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Sound Mind Investing®

Financial Wisdom for Living Well

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Momentum: The Engine That Drives SMI's Investment Strategies

A defining characteristic of SMI's strategies is they operate according to objective rules. They don't rely on predictions or subjective thinking about how the stock market will perform over the next year. Instead, they are driven by momentum, a remarkably simple metric that has guided our investing strategies successfully for nearly three decades. This article takes a closer look at momentum—what it is, how it works, why SMI adopted it, and how it's applied to our strategies.

by Matt Bell

A fundamental mistake many investors make is to move too quickly in choosing investments. They read about a hot stock or this year's best-performing mutual fund and jump in. It's all very ad hoc and reactive.

A better approach is to choose a good investment *strategy* and allow it to guide you to the best investments. In other words, when deciding what to invest in, process matters. That's what a good investment strategy is—a systematic, comprehensive process for determining what investments to purchase, how long to hold them, and when it comes time to make a change, what new investments to buy.

The best investment strategies are marked by: 1) objectivity, 2) clarity, 3) a good track record, and 4) ease of implementation. Since its founding in 1990, Sound Mind Investing has delivered strategies that meet those criteria with the help of a simple yet powerful indicator known as momentum.

Recent past is prologue

Momentum is the idea that recent past performance tends to persist—that is, it tends to continue, at least into the near-term future. Mutual funds that have performed well over the past several months tend to continue performing well for the next several months, just as funds with poor recent performance tend to continue performing poorly.

Think of it as Sir Isaac Newton's first law of motion applied to investing: "A body in motion tends to stay in motion unless acted on by an outside force."

This runs counter to what most investors have learned. You've probably heard countless warnings that "past performance is no guarantee of future results." So, this idea that recent past performance tends to persist may give you pause. All investment prospectuses are required to carry the "past performance" disclaimer, and for good reason. No investment comes with guaranteed returns, and an investment's *longer-term* performance (3-, 5-, or 10-years) has been found to have virtually no predictive value.

That's why mutual-fund rating systems that rely on those metrics, such as Morningstar's star rankings, have been proven to be such poor guides to choosing funds. According to a *Wall Street Journal* analysis of Morningstar's (continued on page 3)

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"FOR GOD HAS NOT GIVEN US THE SPIRIT OF FEAR BUT OF POWER, AND OF LOVE, AND OF A SOUND MIND."

EDITORIAL

Upgrading 2.0 Defensive Protocols Have Been Triggered

After setting a new all-time high on September 20, the stock market has since slid into official "correction" territory, normally defined as a drop of at least -10% from a prior high. The pace and extent of this decline has been such that Upgrading's new 2.0 defensive protocols have now been turned on.

Given that it's been a full year since we unveiled these changes to the Upgrading system in our January 2018 cover article, *SMI's Fund Upgrading Strategy Evolves: Introducing Upgrading 2.0*, we thought it would be helpful to review what this means, as well as how the protocols are applied.

First and foremost, this does *not* mean the market is necessarily in the early stages of a bear market. The protocols were designed to trigger when market conditions deteriorate enough that it's prudent to begin reducing the risk exposure in our Upgrading portfolios. However, this process begins *gradually* and either escalates over time, or the risk level of the stock market abates and we remove the defensive protocols.

We've seen both of these outcomes in our historical testing. In 2000 and 2008, the protocols would have kicked in slowly and eventually escalated to the point where most of the Upgrading portfolio would have been switched to cash. But had these protocols been part of Upgrading in 2016, they would have triggered early that year only to be removed just a few months later when stocks quickly recovered from their second correction in the prior seven months. That 2016 experience roughly mirrors what we've seen in 2018, with two corrections occurring in a span of 10 months. So recent history suggests this correction could still be short-lived, or it could be the beginning of something deeper. There's no way to tell yet. While we can't know which path the market will take, the system has discerned that risk is rising. So beginning to reduce our exposure to equities makes sense in the current environment.

As you'll see on the Basic Strategies page (page 10), this is accomplished by shifting four of our Upgrading holdings to cash. If you own any of the four funds being sold, simply sell them and don't replace them with new stock-based funds.[1]

If you own only one fund in each risk category, you have a different kind of decision to make: how rapidly do you want to apply these 2.0 signals? For most, the easiest way to implement will be to shift to cash *as each specific holding that you own* is sold and shifted to cash.

A more *conservative* approach would be to go to cash in each risk category as soon as *any* of the three recommended funds is shifted to cash. But this method also heightens the risk of being whipsawed by a "false" signal.

Alternatively, the most *aggressive* approach is to wait until *all* three holdings in a risk category have shifted to cash before following suit. This risks greater losses initially.

Those wishing to apply these Upgrading 2.0 signals to a Just-the-Basics or other indexed portfolio (such as a 401k) will find ideas regarding that in this month's Level 2 article (page 7).

Some readers may wonder why we're recommending defensive measures now, *after* the market has fallen considerably. The reason is that modest pullbacks in stock prices are so common that it's counterproductive to try to defend against them. In our research, we found that ignoring as much of the market's short-term "noise" as possible while defending against only the worst declines was the best approach over the long run.

The 2.0 protocols accomplish this by using *multiple measures* of the stock market's trend. By forcing several indicators to confirm the change in trend, we minimize the frequency of these 2.0 protocols being turned on.

Importantly, our research shows this is only the fourth time in the past 20 years that these protocols would have been triggered. Two of the prior cases were followed by deep bear markets, while one was a short-term whipsaw. So while on the one hand it's a "big deal" that the protocols have kicked in, we also recognize this correction may still not amount to much. That's why the 2.0 protocols take a measured and gradual approach to scaling back risk exposure when they are initially triggered.

Upgrading 2.0 provides a simple, safe way to protect against bear-market losses. As much as possible, we encourage you to follow the system as designed. Naturally, you're free to speed it up or slow it down if you wish, but part of the effectiveness is in the "slow and steady" way Upgrading 2.0 forces the market and underlying funds to confirm the changing trends over a period of time.

For now, only four of the 15 Upgrading slots are turning to cash. Over the coming months, the market will show us the level of defense—more, less, or the same—we must play to protect our portfolios.

MARK BILLER
EXECUTIVE EDITOR

CONTACTING US
Correspondence can be emailed to SMI at help@soundmindinvesting.com. Our toll-free Reader Services line (877-736-3764) is available for handling clerical matters such as subscriptions, billings, newsletters not received, and changes of address. Please be advised, however, that the SMI staff is not trained in matters of personal counseling and it is our policy that they not attempt to do so over the phone. If our staff is busy when you call, you may leave your information on our secure answering system.

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Momentum: The Engine That Drives SMI's Investment Strategies

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approach, "Of funds awarded a coveted five-star overall rating, only 12% did well enough over the next five years to earn a top rating for that period; 10% performed so poorly they were branded with a rock-bottom one-star rating."[1]

However, an investment's *near-term* past performance, specifically *how it has done over the past 3-12 months*, has been found to be strongly predictive of how it will perform in the near-term future.

A long, well-researched history

Long before it became known as "momentum investing," this idea got the attention of British economist David Ricardo (1772-1823). A respected thinker often mentioned along with well-known classical economists such as Adam Smith and John Stuart Mill, Ricardo was also a successful investor. As *Wall Street Journal* columnist Jason Zweig has noted, Ricardo built a fortune by adhering to certain "golden rules," such as, "cut short your losses" and "let your profits run on."[2]

That's a solid basic description of *trend following*, which is what momentum investing is—investing in a stock or mutual fund that's been generating a positive return recently, staying with it until its momentum begins to wane, and then moving on to another strong-performing investment.

Momentum is such a simple idea that its effectiveness may seem surprising. After all, there are countless more sophisticated investment ideas in use today—from highly analytic ways of trying to identify undervalued companies to looking for the convergence of multiple patterns in performance charts. And yet, momentum's simplicity is one of its strengths. If you're going to put your hard-earned money at risk in the stock market (every investment involves risk), it's a mark of good stewardship to use an investment strategy that's as easy to understand as it is effective.

Think of it this way. As the football season hits the midway mark, which teams are most likely to make it to the Super Bowl—the teams that have won the most games over the past five years or the teams that have won the most games recently? Of course, it's the teams with the best records *this* year. The same is true with investments, such as mutual funds.

But momentum investing doesn't just make intuitive sense. Its effectiveness has been proven in many research studies. In 1993, Emory University economics professor Narasimhan Jegadeesh and University of Texas economics professor Sheridan Titman looked at a strategy that "selects stocks based on their past 6-month returns and holds them for 6 months." Their paper has become one of the best-known studies about momentum investing. It concluded, "Trading strategies that buy past winners and sell past losers realize[d] significant abnormal returns over the 1965 to 1989 period."[3]

According to *Business Insider*, as of 2011, over *300* momentum papers had been published in academic journals. In 2014, when global investment-management firm AQR scanned the vast landscape of momentum research, it found, "[Momentum's] return premium is evident in 212 years of U.S. equity data (from 1801 to 2012)—as well as U.K. equity data dating back to the Victorian age… in 40 other countries and in more than a dozen other asset classes. Some of this evidence predates academic research in financial economics, suggesting that the momentum premium has been a part of markets for as long as there have been markets."[4]

One of the most recent investigations was a 2018 study by the Hartford Investment Management Company (HIMCO), which sought to find out whether the 1993 findings generated by professors Jegadeesh and Titman would hold up today. After applying their approach to stock prices from 1990 to 2016, HIMCO's Paul Bukowski declared momentum to be "still alive and well."[5]

The premiere anomaly

Even those whose life's work would seem to refute the possibility that momentum could be effective have found themselves at a loss to explain how momentum could work so well, yet they are convinced it does.

In 2013, University of Chicago economist Eugene Fama was awarded the Nobel Prize for his work on the Efficient Market Hypothesis (EMH), which argues that stocks always trade at their fair value because information about them is quickly and efficiently factored in to their prices. Therefore, according to the theory, it's pointless to search for undervalued stocks or to look for trends that would lead to outperformance.

However, Fama has acknowledged several "anomalies" —strategies that defy what would be expected from a purely efficient stock market. As he and Dartmouth finance professor Kenneth French wrote in a paper they co-authored in 2008, "the *premiere* anomaly is momentum. Stocks with low returns over the last year tend to have low returns for the next few months and stocks with high past returns tend to have high future returns"[6] (emphasis added). More recently, Fama went so far as to call momentum "the biggest embarrassment to the efficient market hypothesis."[7]

Why momentum works

Of course, the stock market is made up of individual market *participants*—people, who are often far from efficient or rational. In an ironic nod to that reality, in the same year that the Nobel Committee honored Eugene Fama for his Efficient Market Hypothesis, it also awarded the same prestigious prize to another economist, Yale's Robert Shiller, whose work highlights just how *inefficient* the market can be.

In the run-up to the financial crisis of 2007-2008, Shiller sensed that excessive optimism had driven many people to buy homes they could not afford, creating a housing "bubble" that, if it were to burst, would cause painful consequences. Sure enough, many thousands of people lost their homes to foreclosure and several major financial institutions either went out of business or had to be bailed out by the federal government.

Surprisingly, the willingness of economists to consider emotional factors as drivers of financial decisions is some-

[1]on.wsj.com/2xnMYC8 [2]bit.ly/2UC9CT3 [3]bit.ly/2UEk0da [4]bit.ly/2SHwkYb [5]bit.ly/2rvqqxO
[6]bit.ly/2zYLmSt [7]bit.ly/2EuVmGQ

what new. Shiller credits the blending of psychology, sociology, and political science into economics for "bringing economics into a broader appreciation of reality."[1]

One of the foremost social scientists to bring attention to the often irrational realities of economics is Daniel Kahneman, a psychologist whose work has been instrumental in the development of what is now known as "behavioral economics." The field traces its roots to the 1970s when Kahneman and psychologist Amos Tversky began a long collaboration that explored the many cognitive biases that drive so much human behavior.

It is within this field of behavioral economics where momentum may be best understood. In particular, two cognitive biases may explain why momentum works: conservatism and herding. With conservatism, people react slowly to new information—for example, investors respond to good news about an investment they hold by gradually continuing to invest more. Herding is when investors see others making a particular investment and join in. Both behaviors can bid up the price of an investment, at least for a while.

Systematizing momentum

Not much is known about how David Ricardo decided *when* to cut short his losses or *how long* to let his profits run on. But in order to move from a philosophy of investing to a reliable, executable strategy, more specifics are needed. Objective ways of quantifying momentum are required so that investors know when an investment's momentum is strong enough to justify its purchase and when that momentum has weakened to the point of making it prudent to sell.

Ben Carlson, author of the book *A Wealth of Common Sense* and a blog by the same name, put it this way: "It is a terrible idea to chase performance if you don't know what you're doing or why you're doing it. Momentum is chasing performance, but in a systematic way, with an entry and exit strategy in place.… The best momentum investors use a rules-based approach, to avoid [making emotional decisions]."[2]

The development of SMI's momentum strategies

In 1980, SMI founder Austin Pryor was a money manager who enjoyed early success following the principles of market timing, moving client money into and out of the market when he and his business partner anticipated significant market strength or weakness.

His firm's success continued for many years, but in the latter half of the 80s, the bottom fell out. In the spring of 1987, with the Dow Jones Industrial Average at about 2,300, Austin and his partner believed the market had risen too far too fast, and put all of their clients' money into money-market funds. When the Dow kept rising throughout that summer, many clients, disappointed with missing out on the continuing rally to above 2,700, took their money elsewhere. On October 19, the market crashed. Now known as Black Monday, the Dow dropped more than 22% that day to below 1,750. Austin's earlier move to safety was vindicated, but none of the clients his firm lost returned.

It was a painful time that led Austin into an extended period of praying for God's direction. An answer came in the fall of 1989 over lunch with good friend Larry Burkett, a prolific biblical money-management author and host of a popular nationally syndicated radio program. Larry told Austin the Christian community needed a monthly investment newsletter to guide them through the investing process with clear instruction and biblical counsel.

While Austin readily agreed that such a publication would be beneficial, it didn't initially occur to him that he should create it. But in the weeks that followed, he felt the Lord's encouragement to take up the challenge, and he launched Sound Mind Investing in July 1990.

Given his 10+ years of experience as a market timer, one might think he would bring that emphasis into his newsletter venture. However, he knew that doing it successfully required more trading than was possible with a monthly publication. It also required a great deal of time, flexibility, and self-control. So, in contrast to the emotionally challenging, short-term mindset of market timing, Austin decided to emphasize the wisdom of taking a long-term perspective. Proverbs 13:11b says: "He who gathers money little by little makes it grow."

He also knew from experience that the use of objective, mechanical rules to guide one's investment strategy provided a needed guardrail against emotional decision-making. From the outset, Austin based his investment recommendations in SMI on momentum, an approach he had used in varying degrees in managing his clients' assets.

He was especially intrigued by an approach to momentum investing used by Burton Berry, founder of a mutual-fund newsletter called NoLoad Fund-X. However, given that SMI was initially designed to appeal to novice investors, Austin devised a somewhat simplified version of Berry's approach that would involve less buying and selling. That led to SMI's first momentum investing strategy, Fund Upgrading.

SMI's momentum strategies today

• **Fund Upgrading** continues to be one of SMI's "core" strategies, meaning it can be used to manage an investor's entire portfolio. To follow Upgrading, the investor first determines an optimal asset allocation, using SMI's risk-tolerance questionnaire.[3] Then he or she combines those findings with an investment time frame to come up with an ideal mix of stocks and bonds. If the investor's optimal asset allocation is 100% stocks, the portfolio is divided equally among five stock risk categories: Large-company value, large-company growth, small-company value, small-company growth, and foreign. If the optimal asset allocation calls for the use of bonds, that portion of the portfolio is invested across three bond funds—two that are fixed and one that changes based on momentum.[4]

Within each of the stock categories and the rotating bond category, the momentum scores of hundreds of funds are evaluated each month. The recommended funds are those with the highest momentum, calculated simply by adding together a fund's most recent 3-, 6-, and 12-month performance. For example, if a fund has lost -2.0% over the past 3 months, gained +4.5% over the past 6 months, and gained +7.0% over the past 12 months, its momentum score would be 9.5.

Notice that the most recent three-month's performance is reflected in all three figures. It represents 100% of the first num-

[1]bit.ly/2QqJJHs [2]bit.ly/2C7wuma [3]https://soundmindinvesting.com/resources/calculators/risk-tolerance-quiz [4]bit.ly/2GdS3pc

ber, 50% of the second number, and 25% of the final number. In this way, a fund's most recent performance is given greater weight. This formula reflects SMI's experience that (1) the older the performance data, the less relevant it is, and (2) more recent months should be weighted more heavily than distant months.

As long as a recommended fund's momentum score keeps it within the top 25% of all the funds in its risk category, it remains a recommended fund. Once it drops below that top quartile, it is replaced with the then highest-momentum fund. This approach to using momentum is known as *relative* momentum. That means the performance of a fund within a given category is compared to other funds in the category.

Over time, SMI's ongoing research has led to a number of refinements to Fund Upgrading. In early 2018, for example, new defensive protocols based on the principles of *absolute* momentum were incorporated into the Fund Upgrading strategy.[1] Recommended funds are still selected by comparing one fund's performance against all others in its category. However, one aspect of the new protocols is to compare each fund's momentum against its *own* recent past performance. This process will objectively move investors out of particular stock funds and into cash should a steep and persistent negative (bearish) trend develop.

For the next two strategies, the exact momentum formula used to rank funds varies somewhat from the one employed with Fund Upgrading, but the same principles drive each of them.

• **Sector Rotation** was launched in 2003. This is a high-risk, high-reward strategy that investors are advised to limit to no more than 20% of their stock allocation.[2] In other words, if your optimal asset allocation is 80% stocks and 20% bonds, SMI recommends limiting SR to no more than 16% of your portfolio (20% of the 80% stock allocation).

With Sector Rotation, SMI monitors the momentum of over 100 concentrated "sector" funds, such as those that invest only in telecommunications or bio-tech companies. As with Fund Upgrading, after the fund at the top of the list is first recommended, it is held until its momentum drops it below the momentum of the top 25% of funds in the SR universe. At that point, it is replaced with the sector fund currently at the top of the rankings.

While Sector Rotation is SMI's highest-volatility strategy, momentum has objectively guided those following the strategy to remarkable returns (see performance on back cover).

• **Dynamic Asset Allocation** is the most recent SMI momentum strategy, introduced in 2013 to add a more defensive strategy to SMI's lineup. Like Fund Upgrading, DAA is a core strategy, suitable for a significant portion of an investor's portfolio. However, whereas Fund Upgrading is a *strategic* asset-allocation strategy (an investor's portfolio is designed around their optimal stock/bond allocation, with momentum dictating which particular stock or bond funds to hold), DAA is a *tactical* asset-allocation strategy, rotating investors among six *broad asset classes*, each one represented by an exchange-traded fund: U.S. stocks, foreign stocks, real estate, bonds, gold, and cash.

Those categories were chosen because they tend to be somewhat uncorrelated with each other. In other words, if some are performing poorly, others are likely to be performing better. Investors following the strategy hold the three funds showing the highest momentum.

While Fund Upgrading and Dynamic Asset Allocation could be used to manage your entire portfolio, perhaps with a relatively small allocation to Sector Rotation, SMI research has demonstrated that the use of all three strategies may be the most profitable approach of all, lowering overall portfolio volatility while increasing returns.[3]

SMI also offers an indexing strategy, Just-the-Basics, that doesn't utilize momentum. It's a good choice for investors who are just getting started with investing, have relatively small portfolios, or are investing through a taxable account.

Necessary cautions

Historically, the biggest complaints against momentum investing have had to do with the perception that it requires frequent trading, and as a result, generates excessive trading costs. There are many iterations of momentum investing, and while some may involve repeated trading, one of SMI's guiding principles in constructing our strategies has been to provide compelling performance while minimizing trading.

Although momentum investing has an impressive long-term record, it can go through periods of underperformance —especially at market turning points. As a *trend-following* approach, momentum positions us in what is working *now*. When a trend changes, it takes time to adjust a portfolio to the new trend.

These points are evident in DAA's back-tested performance during the 2007-2009 bear market. Over the course of those tough 16 months, DAA would have lost money in 10 of them. However, because of the way the strategy responded to the changing market trends, DAA would have lost only -1.4% during that entire bearish period when the stock market was ravaged by a -51% loss!

Conclusion

To recap, the best way to choose investments is to start by selecting a good investment strategy. Good investment strategies are marked by objectivity, ease of understanding, a compelling track record, and ease of implementation.

Momentum is an objective metric, pointing investors to investments whose recent good performance indicates that such performance is likely to persist. There's no guesswork involved; the numbers are what the numbers are.

Momentum is easy to understand and has a long, well-researched history of generating market-beating results. SMI's momentum-driven strategies have outperformed the market as well. From 2000 to 2017, while the U.S. stock market generated an average annual return of +5.8%, the average annual returns turned in by Fund Upgrading, Dynamic Asset Allocation, and Sector Rotation were +8.5%, +10.8%, and +15.7% respectively.

SMI's momentum strategies are designed to be easy to implement, with a focus on keeping trades to a minimum.

Bottom line? Taking advantage of the "anomaly" of momentum is likely to be an effective way to grow your financial resources over time, thus helping you make the most of what the Lord has entrusted to you. ◆

[1] bit.ly/2UAAEKC [2] Sector rotation generates highly volatile returns. More risk-averse investors should use a limit of 10%. [3] bit.ly/2GcD8M7

LEVEL 1 ONE

Strengthening Your Foundation

Wise money management begins with a strong financial foundation. In this column, we cover topics such as how to manage cash flow, apply strategies for getting debt-free, make wise purchasing decisions, build savings, choose appropriate insurance protection, navigate marital financial issues, and many more.

"By wisdom a house is built, and through understanding it is established." Proverbs 24:3

4 OPTIONS FOR BUDGETING ONLINE

Budgeting is cool. Well, at least cooler than it used to be, now that people can manage their personal finances via websites and mobile apps.

Mint, the leading online-budgeting tool (owned by Intuit, maker of TurboTax), boasts some 20 million users. Competing services such as You Need A Budget, EveryDollar, and Tiller have strong stakes in the digital money-management marketplace as well. Each of these four budgeting systems—and there are plenty of others[1]—offers a unique mix of features, capabilities, and approaches.

Here is an overview. (For more details, visit the websites footnoted below.)

Mint

One of Mint's most attractive characteristics is that it's free (but with ads). Mint is also easy to use—via browser or app—enabling you to track expenses across your various credit, checking, savings, and investment accounts (although the investment tracking portion isn't Mint's strong suit). Mint can track cash spending and keep tabs on your overall net worth.

When you sign up, you'll be asked to connect Mint with your various bank, credit, and investments accounts. From then on, Mint will retrieve your transaction data (via Intuit's data-collection system which uses "bank-level security"). Each time you log in you'll see your latest transactions posted and categorized.

You can correct any transactions that Mint posts to the wrong category and also "split" a transaction if a purchase encompasses multiple categories (for example, an expenditure that includes both groceries and household products).

Although Mint works well for tracking what you're doing with your money (and generating related spending reports), it doesn't offer much help with budget coaching—i.e., showing you how to develop a spending plan in the first place. If you already have experience with budgeting and simply want to track implementation—while also keeping an eye on your overall financial picture— Mint[2] is a solid choice.

You Need a Budget

You Need a Budget (YNAB—pronounced why-nab) is aimed squarely at teaching budgeting principles and modifying financial behavior. It helps users design a spending plan that "give[s] every dollar a job"—i.e., pre-determining where every dollar of income is going to go. YNAB then tracks the implementation of that plan and encourages the user to stay accountable to it.

One interesting hallmark of the YNAB system is that, over time, it pushes users toward living on the previous month's income (YNAB calls it "aging your money"). The goal is to reach the point of having at least a one-month cushion between earning money and spending it, thus ending the cycle of "living paycheck to paycheck." YNAB also prompts users to identify longer-term financial targets (such as saving for a major purchase or a vacation) and to track their month-by-month progress toward those goals.

The latest edition of YNAB allows auto-importing of transactions from bank and credit card accounts (imported securely via third-party providers Finicity and MX). If you prefer, you can download transaction data directly from your bank and upload it to YNAB yourself. You also can enter transactions manually and split transactions across multiple categories as needed.

YNAB is best suited for people who want to learn how to control spending and build savings. YNAB costs $83.99/year, but there's a 34-day free trial to allow users to get up to speed. Because You Need a Budget[3] has quite a learning curve, the company offers live online workshops just about every day.

EveryDollar

Financial guru Dave Ramsey entered the online-budgeting fray in 2015 with EveryDollar, a no-frills system which, like YNAB, is aimed at "giving every dollar a job." The designers of EveryDollar deserve high marks for making the initial setup quick and painless. You list your income and then set targeted spending amounts in the areas of giving, saving, housing, and so on. When your planned outgo matches your stated income, you're ready to go.

Posting transactions is streamlined, too. In the free (ad-supported) version of EveryDollar, users add transactions manually, using a pop-up screen that prompts for the amount spent, the budget category it should be assigned to, and where the money was spent. It's easy to split a transaction among two or more categories and even to include additional information such as a check number or a note of explanation about the expenditure.

If you'd rather have your transactions imported automatically, that will cost you. EveryDollar Plus, priced at $99/year, can securely pull in data from your bank accounts, credit cards, etc. Once the data is available, you simply "drag and drop" each transaction to its proper spending category.

For a straightforward, turn-key, system that does nothing but month-by-month budgeting, EveryDollar[4] fits the bill. Just be aware that the paid version is one of the pricier options on the market.

Tiller

Instead of using an off-the-shelf approach designed by someone else, many budgeters prefer to manage their money via a "home-grown" spreadsheet system. The downside to this approach is that spreadsheets typically require tedious manual entry of all transactions.

Enter Tiller.[5] Tiller pairs spreadsheet budgeting with automated (continued on page 13)

[1]Other budgeting systems include CountAbout, GoodBudget, Moneydance, and Mvelopes. MoneyGuidePro®, primarily a financial planning tool, also includes budgeting capabilities.
[2]www.mint.com [3]www.youneedabudget.com [4]www.everydollar.com [5]www.tillerhq.com

LEVEL 2 TWO

Developing Your Investing Plan

Investing decisions are best made as part of a comprehensive personalized plan. In this column, we focus on topics that will help you implement an investment strategy that takes into account your personal goals, attitude toward risk-taking, and current season of life. We explain investing essentials, discuss SMI's core investing strategies, and help you decide which strategy is best for your situation.

"The plans of the diligent lead to profit as surely as haste leads to poverty." Proverbs 21:5

REDUCED FEES, LOWER MINIMUMS CREATE OPTIONS FOR JTB INVESTORS

SMI's Just-the-Basics strategy is the ultimate in simplicity. JtB can be set up in a matter of minutes and requires only once-a-year attention (for a quick portfolio rebalance). JtB uses just three stock-based index funds, plus one bond fund (if your asset allocation calls for it).

SMI has long recommended Vanguard-branded funds as the go-to vehicles for implementing JtB. For many years, Vanguard offered an unrivaled combination of suitable funds, low expenses, and top performance.

Now, Vanguard is contending with two powerhouse competitors that have muscled in on the low-cost index-fund business: Schwab and Fidelity. Industry price wars have driven expense ratios for many index funds to minuscule levels. Schwab, for example, now undercuts Vanguard on four "JtB-appropriate" traditional funds. Fidelity, meanwhile, recently unveiled a 0.0% expense model on three stock funds that appear to be tailor-made for Just-the-Basics (see table below). In addition, both Schwab and Fidelity have reduced minimum-investment requirements to virtually zero, creating an attractive way to get started for new investors.

For its part, Vanguard has now lowered expense ratios on its traditional indexed mutual funds, matching the extremely low expenses of the Vanguard ETFs currently recommended for JtB.[1] Unfortunately, the company did *not* lower its $3,000 minimum-investment requirement for traditional funds.

Balancing simplicity and cost

For many years, SMI recommended Vanguard's *traditional* index funds for JtB investors. But the $3,000 minimum (per fund) was a big obstacle for newcomers. Then, about seven years ago, Vanguard adopted a no-transaction-fee model for its in-house exchange-traded funds (ETFs). The argument for moving from traditional funds to ETFs was compelling: Vanguard had ETF versions of each recommended JtB fund, the ETFs didn't carry the $3,000 minimum, and the ETFs had lower costs than the traditional funds (at least for investors with smaller balances). So SMI changed its official recommendations over to *Vanguard's ETFs*. The upfront cost to get started with JtB was now simply the price of a single share of each fund.

There was a downside: Purchasing ETFs is more complicated than buying traditional funds. But until recently, we've judged going the ETF route to be worth the extra effort—based on the ETF advantages in cost (which translates into slightly better performance) and the low dollar amount needed to get started.

Re-evaluating JtB at Vanguard

With the recent changes in the indexing marketplace, it's time to re-evaluate our JtB options. We'll examine the lay of the land at Vanguard first, then explore its rivals.

Starting this month, *we're changing the official recommendations for JtB back to Vanguard's traditional mutual funds.* Now that the expense ratios for these funds are equal to those of the ETFs, the balance has shifted back in their favor.

This is primarily due to the mechanics of adding money to a traditional mutual fund vs. an ETF. Traditional funds orders can be placed at any time of day, in exact dollar amounts. ETF orders are more complicated, requiring an investor to calculate how many shares they wish to purchase at prevailing share prices, and the purchase process is more complicated.

These issues may seem minor to experienced investors, but JtB is supposed to be the ultimate in simplicity. It has been the on-ramp to investing for thousands of brand new investors. If they have enough funds to meet the minimum requirements, and especially for anyone regularly adding new money to a JtB account, the traditional funds are just easier to use.

That said, the ETFs are fine alternatives. If you already own the ETFs, there's no need to switch (unless you're adding regularly to your account and switching would simplify your future investing). Likewise, we will continue to list the corresponding ETF ticker on the Basic Strategies page for investors who either prefer the ETF or don't have the $3,000 per fund to start with the traditional fund. For those, buying the ETFs remains a great option.

FUND OPTIONS FOR JUST-THE-BASICS

	Vanguard*	Schwab	Fidelity
Foreign Stocks	VTIAX / VXUS	SWISX	FZILX
Smaller Stocks	VEXAX / VXF	SWSSX	FZIPX
Large Stocks	VFIAX / VOO	SWPPX	FNILX
Bonds	VBTLX / BND	SWAGX	FXNAX**

*The first ticker shown is the traditional mutual fund, the second is the ETF version. **Unlike the other three Fidelity funds listed, FXNAX is not a zero-expense fund. It carries an expense ratio of 0.25.

JtB at Fidelity or Schwab

With Schwab and Fidelity now offering roughly comparable traditional funds that 1) generally have lower costs than Vanguard's offerings and 2) have virtually no required minimums, should you still prefer Vanguard over its rivals?

The short answer is yes: At this point we still think it's worth favoring Vanguard. While Fidelity and Schwab have certainly made the competition more interesting, there are significant caveats for each broker.

In Fidelity's case, their newly introduced zero-expense index funds appear to be a perfect match for JtB. This includes the presence of an "extended market" fund, which few firms other than Vanguard offer. That extended market fund is a fairly big deal, as it allows an investor to capture "the rest of the U.S. stock market" when paired with an S&P 500 index *(continued on page 13)*

[1] Vanguard lowered these traditional index fund expenses by eliminating the *Investor* share class that SMI used to recommend. They've now shifted all investors to the cheaper *Admiral* shares. See the table for new ticker symbols.

LEVEL 3 THREE

Broadening Your Portfolio

This column goes beyond the investing essentials taught in Level 2, introducing you to a wider range of investment securities and markets. By further diversifying your holdings, you can create a more efficient, less volatile portfolio. We also comment quarterly on the performance of the various markets, and on how SMI's fund recommendations and strategies have fared.

"Divide your portion to seven, or even to eight, for you do not know what misfortune may occur on the earth." Ecclesiastes 11:2

APPLYING UPGRADING 2.0 SIGNALS TO JTB OR 401(K) INDEXED PORTFOLIOS

This month brings the first "live action" for the new Upgrading 2.0 defensive protocols (see page 2 for details). This article discusses how Just-the-Basics (JtB) investors, as well as anyone using index funds in a 401(k) plan, might choose to apply these signals.

Let's start with a basic question—*should* indexers apply the 2.0 signals? Strictly speaking, if a person is concerned about bear-market protection, Upgrading and/or Dynamic Asset Allocation (DAA) are better tools for that. As we've noted many times, index funds are designed to simply follow the market up and down, offering no protection from falling prices. Applying 2.0 defensive signals obviously upends that idea. Indexing generally, and JtB specifically, is supposed to be a simple, set-it-and-forget-it approach, not one that requires checking in every month to see if 2.0 signals have been given.

That said, there are likely SMI members who are indexing because of limited 401(k) fund choices (or some other reason) and they want to apply a version of the 2.0 defensive protocols. This article explains how to do so.

To be clear, what follows is not an official change to JtB, or a formal SMI recommendation on how to apply Upgrading 2.0 signals to index funds. The 2.0 protocols were researched and designed for Upgrading, not indexing. How (and if) you apply those signals to index-fund holdings is up to you.

No single "right" way

As has been alluded to already, people use index funds in many different ways. For some, their entire portfolio is indexed. The strategy may have been chosen because they want minimal management responsibilities. Others may have been forced into indexing due to poor 401(k) choices. In either case, they may now be willing to be more active in adjusting their holdings to avoid the worst of the harm that a bear market can do to their portfolios. Here are some ideas to consider that can be modified to fit a range of specific situations.

Understanding "slots"

To explain the steps one can take, we need to define what we mean when we talk about "slots." This is merely a reference to the fact that in Upgrading we diversify among five risk categories, and recommend three stock funds in each. This means there is a total of 15 possible holdings, or slots, to fill. In Upgrading 2.0, some (or all) of those slots may at times be invested in cash rather than stock mutual funds.

In contrast to the 15 slots in Upgrading, we use only three in our JtB indexing strategy. The way to translate from 15 to only three is as follows:

- In the Foreign category, the three slots are represented by an international index fund. In JtB, that fund is VTIAX.
- In Small/Growth and Small/Value, the six slots are all represented by a single small-company index fund. In JtB, that fund is VEXAX.
- In Large/Growth and Large/Value, the six slots are all represented by a large-company S&P 500 index fund. In JtB, that fund is VFIAX.

Option 1: Moving to cash quickly

This approach aims to minimize investor involvement and the number of transactions an index investor must make. There's no getting around the need to monitor the Upgrading recommendations. But rather than shifting into cash gradually, as Upgrading 2.0 does, this approach is going to do the job faster.

For example, a JtB investor might decide to move an *entire* risk category to cash once at least one of the Upgrading slots in that group has moved to cash.

- In Upgrading, the foreign category has three recommended funds (i.e., three slots). When one of those slots moves to cash, the entire foreign indexed position would be sold and moved to cash as well.
- The small-company categories have a combined total of six slots. When one of those slots moves to cash, the entire small-company indexed position would also be moved to cash.
- Likewise, the large-company categories have a combined total of six slots. When one of those slots moves to cash, the entire large-company indexed position would also be moved to cash.

This approach moves to cash in each risk category *at the first sign that Upgrading 2.0 is beginning to* do the same. The priority is preservation of capital. The risk, however, is that

(continued on page 14)

Two Approaches	Move To Cash Quickly	Move To Cash in Three Steps
Characteristics	Strongest attempt to prevent losses but at risk of moving too soon and experiencing whipsaws	Emulates Upgrading 2.0 by moving to cash slowly. Most likey to avoid whipsaws but more capital risk
Foreign Stocks	Sell all VTIAX as soon as 1 slot in the foreign risk category goes to cash	Sell one-third VTIAX when first slot in the foreign category goes to cash, another third if second slot goes to cash, and final third if third slot goes to cash
Small-Company Stocks	Sell all VEXAX as soon as 1 slot in either the small/growth or small/value categories goes to cash	Sell one-third VEXAX when 1 or 2 slots in the two small-company categories go to cash, another third if 3 or 4 slots go to cash, and final third if 5 or 6 slots go to cash
Large-Company Stocks	Sell all VFIAX as soon as 1 slot in either the large/growth or large/value categories goes to cash	Sell one-third VFIAX when 1 or 2 slots in the two small-company categories go to cash, another third if 3 or 4 slots go to cash, and final third if 5 or 6 slots go to cash

LEVEL 4 FOUR

Looking Toward Retirement

As you move through your 50s, 60s, and beyond, you face a new set of financial decisions related to reducing your investment risk and generating income from your portfolio. In this column, we address such topics, as well as those pertaining to Social Security, long-term health care, advanced giving strategies, estate planning, and other matters of importance to those nearing and in retirement.

"There is precious treasure and oil in the dwelling of the wise." Proverbs 21:20a

AN EMPTY NEST? NOW'S THE TIME TO RAMP UP SAVINGS—AND TO HAVE FUN

Raising a family is a great privilege and a high calling. But it isn't cheap. There seems to be a never-ending cycle of child-related expenses: clothes, food, doctor visits, family trips, piano lessons, college. But it's not never-ending. One day it comes to a halt, and mom and dad find themselves as "empty nesters."

Typically, as child-rearing expenses disappear, a couple's cash-flow situation improves, perhaps remarkably (assuming household income remains steady). What happens next isn't hard to predict: Many empty-nester couples, now with more money in the bank than they're accustomed to, embark on spending sprees that claim most of their "newly found" wealth.

There is nothing wrong, of course, with spending money on a long-awaited vacation or even dropping some cash on a home-remodeling project. But consider the larger picture. If you reach the empty-nest stage *behind on saving for retirement*—and that's quite common—it's wise to develop a plan for how much of your "extra" money to spend and how much to save for years yet to come.

Take advantage of the circumstances

The reason many empty-nester couples haven't saved enough for retirement is simple: setting money aside during the child-raising years is tough! The very real needs of the present seem to far outweigh the necessity of saving for a distant and fuzzy future.

Once the children are on their own, however, couples have a great opportunity to ramp up their savings and make significant progress toward building an adequate nest egg. But most don't do that.

Using government data, Boston University's Center for Retirement Research found that, on average, early-stage empty nesters increase their retirement-related savings rate by only the smallest of margins—less than 1%. On a percentage basis, they make better progress when it comes to accelerating mortgage payments, increasing such payments by 2% (e.g., an extra $20 dollars on a $1,000-a-month mortgage).

Researchers concluded that most of the money freed up when child-rearing expenses end is spent on short-term consumption rather than on longer-term preparation.

Striking a balance

As with many decisions about how to deploy financial resources, the spend-vs.-save choice facing early-stage empty nesters doesn't have to be an either-or determination. It's possible to strike a wise and reasonable balance between "We'll use this money to enjoy ourselves" and "We will set this money aside for the future."

Want to travel? Set a budget for that (by researching prices for flights, accommodations, and ancillary expenses), save enough from your newly expanded cash flow, and *bon voyage*! But at the same time, determine how much you're going to set aside for the future.

To ensure follow through, "automate" the implementation of your savings plan—both for your "fun" and your retirement. You could, for example, start auto-transferring $250 a month to a dedicated "vacation" account.[1] After 12 months, you'd have $3,000 set aside for a trip to Europe or the Holy Land or wherever! At the same time, you could be transferring $750 a month to a retirement account, resulting in an extra $9,000[2] a year in retirement savings.

Suppose you have 10 years between the time you become an empty nester and your planned retirement day. Over that decade (continuing the example from above), you could set aside an additional $90,000 toward your retirement. Even with a limited period in which to grow and assuming only a 6% rate of return, after the full 10 years that $90,000 would be worth roughly $120,000—a significant addition to your nest egg.

Ramp it up still more

To free up even more money during the early empty-nest years, consider the following:

• **Downsize your dwelling.** If your housing situation is chewing up a lot of your cash—not only for the mortgage payment but also for taxes, insurance, and utilities—maybe it's time to find something cheaper. Or, alternatively, if you don't want to move but you have extra space in your current home, rent out a room, either to a full-time tenant or an occasional traveler (such as via Airbnb).

• **Streamline your insurance.** Now that your children are grown, you can drop them from your auto and health policies. You may want to reduce your life insurance amount, too.

• **Sell a car.** Can you get by with one car instead of two (or two instead of three)? Getting rid of a car will save a big chunk of money currently spent on repair, insurance, and auto-related taxes.

• **Sell other stuff.** You likely have things you no longer need that someone else might be willing to buy. Possible sale items: a bedroom suite, sports equipment, and musical instruments.

Opportunity knocks!

The decade or so between the end of the childrearing years and the start of retirement can offer a married couple an unmatched opportunity to enjoy "just-you-and-me" experiences of travel and fun. At the same time, those years present the final opportunity for couples to prepare financially for the many years (potentially) that will come after—a quite different season of life that could extend well into their 80s or 90s.

Don't squander *either* opportunity. ◆

[1] March2018:p38. [2] For 2019, the annual IRA contribution limit for a person age 50 and older is $6,500. However, a husband and wife can each have an IRA, making the combined limit $13,000. The 50-and-over 401(k) limit is $25,000

SOUND MIND PORTFOLIOS

Basic Strategies

The fund recommendations shown for Upgrading accountholders are based primarily on "momentum" scores calculated just before this issue was published (not the earlier end-of-month scores shown on this page). Consistency of performance is also considered, along with the portfolio manager's philosophy and number of years at the helm. Three recommendations are made in each risk category. Select the one(s) most in accord with your preferences and broker availability.

"Plans fail for lack of counsel, but with many advisers they succeed." Proverbs 15:22

RECOMMENDED FUNDS FOR SMI'S JUST-THE-BASICS STRATEGY

Data through 11/30/2018	Portfolio Invested In	MOM	Performance YTD	1Mo	3Mo	6Mo	12Mo	3Yr Avg	Rel Risk	Expense Ratio	Stock/Bond Mix 100/0	80/20	60/40	40/60	Ticker Symbol
Total International Stock	Foreign stocks	-23.7	-10.0%	1.7%	-6.8%	-8.7%	-8.1%	5.6%	1.17	0.11%	20%	16%	12%	8%	VTIAX/VXUS
Extended Market Index	Small company stocks	-11.6	1.5%	1.8%	-9.9%	-3.5%	1.8%	10.2%	1.36	0.08%	40%	32%	24%	16%	VEXAX/VXF
S&P 500 Index	Large company stocks	4.4	4.8%	1.9%	-4.5%	2.8%	6.1%	12.0%	1.00	0.04%	40%	32%	24%	16%	VFIAX/VOO
Total Bond Mkt Index	Medium-term bonds	-2.4	-2.0%	0.6%	-0.8%	-0.2%	-1.4%	1.3%	1.00	0.05%	None	20%	40%	60%	VBTLX/BND

JUST-THE-BASICS FOOTNOTES: Just-the-Basics is an indexing strategy that requires just minutes a year to assure that your returns are in line with those of the overall market. You won't "beat the market" using this simple strategy, but neither will you fall badly behind. Your JtB portfolio should be allocated among as many as four traditional mutual funds (or ETFs) depending on your stock/bond mix. For more on JtB, see this issue, pages 7-8.

RECOMMENDED FUNDS FOR SMI'S FUND UPGRADING STRATEGY

Risk	Data through 11/30/2018[1]	Date Added	E-Trade Avail[2]	Fidelity Avail[2]	Schwab Avail[2]	MOM[3]	Performance YTD	1Mo	3Mo	6Mo	12Mo	3Yr Avg	Relative Risk[4]	Exp Ratio	Number Holdings	Redemp Fee?[5]	Ticker Symbol
Category 5 Foreign	1. ☎ Cash	01/19	See Jan2019:p2														
	2. Lazard Glob Infrastructure	11/18	NTF	NTF	NTF	-1.5	-0.6%	-0.5%	-0.9%	1.6%	-2.2%	8.7%	0.95	1.22	34	None	GLFOX
	3. Invesco Intl Divd Achievers	11/18	ETF	ETF	ETF	-5.3	-5.7%	3.4%	-3.2%	-0.8%	-1.3%	4.7%	1.30	0.55	65	None	PID
Category 4 Small/Growth	1. ☎ Cash	01/19	See Jan2019:p2														
	2. Value Line MidCap Focus	12/18	NTF	NTF	NTF	20.0	13.2%	3.7%	-2.6%	9.5%	13.1%	13.9%	1.05	1.18	35	None	VLIFX
	3. Baron Opportunity	03/18	NTF	NTF	NTF	12.6	18.6%	1.4%	-9.0%	0.6%	21.1%	15.8%	1.64	1.41	60	None	BIOPX
Category 3 Small/Value	1. ☎ Cash	01/19	See Jan2019:p2														
	2. Merger Fund	12/18	NTF	NTF	NTF	13.1	7.1%	1.7%	2.3%	3.0%	7.9%	4.1%	0.31	1.91	192	None	MERFX
	3. InvescoS&PMidCapLow Vol	12/18	ETF	ETF	ETF	11.1	8.3%	4.9%	-0.7%	5.3%	6.6%	13.6%	0.94	0.25	80	None	XMLV
Category 2 Large/Growth	1. iShares Edge MSCI Min Vol	12/18	ETF	ETF	ETF	17.7	8.6%	3.2%	0.3%	8.6%	8.9%	12.8%	0.83	0.15	219	None	USMV
	2. Polen Growth Investor	10/18	NTF	NTF	NTF	16.1	15.7%	2.3%	-4.7%	4.9%	15.9%	13.2%	1.16	1.25	22	2%60days	POLRX
	3. MS Multi-Cap Gro - LW[10]	05/18	NTF	NTF	NTF	21.5	22.8%	2.4%	-7.7%	4.4%	24.7%	19.8%	1.75	1.24	43	None	CPOAX
Category 1 Large/Value	1. ☎ Cash	01/19	See Jan2019:p2														
	2. Invesco S&P 500 Low Vol	12/18	ETF	ETF	ETF	15.7	7.1%	4.7%	1.3%	8.3%	6.1%	11.4%	0.85	0.25	101	None	SPLV
	3. Pear Tree Quality	09/18	NTF	NTF	NTF	11.5	7.6%	1.1%	-3.1%	6.7%	8.0%	14.2%	0.96	1.29	47	None	USBOX
Bond Categories	Vanguard S-T Bond[6]	11/18	ETF	ETF	ETF	1.3	0.3%	0.4%	0.3%	0.8%	0.3%	0.9%	0.45	0.07	2.7[7]	None	BSV[9]
	Permanent: Vanguard I-T Bond	Perm	ETF	ETF	ETF	-2.4	-2.1%	0.5%	-0.7%	0.2%	-1.9%	1.3%	1.26	0.07	6.2[7]	None	BIV[8]
	Permanent: Vanguard S-T Bond	Perm	ETF	ETF	ETF	1.3	0.3%	0.4%	0.3%	0.8%	0.3%	0.9%	0.45	0.07	2.7[7]	None	BSV[9]

Upgrading Footnotes: [1] The funds in each risk category are selected (and ranked 1 through 3) primarily based on their momentum scores in mid December, not those shown on this report. The fund ranked third is the one that currently appears most likely to be replaced next. A telephone symbol (☎) next to a fund's name indicates that fund is a new recommendation. See the fund writeups in "MoneyTalk" for more information. **[2]** Fund Availability: NTF means the fund can be bought and sold free of transaction fees as long as you stay within the trading limitations imposed by E-Trade (800-387-2331), Fidelity (800-343-3548), and Schwab (800-435-4000). Policies change frequently, so be sure to verify their accuracy. ETFs trade like stocks and are typically available at all brokers for a modest commission. **[3]** Momentum is a measure of a fund's performance over the past year and is our primary performance evaluation tool. For more, see this issue's cover article. **[4]** A 1.0 relative risk score indicates the fund has had the same volatility as the market in general over the past three years. For example, a fund with a score of 1.4 would mean the fund was 1.4 times (40%) more volatile than the market. See June2015:p88. **[5]** Depending on how long you hold this fund, a redemption fee may be applicable when selling (for example, a fee of 1% if you sell within 60 days of purchase). Fees change often and vary from broker to broker, so be sure to check with your broker for the most current information. **[6] Rotating Fund:** This bond recommendation changes periodically based on SMI's Upgrading methodology. The Short-Term and Intermediate-Term Index recommendations shown below that fund are fixed and don't change from month to month. See January2015:p7 for more information. **[7] Duration:** For bond funds, this column shows the average duration of the bonds in the portfolio in years. Typically, the longer the duration, the greater the risk/reward. See Nov2018:p167. **[8]** Those preferring a traditional mutual-fund option can buy VBILX. **[9]** Those preferring a traditional mutual-fund option can buy VBIRX. **[10]** Normally is a load fund but is available load-waived (LW) through some brokers. Purchase only if available to you at your broker without paying a load. See original fund write-up for details.

☎ Changes in our fund recommendations are explained in the MoneyTalk column.

SOUND MIND PORTFOLIOS

Upgrading: Easy as 1-2-3

Fund Upgrading has long been SMI's most popular Basic Strategy. Whether used in isolation or in combination with SMI's Premium Strategies, Upgrading forms a solid foundation for an investing plan. Upgrading has proven itself over time with market-beating returns over the long haul, and it is easy to implement. This page explains exactly how to set up your own Upgrading portfolio.

"The plans of the diligent lead to profit as surely as haste leads to poverty." Proverbs 21:5

WHY UPGRADE?

SMI offers two primary investing strategies for "basic" members. They are different in philosophy, the amount of attention they require, and the rate of return expected from each. Our preferred investing strategy is called Fund Upgrading, and is based on the idea that if you are willing to regularly monitor your mutual-fund holdings and replace laggards periodically, you can improve your returns. While Upgrading is relatively low-maintenance, it does require you to check your fund holdings each month and replace funds occasionally. If you don't wish to do this yourself, a professionally-managed version of Upgrading is available (visit bit.ly/smifx).

SMI also offers an investing strategy based on index funds called Just-the-Basics (JtB). JtB requires attention only once per year. The returns expected from JtB are lower over time than what we expect (and have received) from Upgrading. JtB makes the most sense for those in 401(k) plans that lack a sufficient number of quality fund options to make successful Upgrading within the plan possible. See the top section of the Basic Strategies page at left for the funds and percentage allocations we recommend for our Just-the-Basics indexing strategy.

WHERE TO OPEN YOUR ACCOUNT

Opening an account with a discount broker that offers a large selection of no-load funds greatly simplifies the Upgrading process. This allows you to quickly and easily buy/sell no-load mutual fund shares without having to open separate accounts at all the various fund organizations. There are several good brokerage choices available. We recommend reading our latest Broker Review (March2018:Cover article, also available online at bit.ly/smibroker) for details regarding the pros and cons of each broker, as your specific investing needs will largely dictate which broker is best suited to your situation.

401(K) INVESTORS

For a detailed explanation of how to Upgrade within your 401(k) plan, see bit.ly/smi401ktracker. That article also contains ideas on Upgrading in any type of account where your available fund choices are limited.

HOW TO BEGIN STOCK UPGRADING

❶ First determine your stock/bond target allocation by working through the investment temperament quiz online in the "Start Here" section (see the link near the top of the home page on the main navigation bar). For example, Table 1 below provides guidelines for those with an "Explorer" temperament. For more on asset allocations, see Jan2018:p8.

❶ PICK YOUR ALLOCATION

Seasons of Life	Stocks	Bonds
15+ years until retirement	100%	0%
10-15 years until retirement	80%	20%
5-10 years until retirement	70%	30%
5 years or less until retirement	60%	40%
Early retirement years	50%	50%
Later retirement years	30%	70%

Note: These are SMI's recommendations for those with an "Explorer" temperament. See Step ❶ in the text for information on our investment temperament quiz. You may want to fine-tune the above percentages to suit your personal approach to risk-taking.

❷ FIND YOUR PORTFOLIO MIX

Portion of Portfolio Allocated to Stocks:	100%	80%	60%	40%
Portion of Portfolio Allocated to Bonds:	**None**	**20%**	**40%**	**60%**
Stock Cat. 5: Foreign Stocks	20%	16%	12%	8%
Stock Cat. 4: Small Companies /Growth	20%	16%	12%	8%
Stock Cat. 3: Small Companies /Value Strategy	20%	16%	12%	8%
Stock Cat. 2: Large Companies /Growth	20%	16%	12%	8%
Stock Cat. 1: Large Companies /Value Strategy	20%	16%	12%	8%
Bond Cat. 3: "Rotating" Bond Fund	None	10%	20%	30%
Bond Cat. 2: Intermediate-Term Bond Fund	None	5%	10%	15%
Bond Cat. 1: Short-Term Bond Fund	None	5%	10%	15%

❸ BUY YOUR FUNDS

Example uses an 80/20 mix between stocks and bonds		Dollars	Invest In Funds
Stock Cat. 5: Foreign	16%	$8,000	Cash* or Lazard
Stock Cat. 4: Small/Growth	16%	$8,000	Cash* or Value Line
Stock Cat. 3: Small/Value	16%	$8,000	Cash* or Merger Fund
Stock Cat. 2: Large/Growth	16%	$8,000	iShares Edge MSCI Min Vol
Stock Cat. 1: Large/Value	16%	$8,000	Cash* or Invesco S&P Low Vol
"Rotating" Bond Fund	10%	$5,000	Vanguard S.T. Bond Index
Intermediate-Term Bond Fund	5%	$2,500	Vanguard I.T. Bond Index
Short-Term Bond Fund	5%	$2,500	Vanguard S.T. Bond Index
Total	100%	$50,000	

*See Jan2019:p2 for thoughts on implementing Upgrading 2.0 cash decisions.

❷ Find the column that matches your stock/bond allocation in Table 2. (If your target falls between two listed columns, split the difference.) Multiply each percentage by the value of your total portfolio to calculate the dollar amount to invest in each risk category.

❸ Buying your funds is easy. Look at the recommended funds on the opposite page. In each category, start with the #1 listed recommendation. If it's available at your brokerage (indicated by Yes, NTF, or ETF), buy it. If it's not, continue down the list to the next available fund. Then contact your broker—online or via phone—to buy the fund you've picked.

Let's see how a new subscriber 12 years from retirement with $50,000 to invest and an account at Fidelity would proceed. First, he or she selects the proper stock/bond mix for their situation (let's assume 80/20). Then, from Table 2, finds the percentages for each risk category. Multiplying $50,000 by each percentage yields the dollar amount for each category as shown in Table 3.[1] Cash is currently recommended in multiple categories. See this month's editorial on page 2 for a discussion of holding cash in an Upgrading 2.0 portfolio.

After making decisions for each category, the orders are placed and the stock portion of the Upgrading portfolio is complete!

From then on, it's just a matter of checking the Basic Strategies page each month. When an owned fund is *removed* from this page (not when it merely shifts out of the #1 ranking), you should immediately sell that fund and invest the proceeds in the highest-ranked position in the same risk category that is available at your broker.

BOND UPGRADING

Your bond allocation is divided among three funds as seen in Table 2. One-half of that is invested in the rotating Upgrading selection, which is reviewed monthly and changes from time to time. The other half is divided evenly between short-term and intermediate-term index bond funds, which are permanent holdings. For more on why SMI approaches bond investing in this way, see "Introducing an Upgrading Approach to Bond Investing that Outperforms the Bond Market" (bit.ly/smibondupgrading).

[1] Rounding off to the nearest hundred is fine. As time goes by, your portfolio will gradually move away from these starting percentages as some funds perform better than others. This will be fixed once a year when you "rebalance" back to your desired portfolio mix (see Jan2018:p8).

MONEYTALK

STOCK UPGRADING — NEW FUND RECOMMENDATIONS

[When more than one fund *in the same risk category* is replaced, you should evaluate which of the newly recommended funds is the best fit for your portfolio. The simplest method for picking new funds is to refer to our 1-3 rankings on the "Basic Strategies" page and invest in the highest-ranked fund in each risk category that is available through your broker. • We choose our recommended funds with the hope they will be held for at least 12 months and therefore qualify for long-term capital gains tax treatment (applies to taxable accounts only). Nevertheless, we suggest a change when a fund's performance falls below the threshold of our mechanical guidelines. Our guidelines provide objective criteria for making the decision as to when to "upgrade" to a better-performing fund. When a fund no longer meets our performance guidelines, we suggest you sell it even if the 12-month holding period hasn't been met. However, a "$" symbol following the name of the fund being sold lets you know that we still think well of the fund and its management and you might elect to continue holding the fund for a month or two to achieve a tax benefit or to save on transaction or redemption fees. Be aware, however, that from 2006-2010, the average performance "cost" of retaining such funds was roughly 0.5% per month. For more details, see Oct2011:p153.]

This is the first time the Upgrading 2.0 defensive protocols have triggered, which means these "new fund recommendations" look different than usual. As this month's Editorial explains, implementing these defensive protocols involves a gradual shifting of our Upgrading portfolio from stock mutual funds to cash. This month, four of our five risk categories are switching a first slot to cash; only large/growth remains fully invested in stock funds. This is obviously a significant move, yet in terms of a "full" Upgrading portfolio made up of all 15 recommendations, we'll still own 11 stock funds. In percentage terms, Stock Upgrading will now be roughly 73% invested in stock funds, with a 27% cash position. (If you haven't read this month's Editorial yet, do so now, as it offers thoughts on three different approaches to implementing these cash signals.)

In the write-ups below, you'll find a discussion of each fund being sold, but no description of the new fund to purchase. That's because the "cash" options will be different for readers at various brokers. Last month's Level 3 article discussed several of the top cash options available to SMI members (Dec2018:p184). Generally speaking, we wouldn't suggest tying up your cash holdings (by buying CDs, for example), because we don't know how long these slots will be in cash. That makes money-market funds a great option: they provide solid yields without locking us into anything.

A final note on the timing of these transactions: three of the four funds being sold this month have either made their 2018 distributions or aren't planning any. Only ARSMX in small/value has an upcoming distribution (6.4% on 12/27). *Taxable accounts should sell that fund before then*. Beyond that, waiting to sell until the end of the month in hopes that a typical "Santa Claus rally" lifts prices between now and the end of the year is fine, but obviously there's no guarantee that pattern will hold this year.

◆ **In the Foreign group, iShares Currency Hedged MSCI EAFE ETF (HEFA, 10/2018) is being replaced.** While HEFA is down -9.1% over the past three months, that's actually better than its average foreign peer. As a result, this fund still ranks in the top 10% of our foreign risk category. Normally it wouldn't be sold, as it has yet to violate the top-quartile selling threshold. But this is where the other performance metrics we watch in Upgrading 2.0 come into play. In this case, the fund is being sold not because of its *relative* momentum (this fund vs. other funds in the same category), but because of its *absolute* momentum—comparing its own momentum trend against its past performance. While the fund hasn't faltered relative to its peers, its momentum (along with the whole Foreign fund group) has fallen sharply. As a result, it is being sold and the slot shifted to cash this month.

◆ **In the Small/Growth group, Delaware Smid Cap Growth A (DFCIX, 2/2018) is being replaced.** This fund was a solid performer for us for most of 2018. It ended November with a considerable lead—+5.5% to +2.2%—over the average small/growth fund tracked by Morningstar over the prior 10 months. Unfortunately, it's fallen sharply thus far in December, turning its +5.5% gain into roughly a -5.5% loss (through 12/18). This fund is being replaced because it has fallen below the category quartile, although it would have failed our other *absolute* momentum tests even had that not occurred.

◆ **In the Small/Value group, AMG River Road Small-Mid Cap Value (ARSMX, 10/2018) is being replaced.** Small-company stocks have suffered the most in the current correction, with Morningstar's small/value category down a shocking -18.3% over the past three months. River Road has held up better, losing -14.7%. As you might expect, the fund remains above the quartile cutoff. But given the damage inflicted on the whole small/value group, it's no surprise that our *absolute* momentum screens are telling us to lighten our stock exposure to this category by selling this fund and shifting the proceeds to cash.

◆ **In the Large/Value group, Miller Opportunity (LGOAX/LMNOX, 6/2017) is being replaced.** Miller took us on a wild, but ultimately rewarding ride, which is no surprise given the fund's sky-high 2.1 relative risk score (meaning the fund is roughly twice as volatile as the S&P 500 index). Through November 30, Miller's total gain since being recommended was +24.4%, roughly double the +12.4% gain of the average fund in SMI's large/value group. But it had some huge swings along the way, falling -11.8% in October and a similar amount in December. As a result of its sharp October/December declines being more severe than the rest of its category, the fund has fallen out of the top quartile. That's reason enough to replace it and shift the slot to cash, now that the Upgrading 2.0 protocols have been turned on. Still, Miller Opportunity exits as our longest-tenured recommendation, having been first added way back in June of 2017. It was one of the first "load-waived" funds SMI ever recommended, and its peer-beating performance confirms why we've been excited to gain access to some of these funds that were unavailable to us for so long due to their sales loads. ◆

MONEYTALK

LEVEL 1 / CONTINUED FROM PAGE 6:

4 OPTIONS FOR BUDGETING ONLINE

transaction posting. The system was designed for Google Sheets (which requires a Google account), but the company recently released an Excel version for non-Google users. Becoming proficient with Tiller takes a little while, but if you're familiar with how spreadsheets work, you've already fought half the battle.

Tiller is definitely not one-size-fits-all. You can choose from among several Tiller-provided templates or design your own. Once you choose a template and link to your bank and credit accounts (via third-party company Yodlee), transaction data—updated daily—will begin flowing into a spreadsheet tab called "Transactions." Simply assign each transaction to a budget category or choose to have them auto-categorized. Cash spending can be entered manually and transactions can be split among two or more categories as needed. If you're using one of the Tiller-designed templates, the spreadsheet's main page (the "Budget Dashboard") will keep an up-to-date tally of your expenditures category-by-category.

To use an "envelope system" budget (based on the once-common practice of dividing actual cash among categorized envelopes), Tiller allows you to enable "rollovers." At the end of the month, any money left over in a given category will "roll over" to the same category for the next month. That can be helpful if, for example, your electric bill is low one month but high the next. If you'd rather, you can assign rolled over money to be re-allocated to a *different* category. For example, you might choose to have any unspent money from "Entertainment" roll over into a "Vacation" category.

Tiller is best for people who enjoy working with numbers and prefer a "hands-on" approach to budgeting. The company offers a 30-day free trial. After that, the service costs $59/year.

The best system for you

No budgeting system is objectively the "best one." The best system for you depends, in part, on what you're looking for (from no-frills to robust reporting features) and how much you're willing to pay (from $0 to $99/year). But the biggest consideration—regardless of whether you choose any of the systems described above or something else—is this: Will you implement whatever system you commit to? The best budgeting system for you is one you will actually use. ◆

LEVEL 2 / CONTINUED FROM PAGE 7:

REDUCED FEES, LOWER MINIMUMS CREATE OPTIONS FOR JTB INVESTORS

fund. Like most shops, Schwab doesn't offer a fund like this, which leaves the option of pairing a small-company index fund with the large-focused S&P 500 fund. That's not the end of the world, but it leaves a bit of a hole in the lineup as the so-called "mid-caps" (medium-sized companies) are left out. Vanguard's extended-market index fund has outperformed most pure small-cap index funds for many years, which is a big reason SMI has stuck with Vanguard as our default indexing provider.

The reason we're hesitant to endorse a switch to Fidelity's no-cost lineup for JtB is simply that the funds are all brand new—*and* they're based on new indexes. It's hard for index funds to go to zero fees because basing a fund on a branded index typically requires paying the index provider a royalty. To avoid that expense, Fidelity has come up with its own versions of the indexes for these new funds. Unfortunately, this means we can't compare performance with the Vanguard offerings. Until we can, it's difficult to take the leap of faith and recommend the Fidelity funds.

With Schwab, the issue is performance. The S&P 500 index funds are comparable and more-or-less interchangeable. But as just discussed, Schwab's small-cap index is an inferior choice to Vanguard's extended-market fund, which has outperformed it at every time interval (3 yrs, 5 yrs, 10 yrs, 15 yrs). The performance differences aren't huge—+15.62% vs +14.85% annualized over the past 10 years, +9.46% vs +8.84% over the past 15 years—but they aren't insignificant either. The foreign compo-

MARKET NOTES, QUOTES, AND ANECDOTES

The price of fear

• "When the markets are roiling, as they are now, fear is pitched all day, every day, and human nature buys it. And pays a premium. A very big premium." – R.P. Seawright, encouraging readers of his blog to stay the course. He said while a big drawdown is "much more likely" today than five years ago, the probabilities still favor long-term investors. Read more at bit.ly/2USKvM0.

It's tough to go long

• "Because we think poor short-term outcomes means that something is wrong." – One of 50 reasons why many investors are so bad at thinking long-term, according to a 12/18/18 post by Joe Wiggins, author of the Behavioural Investment blog. To read the other 49 reasons, go here: bit.ly/2Gtc5wl.

Where the stock values are

• "If there's value in stocks, it's in foreign markets. If the S&P 500 were to fall 25%, it would merely be at its median valuation over the past 30 years, based on a variety of long-term valuation metrics. But foreign markets such as those in the MSCI EAFE index could gain 10% just to get back to median valuations." – Doug Ramsey, Chief Investment Officer of Leuthold Group, quoted in *Barron's* on 12/3/18.

The 50/50 investor

• "Half the time I wonder why I have so much in stocks; the other half, I wonder why I have so little." – Vanguard founder Jack Bogle, after describing his own asset allocation as "50% bonds...and 50% stocks" in an interview published by ThinkAdvisor. Read more at bit.ly/2GoUhlY.

nent has been closer, but also lagged consistently: +7.97% for Vanguard vs. +7.62% for Schwab over the past 10 years.

These performance differences typically are a result of following different indexes. Vanguard's Extended-Market Fund tracks the S&P Completion Index, covering about *3,000* small- and mid-cap companies. In contrast, the Schwab Small-Cap Fund tracks the Russell 2000, which includes *2,000* small-company stocks. Meanwhile, Fidelity's ZERO Extended Market Fund follows a proprietary Fidelity index that includes about *2,500* companies.

You have options, if you want them

To reiterate, if you're happy implementing Just-the-Basics via Vanguard's ETFs, *there is no reason to change*—either to Vanguard's traditional funds or anything else.

That said, if you're periodically adding new money to your JtB funds and your balance in each Vanguard ETFs is at least $3,000, it probably makes sense to transfer your money to Vanguard's comparable traditional funds (see ticker symbols in table on page 7). Not only will this simplify future JtB purchases, but you'll also put your money to work faster because traditional funds can be purchased in *fractional* shares. ETFs require investment in full shares, which usually results in leftover uninvested cash in your account.

If you're just *starting* with Just-the-Basics and deciding where to open an account, Vanguard still has the edge. However, if you already have an account at Fidelity or Schwab (or want to open one there so as to be better able to also follow SMI's other strategies), the Fidelity and Schwab alternatives have become much more compelling lately. Their shortcomings are small enough that they can be reasonably overlooked given the potential convenience of being able to stick with an existing account.

So if you're already at Fidelity or Schwab, we wouldn't recommend paying fees or commissions to access Vanguard's index funds. Instead, implement JtB via the in-house Fidelity/Schwab offerings. ◆

LEVEL 3 / CONTINUED FROM PAGE 8:

APPLYING UPGRADING 2.0 SIGNALS TO JTB OR 401(K) INDEXED PORTFOLIOS

the downturn may prove to be temporary and one may need to soon re-establish the indexed positions that have just been sold.

Option 2: Moving to cash in three steps

Upgrading 2.0 never moves more than one of the three stock-based holdings in a given risk-category to cash in a single month (although it can move from cash back to stock funds faster after a bear market). This intentionally creates a gradual move to cash. For JtB/401(k) investors who are willing to take a more active approach involving more transactions, it's relatively easy to set up an approach that directly parallels Upgrading 2.0. This involves shifting each JtB holding into cash *in thirds*, as Upgrading 2.0 does.

Here's an example of how this would work using the large-company categories. When either Large/Growth or Large/Value has a slot switch to cash, you'd move one-third of your indexed large-company holding—typically an S&P 500 index fund (VFIAX in JtB)—to cash. Then you'd wait until at least three of the six available large-company slots in Upgrading had shifted to cash, at which point you'd move another third of your large-company index-fund holding to cash. Finally, if the two large-company categories in Upgrading reach a point of having five or more slots in cash, you would move the final third of your indexed holding to cash. (See the table on page 7 for an overview of this process.)

Historical perspective

Our recent research on how a JtB portfolio would have fared in the past when applying Options 1 and 2 is encouraging. In the bear markets of 2000-2002 and 2007-2009, the savings would have been substantial (see table at left). Option 1, which moves out of the market immediately rather than gradually, did the best job (although we can't assume that will always be the case—each bear market unfolds differently). Alas, it wasn't all rainbows and unicorns. There was a whipsaw in 2016 (a false 2.0 signal that lasted only two months) which would have caused indexers following 2.0 protocols to sacrifice some gains.

	Just Basics	Option1	Option2
09/2000-09/2002	-44.5%	-22.5%	-31.7%
11/2007-02/2009	-52.9%	-10.1%	-13.2%
02/2016-03/2016	+7.2%	+0.1%	+2.3%

Conclusion

The most important point to take from this article is to apply this information in the way that *best fits you as an investor*. You may choose to not apply the 2.0 signals at all. Alternatively, if you're an engaged investor who follows SMI's more active strategies but you're stuck with an indexing 401(k) or some similar situation, perhaps an active application such as using one of the two options just discussed would be appealing.

But if you chose indexing for its simplicity, this doesn't have to be complicated. You'll still get a degree of protection even if you simplify the process. It's okay to decide, for example, "I'm going to sell 25% of each JtB holding when the second fund in each corresponding Upgrading group goes to cash, and that's all I'm doing." The application of the 2.0 signals is flexible. It can be used with fast or slow triggers, and with as large or as small a percentage of your indexed holdings as you choose.

If you decide to follow the Upgrading 2.0 signals in your indexed portfolio, we encourage you to write down your process and make it part of your written investing plan. Each of the last two bear markets stretched across three calendar years, which is a long time to keep the particulars of a strategy wrinkle like this clear in your mind. Write down now how you plan to transition from your JtB holdings to cash, and from cash back to your JtB holdings. Then simply watch the monthly Upgrading fund/cash changes each month and follow along. ◆

SOUND MIND PORTFOLIOS

PREMIUM STRATEGIES

The strategies described below are available to those with an SMI Premium web membership. These strategies can be used in combination with—or in place of—our Just-the Basics and Upgrading portfolios. They have special characteristics that could make them desirable depending upon your individual goals, risk tolerance, and tax bracket. You can learn more about each strategy in the Premium section of the SMI website.

DYNAMIC ASSET ALLOCATION

Overview

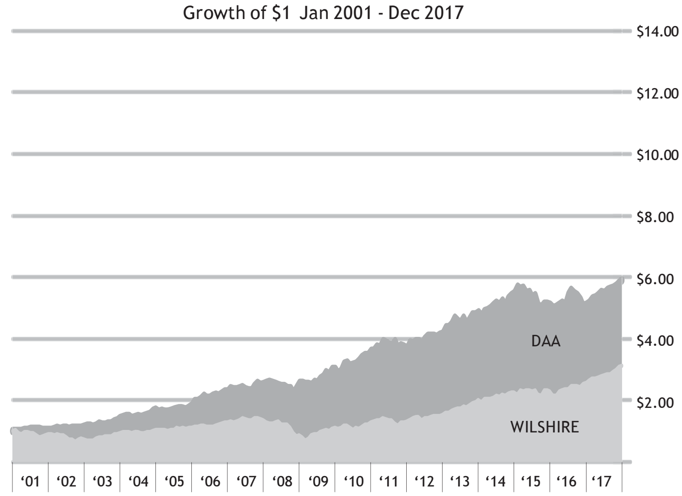
This is a stand-alone strategy that can be used in combination with (or in place of) SMI's basic strategies. DAA is designed to help you share in some of a bull market's gains, while minimizing or even preventing losses during bear markets. It's a low-volatility strategy that nonetheless has generated impressive back-tested results over the long term. DAA involves rotating among six assets classes—U.S. stocks, foreign stocks, gold, real estate, bonds, and cash. Only three are held at any one time.

Who Should Consider This Strategy

Anyone, but especially investors who are more concerned with avoiding major losses during bear markets than they are with capital growth during bull markets. **Pros:** Excellent downside protection during bear markets, reflected in a very low worst-case result and relative-risk score. Great long-term track record. **Cons:** Subject to short-term whipsaws. Lags the market in up years. Making trades promptly and concentrating entire portfolio in only three asset classes can be emotionally challenging.

Dynamic Asset Allocation vs Wilshire 5000

Growth of $1 Jan 2001 - Dec 2017



Strategy	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Avg[1]	Worst12[1]	Rel Risk[1]
DAA	4.0%	10.4%	22.4%	19.3%	8.6%	25.7%	10.1%	1.3%	17.6%	20.3%	1.4%	13.9%	16.2%	13.0%	-6.8%	-0.5%	16.0%	11.0%	-13.7%	0.64
Wilshire 5000	-11.0%	-20.9%	31.6%	12.5%	6.4%	15.8%	5.6%	-37.2%	28.3%	17.2%	1.0%	16.1%	33.1%	12.7%	0.7%	13.4%	21.0%	6.9%	-43.3%	1.00

SECTOR ROTATION

Overview

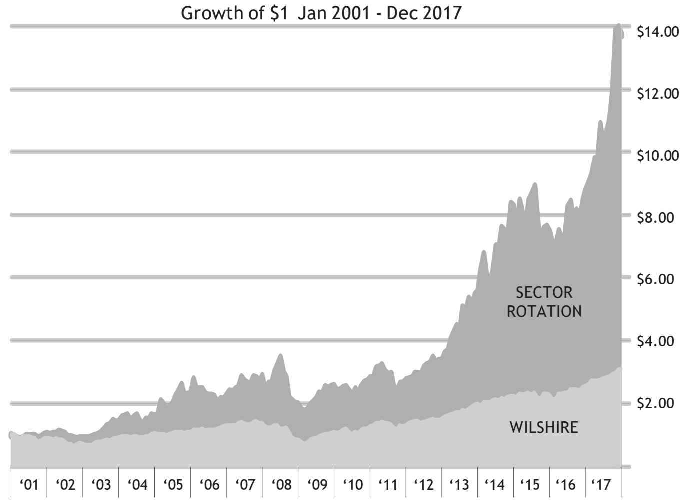
This high-risk strategy involves investing in a single special-purpose fund that focuses on a specific sector (such as biotech, energy, or financial services). Because these stock funds invest in a narrow slice of the economy, they carry a higher degree of risk. Only one fund, selected based on having superior momentum relative to other sector options, is held at a time. The sector-fund recommendations in this strategy are designed to be used in combination with Just-the-Basics, Fund Upgrading, or DAA (or a combination of these) up to a maximum of 20% of the stock allocation. While the performance peaks and valleys of Sector Rotation have been higher and lower than all other SMI strategies, it's a strategy that has generated especially impressive long-term returns.

Who Should Consider This Strategy

Experienced investors willing to concentrate an investment in a single sector of the economy. **Pros:** Very attractive long-term returns. **Cons:** Much greater month-to-month volatility and relative risk with dramatic short-term loss potential.

Sector Rotation vs Wilshire 5000

Growth of $1 Jan 2001 - Dec 2017



Strategy	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Avg[1]	Worst12[1]	Rel Risk[1]
Sector Rotation	3.7%	-13.1%	54.4%	12.6%	46.1%	-1.9%	28.1%	-31.5%	30.5%	9.1%	-3.2%	23.3%	65.7%	49.9%	-9.7%	16.8%	56.7%	16.7%	-38.6%	1.70
Wilshire 5000	-11.0%	-20.9%	31.6%	12.5%	6.4%	15.8%	5.6%	-37.2%	28.3%	17.2%	1.0%	16.1%	33.1%	12.7%	0.7%	13.4%	21.0%	6.9%	-43.3%	1.00

[1]The three data points on the far right in each of the two tables are for the Jan2001-Dec2017 period. "Avg" represents the average annualized return from 2001-2017. "Worst12" represents the worst investor experience over 181 rolling 12-month periods from 2001-2017.

PERIODICALS POSTAGE
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Dated Investment Material
Please Do Not Delay!

PERFORMANCE DATA

SOUND MIND INVESTING MODEL PORTFOLIOS • DATA THROUGH NOVEMBER 30, 2018

BASIC STRATEGIES

	Year to Date	1 Month	3 Months	12 Months	3 Yrs Annual	5 Yrs Annual	10 Yrs Annual	15 Yrs Annual
U.S. Stock Market[1]	4.5%	1.9%	-5.3%	5.6%	12.0%	10.8%	14.5%	9.0%
Just-the-Basics[2]	0.5%	1.8%	-7.2%	1.6%	10.1%	8.3%	13.7%	8.6%
Stock Upgrading[3]	0.2%	0.5%	-9.6%	0.6%	8.6%	7.1%	12.5%	8.7%
U.S. Bond Market[4]	-1.9%	0.5%	-0.7%	-1.5%	1.2%	1.9%	3.5%	3.7%
Bond Upgrading[5]	-1.8%	0.4%	-1.1%	-1.6%	1.2%	2.1%	5.6%	5.7%

PREMIUM STRATEGIES

	Year to Date	1 Month	3 Months	12 Months	3 Yrs Annual	5 Yrs Annual	10 Yrs Annual	15 Yrs Annual
DAA[6]	0.9%	2.3%	-1.9%	2.4%	5.1%	4.5%	9.6%	10.5%
Sector Rotation	0.9%	5.5%	-11.1%	-0.9%	22.0%	20.5%	21.6%	16.6%
50-40-10 Blend[7]	0.7%	1.9%	-6.1%	1.3%	8.3%	7.3%	12.2%	10.8%

Notes: Transaction costs and redemption fees—which vary by broker and fund—are not included. • [1] Based on the float-adjusted Wilshire 5000 Total Return index, the broadest measure of the U.S. stock market. • [2] Calculated assuming account rebalancing at the beginning of each year with 40% of the stock allocation invested in the Vanguard S&P 500 (VOO), 40% in Extended Market (VXF), and 20% in Total International Stock (VXUS). • [3] For a 100% stock portfolio, assuming the portfolio allocation for each risk category was divided evenly among all the recommended funds. • [4] Based on Barclay's U.S. Aggregate Bond Index, the broadest measure of the U.S. bond market. • [5] For a 100% bond portfolio, assuming 25% of the portfolio was invested in Vanguard I-T Bond Index (BIV), 25% in Vanguard S-T Bond Index (BSV), and 50% in the rotating recommended bond fund. The results prior to January 2015 are hypothetical, calculated from backtesting the strategy following a mechanical rules-based system. • [6] The results prior to January 2013 are hypothetical, calculated from backtesting the strategy following a mechanical rules-based system. • [7] For a portfolio allocated 50% to DAA, 40% to Stock Upgrading, and 10% to Sector Rotation. See the April 2018 cover article for details. The results prior to January 2013 are hypothetical, calculated from backtesting the strategy following a mechanical rules-based system.

THE SOUND MIND INVESTING MUTUAL FUND (SMIFX)

Current Returns as of 11/30/2018	Year to Date	1 Month	3 Months	12 Months	3 Year Annual	5 Year Annual	10 Year Annual
SMIFX	0.09%	0.09%	-12.07%	0.92%	7.54%	5.57%	11.23%
Wilshire 5000	4.45%	1.93%	-5.35%	5.57%	11.99%	10.77%	14.51%
S&P 500	5.11%	2.04%	-4.40%	6.27%	12.16%	11.12%	14.32%

Quarterly Returns as of 9/30/2018	Year to Date	1 Month	3 Months	12 Months	3 Year Annual	5 Year Annual	10 Year Annual
SMIFX	12.27%	-1.36%	4.39%	17.08%	14.10%	9.26%	9.50%
Wilshire 5000	10.53%	0.16%	7.27%	17.59%	17.27%	13.63%	12.02%
S&P 500	10.56%	0.57%	7.71%	17.91%	17.31%	13.95%	11.97%

Total/Gross expense ratio: 2.09% as of 4/27/18 (includes expenses of underlying funds)
Adjusted expense ratio: 1.15% as of 4/27/18 (excludes expenses of underlying funds)

Notes: *The performance data quoted represent past performance, and past performance is not a guarantee of future results. Investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance information quoted.* • ***You should carefully consider the investment objectives, risks, fees, charges and expenses of the Funds before investing. The prospectus contains this and other information about the Funds. To obtain a prospectus or performance information current to the nearest month end, call 1-877-764-3863 or visit www.smifund.com. Read the prospectus carefully before investing.*** • Because the SMI Funds invest in other mutual funds, they will bear their share of the fees and expenses of the underlying funds in addition to the fees and expenses payable directly to the SMI Funds. As a result, you'll pay higher total expenses than you would investing in the underlying funds directly. • Returns shown include reinvestment of dividends and capital gains. The Wilshire 5000 index represents the broadest index for the U.S. equity market. The S&P 500 Index is an unmanaged index commonly used to measure the performance of U.S. stocks. You cannot invest directly in an index. • The Sound Mind Investing Funds are distributed by Unified Financial Securities (member FINRA).

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