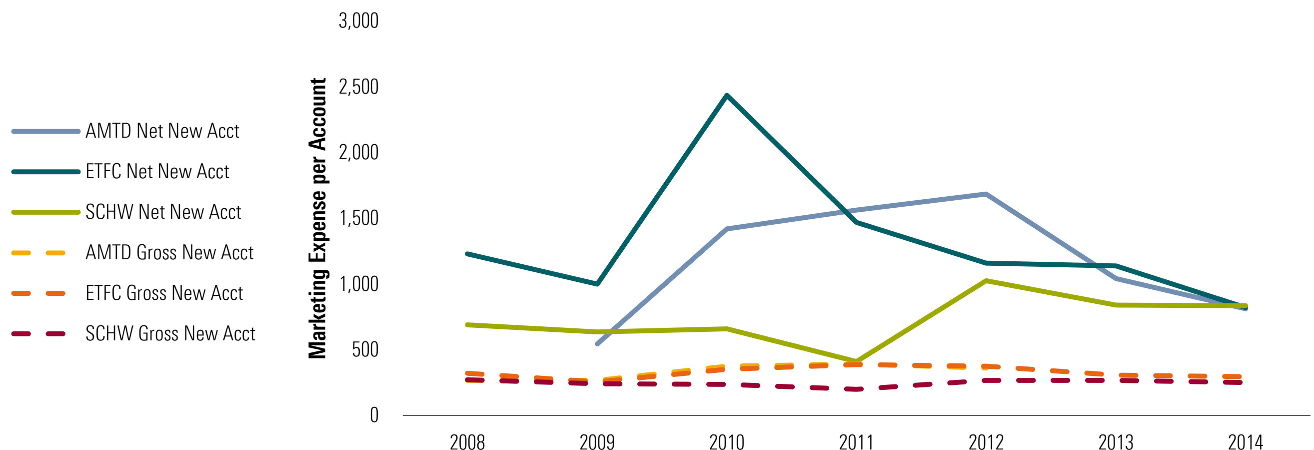


Source: Company filings, Morningstar

Expenses to Get Accounts Could Be True Hurdle for Robo-Advisors Reaching Profitable Scale
Existing players already hold part of the robo-advisors' addressable market of assets, whereas part is in the hands of households that existing financial services firms haven't reached. In order to reach an efficient scale, robo-advisors either need to put themselves on the radar of these unserved households or attract assets from existing players. To do this, the robo-advisors will have to invest in marketing significantly.

Looking at the major publicly traded retail brokerages, it takes approximately $300 of advertising to attract a new account and $1,000 to add a net new account after factoring in attrition.

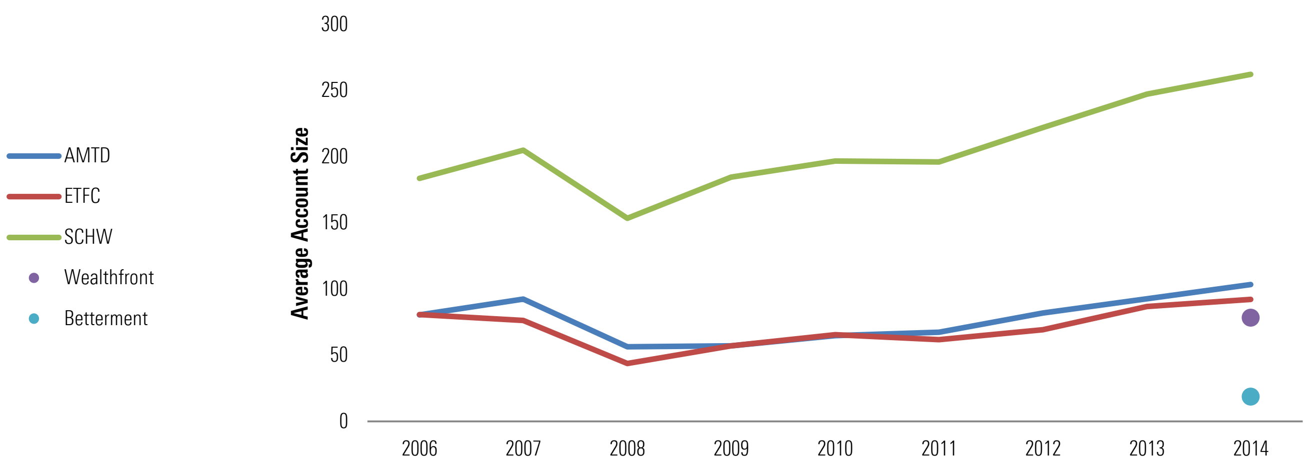
Exhibit 10 Account Growth Requires Significant Investment In Marketing



Source: Company filings, Morningstar

As fees for the robo-advisors are based on a percentage of assets, the average account size is an important determinant of per-account profitability. Betterment has an average account size of approximately $20,000, whereas Wealthfront has nearly $80,000 per account. We surmise that the large difference between Betterment and Wealthfront may be due to Wealthfront's strong base in the affluent Silicon Valley of California and because it manages some accounts for organizations. For comparison, E-Trade and TD Ameritrade have average client assets per account of around $100,000, while Charles Schwab has $250,000 per account.

Exhibit 11 Average Account Sizes at Robo-Advisors Are Materially Lower Than the Online Brokerages

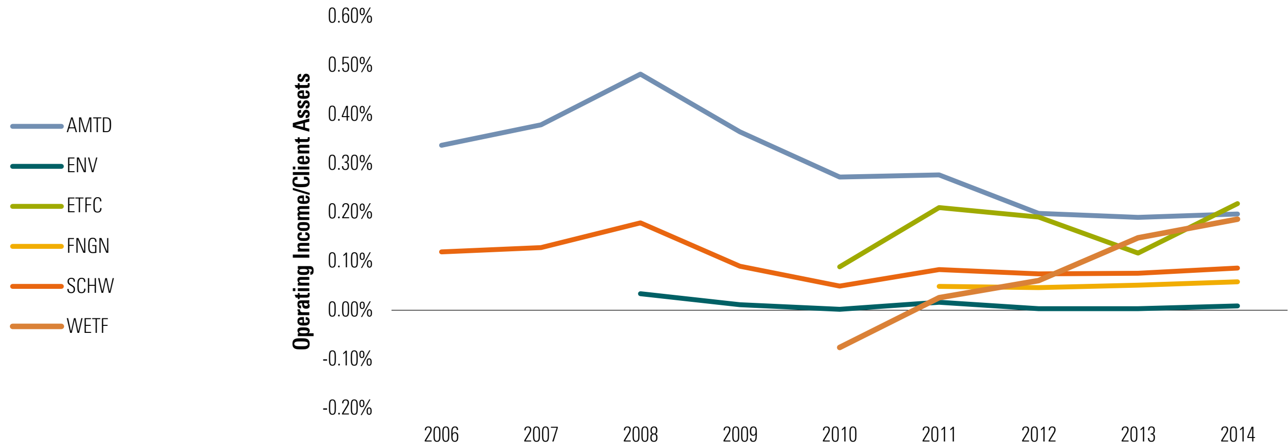


Source: Company filings, Morningstar

If we assume that $16 billion–$40 billion of client assets is the break-even point for the firms, and that robo-advisors don't have any attrition during their initial growth period (therefore need to spend only $300 for a new account), then Wealthfront would need to spend $60 million–$150 million in advertising to reach $16 billion–$40 billion of client assets and Betterment would need to spend $240 million–$600 million. Both of them have raised over $100 million of capital each, so already have meaningful funding to make this marketing push.

Once the robo-advisors break even, depending on their long-run operating margin, it could take years before any of the accounts they add become truly profitable. Pretax operating income as a percentage of assets among the retail brokerages ranges from 9 basis points at Charles Schwab to 22 basis points at E-Trade. For the other companies that we've chosen as roughly comparable to the robo-advisors because of their scalable infrastructure and fees related to assets under management, operating income ranges from 1 basis point at Envestnet to 19 basis points at WisdomTree.

Exhibit 12 Operating Income/Client Assets Are a Key Metric for Per-Account Returns



Source: Company filings, Morningstar

By combining the marketing expense per new account, average account size, and pretax operating income per dollar of client assets, we can determine a range of marketing expense payback periods per new account. For well-established Charles Schwab, E-Trade, and TD Ameritrade, it currently takes four to five years to recoup advertising expenses per net new account. In a higher interest rate environment, it would take them even less time. For the unestablished, lower client assets per account robo-advisors (with revenue yields generally less than the established players and presumably lower eventual operating margins), the marketing payback period could be longer than a decade. Word of mouth, social media, or other cheaper forms of advertising can produce only so much growth before they are likely to need major marketing expenditures to approach a profitable scale.

Exhibit 13 It Could Take More Than a Decade for Robo-Advisors to Recoup Marketing Investments

$300

Average Account Size ($thousands)	Operating Income (bps) 2.5	5	10	15	20
20	60.0	30.0	15.0	10.0	7.5
50	24.0	12.0	6.0	4.0	3.0
80	15.0	7.5	3.8	2.5	1.9
100	12.0	6.0	3.0	2.0	1.5
150	8.0	4.0	2.0	1.3	1.0
250	4.8	2.4	1.2	0.8	0.6

$1,000

Average Account Size ($thousands)	Operating Income (bps) 2.5	5.0	10.0	15.0	20.0
20	200.0	100.0	50.0	33.3	25.0
50	80.0	40.0	20.0	13.3	10.0
80	50.0	25.0	12.5	8.3	6.3
100	40.0	20.0	10.0	6.7	5.0
150	26.7	13.3	6.7	4.4	3.3
250	16.0	8.0	4.0	2.7	2.0

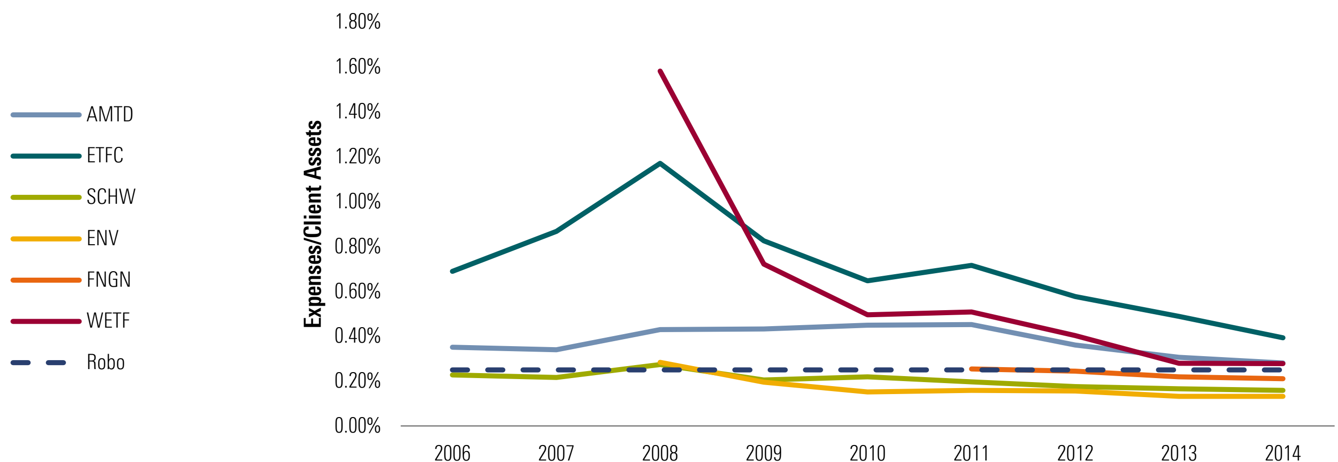
SCHW
AMTD, ETFC
Robo

Source: Company filings, Morningstar

Schwab Intelligent Portfolios Is Illustrative of a Wide Moat Competitive Advantage
In the first quarter of 2015, Charles Schwab launched its own online advisory solution, Schwab Intelligent Portfolios, or SIPs. It charges no advisory fees, account service fees, or commissions. On the other hand, robo-advisor Wealthfront manages the first $10,000 free and charges 25 basis points on balances above $10,000. Betterment charges 35 basis points for accounts under $10,000 with auto-deposit, 25 basis points for accounts under $100,000, and 15 basis points for accounts over $100,000.

Charles Schwab is one of the only companies with a viable business model for delivering wealth management to the masses because of its cost advantage and fairly unique control of multiple parts of the value chain. As we showed earlier, Charles Schwab is one of the industry cost leaders with expenses as a percentage of client assets under 20 basis points. Using much of the same infrastructure that it uses to serve current clients, the company should be able to profitably serve new online advisory customers with a revenue yield rate similar to Betterment and Wealthfront.

Exhibit 14 Charles Schwab's Cost Advantage Leads to Profits With a Robo-Advisory Fee Rate



Source: Company filings, company websites, Morningstar

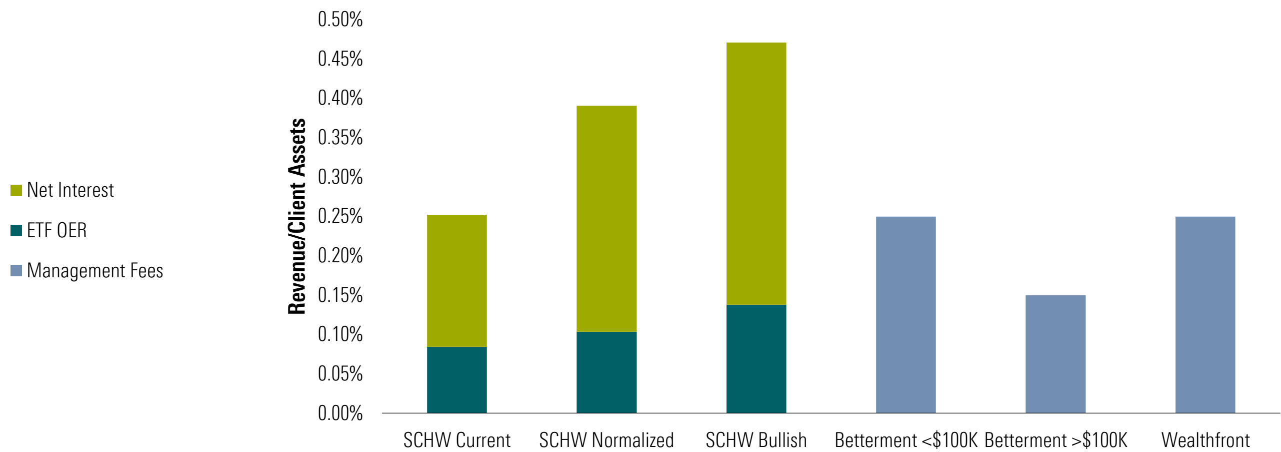
Moreover, Charles Schwab already has access to over 9 million brokerage accounts and approximately $2.5 trillion of client assets. This means it can grow its online advisory solution to a profitable scale via low-cost promotion to current clients. The company can also leverage its existing $250 million of annual marketing to simultaneously increase awareness of Schwab Intelligent Portfolios and its overall brand.

Schwab's Model Earns Higher Revenue at Lower Cost to Clients Than Stand-Alone Robo-Advisors
As Charles Schwab doesn't charge any advisory fees, how does it make money from Schwab Intelligent Portfolios? The company primarily earns revenue from its proprietary ETFs used in SIP, third-party ETFs used in SIP that are also on Schwab ETF OneSource, and the cash balance allocation that goes into the company's bank.

Based on the current proportion of Schwab and OneSource ETFs in SIP and Schwab's net interest margin, we estimate that the company's revenue yield on SIP assets is right at the Betterment and

Wealthfront management fee yield of 25 basis points. In a base case that assumes a normalized 2% short-term interest rate environment and an increase in Schwab and OneSource ETFs to half of the ETFs used in SIP, we estimate that SIP's revenue yield could grow to 39 basis points. In a bull case with 3% normalized short-term interest rates and Schwab and OneSource ETFs composing 67% of SIP ETFs, we calculate the potential revenue yield at 47 basis points.

Exhibit 15 SIP Has a Significantly Higher Revenue Yield Compared With Leading Robo-Advisors*

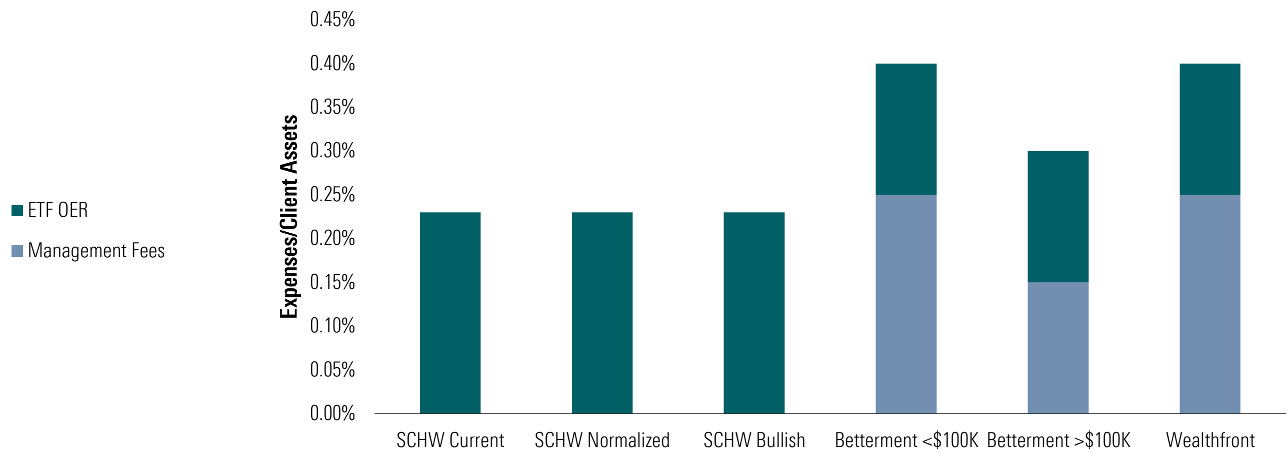


Source: Company websites, Morningstar

*Assumes 10% cash allocation and the ETF OER of the SIP moderate risk-tolerance portfolio.

Charles Schwab's revenue yield also doesn't come at a disproportionate cost to clients. The cost to Schwab Intelligent Portfolio clients, including the ETF operating expense ratio, or OER, is roughly 23 basis points compared with 30–40 basis points of combined management fees and ETF OER at Betterment and Wealthfront.

Exhibit 16 Excluding Debatable Opportunity Cost, Clients Pay Less for SIP Than Leading Robo-Advisory Offerings*



Source: Company websites, Morningstar

*Assumes 10% cash allocation and the ETF OER of the SIP moderate risk-tolerance portfolio.

As a reminder, the relatively high revenue yield and low cost to clients is a value proposition that is unique to Charles Schwab because of its wide moat, business model-based cost advantages, and control of multiple parts of the investment services value chain.

Wealthfront's CEO and some industry observers have criticized the cash allocation in Schwab Intelligent Portfolios because of potential opportunity cost. We're agnostic on this issue. A conventional risk-free asset, such as cash, does have lower returns than risky assets, as investors are compensated for additional risk with higher returns. That said, arguably all portfolios should have some form of no- to low-risk asset allocation in case of emergency funding needs or as a portfolio volatility mitigation tool. We also wonder if there would be less criticism of the cash allocation if it were an ETF with a similar portfolio construction purpose, but is technically a different asset class, such as a Treasury-Inflation Protected Securities ETF. At the end of the day, including a no- to low-risk asset class, like cash, has no explicit additional cost to clients and is justifiable based on Modern Portfolio Theory.

We believe that Schwab Intelligent Portfolios will be an incremental positive for the firm, and we don't believe it will lead to any net cannibalization. Any new clients, retention of clients that otherwise would have been lost to an outside robo-advisory offering, or shift of current buy-and-hold clients to SIP will lead to a significant increase in additional net revenue per dollar of client assets. We estimate that a move of an average Schwab client to SIP will be a slight negative in the current low interest rate environment and neutral when interest rates rise. The only real cannibalization that may occur is if a retail customer using one of Schwab's other advice solutions moves to SIP.

Exhibit 17 We See the Schwab Intelligent Portfolios Revenue Opportunity as Greater Than the Cannibalization Threat

SCHW Client Type	**SCHW Revenue Yield**	**Current SIP Yield +-**	**Normalized SIP Yield +-**	**Bullish SIP Yield +-**
New	0.00%	0.25%	0.39%	0.47%
Buy and Hold	0.05%	0.20%	0.34%	0.42%
Average SCHW Retail	0.34%	-0.09%	0.00%	0.00%
Retail Advice Solution	0.50%	-0.25%	-0.11%	-0.03%
Managed Product	0.90%	-0.65%	-0.51%	-0.43%

Source: Company websites, Morningstar

In terms of the total Schwab Intelligent Portfolios revenue and earnings prospects, it would only be material if the majority of assets come from new clients. With the fairly rosy assumptions that the company hits the $400 billion of SIP asset opportunity that it included in its recent winter update and that all of the assets are new to the firm, it would increase our year five net revenue by approximately 13%, pretax operating income by 16%, and fair value estimate by 16%. $400 billion of new assets to the firm would be a significant portion of our estimate of the $1.3 trillion of financial assets held by millennials or the $3 trillion that is held by households with a net worth less than $250,000, so the direct-to-retail client SIP asset potential is probably much smaller than $400 billion. M

Appendix

Morningstar Equity Research 22 March 2015

Charles Schwab Corp. (SCHW)

Last Price	Fair Value	Uncertainty	Stewardship	Economic Moat	Moat Trend	Morningstar Credit Rating
31 USD	32 USD	Very High	Standard	Wide	Stable	N/A

Analyst	M. Wong, CFA, CPA
Phone & Email	312-384-5404
	michael.wong@morningstar.com

Sector	Financial Services
Industry	Capital Markets

Five-Star Price	16.00
Fair Value Estimate	32.00
One-Star Price	56.00
Market Price	31.00
P / FVE	0.97

Estimated COE	9.0%
Pre-Tax Cost of Debt	5.8%
Estimated WACC	8.7%
ROIC *	14.0%
Adjusted ROIC *	15.0%

* 5-Yr Projected Average

(2015 Estimates)	(Price)	(Fair Value)
Adjusted P / E	29.8	30.8
EV / Adjusted EBITDA	12.5	13.1
EV / Sales	5.0	5.2
Price / Book	3.2	3.3
FCF Yield	2.5%	2.4%
Dividend Yield	0.8%	0.8%

All values (except per share amounts) in: USD Millions	3-Yr Historical CAGR/AV	2014	Forecast 2015	2016	2017	2018	2019	5-Yr Projected CAGR/AVG
Income Statement								
Revenue		6,161	6,509	7,479	8,408	10,158	12,129	
Gross Profit		6,161	6,509	7,479	8,408	10,158	12,129	
Operating Income		2,218	2,379	2,956	3,415	4,588	5,914	
Net Income		1,261	1,372	1,729	2,003	2,717	3,520	
Adjusted Income		1,261	1,372	1,729	2,003	2,717	3,520	
Adjusted EPS		0.98	1.04	1.31	1.52	2.06	2.67	
Adjusted EBITDA		2,417	2,578	3,155	3,651	4,830	6,162	
Growth (% YoY)								
Revenue	9.0%	11.1%	5.7%	14.9%	12.4%	20.8%	19.4%	14.5%
Gross Profit	9.0%	11.1%	5.7%	14.9%	12.4%	20.8%	19.4%	14.5%
Operating Income	14.9%	22.3%	7.3%	24.2%	15.5%	34.4%	28.9%	21.7%
Net Income	13.4%	24.9%	8.8%	26.0%	15.9%	35.6%	29.6%	22.8%
Adjusted EPS	11.5%	24.9%	6.6%	26.0%	15.9%	35.6%	29.6%	22.3%
Adjusted EBITDA	14.3%	20.0%	6.7%	22.4%	15.7%	32.3%	27.6%	20.6%

Morningstar Equity Research 25 March 2015

TD Ameritrade (AMTD)

Last Price	Fair Value	Uncertainty	Stewardship	Economic Moat	Moat Trend	Morningstar Credit Rating
37.5 USD	43 USD	High	Standard	Narrow	Stable	N/A

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Sector	Financial Services
Industry	Capital Markets

Five-Star Price	25.80
Fair Value Estimate	43.00
One-Star Price	66.65
Market Price	37.50
P / FVE	0.87

Estimated COE	9.0%
Pre-Tax Cost of Debt	5.8%
Estimated WACC	8.7%
ROIC *	21.1%
Adjusted ROIC *	35.0%

* 5-Yr Projected Average

(2015 Estimates)	(Price)	(Fair Value)
Adjusted P / E	24.5	28.1
EV / Adjusted EBITDA	12.9	14.9
EV / Sales	6.2	7.1
Price / Book	3.9	4.5
FCF Yield	4.3%	3.8%
Dividend Yield	1.6%	1.4%

All values (except per share amounts) in: USD Thousands	3-Yr Historical CAGR/AV	2014	Forecast 2015	2016	2017	2018	2019	5-Yr Projected CAGR/AVG
Income Statement								
Revenue		3,123,000	3,296,336	3,673,447	4,236,127	5,155,625	5,721,675	
Gross Profit		3,123,000	3,296,336	3,673,447	4,236,127	5,155,625	5,721,675	
Operating Income		1,285,000	1,377,852	1,585,313	1,931,200	2,520,513	2,819,264	
Net Income		787,000	838,142	959,394	1,172,114	1,534,542	1,718,273	
Adjusted Income		787,000	838,142	959,394	1,172,114	1,534,542	1,718,273	
Adjusted EPS		1.42	1.53	1.75	2.14	2.80	3.14	
Adjusted EBITDA		1,470,000	1,572,352	1,777,948	2,118,064	2,706,703	3,003,879	
Growth (% YoY)								
Revenue	4.2%	13.0%	5.6%	11.4%	15.3%	21.7%	11.0%	12.9%
Gross Profit	4.2%	13.0%	5.6%	11.4%	15.3%	21.7%	11.0%	12.9%
Operating Income	7.0%	21.7%	7.2%	15.1%	21.8%	30.5%	11.9%	17.0%
Net Income	7.3%	16.6%	6.5%	14.5%	22.2%	30.9%	12.0%	16.9%
Adjusted EPS	8.7%	16.6%	7.7%	14.5%	22.2%	30.9%	12.0%	17.2%
Adjusted EBITDA	6.7%	19.2%	7.0%	13.1%	19.1%	27.8%	11.0%	15.4%

About Morningstar® Institutional Equity Research™

Morningstar Institutional Equity Research provides independent, fundamental equity research differentiated by a consistent focus on sustainable competitive advantages, or Economic Moats.

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