
AFTER FACEBOOK'S FALL, DON'T GIVE UP ON THE FANGS • PAGE 16

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Robo Rising

An exclusive ranking of robo-advisors, from performance to technology.

Page 18

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DOW JONES

Established financial giants dominate in assets, but the upstarts still have the edge in technology. How 10 robo-advisors rank.

The Top Robo Advisors: An Exclusive Ranking

By Alex Eule

We're almost a decade into the revolution.

Betterment unveiled its automated investing service in 2010. Within a few years, "robo-advisors" were threatening to upend financial services the way that Amazon.com undid retail. Sophisticated algorithms, the promise went, could provide customized portfolios to the masses, at a quarter of the price charged by human advisors.

In our first cover story on the robos, Wealthfront's then-CEO, Adam Nash, predicted that "in the next 10 years, everyone will be using some form of automated investment service."

"This is like e-commerce in the '90s," he said at the time. But unlike the retailers that were slow to respond to the online challenge, some legacy financial players have pushed back against the digital start-ups.

Today, Vanguard has $112 billion in assets in its automated product. Charles Schwab is No. 2 with $33 billion. Betterment still leads the independent players, with an asset base of $14.5 billion. Wealthfront is further behind at $11 billion.

Nash is now a venture capitalist at Greylock Partners and serves on the board of Acorns, a savings and investing product aimed at new investors. "Just like the early days of e-commerce, there were a few incumbents that invested heavily in technology, but they were the exception and not the rule," Nash told Barron's last week. "And most retailers underinvested."

Today, all of the asset managers, banks, and brokers are at least working on some form of a robo, and many have already started their own. Backend Benchmarking, a Martinsville, N.J.–based analytics firm and publisher of the Robo Report, tracks 28 current robo providers, a mix of independent pure plays and legacy-owned subsidiaries.

The start-ups have forced banks and brokers to adopt technology faster than ever before, while the established players have pushed the robos to incorporate more traditional services in their products. Last year, Betterment added a human tier of advice to its offerings.

One sign that the revolution has been overhyped: Automation hasn't yet depleted the ranks of human advisors. Cerulli Associates estimated there were 311,223 advisors across the U.S. as of 2016, down less than 3% from 319,452 advisors in 2010.

It's a great outcome for investors, who now have more options than ever before when it comes to financial advice, all at lower cost. The only issue is that robos remain opaque about their investing strategy, and there's no quantifiable way to choose which service to use.

Until now.

Barron's, together with Backend Benchmarking, is publishing the first ranking of the major robo firms that uses both performance data and qualitative metrics like ease of use and financial-planning capabilities.

Our debut universe encompasses the 10 robos with two years of performance history at Backend. The list will grow as newer players age. (For the Barron's ranking of top financial advisors, we require a seven-year track record.)

While Vanguard and Schwab are dominating asset gathering, it is still Wealthfront, Betterment, and the other independent robos pushing the tech envelope, contends David Goldstone, the research analyst at Backend Benchmarking who helped build the firm's ranking system. Backend has accounts at all the significant robos, so Goldstone has an unparalleled view of broad industry dynamics.

"For people who are looking for a quality, digital online experience, independent robos are a step ahead of the incumbent ones," he says.

In recent months, the robos have entered a new, more mature phase. Hype has given way to competitive reality. Two early entrants, Hedgeable and LearnVest, have pulled back on their robo ambitions.

Hedgeable had taken a unique approach to automated advice, looking more like an active fund manager and less like a typical robo-advisor, which generally embraces passive investing.

"For the robos, the simpler, more generic portfolios have had better returns," says Ken Schapiro, Backend Benchmarking's founder and CEO.

That has been the formula at Vanguard, which of course is known for capturing

The Robo Ranking

Barron's, working with Backend Benchmarking, has a new comprehensive ranking of robo-advisors. The universe is limited to the 10 robos with two-years or more of performance data. But returns are just 50% of the story; the rest of the score is based on qualitative criteria, as broken out below.

Robo-Advisor	Total	Account Minimum	Access to Advisors	Financial Planning	Transparency and Conflicts	Features	Customer Experience	Costs	Performance*
Vanguard	79.7	1.0	8.1	9.0	1.8	6.1	6.5	15.2	32.0
Betterment	78.7	5.0	6.3	9.0	9.0	8.5	5.9	15.1	20.0
SigFig	78.1	4.0	6.3	6.3	7.2	5.0	6.6	14.4	28.2
E*Trade	75.3	4.0	6.3	7.2	7.2	3.6	6.0	14.8	26.2
Schwab	73.0	4.0	7.2	6.3	6.3	4.1	6.4	12.7	26.0
Wealthfront	72.2	4.0	0.0	9.0	5.4	6.1	6.2	15.5	26.0
WiseBanyan	70.1	5.0	0.0	4.5	5.4	7.7	6.0	16.2	25.2
Personal Capital	55.8	0.0	9.0	9.0	6.3	7.2	5.2	9.9	9.3
FutureAdvisor	49.8	3.0	6.3	4.5	6.3	5.0	4.8	12.3	7.6
Acorns	45.1	5.0	0.0	4.5	5.4	4.1	4.6	17.0	4.4

*Performance is based on Backend's "normalized benchmarking" score.
Source: Backend Benchmarking

diverse market exposure through broad-based, low-cost funds. Vanguard has just five exchange-traded funds in its robo portfolio, and its approach has been paying off. Vanguard's robo-like product, known as Personal Advisor Services, earned the No. 1 spot in our initial ranking.

While Vanguard's technology still lags behind the digital start-ups, the firm makes up for it through performance. Its equity portfolio has returned an annualized 15.1% over the past two years; its fixed-income allocation returned 0.2%. The overall portfolio is up an annualized 9.1%.

Betterment came in at No. 2 on our overall list, thanks to an impressive array of services around financial planning and human advice, all at low cost.

Barron's spoke to human executives at nine of the 10 robos in our ranking. (Wealthfront declined to make an executive available, but a spokeswoman noted that the firm publicly releases its performance.)

The Track Record

Ten robo-advisors now have at least two years of performance data, as tracked by accounts at Backend Benchmarking. Here are the top performers based on two years of annualized returns.

Robo-Advisor	Equity	Fixed Income	Total
Schwab	13.47%	2.39%	9.48%
SigFig	15.14	0.48	9.33
Wealthfront	14.20	-0.14	9.25
WiseBanyan	14.42	0.21	9.17
Vanguard	15.07	0.23	9.11
E*Trade	15.20	-0.46	8.95
Betterment	13.09	0.24	8.61
Personal Capital	11.43	0.01	8.39
Acorns	11.84	-1.43	6.73
FutureAdvisor	11.63	-0.28	6.58

Source: Backend Benchmarking

There was plenty of common ground, along with some insights that we have broken out below. Among the providers with weaker performance, there was a typical refrain about too short a tracking period and portfolios that were more about tax efficiency than pure performance. Those are reasonable points, but performance shouldn't be overlooked.

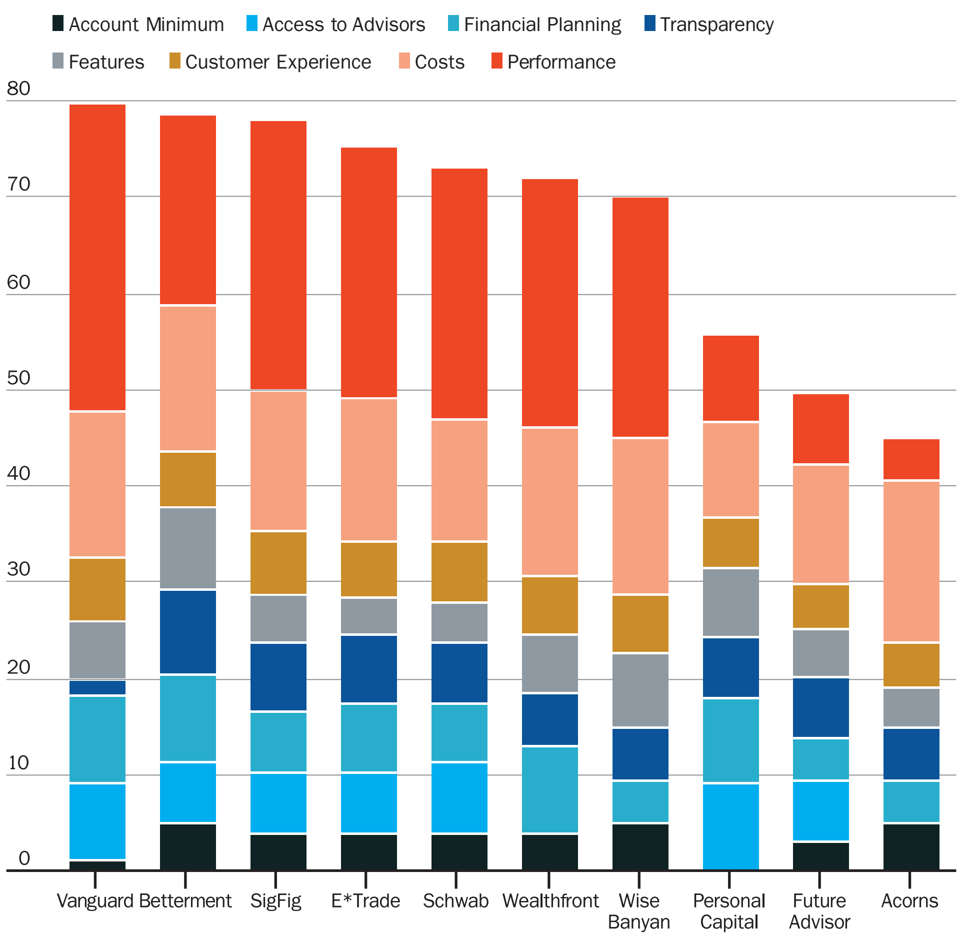
Regarding the two-year period, Backend's Schapiro says, "That's what we have right now, so we go with the best that we have. These types of products haven't been around long enough to have three- to five-year performance data."

No. 1: Vanguard PAS

Vanguard takes a hybrid approach with Personal Advisor Services, its digital advice platform, coupled with a high account minimum of $50,000. Instead of the traditional online questionnaire, a Vanguard advisor helps clients create a financial plan and set an asset allocation. From there, the process offers tech-driven support, but asset-allocation changes and the like are still run through the human advisor.

Breaking Down the Robos

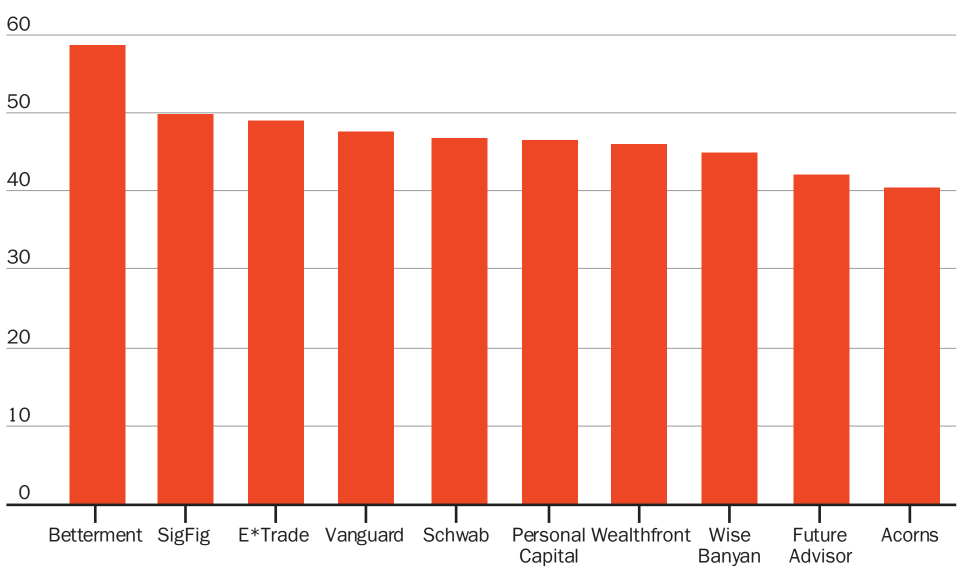
Backend Benchmarking scored the robos on a wide variety of metrics: 50% quantitative and 50% qualitative.



Source: Backend Benchmarking

Everything but Performance

Past returns don't define the future. Here's how the robos rank when performance is stripped out.



Source: Backend Benchmarking

Most of the robo industry has come around to a hybrid approach, layering humans into the digital advice. Among the robos ranked, only Wealthfront, Acorns, and Las Vegas–based WiseBanyan have stuck to the digital-only approach.

"We very much built an offer they were demanding," says Phil Korenman, head of Vanguard Personal Advisor Services. "Investors are getting savvier, and they know what they're paying for advice. We knew we had to solve for advice being offered at a low price point, and we knew tech was a key enabler in doing that."

When the service launched out of beta in 2015, it already had $17 billion in assets under management, boosted by funds moved from self-directed Vanguard accounts.

No. 2: Betterment

Jon Stein, Betterment's founder and CEO, all but started the robo movement with a presentation at TechCrunch Disrupt in 2010, when he was a 30-year-old entrepreneur. Today, the service is the largest of the independent robos, with $14.5 billion in assets under management across 375,000 customers. The service has no account minimum and charges a 0.25% fee on assets for its first tier of service. It places highest in our ranking in the "features" category, thanks to a robust offering of automatic deposits, rebalancing, tax-loss harvesting, and tax efficiency through municipal bonds.

Betterment and the other independent advisors have yet to face a bear market, but this year's volatility has provided the best test, yet, of their staying power.

"We're lucky in that our customers have typically behaved really intelligently during volatility," Stein tells Barron's. "We also give a lot of advice on staying the course. During the major downturn earlier this year, we actually saw three times the number of deposits as withdrawals. A lot of people were using it as a buying opportunity."

Of late, Betterment's Achilles' heel has been performance. Its two-year annualized stock return is 8.6%. And it ranks seventh out of 10 robos on Backend's normalized return metric (for more, see "How and Why Barron's Ranked Robo-Advisors").

"I think any two-year period is too short to make any sort of judgment. Even a 10-year period is short," Stein argues, when it comes to people investing for retirement.

"You can't control how markets perform. What you can control is that you're properly allocated and diversified, given your personal situation."

No. 3 SigFig

SigFig began as an account aggregation service in 2007, giving the platform a detailed look at customer behavior. Its automated advisory platform launched in 2014. The firm scores highly on customer experience, including its on-boarding process and risk questionnaire.

The robo offers a direct-to-consumer product and, like some rivals, is selling its technology to banking institutions, as well.

No. 4 E*Trade Core Portfolios

Rich Messina, senior vice president of investment product at E*Trade, points to his company's role as the "original digital disrupter" in trading stocks and options. "We've always kept that heritage in the firm."

After first introducing its robo offering two years ago, E*Trade has continued to refine the product, now known as Core Portfolios. The firm has shortened its risk questionnaire to just seven questions and brought in the option to choose socially responsible and smart-beta portfolios.

No. 5 Schwab Intelligent Portfolios

Schwab sees its robo platforms—its Intelligent Portfolios has no fee, while its Intelligent Advisory charges a 0.28% fee for unlimited access to financial planners—as a better home for much of the roughly $1 trillion in self-directed assets at the firm. Schwab gets high marks in our ranking for clients' access to a dedicated human advisor.

But, says Cynthia Loh, a former Betterment executive who joined Schwab last year: "There are just some things that tech does better. Like rebalancing and tax-loss harvesting, and managing asset allocation on a 24/7 basis. That's better left to tech, so you don't miss a market movement."

Schwab notes that Amazon.com has raised expectations around digital experiences. "We're competing with buying something on Amazon—the way they can predict what you want," a Schwab spokesman told us recently.

Loh says that multiple messages went out to clients during the February volatility this year. "We're cognizant that robos as a class haven't gone through downturns," she says. "People have questions about ETFs and automated investing when these downturns occur."

Everyone Else

The three firms at the bottom of the ranking landed there because of their performance. Over the last two years, Acorns, which uses a robo-like automated ETF platform, was hurt partly by its exposure to real estate investment trusts, an allocation the company says has now been reduced. Year to date, Acorns has actually been the top-performing robo in Backend's universe.

BlackRock-owned FutureAdvisor was also dinged for performance, held back by its overweight exposure to international stocks, which the firm says helps diversify portfolios, and short-term inflation-protected Treasury bonds.

"Our view is that it will play out over time, it just hasn't played out over the past two years," says Kameron Rezai, chief operating officer at FutureAdvisor.

Preparing for good and bad times was also a theme emphasized by Personal Capital. The firm has 24 ETFs in the portfolio tracked by Backend, double the typical robo portfolio. And it's the only robo in Backend's universe with exposure to commodities. That hasn't worked out so well, of late.

Kyle Ryan, executive vice president of advisory services at Personal Capital, says, "It's all about diversification and creating a portfolio that's set up to do well in a full-market cycle—bull market and bear market."

How and Why They Rank

Barron's worked exclusively with Backend Benchmarking, a Martinsville, N.J.–based analytics firm, to produce the robo ranking. Backend, founded by financial advisor Ken Schapiro, has spent $500,000 funding accounts at 28 robo providers. The firm uses the account access to monitor performance and changes to the robos' products.

It publishes the results in a free quarterly newsletter. Barron's received an exclusive early look at its latest report, with data through June 30. The firm is adding the ranking component to a future report, but it's being published here first.

For now, the ranking is limited to the 10 firms for which Backend has two years of data. Other services—including Ellevest and SoFi, and offerings from Fidelity, Wells Fargo, and T. Rowe Price—will be added to future rankings.

Schapiro, who also runs Condor Capital Management, a Barron's-ranked advisory firm with $1 billion in assets, started Backend three years ago with the idea of bringing transparency to the nascent robo world.

"I started opening accounts," he says. "It was kind of a garage project." The robo platform allowed Schapiro the ability to track performance across a wide range of providers, at a reasonable cost.

"When we look at Merrill Lynch and Morgan Stanley, those traditional services are very customized," he says. "This is very mass customization. It allowed performance comparison that never could be done before."

The project hasn't always been welcome. Schapiro says a couple of its robo accounts were closed temporarily and the firm received legal letters. "But we haven't seen any significant pushback in the past six months or so."

The latest iteration of the project is the broader ranking. David Goldstone, a Backend research analyst, helped create the scoring system that's 50% based on quantitative performance data and 50% based on qualitative data, including customer experience, costs, features, transparency, financial planning, access to advisors, and account minimums. (Backend plans to publish the full ranking next month on its own website.)

Backend has also created a new metric to measure performance, which it calls normalized benchmarking. The benchmark is based on the average holdings for all its tracked robos. The benchmark is then adjusted to match each robo's equity/fixed-income split—a portfolio that's 60% stocks and 40% bonds is measured against a 60/40 benchmark. A 75/25 robo is matched up to the same benchmark, but it's adjusted for the 75/25 allocation.

Schapiro and his team are currently looking to raise venture-capital funding to expand their benchmarking universe to more-traditional human advisors. "Moving forward," he says, "we want to raise capital to crowdsource real account data and bring transparency to all financial-advice providers." - A.E.