

2017 Health Savings Account Landscape

Morningstar Manager Research

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Executive Summary

Health savings accounts are a very under-researched corner of the market. Investors have few resources available to help them navigate the hundreds of plan providers that exist. Health savings accounts have recently grown in popularity, but the lack of resources has likely contributed to their underutilization as a savings vehicle despite their valuable tax benefits.

Morningstar has provided independent investment research for more than three decades. We currently issue qualitative, forward-looking analysis on roughly 3,500 funds; 2,100 stocks; and 60 529 plans. Meanwhile, specialists at Morningstar have written articles about HSAs and published studies on how HSA accountholders use their assets.

To provide a comprehensive resource for investors and employers selecting a plan, we assessed 10 of the largest HSA plan providers in this report:

- ▶ Alliant Credit Union
- ▶ Bank of America
- ▶ BenefitWallet
- ▶ HealthSavings Administrators
- ▶ HealthEquity
- ▶ HSA Bank
- ▶ Optum Bank
- ▶ SelectAccount
- ▶ The HSA Authority
- ▶ UMB Bank

We evaluated the plans through two separate lenses: using them as a spending vehicle to cover current medical costs, and using them as an investment vehicle to save for future medical expenses. UMB Bank would not share its investment menu with us, so we excluded that plan from the investment vehicle evaluations. The key takeaways are below, and Exhibit 1 shows a summary of our assessments.

Key Takeaways

HSA Plan Assessments

Out of the 10 plans we evaluated, only one looks compelling for use as a spending vehicle and an investment vehicle, suggesting there is much room for improvement across the industry.

- ▶ The HSA Authority is the only provider to receive a positive assessment as both a spending vehicle and an investment vehicle.

HSA as Spending Vehicle

Account maintenance fees represent the most important consideration for accountholders intending to use their HSAs as a spending vehicle. The current low-interest-rate environment means accountholders will generate little income from the checking accounts offered by HSAs.

- ▶ Alliant Credit Union, SelectAccount, and The HSA Authority receive positive assessments for use as a spending vehicle, meaning they are the most compelling plans for accountholders using their HSA to cover current medical costs. The three plans offer checking accounts without monthly maintenance fees.

HSA as Investment Vehicle

There's room for HSA providers to improve their investment menus. We gave only four plans positive overall assessments for their investment programs. Only one plan offers a well-designed investment menu, strong underlying managers, and attractive fees.

- ▶ Bank of America, HealthEquity, Optum, and The HSA Authority receive positive assessments for use as an investment vehicle, meaning they represent the best choices for accountholders looking to invest their HSA assets. The four plans have at least two of the three following features: a well-designed investment menu, solid quality underlying managers, and below-average fees.

HSA as Investment Vehicle: Menu Design

Only four plans that we evaluated boast robust investment menus, as defined by offering exposure to core asset classes with limited overlap among options.

- ▶ Bank of America, HealthEquity, HSA Bank, and SelectAccount receive positive menu design scores for having well-designed investment menus.

HSA as Investment Vehicle: Quality of Investments

Most plans offer many strong underlying managers; in seven out of nine plans we evaluated, more than half of the investment lineup receives a Morningstar Medal.

- ▶ BenefitWallet, HealthEquity, Optum, and The HSA Authority receive positive quality of investments scores for having the strongest manager lineups.

HSA as Investment Vehicle: Price

As compared with retail mutual funds, the all-in cost of investing in the HSA plans we evaluated ranges from cheap to expensive.

- ▶ Bank of America, HealthEquity, Optum, and The HSA Authority receive positive price scores for offering investments for a total cost that is meaningfully lower than retail mutual funds.

HSA as Investment Vehicle: Performance

The underlying funds in the HSA plans we evaluated have generally outperformed their peers.

- ▶ Bank of America, BenefitWallet, HealthEquity, HealthSavings Administrators, Optum, and The HSA Authority earn positive performance scores for turning in especially strong risk-adjusted returns versus competitors.

Exhibit 1 HSA Plan Assessments

Spending Plan	Overall	Score		Investment Plan	Overall	Score			
		Fees	Interest			Menu Design	Inv Quality	Price	Performance
Alliant Credit Union	⊕ Positive	⊕ Positive	⊕ Positive	HealthEquity	⊕ Positive	⊕ Positive	⊕ Positive	⊕ Positive	⊕ Positive
The HSA Authority	⊕ Positive	⊕ Positive	⊙ Neutral	Optum Bank	⊕ Positive	⊙ Neutral	⊕ Positive	⊕ Positive	⊕ Positive
SelectAccount	⊕ Positive	⊕ Positive	⊙ Neutral	The HSA Authority	⊕ Positive	⊙ Neutral	⊕ Positive	⊕ Positive	⊕ Positive
Optum Bank	⊙ Neutral	⊙ Neutral	⊙ Neutral	Bank of America	⊕ Positive	⊕ Positive	⊙ Neutral	⊕ Positive	⊕ Positive
BenefitWallet	⊙ Neutral	⊙ Neutral	⊙ Neutral	SelectAccount	⊙ Neutral	⊕ Positive	⊙ Neutral	⊙ Neutral	⊙ Neutral
UMB Bank	⊙ Neutral	⊙ Neutral	—	BenefitWallet	⊙ Neutral	⊙ Neutral	⊕ Positive	⊖ Negative	⊕ Positive
HSA Bank	⊙ Neutral	⊙ Neutral	⊙ Neutral	HSA Bank	⊙ Neutral	⊕ Positive	⊙ Neutral	⊖ Negative	⊙ Neutral
HealthEquity	⊙ Neutral	⊙ Neutral	⊕ Positive	HealthSavings Administrators	⊙ Neutral	⊖ Negative	⊙ Neutral	⊙ Neutral	⊕ Positive
HealthSavings Administrators	⊖ Negative	⊖ Negative	⊙ Neutral	Alliant Credit Union	⊖ Negative	⊖ Negative	⊙ Neutral	⊖ Negative	⊙ Neutral
Bank of America	⊖ Negative	⊖ Negative	⊙ Neutral						

Source: Morningstar, Inc. Data as of 5/31/2017. HSA Bank is Morningstar, Inc.'s HSA plan provider

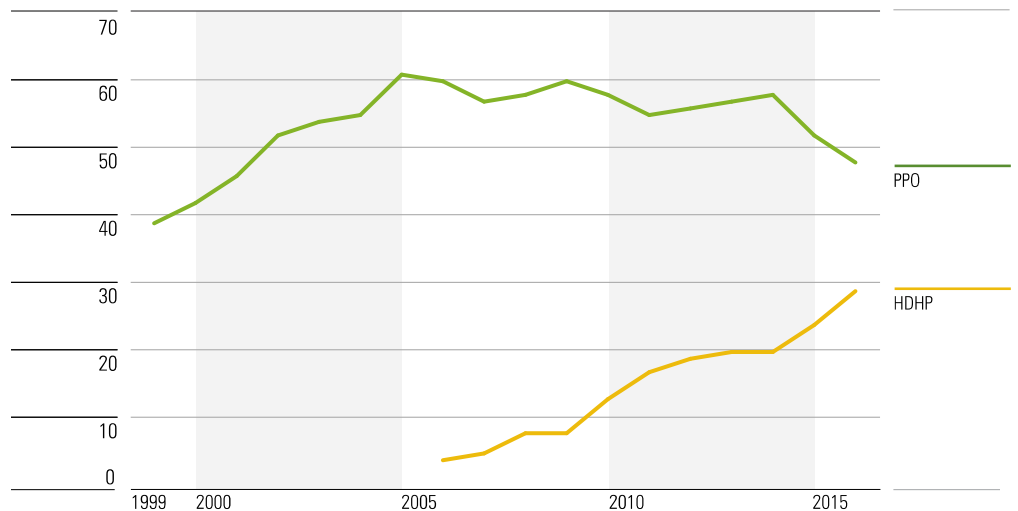
Background on HSAs

Industry Size and Growth

Preferred provider organizations and high-deductible health plans represent the two most common types of health insurance plans. Compared with PPOs, HDHPs usually have lower premiums in exchange for higher deductibles and higher out-of-pocket maximums. Uniquely, HDHPs typically feature a health savings account; these HSAs are tax-sheltered accounts for individuals to save for medical expenses that are not covered by the HDHP.

Preferred provider organizations remain the most prevalent health insurance option, but their usage has slipped recently as HDHPs have surged in popularity. HDHPs were only legislated into existence in 2003, but now almost 30% of covered workers are enrolled in them, as shown in Exhibit 2.¹

Exhibit 2 Percentage of Covered Workers in PPO, HDHP

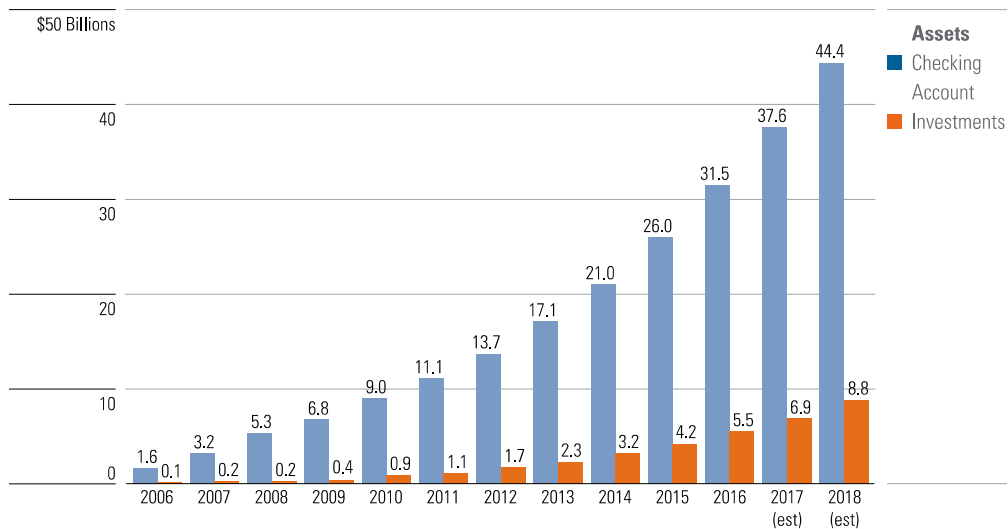


Source: Kaiser Family Foundation Employer Health Benefits 2016 Annual Survey

Assets deposited in HSAs have grown accordingly, as shown in Exhibit 3. Devenir, an HSA consultancy, estimates that HSAs held more than \$35 billion at the end of 2016. With increased adoption of employers showing no signs of slowing, it projects that this figure will increase by more than 40% by the end of 2018.² Devenir further projects assets under management on the investment side to grow at a faster clip.

¹ Kaiser Family Foundation Employer Health Benefits 2016 Annual Survey.

² Devenir Research 2016 Year-End HSA Market Statistics & Trends.

Exhibit 3 HSA Assets (in Billions)

Source: Devenir Research 2016 Year-End HSA Market Statistics & Trends

Employers have increasingly favored HDHPs for several reasons: Companies believe that greater use of HDHPs will reduce inflationary pressure on healthcare spending, and, in turn, lower their health insurance expenses. Healthcare costs have significantly outpaced general inflation in recent decades, averaging 1.4% above the Consumer Price Index during the past 10 years. The economic theory behind HDHPs is simple: If participants in these plans have more "skin in the game" vis-a-vis higher deductibles, they will seek out preventative care, price shop for lower-cost services, and forgo unnecessary discretionary care.

Additionally, legislation appears to nudge American workers toward HDHPs. Most plans on public health exchanges meet the statutory definition of a high-deductible plan and are therefore eligible to be accompanied by HSAs. The "Cadillac Tax," an excise tax imposed upon expensive healthcare plans by the Affordable Care Act, explicitly favors lower-premium, higher-deductible plans. Though Congress has delayed the implementation of the Cadillac Tax until 2020, the continuing shift toward high-deductible plans seems unlikely to change.³ Though the future of healthcare reform remains difficult to predict, Republicans have signaled that it remains a legislative priority, and HSAs are likely to play a prominent role in any reform. The American Health Care Act, for instance, proposes roughly doubling the annual contribution limits. Another recent proposal, the Empowering Patients First Act, proposes raising HSA contribution limits by \$2,000, and expanding access to HSAs to those covered by Medicare or Veterans Affairs healthcare plans.

³ As it stands, the Cadillac Tax will also be imposed on HDHPs if employer and pretax contributions cross the threshold, which may threaten the viability of HDHPs and effectiveness of HSAs as a spending vehicle and a supplement to retirement savings. This discussion is, of course, well outside the scope of this paper.

Most large employers now offer an HDHP, typically alongside another health insurance plan such as a PPO. Many employers have even created financial incentives, such as seeding HSA accounts or matching HSA contributions, to encourage workers to select the HDHP.

Nuts and Bolts

To set the stage and provide a base of understanding, here are a few terms and concepts to keep in mind.

- ▶ **High-Deductible Health Plan:** A health insurance plan with lower premiums and higher deductibles than other plan types, such as a PPO.
- ▶ **Health Savings Account:** Tax-privileged medical savings account available to people enrolled in a high-deductible health plan.
- ▶ **Health Savings Plan:** Mixes a high-deductible health insurance plan with an HSA. Participants pay a monthly premium for health insurance and they have the option to contribute tax-free dollars to the HSA. Savings can be used to pay for healthcare costs until the deductible is met, at which point health insurance pays the remaining covered expenses. For instance, some plans pay 80% of covered expenses after the deductible is met. To allow participants to prepare for worst-case scenarios, health savings plans identify out-of-pocket maximums.

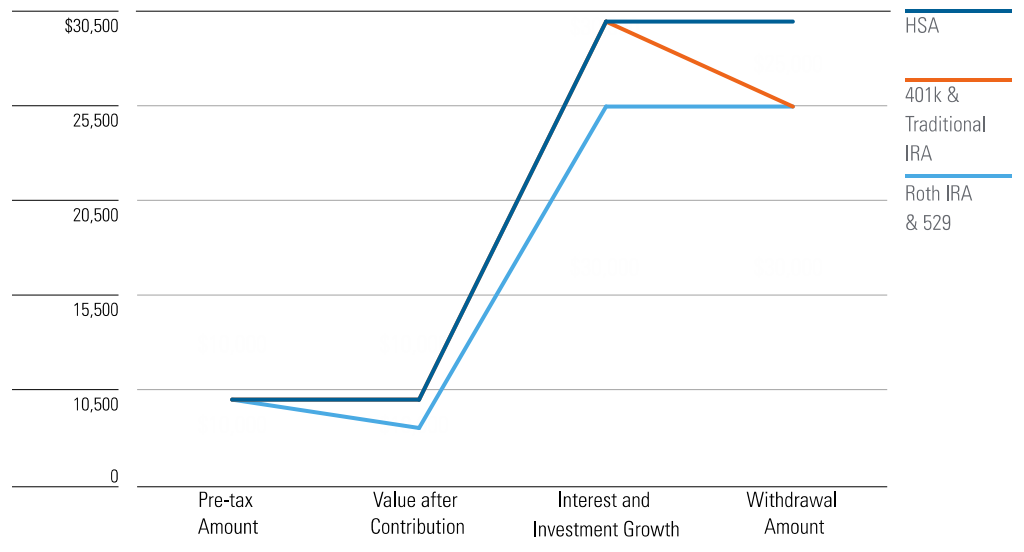
HSA Terms and Definitions:

- ▶ **Deductible:** As of 2017, in order to qualify for an HSA, an HDHP must have a deductible of at least \$1,300 for self-only coverage or \$2,600 for family coverage. Meanwhile, the HDHP's annual out-of-pocket expenses, including deductibles but not premiums, cannot exceed \$6,550 for self-only coverage and \$13,100 for family coverage. Unlike a flexible spending account, there is no limit to how much money may be rolled over from year to year in an HSA.
- ▶ **Contributions:** HSA participants have contribution limits they must abide by. Those covered by an individual plan can contribute up to \$3,400 annually, while those covered by a family plan can contribute up to \$6,750. If offered, employer contributions count toward these maximums. Individuals age 55 and older can save an additional \$1,000 each year. All contributions are deductible from taxable income.
- ▶ **Withdrawals:** Funds withdrawn for nonhealthcare expenses are taxed at the accountholder's marginal tax rate. If the funds are withdrawn before age 65, the funds are subject to an additional 20% penalty.
- ▶ **Portability:** Another important benefit of HSAs resides in their portability. Much like an IRA, they are tied to the accountholder and are independent of the workplace, though workers must be currently enrolled in a HDHP in order to contribute to one. Thus, a worker is free to open and maintain an HSA outside of the one provided through their employer. Workers earning less than \$118,500 will lose out on FICA tax benefits on contributions made outside of their workplace HSA, but this can be remedied by making regular contributions to the

workplace HSA and periodically transferring the balance to the outside account. Workers may then shop around to find an HSA with the most favorable terms for their financial goals.

- ▶ Triple Tax Advantage: HSAs are perhaps the most-favored investment vehicle under the tax code. Contributions are tax-deductible, investment growth and interest are tax-exempt, and withdrawals avoid taxes as long as they're spent on qualified medical expenditures. The tax benefits outweigh what's offered by a 401(k), a traditional IRA, a Roth IRA, or a 529 plan. Fidelity estimates that couples will spend \$260,000 on healthcare costs in retirement.⁴ Given that, along with their unrivaled tax benefits, one could even argue that investors should prioritize HSA contributions over IRA and 401(k) contributions. Exhibit 4 illustrates the tax implications for each vehicle and compares the growth of \$10,000 in each type of account. The exhibit assumes a marginal tax rate of 15% at the time of contribution and withdrawal, and a 200% cumulative gain over the investment horizon.

Exhibit 4a Triple Tax Benefit



Source: Morningstar, Inc.

⁴ "Health Care Costs for Couples in Retirement Rise to \$260,000, Fidelity Analysis Shows"

<https://www.fidelity.com/about-fidelity/employer-services/health-care-costs-for-couples-in-retirement-rise>

Exhibit 4b Triple Tax Benefit

	Tax implications		
	Contribution	Investment Growth	Withdrawal
HSA	Tax-deductible	Tax-free	Tax-free ¹
401(k) and Traditional IRA	Tax-deductible	Tax-free	Taxed
Roth IRA and 529	After-tax	Tax-free	Tax-free ²

Source: Morningstar, Inc.

¹ Withdrawals must be spent on qualified medical expenses.² Withdrawals on 529 accounts must be spent on qualified education expenses.**HSA Plan Assessment****Overview**

There are two compelling use cases for people with HSAs. First, investors can use them as a spending vehicle, depositing money into the checking account to use for near-term healthcare expenses. Since contributions and withdrawals for qualified medical expenditures are tax-free, workers can increase the buying power of their healthcare dollars. This is particularly beneficial for workers who are constrained by limited resources.

Second, HSAs can be well utilized as an investment vehicle to save for future medical expenses. Fidelity estimates that retired couples can expect to pay more than \$260,000 on healthcare in retirement.⁵ Considering that HSAs feature tax-exempt investment growth and interest, it would be optimal from a wealth-building standpoint for individuals to invest their HSA funds, pay for medical expenditures out of pocket, allow their investments to grow tax-free for many years, and reimburse themselves for their medical expenses many years later. Funds from HSAs can be used for paying Medicare premiums, and this can be an effective strategy for paying for long-term end-of-life care. Of course, it's likely that a relatively small slice of the population can use this approach, as it requires significant savings to cover medical expenses out of pocket.

We analyzed HSA plans from both potential use cases: Which HSAs offer the best value as a spending vehicle, and which HSAs offer the best value as an investment vehicle. There are currently hundreds of HSA providers. To keep the scope of this paper manageable, we focused on 10 of the most prominent providers. Together, this group likely covers a significant portion of the country's total HSA balance, but no publicly available data exists to confirm the total assets in these plans. The providers we evaluated include:

⁵ "Health Care Costs for Couples in Retirement Rise to \$260,000, Fidelity Analysis Shows"

<https://www.fidelity.com/about-fidelity/employer-services/health-care-costs-for-couples-in-retirement-rise>

- ▶ Alliant Credit Union
- ▶ Bank of America
- ▶ BenefitWallet
- ▶ HealthSavings Administrators
- ▶ HealthEquity
- ▶ HSA Bank
- ▶ Optum Bank
- ▶ SelectAccount
- ▶ The HSA Authority
- ▶ UMB Bank

Criteria for Evaluating HSA Plans

When evaluating HSAs as a spending vehicle, we focused primarily on the maintenance fees charged by each plan. We also considered, to a lesser degree, the interest rates offered by their checking accounts. Interest earned on HSA deposits is rather small, a byproduct of the current low-interest-rate environment. With higher yields, the interest offered may become a more important consideration.

When evaluating HSA plans from an investment-vehicle standpoint, we focused on their menu of mutual funds. Some plans offer investment capabilities beyond the investment menu, such as robo-advisors that build portfolios for users, or brokerage windows. These features were outside the scope of this paper and did not influence the investment-vehicle assessments.

We considered four components when reviewing plans' investment lineups: menu design, quality of investments, price, and performance. The first three components carry the most importance. We don't believe that past performance is predictive of future results, so we placed little emphasis on performance when evaluating the plans.

Exhibit 5 outlines the components and the criteria we evaluated when determining assessments on the spending account and investment account sides. It also includes what we consider to be best practices, as well as the importance of each component in determining our assessments.

Exhibit 5 Evaluation Criteria

	Criteria Evaluated	Best Practices	Importance
Spending Vehicle			
Maintenance Fees	The monthly fee the plan charges, and whether the fee is waived after the account reaches a certain threshold in deposits.	Offer a checking account with no monthly account maintenance fee, preferably at any deposit level.	High
Interest Rate	Interest rate offered on deposits.	Offer a reasonable amount of interest on FDIC-insured accounts.	Low
Investment Vehicle			
Menu Design	The asset classes available to investors via the investment menu.	Offer exposure to core asset classes, at a minimum, while limiting overlap among options.	High
Quality of Investments	The attractiveness of the funds in the investment menu.	Offer strong funds that are likely to outperform benchmarks and/or peers over the long haul on a forward-looking basis.	High
Price	The total cost borne by plan participants, including underlying fund fees, maintenance fees, and investment fees.	Offer investment options with below-average expense ratios and limit other expenses, such as maintenance and investment fees.	High
Performance	The performance of the plan's investment options.	Investments have delivered strong risk-adjusted results.	Low

Source: Morningstar, Inc.

Summary of HSA Plan Assessments

We used the criteria outlined in Exhibit 5 to create HSA plan assessments. We distinguish these assessments from qualitative Morningstar Analyst Ratings™ that we assign to investments such as mutual funds. Investments that earn Analyst Ratings are approved by a ratings committee and accompanied by analyst reports and a rating methodology. We used a robust process to evaluate HSA plans, but we did not meet these criteria. Nonetheless, our assessments serve as a good starting point in evaluating HSA plans.

Exhibits 6 and 7 summarize our HSA plan assessments. We determined scores of positive, neutral, and negative for each criterion evaluated. We aggregated those scores and used the same three-tier scale to assign overall plan assessments. Only one plan received a positive assessment for use as both a spending vehicle and an investment vehicle, indicating that there's plenty of room for improvement across the industry.

On the spending side, we focused on maintenance fees, since interest on deposits remains minimal given the low-yield environment. Plans with no fees received a positive assessment, while plans that charged fees but offered to waive them after a certain threshold in deposits received a neutral assessment. Plans that charged fees no matter the balance received a negative assessment.

When evaluating plans as investment vehicles, those with two or more positive scores and no negative scores for menu design, quality of investments, and price received an overall assessment of positive. To earn a negative assessment, a plan would have to score negative in two of the three areas. Plans that landed in between received a neutral assessment. Because performance is backward-looking, we gave it little consideration when evaluating plans.

Exhibit 6 Spending Vehicle Assessments

Plan	Overall	Score	
		Fees	Interest
Alliant Credit Union	⊕ Positive	⊕ Positive	⊕ Positive
The HSA Authority	⊕ Positive	⊕ Positive	⊖ Neutral
SelectAccount	⊕ Positive	⊕ Positive	⊖ Neutral
Optum Bank	⊖ Neutral	⊖ Neutral	⊖ Neutral
BenefitWallet	⊖ Neutral	⊖ Neutral	⊖ Neutral
UMB Bank	⊖ Neutral	⊖ Neutral	—
HSA Bank	⊖ Neutral	⊖ Neutral	⊖ Neutral
HealthEquity	⊖ Neutral	⊖ Neutral	⊕ Positive
HealthSavings Administrators	⊖ Negative	⊖ Negative	⊖ Neutral
Bank of America	⊖ Negative	⊖ Negative	⊖ Neutral

Source: Morningstar, Inc.

Exhibit 7 Investment Vehicle Assessments

Plan	Overall	Score			
		Menu Design	Inv Quality	Price	Performance
HealthEquity	⊕ Positive	⊕ Positive	⊕ Positive	⊕ Positive	⊕ Positive
Optum Bank	⊕ Positive	⊖ Neutral	⊕ Positive	⊕ Positive	⊕ Positive
The HSA Authority	⊕ Positive	⊖ Neutral	⊕ Positive	⊕ Positive	⊕ Positive
Bank of America	⊕ Positive	⊕ Positive	⊖ Neutral	⊕ Positive	⊕ Positive
SelectAccount	⊖ Neutral	⊕ Positive	⊖ Neutral	⊖ Neutral	⊖ Neutral
BenefitWallet	⊖ Neutral	⊖ Neutral	⊕ Positive	⊖ Negative	⊕ Positive
HSA Bank	⊖ Neutral	⊕ Positive	⊖ Neutral	⊖ Negative	⊖ Neutral
HealthSavings Administrators	⊖ Neutral	⊖ Negative	⊖ Neutral	⊖ Neutral	⊕ Positive
Alliant Credit Union	⊖ Negative	⊖ Negative	⊖ Neutral	⊖ Negative	⊖ Neutral

Source: Morningstar, Inc.

HSA Spending Vehicle Assessments

Best Practice: Offer a checking account with no monthly account-maintenance fee, preferably at any deposit level, and a reasonable amount of interest on government-insured accounts.

In evaluating HSA plans' checking accounts, we considered monthly maintenance fees and interest rates offered. Because interest rates remain very low, fees represent the most important consideration when selecting a plan to use as a spending account.

Pay Careful Attention to Maintenance Fees

Much like the 401(k) market, fees vary wildly from one provider to another. This section examines those differing fee structures for HSAs on the spending account side. Indeed, shopping around may be an optimal strategy for workers who are dissatisfied with their current HSA's fee structure. Differences in fees between providers may seem insignificant, but, during the course of a career, these small differences can have a large impact on net wealth at retirement.

Plan providers charge several fees associated with their checking accounts. Monthly account-maintenance fees represent the most common expense borne by participants, so we focused our analysis on these levies. Other fees such as debit card replacement fees, returned check fees, check orders, overdraft fees, and excess contribution fees are commonly assessed and are important for prospective accountholders to keep in mind. However, these fees will not be encountered by most users and should not be the basis for choosing an HSA plan provider.

Monthly account-maintenance fees differed significantly among providers. On the low end, The HSA Authority and Alliant Credit Union did not charge any monthly account-maintenance fees. Some, including BenefitWallet, HSA Bank, SelectAccount, Optum Bank, and UMB Bank charge a monthly account maintenance fee but waive it for accounts that have crossed a certain threshold in deposits. Bank of America and HealthSavings Administrators charge a monthly account maintenance fee regardless of how much money is deposited in the accounts.

Exhibit 8 Account Maintenance Fees, by Bank

Provider	Monthly Account Maintenance Fee	Fees Waived?
Bank of America	\$4.50	No
SelectAccount	\$0-\$4.00	Varies depending on desired interest rate
HealthEquity	\$3.95	Waived if balance is over \$2,500
HealthSavings Administrators	\$3.75	No
BenefitWallet	\$3.50*	Yes, on accounts more than \$1,000
Optum Bank	\$2.75	Yes, on accounts more than \$3,000
HSA Bank	\$2.50	Yes, on accounts more than \$5,000
UMB Bank	\$2.50	Yes, on accounts more than \$3,000
The HSA Authority	\$0	—
Alliant Credit Union	\$0	—

Source: Morningstar, Inc. Data as of 5/31/17. *BenefitWallet's monthly fee could be as low as \$2.75, depending on insurance provider.

Though monthly account-maintenance fees seem insignificant, they take an outsize bite out of small balances. Bank of America has the highest fee, charging \$4.50 monthly regardless of the amount deposited. Consider the case of a worker who uses their HSA as a spending vehicle for medical expenses incurred in the same year. The worker contributes \$2,000 and spends \$1,000 on qualified medical expenditures, leaving \$1,000 at the end of the year. In this case, just more than 5% of that accountholder's ending balance will be paid as monthly account-maintenance fees during the course of the year.

Many workers who choose to use HSAs as spending vehicles may never see relief from these monthly account-maintenance fees. Using the HSA as a spending vehicle implies that the worker won't accrue a large sum of money in their HSA and, indeed, does not intend to. BenefitWallet's HSA, for example, waives a \$3.50 maintenance fee on balances of more than \$1,000, which may be an attainable sum for workers using HSAs as spending vehicles. However, UMB Bank's \$3,000 threshold and HSA Bank's \$5,000 threshold may prove to be significantly harder to cross for users who also use their HSAs to pay for current-year medical costs. Generally speaking, we prefer HSA plans with no monthly maintenance fees tied to their checking accounts. Plans that waive maintenance fees after assets cross a certain threshold look more attractive than plans that charge a fee regardless of account balance.

Interest Rates Remain Low but May Be an Important Consideration in the Future

Most HSA providers pay interest on deposits in the checking account portion of the HSA. These are the only returns that workers using HSAs exclusively as spending vehicles will receive. Interest rates offered by the HSA providers are outlined in Exhibit 9. We excluded SelectAccount from the table because it offers many interest-rate tiers with different monthly fees, ranging from 0% on accounts with no monthly maintenance fee to 1.05% on accounts with a \$4.00 monthly fee.

Exhibit 9 Interest Rates Offered on Checking Account Balances, by Bank

Provider	Required Balance \$	Interest Rate %
Alliant Credit Union	< 100	0
	100 +	0.65
Bank of America	< 2,500	0.10
	2,500 – 9,999	0.20
	10,000 +	0.30
BenefitWallet	All balances	0.05
HealthEquity	< 2,000	0.05 / 0.10*
	2,000 – 7,499	0.10 / 0.25*
	7,500 – 9,999	0.20 / 1.00*
	10,000 +	0.40 / 1.50*
Health Savings Administrators	< 2,500	0.05
	2,500 – 4,999	0.10
	5,000 – 9,999	0.20
	10,000 – 14,999	0.30
	15,000 – 24,999	0.40
	25,000 +	0.50
HSA Authority	< 5,000	0.01
	5,000 – 9,999	0.03
	10,000 – 24,999	0.07
	25,000 – 49,999	0.25
	50,000 +	0.50
HSA Bank	< 2,500	0.05
	2,500 – 4,999	0.10
	5,000 – 9,999	0.15
	10,000 – 14,999	0.25
	15,000 – 24,999	0.35
	25,000 +	0.45
Optum Bank	< 1,999	0.05
	2,000 +	0.10
UMB Bank	—	—

Source: Morningstar, Inc. Data as of 5/31/17. *Non-FDIC-insured

In the current low-interest-rate environment, HSA funds will not accrue a significant amount of interest on the savings account side. To illustrate this, consider an accountholder with a \$2,000 balance, which reflects average account size across the HSA industry. With the exception of Alliant Credit Union, the most an investor could earn when selecting among insured accounts is \$2 per year. Alliant Credit Union stands out for offering an attractive rate of 0.65% for accounts with \$100 or more in assets while also providing insurance from the National Credit Union Administration (the NCAU is similar to the FDIC in that it's an independent federal agency that insures deposits). This equates to earnings of \$13 per year for accounts with \$2,000 invested, representing a meaningful improvement relative to other plans, though it's still not an especially compelling offer.

Accountholders with greater account balances can usually receive higher interest rates. BenefitWallet stands out as the lone exception in our study, offering just 0.05% interest on all accounts, regardless of deposits. HealthSavings Administrators and HSA Authority have the highest rates on FDIC-insured

accounts, offering 0.50% interest for accountholders with \$25,000 and \$50,000, respectively. Investors can also juice returns by selecting a non-FDIC-insured account. HealthEquity offers a 1.50% rate on non-FDIC-insured accounts to investors with \$10,000 or more in assets, but this option of course comes with greater risk. SelectAccount allows participants to gain access to a higher monthly interest rate by paying a greater monthly fee. Currently, doing so makes little financial sense, unless the accountholder has more than \$5,000. For instance, putting \$5,000 in SelectAccount PremiumSaver, which offers a 1.05% rate, would yield the participant about \$5 after paying the \$48 maintenance fee.

Since earning a meaningfully higher interest rate would require either an account balance that is much larger than average or greater risk-taking, we placed little emphasis on these higher-rate options when evaluating plans from an interest-rate perspective. Accountholders with large balances may wish to consider investing their money in a mutual fund offered through their HSA investment platform. However, this of course comes with much greater risk and should only be considered by those who are willing to risk the capital they invest.

Simulation of Ending Account Balances

To summarize the impact that maintenance fees and interest rates can have on account balances, and to help inform our HSA plan spending account assessments, we calculated the one-year growth of an account in each plan after deducting maintenance fees and adding interest. We assumed an account balance of \$2,000, roughly the industry average, and assumed the investor selected the FDIC- or NCUA-insured option. Exhibit 10 shows the results.

Exhibit 10 Simulation of Ending Account Balances With \$2,000 Initial Investment

Provider	Interest Generated	Fees Charged	Net
Alliant Credit Union	13	0	2,013
BenefitWallet	1	0*	2,000.2
The HSA Authority	0.2	0	2,000
SelectAccount FreeSaver	0	0	2,000
SelectAccount ThriftSaver	4	-12	1,992
SelectAccount BasicSaver	8	-30	1,978
SelectAccount SelectSaver	1.4	-36	1,965.4
SelectAccount PremiumSaver	21	-48	1,973
HSA Bank	1	-30	1,971
UMB Bank	n/a	-30	1,970
Optum Bank	2	-33	1,969
HealthSavings Administrators	1	-45	1,956
HealthEquity	2	-47.4	1,954.6
Bank of America	2	-54	1,948

Source: Morningstar, Inc. *Fees would be waived on a hypothetical balance of \$2,000

Exhibit 10 illustrates that, for the average HSA accountholder, maintenance fees have a much larger impact on account balances than interest rates. On a hypothetical balance of \$2,000, several HSAs actually would decrease in value during the course of a year because of the combination of low interest rates offered and relatively high fees. HealthSavings Administrators, for example, would leave the accountholder with \$44 less than they started the year with. On a similar note, we see that paying a higher fee to access a higher interest rate, as is the case with SelectAccount's ThirftSaver, BasicSaver, SelectSaver, and PremiumSaver options, does not make sense for the average accountholder. Alliant Credit Union stands out, offering a relatively generous interest rate with zero monthly fees, leaving an accountholder with a \$2,013 balance.

Spending Account Assessments

Given that interest rates on savings accounts offer little additional income for the average HSA participant, we place little emphasis on the interest rates offered in assessing HSAs as spending vehicles. Most plans receive neutral assessments for interest because they offer unexceptional rates. Instead, we focus primarily on the maintenance fees charged to determine overall assessments. Exhibit 11 contains our HSA spending account assessments.

Exhibit 11 Spending Account Assessments

Plan	Overall	Score	
		Fees	Interest
Alliant Credit Union	⊕ Positive	⊕ Positive	⊕ Positive
The HSA Authority	⊕ Positive	⊕ Positive	⊙ Neutral
SelectAccount	⊕ Positive	⊕ Positive	⊙ Neutral
Optum Bank	⊙ Neutral	⊙ Neutral	⊙ Neutral
BenefitWallet	⊙ Neutral	⊙ Neutral	⊙ Neutral
UMB Bank	⊙ Neutral	⊙ Neutral	—
HSA Bank	⊙ Neutral	⊙ Neutral	⊙ Neutral
HealthEquity	⊙ Neutral	⊙ Neutral	⊕ Positive
HealthSavings Administrators	⊖ Negative	⊖ Negative	⊙ Neutral
Bank of America	⊖ Negative	⊖ Negative	⊙ Neutral

Source: Morningstar, Inc.

Positive

We specifically highlight The HSA Authority, SelectAccount's FreeSaver tier, and Alliant Credit Union as excellent options for accountholders using their HSAs as spending vehicles. The lack of a monthly maintenance fee stretches users' healthcare dollars further than other HSAs. In a low-interest-rate environment, selecting an HSA with a monthly fee but a higher interest rate does not make sense for most accountholders using their HSAs as spending vehicles. For example, an accountholder with a \$2,000 balance would be better off selecting an HSA with no interest and no monthly fee, such as SelectAccount FreeSaver, rather than paying \$54 a year to earn \$2 in interest, as in the case with Bank of America. Additionally, Alliant Credit Union deserves further praise for offering one of the most competitive interest rates of the plans we studied. Combined with zero monthly fees, Alliant Credit

Union is the most compelling option for someone looking to use their HSA primarily as a spending vehicle.

Neutral

UMB Bank, HSA Bank, Optum Bank, HealthEquity, and BenefitWallet all charge monthly account-maintenance fees but do provide an opportunity for those fees to be eliminated when the account size has crossed a certain threshold. They can be still useful for workers who meet the threshold for waiving these fees, but they are not ideal for those who have recently opened accounts and thus have small balances, or for those who will use their HSAs as spending vehicles and do not expect to accrue large balances. Indeed, previous research has indicated that the average HSA accountholder's balance is about \$2,000, rendering them unable to escape the fees assessed by Optum Bank, HSA Bank, or UMB Bank. BenefitWallet is the most attractive of this bunch, as it waives fees for accountholders with just \$1,000. Still, charging the fee on low account balances keeps this plan from earning a positive assessment. Further, it offers an anemic interest rate on all deposits, regardless of amount. Optum Bank, also, offers an underwhelming interest rate, even on its highest tier.

UMB Bank does not disclose interest rates on its website. However, given that fees take precedence when evaluating plans for use as a spending account, we assigned it an assessment based on the maintenance charge.

HealthEquity offers the option of a lower rate on an FDIC-insured account or a higher rate on deposits not subject to FDIC guarantees. The option to receive higher interest earns the plan a positive interest score; even though accountholders choosing this option assume more risk, some might find the trade-off worthwhile.

Negative

Health Savings Administrators and Bank of America are generally not recommended for accountholders who intend to use their HSAs solely as spending vehicles. Both of these providers charge a monthly fee, which will take an outsize bite out of relatively small account balances, and neither of them offers to waive this fee for accounts that have accrued a certain balance. Health Savings Administrators and Bank of America also offer uninspiring interest rates on FDIC-insured deposits.

HSA Investment Vehicle Assessment

Menu Design

Best Practice: Plans should offer exposure to core asset classes while limiting overlap among options.

Broad Asset-Class Representation

An HSA plan's investment menu should offer a comprehensive set of options so that do-it-yourself investors can build well-rounded portfolios. While there's plenty of debate around the exact asset classes that investors should hold, a few are commonly agreed upon as being critical to build diversified portfolios. We refer to these as "core" asset classes, which include large-cap equities, small- and/or mid-cap equities, international developed equities or world stock, U.S. diversified bond (exposure typically gained through a core bond strategy), and either a cash-equivalent or short-term bond strategy. With these building blocks, investors of all ages can create diversified portfolios.

We also believe it's prudent to offer multi-asset-class funds, which offer built-in asset-class diversification, for hands-off investors who wish not to construct or closely monitor their portfolio. Static allocation strategies, such as traditional 60% stock/40% bond funds and world-allocation funds, represent examples of these approaches. Some HSA plans offer target-date funds, which gradually de-risk by shifting assets from stocks to bonds as time passes. These vehicles were designed to help investors build sufficient savings to support regular withdrawals during retirement. Therefore, they represent an imperfect tool in an HSA plan, where participants will encounter less predictable expenses. However, accountholders seeking a set-it-and-forget-it approach, who plan to leave their money untouched until the target date, may find this option acceptable. The vehicles are highly diversified, and the average target-date fund reduces equities to 45% at the target date, which represents a reasonable allocation for someone aiming to balance growth and capital preservation. That said, accountholders selecting this option should understand and be comfortable with the allocations over time.

Many plans offer asset classes beyond the ones stated above. From an asset-allocation standpoint, there's plenty of investment rationale that supports having a portion of assets in more specialized pockets of the market, such as emerging-markets equities, inflation-protected bonds, and international bonds. However, these asset classes typically represent small weightings within portfolios. Additionally, some plans may eschew them altogether because they're afraid an investor will use them inappropriately. (For instance, investing 100% of assets in an emerging-markets fund would be a risky and ill-advised strategy.) With that in mind, these asset classes didn't make the list of "core" asset classes. However, we also didn't penalize plans for including them, given their potential diversification benefits if used properly.

Exhibit 12 shows the typical layout of an investment menu and depicts the asset classes that we believe should be available in HSA lineups.

Exhibit 12 Spending Account Assessments

Allocation

Target-Date Series	At least one
Target-Risk Series	
Other Allocation	

Equity

	Value	Blend	Growth
US Large-Cap	At least one		
US Mid-Cap	At least one		
US Small-Cap	At least one		
International Developed	At least one		
World Stock	At least one		
Emerging Markets	Optional		
Specialty Equity	Optional		

	Cash Equivalent/ Short-term	Core	Specialty Fixed-Income
Fixed Income	At least one	At least one	Optional

Alternatives / Other

Alternatives / Other	Optional
----------------------	----------

Source: Morningstar, Inc.

Limited Redundancy

We also believe that HSA plans should resist offering overlapping investment strategies. Many studies have shown that an investor with too much choice often makes poor investment selections or succumbs to decision paralysis. Instead, plans should offer one best-in-class option within each asset class. Of course, there are some exceptions to that rule. In some cases, it's reasonable to offer an active and a passive manager, or a more aggressive strategy to balance a more conservative one, within one asset class to meet the needs of different investor types. But for the most part, offering one strong option is advisable to offering multiple similar strategies.

Menu Design Scores

We assessed asset-class coverage and investment overlap to determine menu design scores. Plans that receive positive scores offer investment strategies in core asset classes and have limited redundancy of investment options. Neutral plans often omit one core asset class or have moderate overlap among offerings. Negative-scored plans typically have an unreasonably large lineup or they omit multiple core asset classes.

We prefer that plans include a cash-equivalent or short-term bond fund in their investment menus. However, since investors can eliminate risk by moving money from the investment account to the checking account, the lack of a money market fund or short-term bond fund in the investment menu did not materially affect a plan's menu design score.

Exhibit 13 Menu Design Scores

	Menu Design Score	Allocation ¹	US Large-Cap	US Mid/Small Cap	Developed/ World Stock	Cash Equivalent/ Short-Term	Intermediate-Term Bond	Other	Total Investment Offerings
Select Account	⊕ Positive	5	5	5	3	2	1	3	24
Bank of America	⊕ Positive	2	3	6	4	1	1	4	21
HSA Bank	⊕ Positive	4	6	5	2	1	1	2	21
HealthEquity	⊕ Positive	2	3	4	1	1	1	6	18
The HSA Authority	⊖ Neutral	5	9	5	4	2	1	6	32
BenefitWallet	⊖ Neutral	5	6	4	3	3	—	5	26
Optum Bank	⊖ Neutral	4	6	6	2	2	—	6	26
HealthSavings Administrators	⊖ Negative	74	82	59	52	29	15	183	494
T. Rowe Price	—	2	—	—	—	1	—	0	3
TIAA	—	1	1	—	—	1	—	0	3
DFA	—	3	1	—	2	2	1	4	13
MFS	—	8	2	2	1	—	1	0	14
Vanguard	—	6	5	6	2	1	1	1	22
Franklin Templeton	—	8	2	2	2	—	—	3	17
Investor Select ²	—	46	71	49	45	24	12	175	422
Alliant Credit Union	⊖ Negative	11	19	12	12	8	8	55	125

Source: Morningstar, Inc. ¹ A target-date series counts as one investment option. ² Excludes 12 unidentified securities and 78 duplicate funds. — Represents an omission in investment menu.

Positive

Bank of America, SelectAccount, HSA Bank, and HealthEquity designed robust menus for investors. All four plans offer exposure to core asset classes while limiting overlap among choices. Within the domestic equity space, each plan uses active funds and offers broad-based index options for participants who want to minimize investing costs. Investors can also choose from a nice mix of value and growth U.S. stock strategies, at least one foreign developed-equity fund, and an intermediate-term bond fund.

All four plans provide options in more specialized areas, too, such as high-yield bonds or REITs. Bank of America and HealthEquity have the farthest-reaching menus; they also include emerging-markets equities, inflation-protected bonds, and commodities, boosting their appeal for do-it-yourself investors. Hands-off investors might prefer SelectAccount or HSA Bank, which both offer at least four multi-asset-class strategies.

Although these plans certainly have sensible lineups, minor overlap exists. For instance, HSA Bank offers two S&P 500 funds (Victory S&P 500 Index MUXAX and JPMorgan Equity Index HLEIX), and SelectAccount offers two small-cap growth funds (Neuberger Berman Genesis NBGNX and Federated Kaufmann Small Cap FKASX). Still, those examples represent minor drawbacks and don't affect the

plans' positive menu design scores. HealthEquity stands out for having essentially no overlap while providing broad asset class representation.

Neutral

The HSA Authority almost received a positive score for menu design. However, it has slightly too much overlap among options. For instance, it offers nine large-cap equity funds and three balanced funds that feature active underlying managers. Modestly narrowing the lineup would improve the plan's appeal.

BenefitWallet and Optum Bank receive neutral process scores for omitting critical asset classes from their investment lineups. BenefitWallet's menu lacks a diversified U.S. bond strategy. PIMCO Investment-Grade Corporate Bond PIGIX serves as the closest substitute, but that's not an appropriate fund for an investor seeking broad fixed-income exposure. Investors can buy MFS Conservative Allocation MACFX, which stashes 60% of assets in a diversified bond strategy and 40% in equities, but an investor might want more than 60% in a core fixed-income strategy.

Similarly, Optum Bank's roster excludes a diversified U.S. bond strategy. Participants can buy allocation funds that provide varying degrees of exposure to intermediate-term bonds and stocks, but investors who want core bond exposure are out of luck. Optum Bank's plan also does not offer a foreign developed-equity fund, but it does offer two world-stock funds that mix domestic and international equities. The plan earns a neutral score for menu design.

Negative

Two plans receive negative scores for having overwhelming lineups. Health Savings Administrators has a gigantic investment roster, with 494 total investment options. The plan offers seven distinct investment menus. Six menus feature options from one fund family—T. Rowe Price, TIAA, Franklin Templeton, Vanguard, DFA, or MFS. Only Vanguard offers a comprehensive investment lineup; the other four fund families omit anywhere from one to four core asset classes. Investors cannot mix and match investments among the menus, giving them mostly incomplete toolkits to work with. The seventh menu, Investor Select, features more than 400 unique funds from more than 40 different fund companies. Navigating this lineup would certainly not be an easy task. With multiple layers of required decision-making and mostly incomplete investment lineups, the plan's setup is far from ideal.

Alliant Credit Union also represents an egregious example of providing too much choice, where plan participants must comb through 125 investment options. The plan has nine large-blend U.S. equity strategies, eight intermediate-term bond funds, and five real-estate strategies, to name a few of the many overlapping areas. Offering this many options will likely deter some participants from investing or result in subpar investment outcomes.

Quality of Investments

Best Practice: Offer strong funds that are likely to outperform benchmarks and/or peers over the long haul on a forward-looking basis.

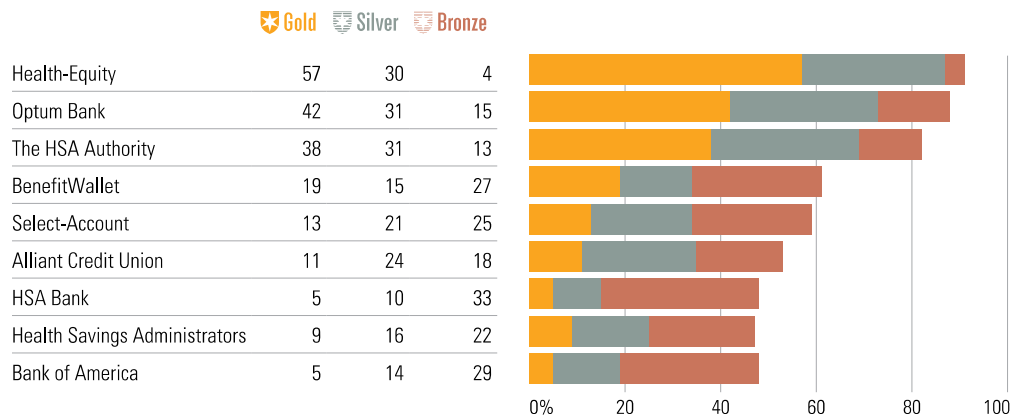
Health savings account providers can improve their plan's appeal by offering strong underlying strategies. To evaluate plans' underlying managers, we leveraged our forward-looking mutual fund ratings, called the Morningstar Analyst Rating for funds. The Morningstar Analyst Rating indicates which strategies we expect to outperform peers and benchmarks on a risk-adjusted basis through a full market cycle of at least five years. Morningstar analysts assign the ratings on a five-tier scale with three Positive ratings of Gold, Silver, and Bronze; a Neutral rating; and a Negative rating. The Analyst Rating is based on the analyst's conviction in the fund's ability to outperform over the long term. (Please see Appendix 2 for further explanation of our fund rating process.)

Quality of Investments Score

To determine scores for quality of investments, we subtracted the percentage of options that receive Neutral and Negative ratings from the percentage that receive Morningstar Medals. If that number was equal to or greater than 50%, the plan received a positive score for quality of investments. The remaining plans earned neutral scores. To receive a negative score, a plan would have to offer a significant number of Negative-rated funds; fortunately, no plan does.

Generally speaking, the plans included in our analysis have populated their investment menus with solid managers. Four out of nine plans that we evaluated earned positive scores for quality of investments, as shown in Exhibit 14.

Exhibit 14a Percentage of Options That Earn Morningstar Medals



Source: Morningstar, Inc. Data as of 5/31/17

Exhibit 14b Quality of Investment Scores

Plan	Quality of Investments Score	Medalists %	Morningstar Analyst Rating %						Medalists % Less Neutral and Negative
			Gold	Silver	Bronze	Neutral	Negative	Not Rateable	
Health-Equity	Positive	91	57	30	4	—	—	9	91
Optum Bank	Positive	88	42	31	15	4	—	8	85
The HSA Authority	Positive	81	38	31	13	—	—	19	81
BenefitWallet	Positive	62	19	15	27	4	8	27	50
Select-Account	Neutral	58	13	21	25	13	—	29	46
Alliant Credit Union	Neutral	53	11	24	18	10	1	36	43
HSA Bank	Neutral	48	5	10	33	5	—	48	43
HealthSavings Administrators	Neutral	47	9	16	22	9	0.4	44	38
Bank of America	Neutral	48	5	14	29	29	—	24	19

Source: Morningstar, Inc.

Positive

HealthEquity has the strongest lineup. The plan delivers across asset classes; 21 of the 23 available funds are Morningstar Medalists, including 13 Gold-rated funds. Each designated core asset class features a Gold-rated fund, improving the plan's appeal. The plan uses only Vanguard funds, with low-cost, broadly diversified index funds representing 65% of choices. It's the only plan that offers more index options than actively managed strategies.

Optum Bank and The HSA Authority also stand out from the crowd. In both plans, Morningstar Medalists account for at least 80% of options, with Gold-rated funds representing about 40% of choices. The plans' heavy tilt to the Vanguard fund family explains this; roughly half of the underlying funds in each plan are Vanguard offerings, most of which earn Gold or Silver ratings. Strong active managers from fund families such as Dodge & Cox and American Funds round out the plans.

BenefitWallet distinguished itself by selecting solid active managers from a diverse set of fund families. That said, the plan offers Ivy Asset Strategy IVAEX and Ivy High Income IVHIX, both rated Negative, meaning we expect the funds to underperform peers and their benchmarks over the long haul. Investors should steer clear of those options.

Neutral

Morningstar Medalists represent between 47% and 58% of options at SelectAccount, HSA Bank, Alliant Credit Union, and Health Savings Administrators. However, all plans offer a handful of Neutral-rated funds, which dims their appeal. SelectAccount and HSA Bank offer relatively compact lineups of 20 to 25 options. Bronze-rated funds represent 25% or more of options at both plans; we expect these funds to outperform peers over the long haul, but we don't have as much conviction in them as compared with Gold- and Silver-rated funds.

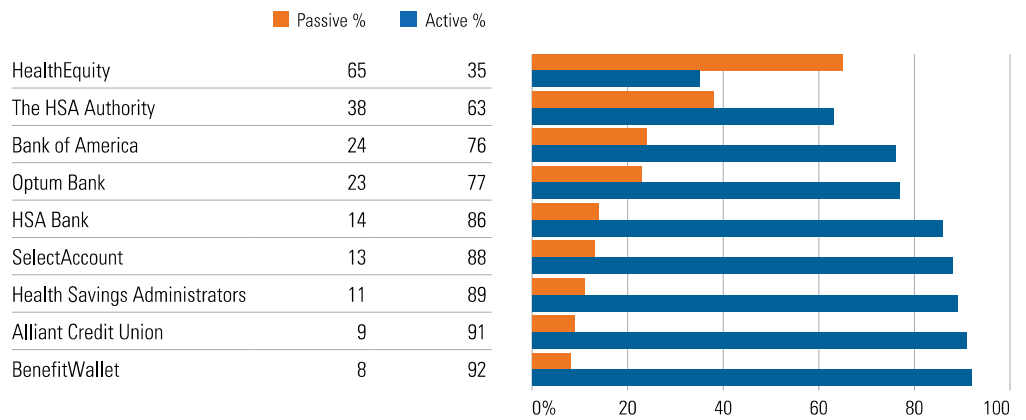
Alliant Credit Union and Health Savings Administrators have vast lineups. Alliant Credit Union has 133 options, and Health Savings Administrators offers more than 400 unique funds. Offering such wide-ranging lineups makes it hard for their funds to stand out as a group. We also don't rate more than one third of options at each plan, and both providers have at least one Negative-rated fund.

Bank of America has the least impressive lineup of all plans we analyzed. Currently, 48% of options earn Morningstar Medals, though 29% receive Neutral ratings. Investors can find stronger rosters elsewhere.

Active Versus Passive

For reference, Exhibit 15 shows the providers' active and passive split. We also included this information on each plan's menu page in the Appendix.

Exhibit 15 Percentage of Options That Are Active Versus Passive



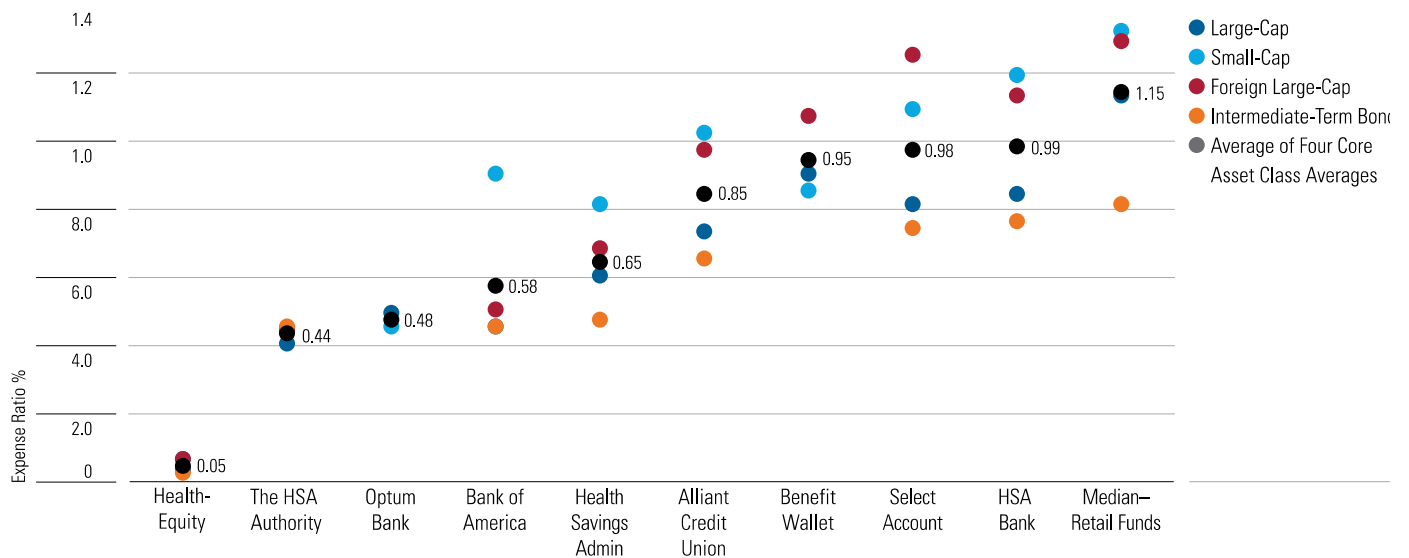
Source: Morningstar, Inc. Data as of 5/31/17

Price

Best Practice: Offer investment options with below-average fees versus retail mutual fund peers and avoid or charge low investment and maintenance fees.

To evaluate the cost of investing in an HSA plan, we began by assessing underlying fund fees. To make an apples-to-apples comparison across plans, we calculated the average expense ratio of each plan's underlying funds in four broad asset classes: large-cap, small-cap, foreign large-cap, and intermediate-term bond. Exhibit 16 shows the results. We included the median fee charged by similarly managed retail mutual funds to put the expense ratios into perspective. To calculate the average retail fund fee, we used primarily A share classes, which tend to be the most widely owned share classes among retail investors. A shares include 12b-1, or distribution, fees; in many cases, retail investors can find funds without 12b-1 fees, but we didn't include most of those options in the calculation. Therefore, the median retail fund fee that we use in this paper has an upward bias.

Exhibit 16a HSA Plans' Average Underlying Fund Expense Ratio by Asset Class



Source: Morningstar, Inc. Data as of 5/31/17

Exhibit 16b HSA Plans' Average Underlying Fund Expense Ratio by Asset Class

	Large Cap	Small Cap	Foreign Large Cap	Intermediate-Term Bond	Average of Four Core Asset Class Averages
HealthEquity	0.04	0.07	0.07	0.03	0.05
The HSA Authority	0.41	0.45	0.45	0.46	0.44
Optum Bank	0.50	0.46	—	—	0.48
Bank of America	0.46	0.91	0.51	0.46	0.58
Health Savings Administrators	0.61	0.82	0.69	0.48	0.65
Alliant Credit Union	0.74	1.03	0.98	0.66	0.85
BenefitWallet	0.91	0.86	1.08	—	0.95
SelectAccount	0.82	1.10	1.26	0.75	0.98
HSA Bank	0.77	1.20	1.14	0.85	0.99
Median - Retail Mutual Funds	1.14	1.33	1.30	0.82	1.15

Source: Morningstar, Inc. Data as of 5/31/17

With average expense ratios across the four broad asset classes ranging from 0.05% to 0.99%, the plans' underlying fund fees compare favorably versus retail mutual fund peers'. However, HSA plans tack on additional fees that investors must take into consideration. Most plans charge maintenance fees to cover general administrative costs. Moreover, the majority of plans charge an investment fee to participants who invest in the mutual fund lineup.

Maintenance and investment fees are typically dollar-based fees. To incorporate these expenses into our analysis, we converted dollar-based fees to percentage terms, assuming an account balance of \$15,000, which was the average balance in HSA accounts that had investment assets as of year-end 2016.⁶ Exhibit 17 shows the additional fees charged by each plan, as well as the equivalent expense ratio assuming a 15,000 balance.

Some plans waive maintenance fees if the checking account balance exceeds a certain threshold. However, we didn't waive the maintenance fee in any circumstance. Assuming investors intend to maximize their account value, they would prefer to invest as much money as possible rather than transferring money to the checking account to avoid fees.

⁶ 2016 Year-End HSA Market Statistics & Trends.

Exhibit 17 Fees in Addition to Underlying Fund Expenses

Plan	Fees		Assuming \$15k Investment Account Balance	
	Annual Investment	Maintenance	Total Additional Fee \$	Equivalent Expense Ratio %
SelectAccount	\$18	\$0–\$48 ¹	30 ²	0.20
The HSA Authority	\$36	—	36.0	0.24
Bank of America	—	\$54	54.0	0.36
HSA Bank	\$24	\$30 ⁴	54.0	0.36
Optum Bank	\$36	\$33 ³	69.0	0.46
Alliant Credit Union	\$71.4	—	71.4	0.48
BenefitWallet	\$34.8	\$42 ⁵	76.8	0.51
HealthSavings Administrators	0.25% ⁷	\$45	82.5	0.55
HealthEquity	0.40%	\$47.4 ⁶	107.4	0.72

Source: HSA Plan Websites. Data as of 5/31/17

¹ Depends on numerous factors, including checking account interest rate selected.

² The lowest annual maintenance fee for an account that allows participants to invest is \$12.

Waived if checking account balance is greater than:

³ \$3,000

⁴ \$5,000

⁵ \$1,000

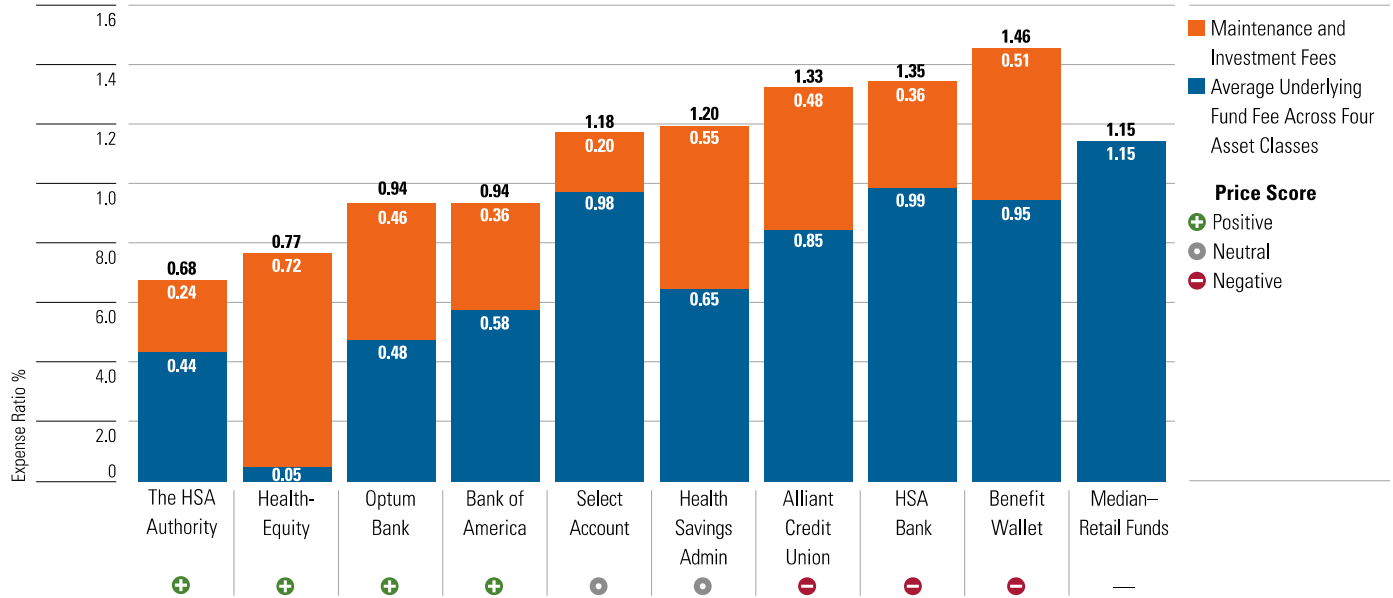
⁶ \$2,500

⁷ More than 90% of investment options charge this fee.

Price Scores

We layered each plan's additional fee, in percentage terms (as calculated in Exhibit 17), onto the average underlying fund expense ratio across the four asset classes (as calculated in Exhibit 16) to determine an average total expense ratio for each plan. To assess whether these prices represent a good value proposition, we compared plans' average total expense ratios with the median fees charged by similarly managed retail mutual funds. As shown in Exhibit 18, plans with below-average fees versus retail mutual fund peers earn positive price scores, those with middling expense ratios receive neutral price scores, and plans with high expenses garner negative price scores.

Exhibit 18 Average Total Expense Ratios, Assuming \$15,000 Invested (Includes Fund Fees, Maintenance Fees, Investment Fees)



Source: Morningstar, Inc. Data as of 5/31/17

Positive

The HSA Authority, Optum Bank, HealthEquity, and Bank of America boast below-average fees relative to retail mutual funds, earning those plans positive price scores. The plans have gained a cost advantage by offering low-cost index strategies. In fact, these four plans use index options more heavily than the five other plans that we evaluated. Health Equity has unusually cheap underlying fund fees, as it uses strictly index funds offered by Vanguard in the four core asset classes. Passive strategies represent 65% of the plan's fund choices, which is significantly more than all other providers. The plan tacks on more fees than any other provider we evaluated, charging a maintenance fee of \$47.40 per year plus an investment fee of 40 basis points. Still, thanks to extremely low underlying fund fees, the plan's total expenses land well below the median charged by retail mutual funds. The HSA Authority, Optum Bank, and Bank of America offer a mix of active and passive strategies within the core asset classes. The plans' underlying fund fees across the four areas range from 0.44% to 0.58%. The HSA Authority charges \$36 a year in dollar-based fees, translating to an expense ratio of 0.24% assuming a \$15,000 investment, which is lower than most plans. Bank of America charges \$54 in annual fees, and Optum charges \$69. The plans' expenses look less attractive than the other two plans with positive price ratings, but overall the options are still priced below average versus the median retail fund.

Neutral

With average total expense ratios across the four core asset classes equal to about 1.20%, which includes underlying fund, investment, and maintenance fees, both HealthSavings Administrators and SelectAccount have fees that are comparable to retail mutual funds. As a result, the plans receive neutral price scores. HealthSavings Administrators charges reasonable underlying fund fees, but it adds a hefty \$45 annual maintenance fee, plus investors who select MFS, DFA, Vanguard, Franklin

Templeton, or the Investor Select lineup of funds (which collectively represent more than 90% of the plan's options) must pay an additional 25 basis points annually. SelectAccount uses predominantly active managers, so its underlying fund fees run relatively high. The plan charges an \$18 investment fee, and maintenance fees can range from \$0 to \$48, depending on the checking account interest rate selected. However, to have access to the plan's investment options, investors must pay at least \$12 per year in maintenance fees, bringing the plan's minimum total annual fee to \$30. Assuming an investor aims to minimize costs and pays \$30 per year, the plan's expenses look fair.

Negative

Alliant Credit Union, HSA Bank, and BenefitWallet look unattractive from a fee standpoint, earning those plans negative price scores.

HSA Bank and BenefitWallet have higher underlying fund fees than most of the other plans included in this analysis, with average expense ratios of 0.99% and 0.95%, respectively, across the four asset classes. Alliant Credit Union's underlying funds fees look more reasonable, at 0.85%. Nonetheless, all three plans charge hefty dollar-based fees. Each plan layers on between \$54 and \$77 a year in maintenance and investment fees (HSA Bank and BenefitWallet waive \$30 and \$42 if the investor's checking account balance exceeds \$5,000 and \$1,000, respectively). That's equivalent to an additional 0.36% and 0.51% on top of underlying fund expenses, assuming a \$15,000 investment, which is a tough hurdle for active managers to consistently overcome.

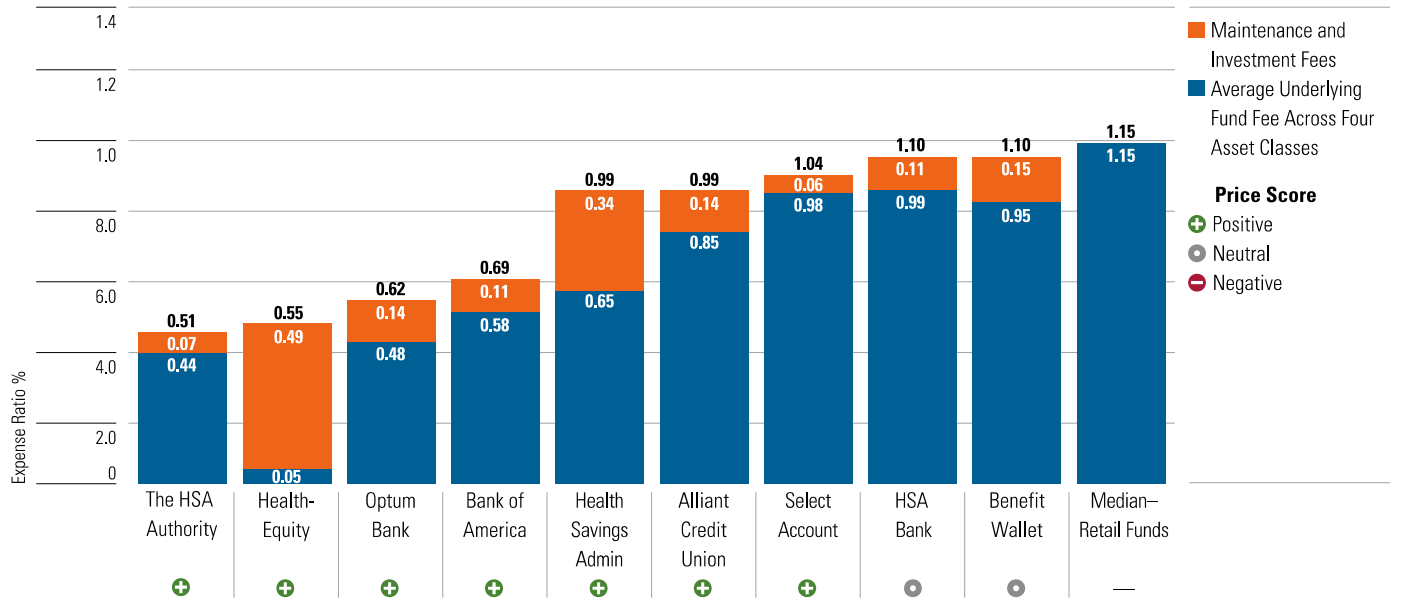
BenefitWallet's average underlying fund fee skews upward because the plan does not have an intermediate-term bond fund, which typically costs less than equity funds. Nonetheless, even after adjusting for that, the plan remains expensive versus retail mutual funds after considering underlying fund fees, investment fees, and maintenance fees. The \$42 maintenance fee can be waived if an investor's checking account balance exceeds \$1,000; waiving that fee would make the plan fairly priced versus retail funds. Nonetheless, it would be better if the firm reduced this fee or waived it regardless of the checking account balance.

Greater Account Balances Make Fees Comparatively Less

We assumed a \$15,000 investment account balance to determine price scores, because that's the average total assets for HSA accountholders with investment assets. However, keeping a greater account balance changes how plans stack up relative to one another on a fee basis, as it minimizes the relative impact of additional, dollar-based expenses. Exhibit 19 shows that, with a few exceptions, underlying fund fees become the most important consideration for investors with large accounts. Using the same method employed in Exhibit 18 to calculate average total expense ratios, but assuming a \$50,000 HSA investment account balance, all the plans' average total expense ratios fall below the median fee charged by retail mutual fund peers. The HSA Authority and HealthEquity remain among the most attractive from a fee standpoint. Although the average total expense ratios reduced for all plans, plans that charge predominantly fixed expense ratios as opposed to dollar-based fees became comparatively less attractive, as their total expense ratios decrease more gradually than other plans' as account assets grow. For instance, SelectAccount slipped in rank because it has one of the highest

average underlying fund fees and the lowest dollar-based fee. BenefitWallet and HSA Bank still have the highest fees, with average total expenses equal to about 1.10%. Compared with retail mutual funds, that's not low enough to merit a positive price score, so they would receive neutral scores if we assumed a \$50,000 investment.

Exhibit 19 Average Total Expense Ratios, Assuming \$50,000 Invested (Includes Fund Fees, Maintenance Fees, Investment Fees)



Source: Morningstar, Inc. Data as of 5/31/17

Performance

Best Practice: Investments have delivered strong risk-adjusted results and appear well-equipped to repeat past successes.

To evaluate the performance of HSA plans, we assessed the Morningstar Ratings assigned to plans' underlying funds. The Morningstar Rating for funds, commonly referred to as the star rating, is a backward-looking metric that brings together the performance and risk of a fund relative to its peers into one quantitative evaluation. Funds are only compared with other funds from their Morningstar Category; investments with strong risk-adjusted results garner 5- and 4- star ratings; funds with results in the middle of the pack earn 3 stars; and investments with poor risk-adjusted returns receive 2-star or 1-star ratings. This section uses the overall star rating, a weighted average of a fund's three-, five-, and 10-year star rating, which places more emphasis on the fund's long-term track record.

Performance Scores

We calculated the average overall star rating of each plan's underlying funds to determine performance scores. Plans with an average star rating of 3.5 or greater receive positive performance scores, and plans with an average star rating between 2.5 and 3.5 earn neutral performance scores. An average star rating of 2.5 or less would merit a negative performance score, but no plan fell to that threshold.

Determining a plan's performance score with this approach has one primary shortcoming. The star rating considers underlying fund fees, but most plans tack on additional dollar-based maintenance and investment fees that would drag down their average star ratings (these fees are shown in Exhibit 20). Nonetheless, the average star rating approach serves as a good starting point to evaluate performance. Exhibit 20 shows the average star rating of each HSA plan's underlying funds. Overall, the plans' underlying funds have turned in respectable results, with average star ratings ranging from 3.39 to 4.10. Moreover, the Quality of Investments section of this paper shows that more than half of the underlying funds earn Morningstar Medals in six out of nine plans, meaning we expect those funds to continue to deliver strong results going forward.

In addition to boasting solid risk-adjusted returns, the plans have turned in strong total returns. The underlying investments of each plan have delivered three-, five-, and 10-year returns that, on average, rank in the top half of their respective categories, as outlined in Exhibit 20.

Positive

Six plans earned a positive performance score. HealthEquity and The HSA Authority look the strongest from a performance standpoint, with average star ratings of more than 4. The plans use more passive strategies than all other providers we evaluated, with index options representing 65% of options at HealthEquity and 38% of investments at The HSA Authority. That has led to strong results, as active funds have struggled to outperform their index counterparts during the past several years. Optum Bank and Bank of America, which earn average star ratings of 3.88 and 3.67, respectively, have also benefited from significant usage of index strategies, which represent about one fourth of the fund roster at each plan. Health Savings Administrators and BenefitWallet have come out ahead by selecting well-

performing active managers; less than 15% of each plan's underlying managers follow passive strategies.

Neutral

Alliant Credit Union, HSA Bank, and SelectAccount have respectable though not standout results, earning neutral performance scores. The three plans' average star ratings fall below the 3.5-star threshold required to receive a positive performance score. The fee structure at SelectAccount has put the plan at a disadvantage. SelectAccount layers on smaller fees than most competitors; investors can pay a total of just \$30 per year for maintenance and investment fees, so its underlying fund expenses tend to be higher than most plans'. The star rating only considers underlying fund expenses, so the setup has slightly weighed on its star rating versus peers with hefty dollar-based maintenance or investment fees. All three plans use index funds sparingly, and each receives a neutral score for its quality of investments, indicating their lineups aren't quite as strong as some other plans' included in this analysis. ■■■



















Exhibit 20 Performance Scores

Plan Name	Performance Score	Average Star Rating	Average Category % Rank			Fees Not Included In Performance
			Three-Year	Five-Year	10-Year	
HSA Authority	⊕ Positive	4.10	25	23	22	\$36
HealthEquity	⊕ Positive	4.05	21	23	20	\$47.40 plus 0.40%
Optum Bank	⊕ Positive	3.88	29	29	23	\$69
HealthSavings Administrators	⊕ Positive	3.70	33	33	28	\$45 plus 0.25%
Bank of America	⊕ Positive	3.67	30	41	23	\$54
BenefitWallet	⊕ Positive	3.64	45	39	23	\$76.80
Alliant Credit Union	⊙ Neutral	3.49	43	42	35	\$71.40
HSA Bank	⊙ Neutral	3.45	33	30	39	\$54
SelectAccount	⊙ Neutral	3.39	31	38	34	\$30

Source: Morningstar, Inc. Data as of 5/31/17














Appendix 1

Exhibit 21 Select Account Investment Menu

Overview			%
Morningstar Medalists			58
 Gold			13
 Silver			21
 Bronze			25
Active			88
Passive			13
Allocation			%
Target-Date Series	—		
Target-Risk Series	Goldman Sachs Growth Strategy Goldman Sachs Growth & Income Strategy Goldman Sachs Balanced Strategy		
Other Allocation	Calamos Growth & Income American Funds Income Fund of America  Silver		
Equity	Value	Blend	Growth
US Large-Cap	BlackRock Equity Dividend  Bronze Hotchkis & Wiley Large Cap Value Neutral	Hartford Capital Appreciation Neutral Vanguard 500 Index  Gold	American Funds Growth Fund of America  Bronze
US Mid-Cap		Vanguard Mid Cap Index  Gold	
US Small-Cap		Delaware Small Cap Core Vanguard Small Cap Index  Gold	Neuberger Berman Genesis  Bronze Federated Kaufmann Small Cap
International Developed		First Eagle Overseas  Bronze	Fidelity Advisor® International Discovery  Bronze Thornburg International Value Neutral
World Stock		Columbia Global Strategic Equity American Funds Capital World Growth and Income  Gold	
Emerging Markets			
Specialty Equity		Neuberger Berman Real Estate  Bronze	
	Cash Equivalent/ Short-term	Core	Specialty Fixed Income
Fixed Income	Schwab Government Money Purchased PIMCO Low Duration  Bronze	PIMCO Total Return  Silver	Vanguard High-Yield Corporate  Silver
Alternatives / Other	PIMCO Commodity Real Return Strategy  Silver		














Source: Morningstar, Inc. Data as of 5/31/17

Exhibit 22 Bank of America Investment Menu

Overview				%
Morningstar Medalists				48
 Gold			5	
 Silver			14	
 Bronze			29	
Active				76
Passive				24
Allocation				%
Target-Date Series		—		
Target-Risk Series		Columbia Capital Allocation Conservative Neutral		
		Columbia Capital Allocation Moderately Aggressive Neutral		
Other Allocation		—		
Equity	Value	Blend	Growth	
US Large-Cap	BlackRock Equity Dividend  Bronze	BlackRock S&P 500 Index Neutral	MainStay Large Cap Growth Neutral	
US Mid-Cap	—	Columbia Mid Cap Index  Bronze	Invesco Mid Cap Growth Neutral	
US Small-Cap	Columbia Small Cap Value Fund II  Bronze	Columbia Small Cap Index  Bronze	Federated Kaufmann Small Cap	
International Developed	Columbia Global Strategic Equity			
World Stock	Columbia Global Strategic Equity American Funds Capital World Growth and Income  Gold			
Emerging Markets	—			
Specialty Equity	Neuberger Berman Real Estate  Bronze			
	Cash Equivalent/ Short-term	Core	Specialty Fixed Income	
Fixed Income	PIMCO Low Duration  Bronze	PIMCO Total Return  Silver	MainStay High Yield Corporate Bond  Bronze Columbia US Treasury Index	
Alternatives / Other	PIMCO Commodity Real Return Strategy  Silver			



























Source: Morningstar, Inc. Data as of 5/31/17

Exhibit 23 HSA Bank Investment Menu

Overview				%
Morningstar Medalists				48
 Gold				5
 Silver				10
 Bronze				33
Active				86
Passive				14
Allocation				%
Target-Date Series	—			
Target-Risk Series	Goldman Sachs Growth Strategy Goldman Sachs Growth & Income Strategy Goldman Sachs Balanced Strategy			
Other Allocation	Franklin Income  Bronze			
Equity	Value	Blend	Growth	
US Large-Cap	BlackRock Equity Dividend  Bronze	Hartford Capital Appreciation Neutral John Hancock Fundamental Large Cap Core Victory S&P 500 Index JPMorgan Equity Index Select  Bronze	American Funds Growth Fund of America  Bronze	
US Mid-Cap	Heartland Select Value	—	Principal MidCap  Silver	
US Small-Cap	—	JPMorgan Small Cap Equity  Bronze Blackrock Small Cap Index	Federated Kaufmann Small Cap	
International Developed	—	First Eagle Overseas  Bronze	Fidelity Advisor® International Discovery  Bronze Thornburg International Value Neutral	
World Stock	—	American Funds Capital World Growth & Income  Gold	—	
Emerging Markets	—	—	—	
Specialty Equity	—	Nuveen Real Estate Securities  Bronze	—	
	Cash Equivalent/ Short-term	Core	Specialty Fixed Income	
Fixed Income	JHancock Money Market	PIMCO Total Return  Silver	John Hancock High Yield	
Alternatives / Other	—		—	
























Source: Morningstar, Inc. Data as of 5/31/17

Exhibit 24 Optum Bank Investment Menu

Overview				%	
Morningstar Medalists				88	
 Gold				42	
 Silver				31	
 Bronze				15	
Active				77	
Passive				23	
Allocation				%	
Target-Date Series		—			
Target-Risk Series		Vanguard LifeStrategy Conservative Growth  Gold Vanguard LifeStrategy Moderate Growth  Gold Vanguard LifeStrategy Growth  Gold			
Other Allocation		Vanguard Wellington Admiral  Gold			
Equity	Value	Blend	Growth		
US Large-Cap	Vanguard Equity-Income  Silver BlackRock Equity Dividend  Bronze	Vanguard 500 Index  Gold Vanguard Total Stock Market  Gold John Hancock Fundamental Large Cap Core	T. Rowe Price Blue Chip Growth  Silver		
US Mid-Cap	Fidelity Low-Priced Stock  Silver	Vanguard Mid Cap Index  Gold Vanguard Extended Market Index  Gold	Victory Munder Mid-Cap Core Growth		
US Small-Cap	—	Vanguard Small Cap Index  Gold	Neuberger Berman Genesis  Bronze		
International Developed	—				
World Stock		Vanguard Global Equity  Bronze American Funds Capital World Growth & Income  Gold			
Emerging Markets		Oppenheimer Developing Markets  Silver			
Specialty Equity		Vanguard Health Care  Gold Vanguard REIT Index  Gold			
	Cash Equivalent/ Short-term	Core	Specialty Fixed Income		
Fixed Income	Vanguard Treasury Money Market PIMCO Low Duration  Silver	—	Lord Abbett High Yield  Bronze PIMCO Real Return  Silver PIMCO GNMA  Silver		
Alternatives / Other	—				

Source: Morningstar, Inc. Data as of 5/31/17

Exhibit 25 HealthSavings Administrators Investment Menu

Overview		%
Morningstar Medalists		47
 Gold		9
 Silver		16
 Bronze		22
Active		89
Passive		11
Allocation		%
Target-Date Series	Dimensional Target Date Retirement Income Series T. Rowe Price Retirement Series  Silver TIAA-CREF Lifecycle Series  Bronze MFS Lifetime Series  Bronze Franklin LifeSmart Series	
Target-Risk Series	DFA Global Allocation 60/40 DFA Global Allocation 25/75 Vanguard LifeStrategy Income  Gold Vanguard LifeStrategy Conservative Growth  Gold Vanguard LifeStrategy Moderate Growth  Gold Vanguard LifeStrategy Growth  Gold MFS Aggressive Growth Allocation  Bronze MFS Conservative Allocation  Bronze MFS Growth Allocation  Bronze MFS Moderate Allocation  Bronze Franklin Conservative Allocation Neutral Franklin Growth Allocation Neutral Franklin Moderate Allocation Neutral	
Other Allocation	Vanguard Balanced Index  Gold Vanguard STAR  Silver MFS Total Return  Bronze T. Rowe Price Retirement Balanced  Silver MFS Global Total Return  Bronze MFS Diversified Income  Bronze Franklin Balanced Franklin Income  Bronze Franklin Mutual Quest  Silver Franklin Mutual Shares  Bronze	




Source: Morningstar, Inc. Data as of 5/31/17


Exhibit 26 HealthSavings Administrators Investment Menu (Continued)














Equity	Value	Blend	Growth
US Large-Cap	Vanguard Windsor II Bronze MFS Value Silver	DFA US Core Equity 1 Silver Vanguard 500 Index Gold Vanguard FTSE Social Index Bronze Vanguard Total Stock Market Index Gold TIAA-CREF S&P 500 Index Franklin Rising Dividends Neutral	Vanguard Morgan Growth Neutral MFS Growth Silver Franklin Growth Bronze
US Mid-Cap	Vanguard Selected Value Silver MFS Mid Cap Value	Vanguard Extended Market Gold Vanguard Mid Cap Index Gold Vanguard Strategic Equity Bronze	Vanguard Mid Cap Growth Bronze MFS Mid Cap Growth Bronze
US Small-Cap	Franklin Small Cap Value Neutral	Vanguard Small Cap Index Gold	Franklin Small-Mid Cap Growth Neutral
International Developed	Templeton Foreign Bronze	Vanguard Total International Stock Index Gold MFS International Diversification DFA International Core Equity Bronze	Vanguard International Growth Silver
World Stock		DFA Global Equity Silver	
Emerging Markets		DFA Emerging Markets Core Equity Silver	
Specialty Equity		DFA Global Real Estate Securities	
	Cash Equivalent/ Short-term	Core	Specialty Fixed Income
Fixed Income	T. Rowe Price Government Money Vanguard Prime Money Market TIAA-CREF Money Market DFA One-Year Fixed Income Bronze DFA Short-Term Extended Quality	DFA Investment Grade Vanguard Total Bond Market Index Silver MFS Total Return Bond Bronze	Lord Abbett High Yield Bronze PIMCO Real Return Silver PIMCO GNMA Silver
Alternatives / Other	—		

Source: Morningstar, Inc. Data as of 5/31/17. HealthSavings Administrators also offers the Investor Select lineup, which includes more than 400 unique funds

Exhibit 27 HealthEquity Investment Menu

Overview	%
Morningstar Medalists	91
 Gold	57
 Silver	30
 Bronze	4
Active	35
Passive	65

Allocation	%
Target-Date Series	Vanguard Target Retirement  Gold
Target-Risk Series	—
Other Allocation	Vanguard Wellesley Income  Gold

Equity	Value	Blend	Growth
US Large-Cap	Vanguard Value Index  Silver	Vanguard Institutional Index  Gold	Vanguard Growth Index  Silver
US Mid-Cap	Vanguard Mid-Cap Value Index  Silver	Vanguard Extended Market Index  Gold	—
US Small-Cap	Vanguard Small Cap Value  Silver	Vanguard Small Cap Index  Gold	—
International Developed		Vanguard Total International Stock Index  Gold	
World Stock	—		
Emerging Markets		Vanguard Emerging Markets Stock Index  Bronze	
Specialty Equity		Vanguard REIT Index  Silver Vanguard Materials Index	
	Cash Equivalent/ Short-term	Core	Specialty Fixed Income
Fixed Income	Vanguard Short-Term Bond Index  Gold	Vanguard Total Bond Market Index  Silver	Vanguard Inflation-Protected Series  Gold Vanguard Total International Bond Index
Alternatives / Other	—		

Source: Morningstar, Inc. Data as of 5/31/17

Exhibit 28 Benefit Wallet Investment Menu

Overview	%
Morningstar Medalists	62
Gold	19
Silver	15
Bronze	27
Active	92
Passive	8

Allocation	%
Target-Date Series	—
Target-Risk Series	MFS Aggressive Growth Allocation Bronze MFS Moderate Allocation Bronze MFS Conservative Allocation Bronze
Other Allocation	American Century Strategic Allocation: Aggressive Fund Ivy Asset Strategy Negative

Equity	Value	Blend	Growth
US Large-Cap	Dreyfus Strategic Value Bronze Hotchkis & Wiley Value Opportunities Bronze	Dreyfus Appreciation Bronze Vanguard Total Stock Market Index Gold Gabelli Asset AAA	American Funds New Economy Gold
US Mid-Cap	—	—	American Century Heritage Neutral
US Small-Cap		Fidelity Advisor Small Cap Silver PIMCO StocksPLUS Small Vanguard Small Cap Index Gold	
International Developed		MFS International Value Silver PIMCO StocksPLUS International	
World Stock		Franklin Mutual Global Discovery Bronze	
Emerging Markets		Oppenheimer Developing Markets Silver	
Specialty Equity		T. Rowe Price Real Estate Gold	
	Cash Equivalent/ Short-term	Core	Specialty Fixed Income
Fixed Income	Fidelity Money Market Premium Calvert Short Duration Income Neutral Goldman Sachs Short Duration Government	—	Ivy High Income Negative Templeton Global Bond Gold PIMCO Investment Grade Corporate Bond Silver
Alternatives / Other	—		

Source: Morningstar, Inc. Data as of 5/31/17

Exhibit 29 Alliant Credit Union Investment Menu

Overview				%
Morningstar Medalists				53
Gold			11	
Silver			24	
Bronze			18	
Active				91
Passive				9
Allocation				%
Target-Date Series	T. Rowe Price Retirement Series Silver			
Target-Risk Series	MFS Aggressive Growth Allocation Bronze			
	MFS Conservative Allocation Bronze			
	MFS Growth Allocation Bronze			
	MFS Moderate Allocation Bronze			
Other Allocation	Invesco Balanced-Risk Allocation Neutral			
	Blackrock Global Allocation Gold			
	T. Rowe Price Capital Appreciation Gold			
	Franklin Income Bronze			
	MFS Diversified Income Bronze			
	Ivy Asset Strategy Negative			
Equity	Value	Blend	Growth	
US Large-Cap	American Beacon Large Cap Value Bronze BlackRock Equity Dividend Bronze Delaware Value Invesco Comstock Silver JP Morgan Value Advantage Silver AIG Focused Dividend Strategy Neutral Cambiar Opportunity	American Funds Fundamental Gold Davis NY Venture Bronze Franklin Rising Dividends Neutral JP Morgan Equity Index Bronze Oakmark Gold PIMCO StockPLUS Absolute Return Vanguard 500 Index Gold Vanguard Total Stock Market Gold	Fidelity Advisor New Insights Silver T. Rowe Price Blue Chip Growth Silver Vanguard US Growth Neutral	
US Mid-Cap	Invesco American Value Neutral MFS Mid Cap Value	Dreyfus Opportunistic Midcap Value Bronze Vanguard Mid Cap Index Gold	AB Discovery Growth Neutral Eagle Mid Cap Stock Fidelity Growth Strategies Turner Midcap Growth	
US Small-Cap		Fidelity Advisor Small Cap Silver Keeley Small Cap Value Vanguard Small Cap Index Gold		
International Developed	AllianzGI NFJ International Value Bronze	First Eagle Overseas Bronze Janus Henderson Overseas Manning & Napier World Opportunities Bronze Vanguard Total International Stock Index Gold	American Funds Europacific Growth Gold Thornburg International Value Neutral	
World Stock		American Funds Capital World & Growth Gold AllianzGI Global Small-Cap American Funds SMALLCAP World Bronze Franklin Mutual Global Discovery Bronze MFS Global Equity Fund Silver		
Emerging Markets		JP Morgan Emerging Economies Delaware Emerging Markets		

Exhibit 29 Alliant Credit Union Investment Menu (Continued)

Specialty Equity

- Cohen & Steers Realty Shares **Bronze**
- Morgan Stanley Inst'l International Real Estate
- T. Rowe Price Real Estate **Gold**
- Vanguard REIT Index **Silver**
- AllianzGI Global Natural Resources
- AllianzGI Health Sciences
- Delaware Healthcare
- Deutsche Health and WellNess
- Vanguard Health Care **Gold**
- MFS Utilities **Silver**
- BlackRock Energy & Resources
- BlackRock Pacific
- Columbia Global Technology Growth **Neutral**
- Deutsche Science and Technology
- Dreyfus Technology Growth
- First Eagle Gold
- Franklin Gold and Precious Metals **Neutral**
- Hennessy Gas Utility
- Invesco Gold & Precious Metals
- Oppenheimer Gold & Special Minerals
- Vanguard Energy **Bronze**
- Vanguard Precious Metals and Mining
- Victory RS Science and Techology

Cash Equivalent/ Short-term

Core

Specialty Fixed Income

Fixed Income

- Fidelity Government Money Market
- Oppenheimer Government Cash Reserves
- Calvert Short Duration Income **Neutral**
- PIMCO Short-Term **Silver**
- Russell Short Duration Bond
- Vanguard Short-Term Bond Index **Silver**
- Franklin Adjustable US Government Securities
- Goldman Sachs Short Duration Government





























- Delaware Diversified Income **Neutral**
- Deutsche Core Fixed Income
- Harbor Bond Institutional **Silver**
- JP Morgan Core Bond **Silver**
- PIMCO Total Return **Silver**
- TCW Core Fixed Income
- Vanguard Total Bond Market Index **Silver**
- JP Morgan Core Plus Bond **Neutral**

- Columbia High Yield Bond **Bronze**
- Fidelity Advisor High Income Advantage **Silver**
- John Hancock High Yield
- PIMCO High Yield **Silver**
- BlackRock High Yield Municipal **Bronze**
- Vanguard Long-Term Investment-Grade **Silver**
- Columbia Global Bond
- PIMCO Global Bond (Unhedged)
- Templeton Global Bond **Gold**
- Fidelity Advisor Emerging Markets Income **Silver**
- JP Morgan Emerging Markets Debt
- PIMCO Emerging Markets Bond **Neutral**
- TCW Emerging Markets Income **Silver**
- BlackRock Inflation Protected **Bronze**
- PIMCO Real Return **Silver**
- AB High Income **Bronze**
- Franklin High Yield Tax-Free Income **Bronze**
- Fidelity Advisor Strategic Income **Silver**
- Invesco Intermediate-Term Municipal Income
- JP Morgan Intermediate Tax Free
- Nuveen High Yield Municipal Bond **Neutral**
- PIMCO Long-Term US Government
- PIMCO Short-Duration Municipal Income
- Russell Tax Exempt Bond
- Vanguard Long-Term Bond Index
- JP Morgan Government Bond **Silver**
- Putnam American Government Income
- MFS Government Securities

Alternatives / Other

- Deutsche Enhanced Commodity Strategy
- PIMCO Commodity Real Return Strategy **Silver**

Exhibit 30 The HSA Authority Investment Menu

Overview					%
Morningstar Medalists					81
 Gold					38
 Silver					31
 Bronze					13
Active					63
Passive					38
Allocation					%
Target-Date Series		—			
Target-Risk Series		Vanguard LifeStrategy Conservative Growth  Gold Vanguard LifeStrategy Growth  Gold			
Other Allocation		Vanguard Wellington  Gold Vanguard STAR  Silver American Funds American Balanced  Silver			
Equity	Value	Blend	Growth		
US Large-Cap	BlackRock Equity Dividend  Bronze Dodge & Cox Stock  Gold Vanguard Value Index  Silver	Vanguard 500 Index  Gold Vanguard Total Stock Market Index  Gold	American Funds Growth Fund of America  Bronze Franklin Growth  Bronze Vanguard Growth Index  Silver Nicholas		
US Mid-Cap	—	Vanguard Mid Cap Index  Gold	JP Morgan Mid Cap Equity		
US Small-Cap	Vanguard Small Cap Value Index  Silver	PIMCO StocksPLUS Small Vanguard Small Cap Index  Gold	—		
International Developed		Dodge & Cox International Stock  Gold Vanguard Developed Markets Index  Silver	American Funds Europacific Growth  Gold		
World Stock		American Funds New Perspective  Gold			
Emerging Markets		Vanguard Emerging Markets Stock Index  Bronze			
Specialty Equity		Vanguard REIT Index  Silver			
	Cash Equivalent/ Short-term	Core	Specialty Fixed Income		
Fixed Income	PIMCO Government Money Market Vanguard Short-Term Bond Index  Silver	PIMCO Total Return  Silver	PIMCO Income  Silver Prudential High Yield Vanguard Inflation Protected Securities  Gold Vanguard Short-Term Corporate Bond Index		
Alternatives / Other	—				

Source: Morningstar, Inc. Data as of 5/31/17

Appendix 2

Morningstar Analyst Rating™ for Funds

Unlike the backward-looking Morningstar Rating™ (often referred to as the star rating), which assigns 1 to 5 stars based on a fund's past risk- and load-adjusted returns versus category peers, the Morningstar Analyst Rating is the summary expression of Morningstar's forward-looking analysis of a fund. Morningstar analysts assign the ratings on a five-tier scale with three Positive ratings of Gold, Silver, and Bronze; a Neutral rating; and a Negative rating.

The Analyst Rating is based on the analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over the long term. If a fund receives a positive rating of Gold, Silver, or Bronze, it means Morningstar analysts think highly of the fund and expect it to outperform through a full market cycle of at least five years.

The Analyst Rating is not a market call, and it is not meant to replace investors' due-diligence process. It cannot assess whether a fund is the right fit for a particular portfolio and risk-tolerance. It is intended to supplement investors' and advisors' own work on funds and, along with written analysis, provide forward-looking perspective into a fund's abilities. It picks up where commonly watched measures of the past leave off.

Research Methodology: The Five Pillars

Morningstar evaluates funds based on five key pillars — Process, Performance, People, Parent, and Price — which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis. Analysts assign a rating of Positive, Neutral, or Negative to each pillar.

Process

What is the fund's strategy and does management have a competitive advantage enabling it to execute the process well and consistently over time?

Performance

Is the fund's performance pattern logical given its process? Has the fund earned its keep with strong risk-adjusted returns over relevant time periods?

People

What is Morningstar's assessment of the manager's talent, tenure, and resources?

Parent

What priorities prevail at the firm? Stewardship or salesmanship?

Price

Is the fund a good value proposition compared with similar funds sold through similar channels?

Analyst Rating Scale **Gold**

Best-of-breed fund that distinguishes itself across the five pillars and has garnered the analysts' highest level of conviction.

 **Silver**

Fund with advantages that outweigh the disadvantages across the five pillars and with sufficient level of analyst conviction to warrant a positive rating.

 **Bronze**

Fund with notable advantages across several, but perhaps not all, of the five pillars — strengths that give the analysts a high level of conviction.

Neutral

Fund that isn't likely to deliver standout returns but also isn't likely to significantly underperform, according to the analysts.

Negative

Fund that has at least one flaw likely to significantly hamper future performance and that is considered by analysts an inferior offering to its peers.

About Morningstar Manager Research

Morningstar Manager Research provides independent, fundamental analysis on managed investment strategies. Analyst views are expressed in the form of Morningstar Analyst Ratings, which are derived through research of five key pillars — Process, Performance, Parent, People, and Price. A global research team issues detailed Analyst Reports on strategies that span vehicle, asset class, and geography. Analyst Ratings are subjective in nature and should not be used as the sole basis for investment decisions. An Analyst Rating is an opinion, not a statement of fact, and is not intended to be nor is a guarantee of future performance.

About Morningstar Manager Research Services

Morningstar Manager Research Services combines the firm's fund research reports, ratings, software, tools, and proprietary data with access to Morningstar's manager research analysts. It complements internal due-diligence functions for institutions such as banks, wealth managers, insurers, sovereign wealth funds, pensions, endowments, and foundations. Morningstar's manager research analysts are employed by various wholly owned subsidiaries of Morningstar, Inc. including but not limited to Morningstar Research Services LLC (USA), Morningstar UK Ltd, and Morningstar Australasia Pty Ltd.

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