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Financial Wisdom for Living Well

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Higher Returns With Less Risk, Re-Examined

Over the past 25 years, SMI has developed multiple investing strategies, each with its own strengths, weaknesses, and attractive track record. An investor can use any of these strategies independently, of course, but combining them in specific ways may provide additional benefits. Here, we explain how to design portfolios built for maximum return while greatly minimizing risk. We also explore how the 50-40-10 combination is affected by our recent revisions to Fund Upgrading (Upgrading 2.0).

by Austin Pryor and Mark Biller

Four years ago, we ran an article examining the merits of using a blended "50-40-10" portfolio, where 50% of the portfolio was allocated to SMI's Dynamic Asset Allocation strategy (DAA), 40% to Fund Upgrading, and 10% to Sector Rotation (SR). Reviewing the past risk and reward attributes of each strategy, that article showed that blending these strategies within a portfolio offered the potential of higher returns with less risk, compared to utilizing the individual strategies separately.

In January 2018, we introduced a "2.0" version of Fund Upgrading. Drawing from the latest research in the study of momentum, this new 2.0 version includes defensive measures designed to shift a portion of Upgrading's stock holdings to cash as bear-market conditions take hold. That approach shows great promise in reducing bear-market losses, while operating virtually unchanged during bull-market periods. The result is a version of Upgrading that would have produced better overall returns over the past two decades than the original—with considerably less risk.

In light of this significant change to Fund Upgrading, it's worth re-examining the 50-40-10 research to see what impact

this change has on the construction of blended SMI portfolios. Previously, only one SMI strategy could be expected to limit bear-market losses significantly – DAA. Now, having infused Upgrading with defensive potential, questions have arisen about the best way to combine SMI portfolios.

A quick note for new SMI readers: Please understand there's no need to try to manage multiple strategies immediately. If you're still in the process of getting comfortable with the basics, feel free to put this issue aside for six months until you've mastered using one strategy. Then perhaps come back to this discussion to see how adding additional strategies might enhance your overall portfolio.

How do bonds fit?

Before diving into the various portfolio combinations, we should clarify a few things regarding bonds. From 1982 until just recently, bonds enjoyed a secular (long-term) reduction in interest rates, which pushed bond prices much higher. It's possible we may yet see a final low in interest rates in the next recession/bear market, but the broad consensus is that we have either already seen, or will see shortly, a turning (continued on page 51)



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



An Easter Meditation: "Fasting for the King's Coming" by John Piper

There is a growing awareness among Christians that prayer with fasting is intended to be an integral part of the believer's life. The following is excerpted from John Piper's A Hunger for God. I enjoyed this book and enthusiastically recommend it to those looking for an inspiring review of the biblical basis for fasting. - AP

Fasting is a physical expression of heart-hunger for the coming of Jesus. In Matthew 9:15, Jesus pictured himself as the Bridegroom of the Church. He explained that his disciples were not fasting because the Bridegroom is present. But then he said, "The days will come when the Bridegroom is taken away from them, and they will fast." So Jesus connects Christian fasting with our longing for the return of the Bridegroom. Therefore, one of the most important meanings of Christian fasting is to express the hunger of our hearts for the coming of our King.

Fasting is a future-oriented counterpart to the past-oriented celebration of the Lord's Supper. Jesus said, "Do this in remembrance of me" (Luke 22:19). By eating we remember the past and say, Jesus has come. He has died for our sins. He has risen from the dead. Our guilt is removed. Our sin is forgiven. Our condemnation and punishment have been transferred to Christ. Our acquittal is sealed. Our reconciliation with God is accomplished. Our bondage to sin is broken. Our enemy has been put to naught. The sting of death is removed. The destiny of hell is averted. Eternal life has been given. The Lord has come! Let us feast on these great realities and establish our souls on the great foundation of God's grace in the death and resurrection of Christ.

That is what we say in our eating of the Lord's Supper. But by not eating — by fasting — we look to the future with an aching in our hearts saying: "Yes, he came. And yes, what he did for us is glorious. But precisely because of what we have seen and what we have tasted, we feel keenly his absence as well as his presence. The Bridegroom has gone away. He is not here. He was here, and he loved us to the uttermost. And we can eat and even celebrate with feasting because he has come. But this we also know: he is not here the way he once was. As Paul said, "While we are at home in the body we are *absent from the Lord.*" And his absence is painful. The sin and misery of the world is painful. The people of Christ are weak and despised — like sheep in the midst of wolves (Matthew 10:16). We long for him to come again and take up his throne and reign in our midst and vindicate his people and his truth and his glory.

I do not mean to claim that the Lord instituted fasting with the same formality and finality that he instituted the Lord's Supper. Never did he say concerning fasting, "Do this until I come." Nevertheless, he did say, "The days will come when the Bridegroom is taken away from them, and they will fast." It is not a command or an instituted ordinance. But it is a prediction. It is a statement of what will seem normal for those who love the Bridegroom and miss him.

What was the cry of the early church? The cry of the early church was, "Come, Lord Jesus!" It is no mere coincidence that the very last words of the Bible are first the words of the Lord, "Yes, I am coming quickly," and then the response of the church: "Amen. Come, Lord Jesus" (Revelation 22:20). This is the cry that the whole Bible is meant to leave in the hearts of the elect....

What about you older people? Can you taste the glories of the presence of the King better because they are nearer? Do you turn that taste into fasting for the King's coming? What about you younger people? Do you love Jesus so much that his coming would be the greatest thing you can imagine? Or is he a kind of weekend topic that sometimes helps you with a bad conscience, but isn't someone you would want to interrupt your life? What about the middleaged among us? How do you feel about being told that fasting for the King's coming may reflect how much you want the Bridegroom to come? Do your plans for that longawaited retirement fill you with stronger desires than does the prospect of Christ's coming? Do we want the appearance of Jesus more than we want to finish our career and family plans? Or our next meal?

Should we not fast for the coming of the king? This is not some strange new devotional practice. It is simply saying with our hunger: This much, O Lord, we want your work to be done and your kingdom to come. This much, O Lord, we want you to return!

POSTMASTER

NECESSARY CAUTIONS

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point from a secular *bull* market in bonds to a secular *bear* market in bonds, triggered by higher interest rates.

This concern regarding the safety of bonds was what led to the development of DAA in 2013. SMI's belief was that in the future bonds might not be sufficient to counterbalance a stock-heavy portfolio as they had in the past. This remains our concern, which is the primary reason SMI has moved in the direction of trying to combat stock risk directly, through DAA and now Upgrading, rather than simply letting the stock side of a portfolio weather bear-market losses. In the past, bonds were enough of a ballast that overall portfolio risk could be managed through the asset-allocation process alone (i.e., selling stocks and adding bonds to reduce risk). We're not sure that relationship will hold going forward, which is why we've reduced our reliance on bonds as the sole means of risk protection in SMI portfolios.

However, that doesn't mean bonds have become unnecessary. For immediate, short-term risk reduction, bonds are still the best tool for holding losses in check. In other words, if the stock market dropped by 10% next week, we wouldn't expect Upgrading 2.0 to provide any downside benefit—it's not designed to react that quickly. DAA likely would provide some minimal benefit, given that it never invests more than two-thirds of its portfolio directly in stocks. But even DAA wouldn't be a big help until it had time to readjust its portfolio holdings. Only bonds could be expected to hold the line against such immediate losses.

That's why bonds still have a role to play in the portfolios of those requiring constant risk protection. The difference is that while bonds used to be our *sole* defense against falling markets, their role has been changed to being the *first* line of defense, while we wait for help to kick in from DAA and Upgrading.

To be clear, we're saying that most people still need some bonds in their portfolio. Those using the type of blended portfolios discussed in this article get that bond exposure in two ways. One way is tactical (i.e, non-constant), put in place through DAA when the strategy calls for bonds. But the primary way most SMI readers own bonds is through their Fund Upgrading allocation. We recommend that those utilizing Upgrading take the online risk-temperament quiz¹ and use that result, in conjunction with our Seasons of Life table, to come up with an appropriate stock/bond allocation target. This split determines how to divide the Upgrading portion of your portfolio between Stock Upgrading and Bond Upgrading.

Generally speaking, the more bonds a person owns in his or her portfolio, the lower the overall risk *and* return potential. Bonds will continue to dampen risk, but it's virtually impossible for them to contribute the type of returns to a portfolio that they have over the past 30 years. Bond returns are largely math-driven, and it's simply not possible for them to generate big gains from the low starting yields we have at present.

Because we expect a significant disconnect between past bond returns and what they earn in the future, we've made the decision to not include them in this analysis. All of the portfolios discussed below are 100% stock versions of Upgrading. We recognize this makes it harder for those with significant bond allocations to work with these numbers, but the alternative is that readers could be misled by past bond returns that are unlikely to bear any resemblance to what bonds earn in the coming decade.

The starting point: Fund Upgrading

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Upgrading has been SMI's foundation for the past two decades. Upgrading's core idea is that superior performance is available by replacing lagging funds with the current top performers within the same peer group. This reliance on a fund's recent performance – or "momentum" – is a foundational principle on which most of SMI's other strategies are built as well.

The primary change from "old Upgrading" to Upgrading "2.0" is a shifting away from relying *solely* on conventional asset allocation and diversification to handle risk. Both still play a role, but to those we have added market signals that occasionally call for a change in the percentage of the portfolio we hold in stocks.

Here's how to read all the charts that follow. The vertical axis shows how much better than the market's return each strategy combination performed. The zero horizontal line at the bottom of each chart represents the stock market's return, as measured by the Wilshire 5000 index (the broadest U.S. stock market index). If an investment strategy earned exactly the same return as the market, it would appear as a dot right on this zero line. A return *lower* than the market's return would be below the zero line. (This never happens in the analysis that follows; if it had, we would need a second set of two boxes on the chart beneath the zero line showing returns lower than the market's return.) For our purposes, we want to see strategy results that are as high as possible above the zero line, meaning that results were *better* than the market's rate of return.

In addition to measuring returns, these charts also measure volatility (an often-used indicator of risk) relative to the market's overall volatility level. This is the horizontal axis,





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with the market's risk level shown in the center (the dividing line between the gray and white boxes). Here, we prefer to see results as far to the left as possible, indicating that the volatility of a strategy (or combination of strategies) was *lower* than the market's. Any points to the right of the zero dividing line indicate a strategy combination that was more volatile (risky) than the market as a whole.

Our analysis begins with a simple presentation of the risk/reward profiles of "old Upgrading" and Upgrading 2.0 (as discussed in the January 2018 cover article). Chart 1 (page 51) shows the practical implications of 2.0's protective protocols. Point 1 shows the risk/reward performance of a 100% stock "old Upgrading" portfolio over the past 20 years (1998-2017). On average, 100% stock Upgrading earned +2.1% per year more than the market, with 5% more volatility. Point 2 shows the backtested results of a 100% stock Upgrading 2.0 portfolio. By reducing risk (from 5% *more* risky than the market to 8% *less* risky than the market), average annual returns improve from +2.1% better than the market to +6.6% better.

Adding Dynamic Asset Allocation to reduce risk

One of the most significant developments at SMI in recent years was the development of the Dynamic Asset Allocation (DAA) strategy in 2013. DAA takes a totally different approach to asset allocation than SMI's other strategies. Rather than determining a set allocation to various asset classes at the outset of the investing experience, DAA continually adjusts your allocation between six different asset classes based on the recent momentum of those classes. So while an Upgrading portfolio might be 60% stocks and 40% bonds for many years in a row, a DAA portfolio might be 67% stocks and 33% bonds one month and have nothing allocated to either class a month later! (If you're not already familiar with how this strategy operates, we strongly encourage reading *Dynamic Asset Allocation: An Investing Strategy For the Risk-Averse* on the SMI website.)¹



DAA "wins by not losing" – meaning that what DAA *isn't* invested in is just as important as what it *is* invested in. The timing mechanism built into DAA would have allowed the strategy to sidestep some of the stock market's worst losses in recent decades. By riding established trends in various asset classes, DAA has been able to capture a healthy portion of the upside when classes perform well, while avoiding much of the downside when they fall.

DAA won't perform as well as Upgrading when stocks rise, because it is never fully invested in stocks. But it can hold up much better than Upgrading – even the new Upgrading 2.0 – when stocks fall, because it is designed to exit its stock holdings more quickly. DAA has a "faster trigger" so to speak, whereas Upgrading's protective protocols are intentionally designed to kick in only when the market has already deteriorated significantly. As such, DAA is still SMI's premier defensive strategy, while Upgrading remains oriented more toward offense than defense. Because of these varying strengths and weaknesses, DAA and Upgrading are still complementary strategies.

Chart 2 shows how DAA and Upgrading 2.0 compare, as well as what happens to the risk and return of a portfolio when it is divided 50-50 between Upgrading and DAA. A pure DAA portfolio (point 3) had lower returns than a pure Upgrading 2.0 portfolio (point 2), but also considerably lower volatility – DAA was -39% less volatile than the market whereas Upgrading 2.0 was -8% less volatile. There's a significant trade-off here between risk and return.

Interestingly, a 50-50 blend of DAA and Upgrading (point 4) performed slightly *better* than a simple average of the two strategies, while also providing most (though not all) of the volatility advantage of DAA. We're onto something here!

Adding Sector Rotation to turbo-charge returns

Sector Rotation (SR) is SMI's highest-risk, highest-return strategy. Its track record has been extremely impressive since we rolled it out in 2003 (as well as in our backtesting, which extends back to 1990).

SR is a concentrated form of Upgrading, performed on narrowly-focused sector funds that invest in specific slices of the economy. Whereas Upgrading focuses on broadly diversified mutual funds, Sector Rotation focuses on higher risk, non-diversified ones. Also, whereas Upgrading involves owning multiple funds, SR owns only one fund at a time. This narrow concentration increases risk, as there are no other holdings to buffer overall performance if the one sector we're invested in does poorly.

Those bold enough to allocate to SR have been richly rewarded. Over the past five years, SR has returned more than +30% annualized, and over the past 15 years (which is only slightly longer than SR has been a live SMI strategy), it has averaged over +20% per year. Those are stunning returns. But they come with significant short-term volatility. SR has experienced three-month losses as high as -37.9%, and as recently as 2015 lost a gut-churning -21.8% in just 10 days. Most people are ill-prepared to deal with that type of volatility, which is why SMI has suggested it's appropriate for most members to limit the SR portion of their total stock allocation to 10% (with 20% as an aggressive upper threshold for high risk-tolerance investors). FEATURE

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Wouldn't it be great if we could get the awesome returns of SR without the associated increase in volatility? Perhaps you can see where we're headed – there is! We just saw how dramatically DAA lowered volatility when added to an Upgrading portfolio. Now we're going to give back a little of that volatility improvement in order to boost returns via SR.

Chart 3 shows what happens when we take 10% of the total portfolio away from Upgrading and devote it to SR. This is the 50/40/10 portfolio we settled on four years ago, only it uses the new "2.0" version of Upgrading (as all the charts and tables after the first one do).

Adding SR (Point 5) pushes our volatility higher, but only slightly when compared to the 50-50 blend (Point 4). In essence, by adding DAA and SR, we've been able to get our annual returns back up to the Upgrading level (+6.5% above market vs. +6.6%), but we've improved our risk profile considerably, dropping volatility from 8% below market to 25% below market. Significantly *higher* returns than the market with 25% *lower* volatility is definitely a winning combination!

In fairness, the 2008-2017 decade hasn't been as exceptional for Upgrading or DAA, relative to the market, as the 1998-2007 decade was. So we wanted to see if the relationships seen over this longer 20-year period also held during the more challenging, Fed-policy dominated past decade. Those results are depicted in Chart 4.

We used the same dot numbers for each portfolio so we can easily compare Charts 3 and 4. The only difference between those two tables is the 20-year vs. 10-year period being measured. As you can see, the relationships between the four portfolios stayed more-or-less the same (the arc created in each chart is similar and the portfolios land in the same basic order). The biggest difference is the margin of outperformance relative to the market was less over the past 10 years. There was also a decline in volatility, which makes sense given that

Chart 3: 1998-2017 Upgrading 2.0 vs DAA vs 50-40-10 MARKET 0 6 +6.0% 4 **HIGHER RETURNS THAN** +4.8% +3.6% 3 +2.4% +1.2% 0 -50% -40% -30% -20% -10% 0 +10% +20% +30% +40% +50% < LESS VOLATILE THAN MARKET MORE VOLATILE THAN MARKET> Data Is For 20 Year 20 Yrs Ending Annual vs. Rel vs. December 2017 Market Risk Market Return Wilshire 5000 7.5% 1.00 2 Upgrading 2.0 14.1% +6.6% 0.92 -8% 6 DAA 10.9% +3.4% 0.61 -**39**% 4 50% Upgrading 2.0 / 50% DAA 12.7% +5.2% 0.68 -32% **G** 50-40-10 Blend 14.0% +6.5% 0.75 -25%

overall market volatility has been well below average during this Quantitative Easing era.

While the superiority of SMI's returns has been lower over the past decade, it's worth pausing to reinforce just how significant a 2%-3% advantage over the market is. A starting investment of \$100,000 in 2008 would have grown to \$228,191 by the end of 2017 at the +8.6% rate earned by the broad market. That same investment would have grown to \$283,942 if it earned the +11.0% annualized return of 50-40-10 (Portfolio 5) — while also experiencing 33% less volatility. That extra +2.4% per year compounds to a significant difference in total return!

Other portfolio combinations

After analyzing all of the new data, we've concluded that a 50-40-10 portfolio is still as good a starting point as any for the "average" SMI reader. But admittedly, with the new Upgrading 2.0 changes, there are now many more acceptable combinations, depending on the specific situation and preferences of each particular reader. So while SMI will continue to refer to 50-40-10 (with 50% DAA, 40% Upgrading, and 10% SR) as the "baseline" for blended portfolios, here's a look at some other portfolio combinations that may be of interest to SMI readers. We obviously can't detail every possible combination, but the following will illustrate the tradeoffs being made as the risk/return dial is turned either higher or lower.

The table on page 61 shows the impact of shifting money away from DAA and into Upgrading. Read each column header the following way: the first number is the DAA percentage, the second number is 100% stock Upgrading (although readers should substitute their specific stock/bond split when implementing), and the third number is SR.

The main takeaways from this table are that as a portfolio de-emphasizes DAA and adds to Upgrading (continued on page 61)

Chart 4: 2008-2017 Upgrading 2.0 vs DAA vs 50-40-10



10 Yrs Ending	Annual	vs.	Rel	VS.
December 2017	Return	Market	Risk	Market
Wilshire 5000	8.6%		1.00	
Upgrading 2.0	11.5%	+2.9%	0.85	-15%
DAA	8.9%	+0.3%	0.63	-37%
4 50% Upgrading 2.0 / 50% DAA	10.3%	+1.7%	0.64	-36%
S 50-40-10 Blend	11.0%	+2.4%	0.67	-33%

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Strengthening Your Foundation

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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

KNOWING HOW MUCH YOU RENDERED TO GOD AND TO CAESAR

Among the many things Scripture teaches about money, these two are abundantly clear: We are to honor God by giving the first of our income back to Him, and we are to pay our taxes.

Honor the LORD from your wealth and from the first of all your produce. (Prov. 3:9)

It is necessary to submit to the authorities, not only because of possible punishment but also as a matter of conscience. This is also why you pay taxes, for the authorities are God's servants, who give their full time to governing. (Romans 13:5-6)

Scripture also says, in Proverbs 27:23, "Know well the condition of your flocks, and pay attention to your herds." That, too, applies to finances. In a time when wealth commonly was measured in livestock, the proverb was an injunction to "keep track" and "be aware" of one's financial position.

In our day, the best means of doing this is with some kind of money-management system or budget. But a secondary means – one that can help you get a "big picture" overview of your finances – involves reviewing your income-tax returns. By spending a few extra minutes with your completed 2017 returns and other documents, you can calculate (1) the percentage of your income you rendered to God, and (2) the percentage you rendered to government (Matthew 22:21).

Keep in mind that each person's tax situation is different. The calculations described below are generally applicable, but may not apply in more complex tax situations.

Rendered to God

The Bible teaches proportionate giving (Deuteronomy 16:17, 1 Corinthians 16:20). SMI believes tithing on one's income is a worthy goal – perhaps as a step toward giving beyond the 10% tithe if possible, since the Bible speaks of "tithes *and* offerings." As with any aspiration, a giving goal can take time to reach! You may have to work toward it. And if you're ever to "excel in [the] grace of giving" (2 Cor. 8:7), it's helpful to know where you stand right now.

Figuring out the dollar amount you gave in 2017 isn't difficult, especially if you itemized deductions.¹ Just look at line 16 on Schedule A for the dollar amount of your giving.² (If you didn't itemize, you'll need to check your budget for giving amounts, or locate your giving-related receipts, canceled checks, and/or online giving records.)

The other amount you'll need to calculate your giving on a proportionate basis is your "income." Coming up with this figure is not as easy as you might think! In fact, determining your level of income can be downright confusing because income can be defined many ways.

There is "gross" income, for example—i.e., your total pay before taxes are taken out and any pre-tax benefits are subtracted. Surprisingly, your gross income is not included anywhere on your Form 1040! You'll have to look for it on your final pay stub of last year.

Another way of defining income is "wages" (Form 1040, line 7). This number, however, does *not* include pre-tax benefits (e.g., health insurance and contributions to a Traditional 401(k) or 403(b) retirement account). There is also "total income" (Form 1040, line 22). This number includes your wages plus income from other sources, such as dividends, business income, and any IRA distributions and Social Security benefits. Even though it is called "total" income, it does not include any pre-tax benefits.

There is also "adjusted gross income" (Form 1040, line 37), which deducts various items from "total income." And finally, there is "taxable income" (Form 1040, line 43), a not-toohelpful measure that excludes certain portions of what you earned. Whew!

The figure you choose as "income"

for the purpose of calculating your giving percentage is up to you. The fullest version will be gross income (from your pay stub) *plus* the various figures from lines 8-21 of your Form 1040. Whatever income number you choose to use, we simply urge you to remember that God owns it all and He wants you to give willingly and cheerfully!

Once you arrive at an "income" amount, simply divide your "giving" by your income. Express the result as a percentage by moving the decimal point two spaces to the right and adding a percent symbol (e.g., \$8,000 giving divided by \$64,000 income = .125 = 12.5%). This is your 2017 "giving as a percentage of income."

Rendered to Caesar (government)

Now let's focus on the percentage you paid in income-related taxes.³ Christians, like all other citizens, can argue robustly over how the tax system should be simplified and express opinions about how high or low various tax rates should be. But Scripture is clear that, regardless of what we may think about the tax system, paying taxes is part of our Christian responsibility.

Still, it's helpful to be aware of just how much of your income is going to taxes – not only because you are to "know well" your financial position, but also because such an awareness may make you more diligent in finding ways to legally minimize your taxes by taking advantage of possible credits and/or deductions. After all, there is no expectation, biblical or otherwise, that you should pay more than you're required to!

The percentage of income you pay in taxes is not simply a function of your "tax bracket." Because the U.S. has a progressive — rather than a flat-rate income-tax system, some of your income is taxed at higher rates than other income. (Most states have progressive tax systems as well.) (continued on page 62)

¹Currently, 25%-to-30% of taxpayers itemize, a figure expected to drop below 10% under the new tax law. ²To include non-cash giving, use the figure on line 19 of Schedule A. ³There are other taxes, such as property and sales taxes, but here we're concerned only with taxes based on income.

Developing Your Investing Plan

LEVEL

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

INVESTING MATH: WHY THE NUMBERS DON'T ALWAYS ADD UP

Being an investor is tough enough with all of the investment choices available today (that's why SMI is here!). But some investors make the challenges even greater by misunderstanding common – but important – numbers used in making decisions and keeping score. Let's look at three of these pivotal metrics.

Total returns

Here's a quiz. Imagine your investment account generated the following returns over the past five years: +18%, +1%, -12%, +5%, and +8%. What was your total return?

Did you come up with +20% (by simply adding up the annual rates of return)? If so, imagine the sound of an annoying game-show buzzer and picture Alex Trebek frowning at you.

To get an accurate read on your portfolio's performance, you can't simply sum up the returns from various years. That's because each year's return changes the amount of money invested the following year. It's the concept of compound interest, where your interest (or return) is rolled over into the following year and is available to earn additional interest (or return).

For example, if you invest \$100 and earn +10% the first year, your portfolio grows to \$110. If you again earn +10% in year two, you'd have an \$11 gain, pushing your account total to \$121. As you can see, this didn't result in a +20% total return. Instead, the total return was +21%, showing that simply adding the returns doesn't work. Here's the accurate way to calculate total return:

Step 1: Convert the returns to decimal format. A return of +12% is expressed as 0.12, a -5% return is expressed as -0.05, and so on.

Step 2: Add 1 to each rate of return, so that a return of +12% is now 1.12 and a -5% return is now 0.95.

Step 3: Multiply the rates together. Using +12% and -5% returns, you get $1.12 \ge 0.95 = 1.064$.

Step 4: Subtract 1, leaving .064.

Step 5: Convert back to a percentage format by multiplying by 100. In our example, this would give you +6.4%.

That may sound complicated, but it's not once you've done it a few times. Here's the full longhand for the fiveyear example we looked at initially:

Steps 1 and 2: +18%=1.18, +1%=1.01, -12%=0.88, +5%=1.05, and +8%=1.08.

Step 3: 1.18 x 1.01 x .88 x 1.05 x 1.08 = 1.1893

Step 4: 1.1893 - 1 = .1893 **Step 5:** .1893 x 100 = +18.93%

Average annual return

Now, let's build on that idea. Using the example above, what's the average annual return? If you answered 4% (by adding up the five annual returns and dividing by 5), Alex Trebek is still frowning at you.

It seems logical to do it this way but that leads to what is known as the *arithmetic average*. That's the right approach for figuring out your average golf score over your last 10 rounds, but it doesn't work when calculating annualized investment returns.

The difference is that golf scores (and most other things you average) are independent events. Unfortunately, that miracle round you posted last weekend has no bearing on your next round, other than providing a bit of false confidence.

When it comes to your investment returns, however, this year's performance is not an independent event. It's one in a *series* of annual events. As mentioned earlier, each year's return changes the amount of money that will be multiplied by the next year's return in the sequence.

To accurately calculate average annual investment returns, you need to use the

geometric average. That's the fancy term for this compound interest idea. Here's the formula using our earlier example.

First, go through the initial three steps we explained earlier. This gets us to 1.1893. The next step is more complex. If you're not using a financial calculator (which would make all of this very easy), you have to raise 1.1893 to the power of "1 divided by the number of years." In this case, that's one divided by five, or 0.2. Fortunately, Google can take you the rest of the way. Just search "1.1893 to the power of 0.2" and it'll give you the answer, which is 1.0353.

Last, to convert this to a percentage, go through steps four and five from above – subtracting one and multiplying by 100. That leaves us with 3.53%. While the geometric average didn't give a return as attractive as the arithmetic average, it does have the benefit of being accurate!

Net asset value

Most people think of a mutual fund's net asset value (NAV) as being its price. Technically, it's the value of the fund's assets minus fees and expenses, divided by the number of shares outstanding. What's important to understand is that *changes in NAV do not tell the full story of a fund's performance.*

Consider this final quiz question. If the XYZ Fund's NAV was \$10 when you bought it on March 1, and \$12 when you sold it on May 31 the following year, how much did the fund return during that time? Did you guess +20%? If so, maybe you're right, maybe you're not. It all depends on whether the fund made any *distributions* during that time.

By law, funds have to distribute their investment income and capital gains to shareholders. Distributions always *lower* a fund's NAV when they occur. Even if you reinvest your distributions, that doesn't increase the NAV; it simply buys additional shares. (continued on page 62)

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

AN UNFAVORABLE ELECTION CYCLE IS CLOSE AT HAND

One of the more interesting historical stock-market patterns is commonly referred to as "annual seasonality." The main idea is that each year contains a six-month period which has been "favorable" for stocks (November through April) followed by a six-month period that's generally "unfavorable" (May through October). Based on this, annual seasonality suggests selling stocks at the end of April and buying them again at the end of October.

The magnitude of the seasonality effect has been impressive. If you had started with \$10,000 in 1930, and invested it in the S&P 500 *only* during the November-April *favorable* period each year, it would have grown to a whopping \$4,777,100 by the end of 2017. On the other hand, if you had invested your \$10,000 *only* during the May-October *unfavorable* period, it would have increased to just \$147,645. During the favorable period, your money grew more than 32 times as much as it did during the unfavorable period! Stunning, right?¹

Well, yes and no. Over the past decade, we've noted the interaction of annual seasonality with another wellknown market pattern: the four-year presidential election cycle. Stock market strength/weakness follows the four-year election cycle closely enough that, over time, clear trends have emerged. Keep in mind these are only averages and they don't hold true every year. The 12 months following a presidential election – year one of a new term – has generally been the weakest of the four years for the stock market. Year two of the cycle has been a little better, but still below average. The pre-election year (year 3) has typically had the best stock-market performance. The election year itself (year 4) also has typically been a good one for stocks.

Putting this knowledge of the election cycle together with the annual seasonality strategy is where things get interesting. Several researchers have tackled this combination and found that the typical favorable and unfavorable periods associated with annual seasonality seem to perform differently *based on the year of the presidential election cycle*. Certain years in the cycle are fairly consistent in having *better than average favorable periods*, while others have *worse than average unfavorable periods*. This has important implications for those utilizing annual seasonality within their long-term investment plans.

Much of the research on this topic has focused on broad market indexes. But to gauge the impact on a more "SMI-like" portfolio, we analyzed how a portfolio split 50-50 between large- and smallcompany stocks would have performed over the eight distinct time frames (four favorable and four unfavorable periods) of the four-year election cycle.

The results, shown in Table 1, are quite surprising. Rather than seeing a distinct separation between the favorable and un-

favorable periods of each year as we expected, the combined data since 1930 tell a markedly different story. On average, six of the eight periods (favorable and unfavorable alike) showed gains within a narrow range of +5.2% to +7.5%. Only two periods vary significantly from that range, and as you can see, the unfavorable period of year two (corresponding to the six months *leading up* to the midterm elections) has been by far the weakest. This has been especially true for the past 45+ years as shown in Table 2.

The unfavorable periods of ¹ midterm election years have registered losses roughly half the time historically. Perhaps more troubling is the concentration of *significant losses* during these periods. In the 22 midterm election years (year two) since 1930, our hypothetical 50-50 portfolio *lost more than 10% nine times during seasonality's unfavorable period*. That happened only seven times in the 66 other unfavorable periods combined.

On the positive side, the favorable period of year three (i.e., the six months *following* midterms beginning this coming November) has been especially good. In 11 of the 22 favorable periods in year three, a 50-50 portfolio gained more than +20%. Those kinds of gains occurred only 10 other times in the other 66 favorable periods combined. Given these extremes, it's not difficult to see why these two periods around midterm elections stand out from the rest of the cycle, for better and worse.

Enter Dynamic Asset Allocation (DAA)

Recognizing that only one six-month period out of every four-year cycle produces an average loss takes the wind out of the annual seasonality sails. If seven out of eight periods are positive, there's no point in exiting stocks, even during most of the "unfavorable" periods.



Alas, with the May-October period leading up to the U.S. midterm elections now upon us, we're facing the one six-month period out of each four-year cycle when stock market performance has been much worse than usual. Which raises the question: "Would it be smart to lighten up on stocks during this

one specific six-month period?"

Here's where SMI's Dynamic Asset Allocation (DAA) strategy can be helpful. DAA excels at dampening portfolio risk by providing specific timing signals telling us when to (continued on page 62)

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

FINDING THE RIGHT PRESCRIPTION: HOW TO SAVE ON MEDICATIONS

Looking in the mirror, Bill Kelley of Laguna Beach, Calif., noticed a mysterious rash on the side of his head. A few hours later, with a doctor visit behind him and a prescription in hand, Bill called his regular pharmacy. "Sorry, Mr. Kelley, we don't have it but we can get it tomorrow. It'll be \$229."

Bill decided to try elsewhere. "Yes sir, we have it—\$76." Wow. That was a big price difference. Driving to get the medicine, Bill couldn't resist the temptation to do another comparison. He stopped in at a third pharmacy. "Do you have one of our discount cards?" the pharmacist asked. "If not, we can set you up with one—and, let's see, that prescription will come to \$11.05." Bill was grateful the first pharmacy didn't have the medicine on hand.

Not all prescription medications have such wide price variations from pharmacy to pharmacy, but Bill's experience (a true story) shows it can pay to shop around. A study published last year in the *Journal of Managed Care* found that prices for certain prescriptions "varied dramatically [even] within a zip code."¹

The reason for such variations is that the retail prices of prescription drugs have less to do with supply and demand than with pricing contracts negotiated by pharmacy-benefit managers – companies that act as a middleman between drug manufacturers and insurers, and then also between insurers and pharmacies. The pricing structures set up in these contracts can vary significantly, based on volume and a range of other factors. In turn, the retail price for any particular drug can be markedly different from one pharmacy to another.

Consumers whose prescription coverage requires simply a flat copayment of \$10 or \$15 may be indifferent to such price variations, but those paying a *percentage* of the prescription cost are decidedly not indifferent. This latter group includes plenty of Medicare Part D recipients. Not only do many of them pay a percentage of their prescription charges, they also want to avoid the socalled donut hole—i.e., the gap in coverage during which Medicare recipients are responsible for an even greater share of their prescription costs.²

Finding the lowest prices is keenly important, too, for those with no prescription coverage at all, such as members of healthcare-sharing ministries.

Shopping online

In the past, comparison shopping for prescriptions has been tedious and timeconsuming, requiring a series of phone calls or in-person visits to pharmacies. No more. Free cost-comparison websites and companion apps from startups such as <u>GoodRx.com</u> (founded in 2011) and <u>LowestMed.com</u> (launched in 2012) now enable users to easily search online for the lowest prices at nearby pharmacies.

After finding the best price using these services, you simply print (or have sent to your mobile phone) a discount coupon that you take with you to the pharmacy of your choice. The coupon enables you to purchase the prescription at the price shown online – or at least something close to that price (both GoodRx and Lowest Med note that exact prices are not guaranteed).

For Medicare Part D users, GoodRx offers an additional feature. The site shows if Medicare covers a particular drug and, if so, the expected range of the user's cost.

Of course, it's not just consumers who have an incentive to keep prescription costs down. So do health insurers, which is why many now offer their own price-comparison sites and urge plan participants to research prices at area pharmacies and web-based drug stores. Interestingly, even if you have prescription coverage, you'll come out ahead in many cases if you buy your medicine at the "cash price" — especially when using a discount coupon or store loyalty card — instead of using insurance. (Last summer, a California woman sued CVS after discovering she paid \$165.68 for a prescription using her insurance that she could have gotten for \$92 by not using insurance.)

Most brick-and-mortar pharmacies don't post prices directly online, but web-based pharmacies do, giving consumers yet another avenue to check online for best prices. Online stores include HealthWarehouse.com, MailMyPrescriptions.com, and Costco.com/pharmacy. (In addition to its internet pharmacy business, Costco has about 500 local pharmacies. In many states, you don't have to be a Costco member to use a Costco pharmacy.)

Another innovator in the online prescription market is <u>BlinkHealth.com</u>, which combines online shopping with local pickup. Instead of providing users with cost comparisons, <u>Blink</u> – founded in 2016 – offers a single direct-to-consumer price, one that typically is lower than the prevailing prices influenced by insurance contracts. With <u>Blink</u>, you'll pay the same price no matter which pharmacy you choose. You simply make your payment via the <u>Blink</u> site (or app), then pick up the prescription at a local pharmacy of your choice.

The generic difference

Even using online tools, you won't find huge price variations on every prescription. A mid-March SMI study of prices for several commonly prescribed medications (such as Crestor, Nexium, Lyrica, and Advair) found a typical price difference of only 2.5%-5% across seven major pharmacy chains. That said, we did find a 31% price difference for the 5mg/325mg formulation of the pain compound (continued on page 63)

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 2/28/2018	Portfolio Invested In	мом	YTD	Peri 1Mo	formano 3Mo	се 6Мо	12Mo	3Yr Avg	Rel Risk	Expense Ratio	S 100/0	tock/B 80/20	ond Mix 60/40	40/60	Ticker Symbol
Total International Stock ETF	Foreign stocks	30.3	0.2% -	5.2%	2.3%	7.0%	21.1%	6.5%	1.17	0.11%	20%	16%	12%	8%	VXUS
Extended Market Index ETF	Small company stocks	20.6	-0.5% -3	3.7%	-0.3%	8.6%	12.3%	8.3%	1.19	0.08%	40%	32%	24%	16%	VXF
S&P 500 Index ETF	Large company stocks	30.8	1.7% -:	3.7%	3.0%	10.8%	17.1%	11.1%	1.00	0.04%	40%	32%	24%	16%	VOO
Total Bond Mkt Index ETF	Medium-term bonds	-3.6	-2.3% -	1.0%	-1.7%	-2.3%	0.4%	1.1%	1.02	0.05%	None	20%	40%	60%	BND

VANGUARD 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 Vanguard funds (as shown above) depending on your stock/bond mix. For more on Just-the-Basics, see June2012:p89.

RECOMMENDED FUNDS FOR SMI'S FUND UPGRADING STRATEGY

Risk	Data through 2/28/2018 ¹	Date Added	E-Trade Avail ²	Fidelity Avail ²	Schwab Avail ²	MOM ³	YTD	Per 1Mo	formar 3Mo	nce 6Mo	12Mo	3Yr R Avg	elative Risk ⁴	Exp Ratio	Number Holding	Redemp Fee? ⁵	Ticker Symbol
ک ۳	1. Vanguard Intl Growth	09/17	Yes	Yes	Yes	55.2	4.6% -	4.2%	5.6%	11.6%	6 38.0%	12.5%	1.44	0.45	130	None	VWIGX
egor	2. Selected International S	06/17	NTF	NTF	NTF	49.2	2.5% -	2.6%	5.8%	10.6%	6 32.8 %	10.8%	1.45	1.30	37	2%30days	SLSSX
Cat	3. Calamos Intl Growth	12/17	NTF	NTF	NTF	46.0	0.9% -	5.3%	2.8%	10.7%	6 32.6%	8.2%	1.25	1.40	95	None	CIGRX
y 4 owth	1. Baron Opportunity	03/18	NTF	NTF	NTF	67.0	9.5% -	1 .9 %	11.8%	16.7%	6 38.5 %	12.4%	1.51	1.41	51	None	BIOPX
tegor II/Gr	2. Delaware Smid Cap Gro	02/18	NTF	No	NTF	71.1	5.7% -	3.0%	10.7%	2 7.9 %	6 32.5%	11.9%	1.36	1.21	47	None	DFCIX
Smal	3. Kinetics Small Cap Oppor	02/18	NTF	NTF	NTF	58.7	5.7% -	1.8%	11.4%	15.5%	6 31 .8 %	11.4%	1.30	1.66	35	2%30days	KSCOX
y 3 alue	1. 🖀 Hodges Small Cap	04/18	NTF	NTF	NTF	33.2	1.7% -	2.4%	6.1%	15.9%	6 11.2%	4.8%	1.49	1.28	47	1%30days	HDPSX
tego all/V	2. Alpha Architect US Quant Val	02/18	ETF	ETF	ETF	54.2	2.1% -	3.2%	5.4%	23.2%	6 25.6%	5.7%	1.46	0.79	40	None	QVAL
S Cat	3. Royce Opportunity	06/17	NTF	NTF	NTF	22.1	-2.7% -	3.8%	-1.9%	9.2%	6 14 .8 %	9.4%	1.56	1.49	240	1%30days	RYOFX
owth owth	1. Guggenheim S&P 500 Tech	04/17	ETF	ETF	ETF	58.3	8.5% -	0.3%	8.1%	18.1%	6 32.1%	19.2%	1.34	0.40	70	None	RYT
tegoi e/Gr	2. Fidelity OTC	06/17	Yes	NTF	Yes	54.0	6.5% -	1.6%	7.1%	13.6%	6 33.3%	16.6%	1.51	0.81	324	None	FOCPX
Larg	3. iShares Edge USA Momentum	12/17	ETF	ETF	ETF	62.3	6.6% -	1.5%	6.8%	18.5%	6 37.0%	17.0%	1.02	0.15	128	None	MTUM
ry 1 alue	1. Toreador Core	05/17	NTF	NTF	NTF	35.9	0.7% -	3.4%	1.9%	14.0%	6 20.0%	10.5%	1.19	1.20	104	2%60days	TORLX
tegoi ge/V	2. SPDR Dow Jones Industrial	12/17	ETF	ETF	ETF	41.7	1.5% -	4.1%	3.6%	15.2%	6 23.0%	14.0%	1.09	0.17	31	None	DIA
Cat Lar	3. Miller Opportunity	06/17	NTF	Yes ¹⁰	NTF	24.5	-0.3% -	4.2%	1.0%	8.9%	6 14.6%	5.9%	2.06	1.36	36	None	_GOAX ¹⁰
ries	Vanguard Inflation Protect 6	02/18	Yes ¹¹	Yes ¹¹	Yes ¹¹	-2.9	-1.8% -	0.9%	-1.0%	-1.4%	6 -0.5%	0.6%	1.12	0.20	7.9 ⁷	None	VIPSX ¹¹
Bonc tegoi	Permanent: Vanguard I-T Bond	Perm	ETF	ETF	ETF	-5.8	-2.6% -	1.0%	-2.3%	-3.4%	6 -0.1%	1.1%	1.29	0.07	6.47	None	BIV ⁸
Cat	Permanent: Vanguard S-T Bond	Perm	ETF	ETF	ETF	-2.3	-0.8% -	0.3%	-0.8%	-1.4%	6 -0.1 [%]	0.7%	0.45	0.07	2.77	None	BSV9

Upgrading Footnotes: [1] The funds in each risk category are selected (and ranked 1 through 3) primarily based on their momentum scores in <u>late-March</u>, 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 (800-387-3371), 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] <u>Momentum</u> is a measure of a fund's performance over the past year and is our primary performance evaluation tool. For more, see July2014:p103. [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 <u>redemption fee</u> 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 SM'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 Jun2012:p88. **[8]** Those preferring a traditional mutual-fund option can buy VBILX where available, otherwise VBIX. **[9]** Those preferring a traditional mutual-fund option na buy VBIRX where available, otherwise VBISX. **[10]** At some brokers, the load-waived share class is LMNOX. Read the fund writeup (June2017:p93) before purchasing. **[11]** If available, those investing at least \$50,000 should buy the Admiral share (VAIPX) instead.

SOUND MIND

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 <u>bit.ly/smifx</u>).

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 (August 2015: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 <u>bit.ly/smi401ktracker</u>. That article also contains ideas on Upgrading in any type of account where your available fund choices are limited.

HOW TO BEGIN STOCK UPGRADING

• 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.

If Find the column that matches your stock/

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 recomme with an "Explorer" temperament text for information on our invest quiz. You may want to fine-tune ages to suit your personal approx	endations . See Step ment temp the above ach to risk	for those in the perament percent- c-taking.							

2 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%

3 BUY YOUR FUNDS

Example uses an 80/20 mix between stocks and bonds		Dollars	Invest In Funds
Stock Cat. 5: Foreign	16%	\$8,000	Vanguard International
Stock Cat. 4: Small/Growth	16%	\$8,000	Baron Opportunity
Stock Cat. 3: Small/Value	16%	\$8,000	Hodges Small Cap
Stock Cat. 2: Large/Growth	16%	\$8,000	Guggenheim S&P 500 Tech
Stock Cat. 1: Large/Value	16%	\$8,000	Toreador Core
"Rotating" Bond Fund	10%	\$5,000	Vanguard Inflation Protected
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	

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 amount to calculate the dollar amount to invest in each risk category.

• 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 Looking at the Fidelity column on the Recommended Funds page, the highest-rated Cat. 5 fund available is Vanguard International Growth, the highest-rated Cat. 4

> fund available is Baron Opportunity, and so on. After doing this 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 highestranked fund 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).

¹Rounding 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).



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.]

◆ In the Small/Value group, Allianz NFJ Mid-Cap Value (PQNAX, 6/2017) is being replaced.^{\$} This fund did a good job for us during the first nine months we owned it. Through Feb. 28, it had gained +11.1%, which compared favorably to the +9.3% gain of the average fund in SMI's small/value group.

Over the past year, there's been a significant gap between the returns of small/*growth* funds and small/*value* funds. As of this writing, Morningstar's small/growth category is up +19.6% over the past year, whereas small/value is up only +6.5%. The funds that straddle this dividing line, which Morningstar refers to as small/*blend* funds, have returned +10.4%. The more growth-oriented the stocks in the portfolio, the better the fund's performance over the past 12-month period (which SMI uses for its momentum calculation).

This Allianz fund remains ranked in the top 5% of funds within its strict "mid-value" Morningstar category over the past 12 months (although it has been below average so far in 2018). But more important than that is the fact that it lands in a pure value category at a time when true value funds are trailing those with greater growth emphasis. Given that SMI's small/value peer group contains many of these "blend" funds as well, it's not surprising that these slightly more growthoriented options would be leading the rankings at this point, even within this small/value risk category.

• Hodges Small Cap (HDPSX) is being added.¹ As one might expect given the explanation above, moving from a true "value" fund to one that nearly (but not quite) qualifies as a "growth" fund comes with an increase in risk. This Hodges fund sports a 3-year relative-risk number of 1.49, meaning it has been roughly 49% more volatile than the S&P 500. Part of this comes with the territory – small/value funds tend to be quite volatile as a group. And this relative risk score is right in line with SMI's other two currently recommended small/value funds. But it's still quite a step up from Allianz' more tame relative-risk score of 1.11.

That said, manager Craig Hodges doesn't necessarily equate high *volatility* with high *risk*. Here's how he explained the difference recently in *Ticker Magazine*:

We believe that there is a difference between risk and volatility. Typically, the stocks that perform best in an 18-month period are also the most volatile. Most of the stocks that have led the market are quite volatile, because they are perceived in different ways and there are many buyers and sellers. So, we believe that volatility doesn't necessarily make a stock risky and volatility doesn't scare us. If the fundamentals are solid and we have a model where revenues and profits can grow, we would embrace that situation.

We pay a lot of attention to what we own, what the earnings prospects and the growth rates are. We need to be aware of any changes in these prospects and we discount that into our modeling. We like to buy high-quality companies that have value. In the individual stock selection process, we select stocks that are inexpensive and have significantly higher upside potential than downside risk.

MARKET NOTES, QUOTES, AND ANECDOTES

It isn't the new normal; it's the old normal

• "Five percent drawdowns are actually quite normal in any given year and sometimes occur several times in a year. What is not normal is 15 months of less-than-2% drawdowns, which we just experienced. The volatility of February was not the odd thing; it was the preceding 15 months that was extraordinary." – John Mauldin, writing in his *Thoughts from the Frontline* newsletter on March 19, 2018, that investors would do well to get reacquainted – and comfortable – with volatility. Read more at <u>bit.ly/2GbfnDK</u>.

Two ways to view the future

• "The difference between, 'I expect one or two recessions per decade,' and 'I expect a recession in the second half of 2018' is ten miles wide." – Morgan Housel, writing

in the *Collaborative Fund* blog. Arguing for the benefits of expectations over forecasts, he said, "When you expect something to happen over time, you're not surprised when it comes. It forces you to invest with room for error, and psychologically prepares you for inevitable disappointments." Read more at <u>bit.ly/2pH4bUi</u>.

You've got to know when to fold 'em

• "It's very easy to rationalize holding a position with an emotional anecdote, when in reality it has no place remaining in your portfolio.... Removing emotions from your investing process is a key to success." – Timothy Mullooly, writing in his *Mullooly Asset Management* blog that, just as a sports team can retain a player for the wrong reasons, it's easy to make the same mistake with investments. Read more at <u>bit.ly/2pKehnn</u>.



MONEYTALK

COVER ARTICLE / CONTINUED FROM PAGE 53: HIGHER RETURNS WITH LESS RISK, RE-EXAMINED

(columns B and C), overall returns increase, but so does volatility and the extent of historical bear-market losses. While not shown, this same pattern would be expected in the *other* direction as well—taking away from Upgrading to boost DAA beyond 50% would likely produce lower overall re-

	(A) 50-40-10	(B) 40-50-10	(C) 30-60-10	(D) 30-50-20	turr 40-1
2008-2017	+11.0%	+11.3%	+11.5%	+12.2%	con
Return v Market	+2.4%	+2.7%	+2.9%	+3.6%	driv
Relative Risk	0.67	0.70	0.74	0.79	and
9/2000-9/2002	-0.5%	-3.1%	-5.7%	-6.8%	vul
11/2007-2/2009	-11.8%	-13.4%	-14.9%	-17.2%	1

turns than 50-40-10 while continuing to drive down risk and bear-market vulnerability. In addition,

caution is in order regarding the final portfolio shown (column D). Given the great returns it has produced, many will be tempted to add to their SR allocation. That may be appropriate for investors with longer time horizons and high risk tolerances. But the emotional toll of SR's occasional extreme losses can be high, so we continue to caution readers not to take on more risk than they can stick with long-term. We recommend reviewing the February 2018 article *Sector Rotation in Light of Upgrading 2.0* for additional analysis regarding using SR within a blended portfolio.

Three ways to implement these changes

As we noted at the outset, this article deals with advanced material. Managing multiple strategies requires more from an investor to maintain his or her portfolio. DAA and SR are updated on the last weekday of each month, which means additional responsibilities in between monthly issues of SMI.

If that's more involvement than you want, there's no pressure to add DAA and/or SR to a basic Upgrading portfolio. But these charts do clearly demonstrate the potential impact of tuning in one extra day each month and making a handful of extra trades each year. Is that worth the significant reduction in risk between a pure Upgrading portfolio and a 50-40-10 portfolio as Chart 3 illustrates? For most readers, we believe the answer should be yes.

Thankfully, if you aren't up for the challenge of managing multiple strategies yourself, SMI Advisory Services offers two good options to handle the task for you. For those happy with a standard 50-40-10 allocation, there's a mutual fund that can easily handle that for you. By the end of April, this fund should be available for purchase via most broker platforms. Stay tuned for further details.

For those who want to fine tune (or have SMI Advisory finetune for them) the exact mix of strategies within their portfolio, last month's announcement of the new Private Client program should be of interest. To recap that option, Private Client provides professional management of a custom, personalized blend of SMI investing strategies, with each strategy managed for you by SMI Advisory Services. Your portfolio holds the *specific* *underlying holdings* for each strategy (rather than owning the SMI mutual funds), so it is similar to what you would own if you were managing all of the strategies yourself. But Private Client provides professional guidance as to how to allocate appropriately between strategies based on your specific needs. Further, all of the work of managing the portfolio on an ongoing basis is done for you, including rebalancing, etc. See the March 2018 article on SMI Private Client for more details, or sign up at smiprivateclient.com.

Additional thoughts

As we have often been reminded, "past performance is no guarantee of future results." Most of the performance data shown in this article reflects the 20-year period from 1998-2017, with Chart 4 and the table (at left) zooming in on the most recent decade (2008-2017). Future periods will yield different results. This is the main reason we've focused on the returns of these strategies *relative to the overall market* rather than on their absolute returns, which vary throughout the market's long-term bull/bear cycle.

We've intentionally used periods that include complete market cycles, including the bear markets of 2000-2002 and 2007-2009. Investing strategies can be measured accurately only over complete market cycles, as their performance advantage tends to be concentrated in either bull or bear markets. For example, looking at the past five years for DAA doesn't give us an accurate picture of what to expect from the strategy going forward, because those are all bull market years and DAA's primary virtue is defensive bear-market performance. A helpful guiding principle is to understand that the longer you apply these strategies, the greater likelihood you'll get long-term returns similar to what they've produced over long periods in the past.

Some may look at these data and consider making some of the changes but not others. Our counsel is this: it's fine to add DAA to an Upgrading portfolio and omit SR. This takes you to the portfolios shown in Chart 2. But be careful about adding SR *if you aren't also adding DAA*. DAA is what squelches the overall volatility of the portfolio – without it, you're adding a riskier SR strategy onto Upgrading (which Chart 1 shows is only slightly less volatile than the overall market) without doing anything to dampen that risk. That's not necessarily "wrong" to do, but you need to be clear on the implications and be prepared to stomach greater volatility.

Finally – don't worry about being overly precise with your percentages and amounts. As the table of various portfolio combinations above shows, shifting 10% from DAA to Upgrading doesn't make a huge difference, so the impact of a few percentage points one way or the other isn't likely to be significant. So, if you have multiple accounts and the amount of one of them happens to fit rather closely with one of the percentages you desire, go ahead and use it. The ease you'll gain by satisfying the needs of one of the strategies in that account will be worth any small deviation in results you might experience.



LEVEL 1 / CONTINUED FROM PAGE 54: KNOWING HOW MUCH YOU RENDERED TO GOD AND TO CAESAR

In 2017, personal income between \$75,900 and \$153,100 was taxed at a federal rate of 25% (for married couples who filed jointly). But earnings up to \$75,900 were taxed at a lower rate (10% on the first \$18,650; 15% on the next \$57,250). And anything above \$153,100 was taxed at 28% or higher.

In addition to the variations in the rate at which dollars are taxed, federal and state tax codes allow for credits, exemptions, deductions, exclusions, offsets, etc., which means, among other things, that some income isn't taxed at all.

To figure out the true percentage of your tax burden – i.e., the *average* rate you paid, taking into account all the various rates, deductions, etc. – look first for your federal income-tax liability on line 63 of Form 1040. Next, add your state income-tax liability, if applicable, from your state form. Finally, add Social Security and Medicare tax figures. Unless you're self-employed, these will be clearly shown on your W-2 form(s).

Now, take that total tax figure (federal + state + SS + Medicare) and divide it by the income amount you used above when calculating your giving. The result is the percentage of your income – much of it withheld from your paycheck – that went to pay income-based taxes.¹ You'll now be fully aware, if you weren't already, that a sizable portion of what you earn (probably exceeding what you give away) goes to the tax man!

Living on the rest

Let's assume, for purposes of illustration, that your tax burden came to 15% of your 2017 income. If you also gave away 10%, that means you had the remaining 75% of your income to live on last year. Everything else you did with your money — from making mortgage payments to investing/saving, buying food, and paying for healthcare — had to fit within that 75%. If it didn't, you likely were robbing your savings or taking on debt.

Taking time to do these extra calculations is part of "knowing well" your overall financial picture. Tracking these numbers from year to year can help make you a more efficient—and generous—steward over time. ◆

LEVEL 2 / CONTINUED FROM PAGE 55: INVESTING MATH: WHY THE NUMBERS DON'T ALWAYS ADD UP

As we've written before,² this dividend reinvestment is why the value of a mutual-fund investment can grow *even though the fund's* NAV may stay the same or even decline. This happens all the time with bond funds, where much of the gains are paid out as income distributions. The fund is gaining money for the investor by regularly using the distributions to buy more shares, but the NAV doesn't increase much (if at all) over time.

The good news: you don't have to do any math (finally!) to accurately calculate a fund's total return. Mutual funds and ETFs must report their returns in such a way that all distributions are already taken into account. These total-

return numbers, which SMI always uses in reporting performance, are an accurate measure of how the fund has performed. They are more reliable than simply looking at the NAV values from two dates and calculating the difference. Without doing the research to determine if any distributions took place between your buy and sell dates, there's no way to know if that simple net-asset-value calculation is accurate. (Unfortunately, the way some brokers treat distributions causes the gain/loss shown for a given fund to be lower than the actual total gain/loss experienced by the investor. If reported returns ever seem low at your broker, check them against SMI's or Morningstar's numbers.)

Grade yourself

How did you do on this quiz? Knowing how the numbers really work is an important part of being a wise investor. Now you know how to ace the investment math test! \blacklozenge

LEVEL 3 / CONTINUED FROM PAGE 56: AN UNFAVORABLE ELECTION CYCLE IS CLOSE AT HAND

be invested in stocks and when not to. What annual seasonality attempts to do bluntly with twice-per-year signals, DAA does much more precisely with monthly analysis. Not surprisingly, DAA has provided much better signals of when to be invested in stocks and when to be out of them.

We have good DAA data dating back to the early 1970s, which allows us to compare DAA's performance during the unfavorable periods of the last 11 midterm election years (1974-2014). That comparison is telling. If you had invested in the 50-50 mix of large- and small-company stocks we looked at earlier *only* during those 11 unfavorable periods (May 1-October 31 prior to each midterm election), you would have *lost -34.3%* overall. In contrast, if you had used DAA during those exact same periods and followed its normal signals, you would have *gained* +69.1%.

Of course, no one would have invested *only* during those worst-possible periods that came every fourth year. But it does show how damaging those periods have been over time, and that *DAA* has done a good job of basically erasing the idea of there even being set "unfavorable" periods.

If you decide to utilize Annual Seasonality

Given the choice, it's clear that DAA provides a better riskreducing timing mechanism than annual seasonality for avoiding market downturns. As a result, we think the best approach for readers inclined to alter their portfolio mix based on these types of factors is to incorporate DAA into a diversified portfolio instead (as described in this month's cover article), and *skip any annual seasonality adjustments entirely*.

But we know there are readers who use annual seasonality within their 401(k) accounts or other places where DAA isn't a realistic option. Those readers have the option of simply cutting back their stock exposure *somewhat* during this year's unfavorable period. However, given the market's



powerful bullish trend over the past year, any seasonality refinements made to your portfolio should probably be relatively small rather than "all in" vs. "all out." We've seen annual seasonality be painfully out of synch with the market at times, and with the market gaining +8.8% during last year's unfavorable period, it's certainly possible the market could defy this historical pattern again this year as well.

Here's an example of what a measured change to the stock/ bond allocation of a Just-the-Basics or Upgrading portfolio might look like. A person who would otherwise have a 60/40 stock/bond allocation might choose to lower that to 50/50 during the unfavorable summer period in midterm years (such as this year), then raise it to 70/30 during the unusually favorable winter period that follows. That would create an *average* allocation close to his or her ideal, optimized to correspond with the market's long-term statistical pattern.

Along those same lines, paring back an aggressive Sector Rotation allocation during this unfavorable period is worth considering. While Sector Rotation has fared well during seasonally unfavorable periods *overall* (average gains of +11.3%), it has been a different story *during unfavorable periods of midterm election years*. During the seven midterm election year unfavorable periods for which we have data (1990-2014), Sector Rotation lost an average of -5.9%. That said, it's only fair to point out that SR posted a huge gain during last year's (2017) unfavorable period (+43.5%) and was up big during the last midterm election year unfavorable period in 2014 as well (+26.1%).

Conclusion

However you approach it, keep in mind these two important points.

1. Annual seasonality always has been an optional refinement to SMI's strategies, never a core part of what we do. If you're using DAA and Upgrading 2.0, as described in this month's cover article, you likely have plenty of downside protection built into your portfolio. This seasonality discussion is more targeted to 401(k) users or index-fund investors who don't already have bear-market protection in their portfolios.

2. The main objective of annual seasonality is to reduce risk, not to improve returns. The returns of a portfolio invested in stocks only during the favorable period (and in bonds the rest of the year) has produced results similar to a portfolio that was invested in stocks year-round. That's because the long-term overall returns from bonds during the unfavorable periods haven't been too different from the weak stock returns during the same periods. Rather, the advantage of seasonality is that you would have gotten roughly the same return while avoiding exposure to the stock market for six months of each year.

Reducing risk in this way *during the coming unfavoarble period in particular*, may (seasonality doesn't "work" every year) preserve capital in the short-run as well as offer peace of mind. For those interested in applying annual seasonality, watch the SMI website for new articles beginning each April and October, when we start tracking the official seasonality sell/buy signals. \blacklozenge

LEVEL 4 / CONTINUED FROM PAGE 57: FINDING THE RIGHT PRESCRIPTION: HOW TO SAVE ON MEDICATIONS

Hydrocodone/Acetaminophen and a 45% spread in prices quoted for the anti-influenza drug Tamiflu.

Routinely large savings presented themselves when we were able to substitute a "generic" drug for a brand name. Generics are simply copies of brand-name drugs that are the same in "safety, strength...quality, [and] performance characteristics," according to the U.S. Food and Drug Administration (FDA). What isn't the same – or even close in many cases – is the price.

While the best price we could find for Lipitor (40 mg/30 tablets) was \$432.68, we discovered that one pharmacy chain offers the generic version (called atorvastatin) for free(!), and several others sell the generic for as low as \$7-10. The best price we could locate for the name-brand anti-inflammatory drug Celebrex (100 mg) was \$227.52 for a 30-day supply, but we found the generic (celecoxib) for only \$18.98, a savings of more than 90%. (When doing comparisons, be sure you're comparing the same size/dosage.) A few regional grocery chains—including Publix and Meijer—offer certain generic drugs for free. National chain Walmart offers many generics for only \$4 for a 30-day supply (\$10 for a 90-day supply).

Although not all brand-name drugs have generic versions (because of still-current patents), new-to-market generics are being released all the time. Last year, the FDA approved a record 1,027 generic medications, and has announced plans to speed the review-and-approval process for generics even more. So if you take an expensive name-brand medication, it's worth occasionally checking with your doctor or pharmacist to find out if a generic version has become available.

Other ways to save

Here are a few more ideas to decrease prescription costs:

• Ask for samples. Doctors often have prescription-drug samples provided by pharmaceutical companies. Your doctor may be able to give you a free short-term supply of a new prescription.

• Join a loyalty program. Many pharmacies have loyaltycard programs that offer discounts for cardholders. (The goal of the pharmacies, of course, is to keep you coming back rather than taking your business elsewhere.)

• Get prescription assistance: Many drug companies participate in assistance programs that provide medications at low-cost or no-cost to people with special health needs and to those without health insurance or drug coverage. You can learn more at <u>RxAssist.org</u>, <u>pparx.org</u>, and <u>NeedyMeds.org</u>. Also, some state and local governments, as well as certain charities, offer prescription-discount cards to people with low incomes.

Even as the political battle continues over government's role in the U.S. healthcare system, online innovations, greater pricing transparency, and many new generic-drug options are making the prescription-medicine marketplace more consumer-friendly. For many of us, that's just what the doctor ordered.

PERIODICALS POSTAGE

PAID AT LOUISVILLE, KENTUCKY

Dated Investment Material Please Do Not Delay!



PERFORMANCE DATA

SOUND MIND INVESTING MODEL PORTFOLIOS • DATA THROUGH FEBRUARY 28, 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	1.4%	-3.7%	2.5%	16.2%	10.8%	14.5%	9.8%	10.8%					
Just-the-Basics ²	0.5%	-4.0%	1.5%	16.0%	9.1%	12.4%	8.7%	10.9%					
Stock Upgrading ³	1.7%	-3.3%	2.1%	15.8%	8.7%	12.1%	7.9%	11.8%					
U.S. Bond Market ⁴	-2.1%	-1.0%	-1.7%	0.3%	1.0%	1.5%	3.4%	3.8%					
Bond Upgrading ⁵	-2.1%	-0.8%	-1.9%	-0.4%	0.2%	2.0%	5.5%	6.1%					
		PREA	NIUM S	TRATEG	IES								
	Year to Date	1 Month	3 Months	12 Months	3 Yrs Annual	5 Yrs Annual	10 Yrs Annual	15 Yrs Annual					
DAA ⁶	-0.8%	-3.6%	0.6%	10.1%	1.3%	6.0%	8.4%	11.4%					
Sector Rotation ⁷	11.9%	0.8%	9.9%	65.2%	21.9%	33.2%	19.4%	20.9%					
50-40-10 Blend ⁸	1.5%	-3.0%	2.1%	17.6%	6.4%	11.3%	9.8%	12.9%					

Notes: Transaction costs and redemption fees-which vary by broker and fundare 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. \bullet^4 Based on Barclay's U.S. Aggregate Bond Index, the broadest measure of the U.S. bond market. \bullet^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 The results prior to November 2003 are hypothetical, calculated from backtesting the strat-egy following a mechanical rules-based system. • ⁸ For a portfolio allocated 50% to DAA, 40% to Stock Upgrading, and 10% to Sector Rotation. See the May 2014 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)

CurrentReturns as of 2/28/2018	Year to Date	1 Month	3 Months	12 Months	3 Year Annual	5 Year Annual	10 Year Annual
SMIFX	3.78%	-2.66%	4.64%	18.65%	7.30%	10.97%	6.80%
Wilshire 5000	1.37%	-3.69%	2.46%	16.18%	10.85%	14.47%	9.80%
S&P 500	1.83%	-3.69%	2.96%	17.10%	11.14%	14.73%	9.73%
QuarterlyReturns as of 12/31/2017	Year to Date	1 Month	3 Months	12 Months	3 Year Annual	5 Year Annual	10 Year Annual
SMIFX	17.47%	0.83%	4.28%	17.47%	7.09%	11.58%	5.51%
Wilshire 5000	21.00%	1.08%	6.39%	21.00%	11.36%	15.67%	8.64%
66 D 500	24.02%	4 4 4 0/	6 6 40/	24.02%	4.4.44.0/	45 70%	0.50%

Total/Gross expense ratio: 2.09% as of 1/19/18 (includes expenses of underlying funds) Adjusted expense ratio: 1.15% as of 1/19/18 (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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