

Investing: The Basics plus Something New

Brad Andrew

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Brad Andrew is Professor of Economics and Faculty Overseer of the Eagle Fund at Juniata College.

First, a disclaimer: nothing, absolutely nothing, not one damn thing in this presentation is meant to be investing advice. I really mean it.

EAGLE FUND CREATION

The Eagle Fund was established over twenty years ago by a generous \$100,000 donation by Klare Sunderland, an alumnus and former trustee. He has since passed away, and I've served as faculty overseer of the fund for twenty years. Before that, the faculty overseer was the late Pat Weaver, former Dana Professor and Chair of the Department of Accounting, Business and Economics and the person who spearheaded the creation of the Eagle Fund.

Klare's son, Dan, is a Juniata alumnus and is now a member of the Board of Trustees, and his son, Matt, whom I taught, also attended Juniata. Three generations of Sunderlands have attended Juniata.

The goal was to create a student-managed investment fund and to create a series of courses that would work to teach students the skills and knowledge they need to manage that fund effectively. Now, the portfolio managers present an update on the portfolio at the Liberal Arts Symposium each year. Dan Sunderland has attended the last two, and what's nice to see is that after the presentation and after the Q&A, students will come up to him and thank him. He'll come up to me and say, "I'm not the one who did it," but it's still a nice moment to see. In that respect, I just want to pause and say that we often think about money in terms of what we lack, but we don't think about how money can be used to create a happy, meaningful life. Every time Dan Sunderland is at the presentation, you can see he's just so happy to be thinking and reminiscing about his dad, and again, it's just great to see. It hit me because my dad passed away last year, so seeing the look on his face, I could see how much he, too, misses his dad.

ASSET CLASSES

Just some basics now, so we're all familiar. There are asset classes, or assets that have similar characteristics, similar risk-return and correlation characteristics. One group of asset classes is stocks, also

called equities, and they represent part-ownership in a company. They are divided into different categories based on size, style, and geographic location of incorporation. Historically, they've had the highest return, but also the most risk; they are the most volatile asset class.

Second is bonds. They're also called fixed income. I often tell my students that a one-word synonym for a bond is a “loan” because that's what it is: a direct loan from someone who buys a bond and then has the money go to a government, corporation, or a nonprofit entity, who would then, in turn, pay it back over time with interest.

They're also divided into different categories based on maturity and who issued the bond. They have a lower risk than stocks because, in essence, they are a legal contract, where you are promised to be paid back what has been borrowed.

There are REITs--Real Estate Investment Trusts. In essence, what they do is pool together people's money, and then they invest it on their behalf to buy and lease out real estate.

The last very common asset is called cash. Cash is not what you stuff under the bed, the mattress, or the piggy bank; rather, it is short-term treasury bills. They are issued by the US government, mature in less than a year, and are viewed as the safest asset class available, at least in the real world.

Basics continued. What are some of the investment vehicles that are used for average people and institutional investors, like pension funds? Well, first and foremost is a mutual fund. A mutual fund pools people's money and invests on their behalf. The fund can be invested in stocks, bonds, and real estate. A particular type of mutual fund is called an index fund. An index fund just tracks an index, something that's meant to represent a particular asset class. It's designed to match the performance of the index, not to beat it.

An exchange-traded fund, or ETF, which has become very popular in the last fifteen years, is a lot like a mutual fund, but it's traded on an exchange like a stock and usually tracks an index. The advantage of this is that you can start with a smaller amount than the mutual fund minimums, which can be \$3,000, \$5,000, or even \$10,000. But there are ETFs that are less than \$100, so if you're just starting, this is a great place to begin investing. They have lower expenses (we'll learn the importance of that a little bit later), and they're more tax-efficient than mutual funds, so they're well designed for brokerage accounts, not tax-advantaged accounts like an IRA or retirement plan.

A specific type of mutual fund is a lifecycle or target-date fund. This is an all-in-one fund. It automatically changes your asset allocation as you age, tilting your portfolio toward a riskier stock-heavy portfolio earlier in one's life and a bond and cash-heavy portfolio later in life. It's a set-it-and-forget-it option. Juniata defaults every 403(b)-eligible employee into a target date or lifecycle fund.

FOUR BIG LESSONS

Remember that, in order of importance, the amount saved is much more important than investing success. You need to save more money. Now, you might be thinking, “Really? That’s a big piece of advice?” Kind of boring and obvious. It's like telling me, “If you want to lose weight, eat less food.” Well, duh. You already know that.

Here's the thing: you don't have control over what your investments do or what the markets do. You do have control over what *you* do. Saving more money is one of the things that you can absolutely do, and it's been proven mathematically that it can have an enormous effect on your lifetime savings.

Just assume you've got a 37-year-old assistant professor who's just been promoted to associate professor and has \$50,000 in their retirement account and assume a 5% real inflation-adjusted return. “Real,” in this regard, means that it's been adjusted for the change in prices. So, after accounting for inflation, a real return, and a 1% salary growth rate, the professor's salary grows by 1% a year.

Say this professor wants to retire at age sixty-eight, and they save the required Juniata minimum. The inflation-adjusted amount in savings at age sixty-eight would be about \$805,000. That's pretty darn good. Juniata is generous. We faculty put in 2%, and the college matches 10% (up through 2025; 8% thereafter), so 12% (now 10%) in total goes in each year. Now, let's say that instead of at age thirty-eight or until retirement, the professor adds 1% more of their salary each year to savings. Just 1% more. That extra 1% annually would grow their retirement savings to \$1.3 million, so that's an extra half a million dollars.

That gives you enormous flexibility. You can have a much more enjoyable retirement if you want to retire at sixty-eight. If you decide you want to retire earlier, at sixty-six or sixty-five, you actually have more than \$805,000, so it gives you flexibility.

This is the most effective way to increase your nest egg at retirement. Again, it's kind of boring, but often the most effective things are often boring. So, how do you go about saving more money? Auto-debit your savings, automatically have the money taken out and deposited into the accounts that you want. Then you don't have to make a decision; it's already decided by you. You do that once, and that's it.

As raises happen, bump up your savings. If you get a 3% raise, increase your contribution by 1%. If you do this increase right around the time of your pay increase, what you see is your pay going up. You don't see the extra money being saved, so psychologically, you're seeing more money. Even though you don't notice it, it's happening.

WEBSITES

Mr. Money Mustache is one of the members of what's called the “fire movement.” Financial Independence, Retire Early.¹ He and his wife saved an obscene amount of money in their twenties and early thirties, and they retired in their mid-thirties. I have seen people save 60-65% of their combined salaries, and they have one child, so they were able to do it with a child as well, but they cut down their expenses mercilessly and retired early. The Frugal Girl is another useful website for tips on how one can save more money.²

BOOKS

One of my favorites is *I Will Teach You To Be Rich* by Ramit Sethi.³ (I gave it to my son, and even he loved it.) “Rich” in this context doesn't mean wealthy; it means a happy, meaningful life. How do you use your money to create flexibility for yourself, and how do you target your spending towards areas that bring you the most joy and the most satisfaction? The book itself is very inexpensive, about \$10 plus tax. I bought a few copies and hand them out every now and then.

Also, Sethi has a podcast called *Money for Couples*, where he advises couples that are struggling. I wish he had more average couples. He's disproportionately interviewing well-off couples earning \$250,000 to 300,000 a year. Generally, the problem is that the wife is making two to three times as much as the husband or vice versa and the lower earning partner is having trouble with that. However, now and then he advises an average couple, and it helps to see what he suggests in terms of how you resolve conflict and how you bring about a plan to create a happy, meaningful life with your money.

There's also a simple, free booklet by William Bernstein called *If You Can*. I use it in EB 340: Investing Analysis.⁴ It's designed for Millennials and Gen Z, relatively young people, and it goes over the basic stuff one would need to understand markets and investing.

SAVINGS VERSUS INVESTING

We've been talking a lot about investing, but what about savings? Savings usually refer to money that's easily available, accessible, safe, and often has a purpose. I'd argue the most important purpose is an emergency fund. Normally, we measure an emergency fund in terms of months of expenses. For example, three to six months of expenses is often what's recommended by financial planners. Most emergencies will resolve within three to six months, so having that is necessary to avoid having to borrow money or use a credit card. Savings can be used also for big purchases, like a down payment on a house or a car.

I want to talk also about the way most people save money and perhaps a better way of generating more money. Roughly 57% of people save in a traditional savings account at a brick-and-mortar bank. It's safe and it's insured by the FDIC, Federal Deposit Insurance Corporation, but it has very low interest rates. Only 18% use what's called a high-yield savings account. Almost always, they are online and they pay market rates, and most of them are insured by the FDIC. If the bank closed for any reason, you would get your money back.

Then there are money market accounts that pay market rates and allow people to write checks. What's more, most money market accounts invest in very safe government debt, like treasury bills. So, what do they pay?

According to a CBS survey, typical brick-and-mortar banks pay 0.4% on their savings. According to FRED, the Federal Reserve Economic Database, the average money market rate is about 4.6% as of the end of 2024. The typical rates for high yield savings accounts range from 4-4.5%, so about what the money market accounts pay.

Let's say you have \$10,000 in savings; your local bank is going to pay you \$41 in interest for the year. Assuming a 4.5% rate, a high-yield savings account or money market account is going to pay you \$400-450. It's just a lot more. It's a way of having your money work for you. Both interest rates and returns change based on market conditions, but they're almost always going to pay more. All online banks will pay more than the local bank. However, a money market account balance will fluctuate a bit. It just doesn't go up every month, but year for year, it's going to go up by the 4.5% that I mentioned.

What's the most consistent predictor of mutual fund or ETF performance? The expenses of the mutual fund. Assume a \$10,000 investment that compounds at 8% and you've got a low-cost fund at 0.2%. That is low cost. A high-cost fund has a 5.75% sales charge, in essence a \$575 one-time charge just for buying the fund, and expenses of 2% annually, and there is a 0.25% 12b-1 fee. Now that's extreme, but it's meant to illustrate a point: expenses matter. After 30 years, \$10,000 has grown to only \$50,000 in the expensive fund, and it's grown to \$95,000 in the inexpensive fund.

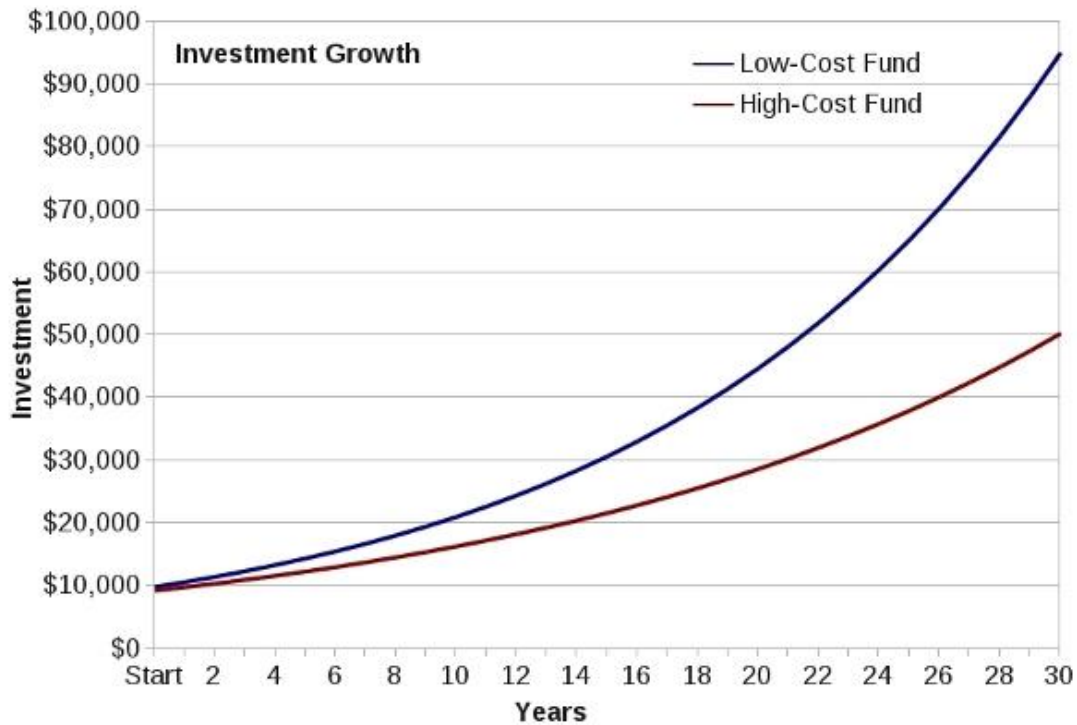


Figure 1. Investment growth of both a low-cost and high-cost fund. Source: http://www.bogleheads.org/wiki/Mutual_funds_and_fees

Vanguard's 500 index fund is the low-cost fund in this example. It has what's called a five-star rating from Morningstar, a company well known for its mutual fund ratings, financial data for mutual funds, and a grid that categorizes stocks by size and style. However, a five star rating means it's among the top 10% of all funds based on performance over the last one, three, five, and ten years. As an index fund, it tries to match the index, not to beat it, so this seems kind of strange. What's the difference? Well, that 0.04%, which means that they charge you \$4 for every 10,000 you invest. That's peanuts, an absolutely tiny amount, and that's why they perform so well. They charge you so little, so unlike many other things in life, you get what you don't pay for. When it comes to mutual funds and ETFs, the less you pay in expenses, the better your returns are going to be.

If talking about Juniata's retirement plan, most of our mutual funds are quite inexpensive. We don't necessarily need to worry about that. For those wondering, we can buy the Vanguard 500 index fund, the one on the previous slide. For people who have investments outside their retirement plan, it's something you need to pay attention to. Are the funds inexpensive? Do they have a very low expense ratio?

Diversification of your investments is valuable. Asset classes grow at unpredictable rates, and nobody can predict what's going to happen in terms of a particular asset class. The key goal is that you want to own a range of different asset classes, and that means that you will likely own something that is going up, and since you can't predict, you need to prepare. That's the way you prepare: a range of different asset classes.

Diversification also helps reduce portfolio volatility, which increases compound returns. You want your portfolio to grow steadily over time. As a result, it will tend to compound better over time and grow to a higher amount when you decide to start withdrawing or retire.

When looking at diversification, there are ten major asset classes. There are large stocks, midsize stocks, small stocks, and international stocks. When we say international, we are referring to stocks from other developed countries, like those in Europe, Japan, Australia, New Zealand, and now South Korea. There is also real estate (REIT), and emerging markets (EMs), which are countries that are at a more nascent level of economic development, countries like China, India, Argentina, et cetera.

There are also TIPS, or Treasury Inflation-Protected Securities, an asset class that goes up in value when there is unexpected inflation. This has been a form of protection against inflation. Cash is, as I mentioned before, just treasury bills, a very safe asset class. Traditional bonds are safer than stocks because they are a legal contract, like a loan from a bank except that the loan is made directly from the lender to the borrower. Then, finally, commodities, homogeneous items that you usually dig out of the ground or grow--things like gold, silver, oil, natural gas, wheat, and corn. There are ten different asset classes here.

When given equal weight (EW), all those asset classes earned 5.4% over the last 10 years, and what you see running across is that equal weight is always in the middle. It is never the highest or the lowest. It is just about always in the middle in terms of its performance. Diversification is valuable. However, sometimes diversification can be tough.

This is a line that I used in a quote from my previous presentation: “At a conference with hundreds of asset allocators and portfolio managers last week. Most of them have a global portfolio of 3-4%, and they’re miserable.” Why? Because their portfolios were underperforming. This was in 2013 and is still true in 2025. Diversification often can be tough because you are always underperforming something. In this case, the best performer is the S&P 500. For large stocks over the last 10 years, the S&P 500 has returned 13% a year versus 5.4% for a well-diversified portfolio. That's very difficult to stomach sometimes, particularly if you're regularly looking at your portfolio .

BIASES THAT IMPACT INVESTMENTS

Humans suffer from a lot of biases that cause them to make poor decisions. Take, for example, confirmation bias, when you believe only evidence that supports your view while ignoring any contrary evidence. That's a way of making bad decisions because you ignore any evidence you don't agree with.

Then there's self-serving bias, where any success you have is because you are awesome. Any failures were beyond your control, so they weren't your fault. Another bias is recency bias, such as when people choosing investments or asset allocation weigh recent events more heavily than distant events. For example, the era from 2000 to 2009 was the "lost decade," and the S&P 500 lost 1% a year over that entire decade. So, someone might be happy with their 13% a year over the last decade and then decide, "Well, I'm just going to keep putting into the S&P 500." This can happen again. Diversification helps protect people against the worst-case outcome and themselves.

Now, what may be missing from a typical target-date fund or a similar diversification strategy? Over the last twenty years, asset classes have become more correlated with one another. They tend to move up and down at the same time to a greater degree. The biggest example of that was in 2022, when stocks and bonds both went down; stocks went down a little over 18%, and bonds went down a little over 13%. That hasn't happened in many people's lifetimes, but it has happened. It happened in the 1970s, but there aren't a lot of people around here either studying data or who remember that. However, asset classes are becoming a little bit more correlated, which means they're less effective in terms of diversifying your portfolio.

When mixing traditional long positions--and when I reference "long positions," what I mean is buying an asset class--you make money if the prices go up. That's generally what we think about when investing. You buy something, the price goes up, and you earn a return on that; that's a long position. However, when that strategy doesn't provide enough diversification, what's left is non-traditional strategies that are uncorrelated with traditional asset classes. This has been a focus of the Eagle Fund within the last decade.

What are some of the alternative forms of diversification employed by the Eagle Fund? First, momentum-based strategies. Momentum is a well-studied phenomenon within finance. It's been studied for over 30 years, and over 200 papers support its existence.

Momentum is the tendency of an asset class or any asset that's gone up a lot in the last three to twelve months to continue going up for the subsequent three to twelve months. There's also a tendency if it's going down over the last three to twelve months for it to continue to go down. It's another term that finances borrowed from physics (thank you very much). So, there are momentum-based strategies that the Eagle Fund employs, like relative strength trend and managed futures, which we do indirectly through a

mutual fund. Managed futures offer more diversification because they give exposure to many additional asset classes that professional investors can easily access but typical retail investors can't.

There are also all-weather multi-asset strategies. The fund has also used hedge strategies. (And when I say “hedge,” I do not mean hedge funds because that’s something completely different.) In this case, it's a part of the portfolio that we call a hedge, and its purpose is to hedge the risk of the rest of the portfolio. That could be as simple as something like holding more cash or ETFs that are invested in treasury bills. It could also include tail risk hedges. Tail risk hedges are valuable when there's a very unexpected negative event, and when that happens, a tail risk hedge goes up. These are some of the strategies that the Eagle fund investigated and then employed.

Now, looking at the Eagle Fund breakdown portfolio example from 2022. The Buy and Hold strategy is just like traditional investing, and it’s 24% of the portfolio, at least at this time in April of 2022. We also engage in value investing, dividing that sleeve into bottom-up fundamental value investing, where the Portfolio Managers pick individual stocks, and Acquirer’s Multiple, a basket approach, where they buy the cheapest twenty or so stocks early in the fall semester. Basically, half the portfolio strategy is to buy and hold. This is asset classes. This is individual stocks, but the other half is non-traditional.

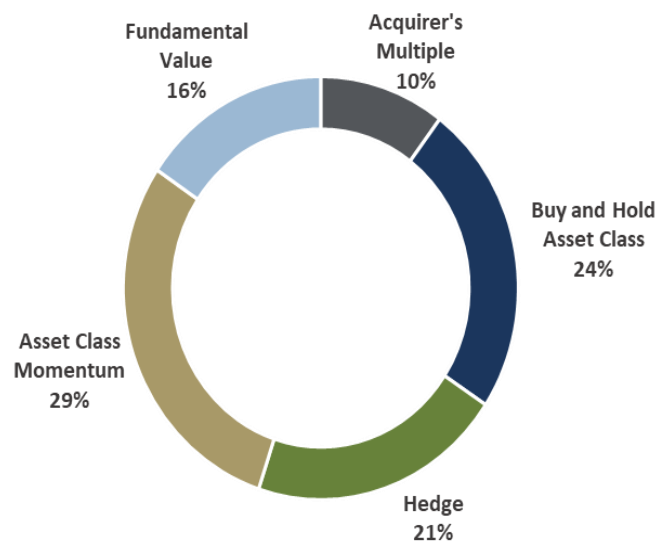


Figure 2. 2022 Eagle Fund portfolio. Image supplied by author.

The other half is non-traditional asset classes, including strategies like asset class-based momentum-based strategies and hedge strategies. I want to caution you: we're tilted towards alternative

investment strategies because the fund is meant as a learning tool. This is not something that one would normally do in their personal portfolio. Since the fund is meant as a learning tool, we often engage in some different strategies that the Portfolio Managers find interesting or valuable.

In trying to think about what I have learned over the last decade as faculty overseer of the Eagle fund, a few areas stick out, but they have to be easy to implement. For example, we can do momentum-based strategies as a form of diversification, but that requires some specific knowledge. We could do tail risk strategies, but you need to pay attention. Tail risk strategies work when something bad happens. When the tail risk strategy goes up in a big market downturn, you need to sell it at that time and buy the asset classes that have done very poorly. In essence, it's a way of trying to generate money to buy more of a devalued asset class at the best time, and also at a time when most people are scared. These strategies require people to take action at the time of maximum pessimism, and they often don't work because people are scared. I found the simplest one to implement is when someone else has created a portfolio already that does what needs to happen without any decisions by the investor.

The Eagle Fund owns a mutual fund that built in momentum-based and managed future strategies. That's the Standpoint Multi-Asset fund. It's the biggest Eagle Fund hedge holding. The fund was co-founded by Eric Crittenden, who took a two-year sabbatical from work to research investment strategies, which he was required to do because he had a non-compete clause with his previous fund. Looking at fifty years of data, Eric found three uncorrelated asset classes that combined to create a smooth return profile over time: treasury bills, global stocks, and managed futures.

Firm representatives spoke to the 2022 Eagle Fund portfolio managers twice, and Eric was kind enough to speak on his own. All of these were reviewed in April 2022 to answer questions about the strategy, and he's also very nice in terms of giving very detailed answers to my emailed questions.

So, treasury bills, global equities, a.k.a. global stocks: they're well known by most people, but managed futures is an asset class that most people don't know about. With a futures transaction, investors agree to buy or sell an asset in the future, so the buyer puts up about 5-12% of the contract value in 90-day T-bills as collateral. Any managed future strategy involves taking a leveraged position.

I struggled with this at first because leverage is something that investors generally want to stay away from, so I had to study these materials and learn from conversations and email exchanges with Eric and with members of the Eagle Fund. The key value is that Standpoint's Fund can take positions in traditional assets, but they can also take positions in asset classes that are completely unavailable to retail investors yet available to professional managers. Take, for example, European carbon allowances. In essence, for over twenty-five years there has been a very well-established market in trading carbon in

Europe. It's not something a typical investor would invest in, but through futures, you can gain access to that market.

Standpoint's strategy gains exposure to seventy-five of the most liquid futures markets, which increases diversification. Their managed futures strategy employs trend following, a momentum-based strategy. They can take long, neutral, or short positions. A long position just means you make money when the prices of the assets go up. Neutral means that you put the money into cash. A short position means that you make money if the asset price goes down. This is valuable at times when many assets are falling in price. Their strategy's virtues were displayed over the two periods during the last five years since the fund was founded at the end of December 2019. The virtues were put on display first, at the beginning of 2020.



Figure 3. 2020 Standpoint Fund chart. Source: <https://www.morningstar.com/funds/xnas/remix/chart>

The red line is what the S&P 500 did in the first few months of 2020. The blue line is the Standpoint Fund, ticker symbol REMIX. You can see it went down first, but then it just treaded water for a while. The second was of the 2022 calendar year. The red line is the S&P 500, which is down 18.15%. The green line--bonds--were down 13%. REMIX was up 3.4%. Although that doesn't seem like such a great amount, when the primary members of your portfolio are down, like an average of 16%, being up 3.4% is good. Both periods illustrate true diversification.



Figure 4. 2022 Standpoint Fund chart. Source: <https://www.morningstar.com/funds/xnas/remix/chart>

Despite the understandable perception, I'm not a paid shill for Standpoint. Nor am I an unpaid shill for Standpoint. I've studied this strategy for over three years and understand it better than other strategies. I understand the sources of their expected returns, volatility, and correlations, and they usually offset each other. Their portfolio also includes about a 20-35% exposure to cash. It varies, but between 20-35%, which is more than the typical fund, and that really makes it safer.

Most fund managers don't eat their own cooking, and by that, I mean they don't invest in their own funds. However, Eric Crittenden has over 90% of his financial assets invested in the fund. He works at Standpoint; his source of income comes from the fund, and the vast majority of his wealth is invested in the fund. I have 10% of my family's overall financial portfolio in this fund, which means if he's wrong, he'll lose way more money than I would. This generates strong incentives to be right, and economists tend to trust incentives.

So here are the four big lessons reviewed: saving more is more important than investing performance, and you want to also earn more on your savings; there are ways to do that. Use low-cost ETFs and mutual funds. At Juniata (and at most employers), these inexpensive funds are already picked out for you in 80-90% of our funds that are available through TIAA-CREF and Cornerstone Asset Management. However, if you have other accounts, keep that in mind. Keep the low expenses in mind.

Finally, diversification is valuable, but often frustrating. Non-traditional diversification is increasingly valuable as traditional asset class correlations increase. This is the most important lesson I've

taken away from my time as faculty overseer of the Eagle Fund, and Standpoint’s nontraditional strategy is the one I’ve found to be most valuable.

NOTES

1. Mr. Money Mustache. “Mr. Money Mustache.” <https://www.mrmoneymustache.com/>.
2. The Frugal Girl. “The Frugal Girl.” <https://www.thefrugalgirl.com/>.
3. Ramit Sethi, *I Will Teach You to Be Rich: No Guilt, No Excuses, No B.S., Just a 6-Week Program That Works* (Prince Frederick, Md: Recorded Books, 2009).
4. William J. Bernstein, *If You Can: How Millennials Can Get Rich Slowly* (Portland, OR: William J. Bernstein, 2014).