The $10 Million Decision: Stocks vs. Bonds (and the Habits That Decide Your Outcome)

Boot Camp 2026 opens with a deceptively simple idea: the biggest long-term decision most investors will ever make isn't which hot stock to buy, or which headline to fear—it's how you divide your money between **stocks and bonds**, and whether you can **stay the course** long enough for compounding to do its job.

Paul Merriman frames this first session as *the* foundational class in a 10-part series. If you only ever watch one, he says, this is the one—because the "stocks versus bonds" choice can change your lifetime outcome by **millions**. And not in a theoretical way. In an "extra years of freedom" and "generational wealth" kind of way.

Why This Program Exists (and What It's Not)

Merriman starts by grounding the purpose of the Financial Education Foundation (founded in 2012): help **do-it-yourself investors** do it better—especially over the long term.

He's not trying to teach financial planning, insurance, taxes, or estate structures. The focus is narrower and sharper:

- build wealth through investing,
- avoid common behavioral mistakes,
- improve the odds that your portfolio does what it's supposed to do.

He also draws a bright line: he's a teacher, not an advisor. He won't tell you what *you* should buy. Instead, he'll give you tools, history, math, and frameworks so you can make your own decisions—or work with a professional who understands planning holistically.

One practical example of this mission is the Merriman Financial Literacy Program at Western Washington University, where financial literacy is moving toward being a graduation requirement. Merriman sees that as a big deal, because most people are asked to make life-altering money decisions without ever being taught how compounding, risk, inflation, and behavior actually work.

The Core Message: Investing Is a Long-Term Process With Real Hurdles

If you've been investing for any length of time, you already know the "hurdles" he's talking about:

- markets drop unexpectedly,
- headlines scream crash,
- friends brag about whatever just doubled,
- your own brain starts inventing reasons to "do something."

The job isn't to eliminate volatility. The job is to **design a portfolio you can live with** and then **stick to it** through the messy parts.

And before he gets into historical returns—stocks, bonds, and asset classes—he starts with what he calls the only "guaranteed" part of investing:

the math of compounding.

Not market outcomes. Not predictions. Just math.

Compounding: Two Investors, Same Contributions, Very Different Lives

Here's the baseline scenario Merriman uses to show how small differences compound into huge lifetime outcomes:

- Two investors contribute **$6,000 per year**
- For **40 years** (age 25 to 65)
- Then retire for **30 years** (to age 95)
- During retirement they withdraw **4% per year**
- The only difference is the **rate of return**

What matters is not just what you put in, but what the money becomes over decades, and what it can support during retirement.

Table 1: 8% in Accumulation / 6% in Distribution

Merriman's first scenario uses:

- **8%** compound return during working years
- **6%** compound return during retirement (less risk, lower expected return)

The investor contributes a total of **$240,000** over 40 years. But because the money compounds, the portfolio at retirement is around **$1.7 million**.

From there, using 4% annual withdrawals over 30 years, the investor withdraws about **$2.6 million** in retirement spending and still leaves roughly **$2.8 million** behind.

That's the "shock" point: you put in $240K slowly over your career… and the combination of withdrawals + remaining wealth adds up to about **$5.5 million** in lifetime value.

Table 1

Impact of an additional 0.5% in annual return

Inputs	Scenario 1	Scenario 2
Accumulation Phase Average Return	*8.00%*	*8.50%*
Distribution Phase Average Return	*6.00%*	*6.50%*
Starting Contribution Amount	$6,000	
Annual Contribution Increase	0.00%	
Start Investing Age	25	
Accumulation Phase Duration	40	
Start Retirement Age	65	
Retirement Duration	30	
End Retitrement Age	95	
Retirement Phase Withdrawal Rate	4.00%	

Results	Scenario 1	Scenario 2
Total Contributions (age to 64, years)	$240,000	$240,000
Portfolio Value @ Age 65 (Start Retirement)	$1,678,686	$1,924,893
Portfolio Value @ Age 95 (End Retirement)	$2,833,234	$3,741,381
Total Withdrawals (Age 65 to 95)	$2,623,973	$3,243,727
Total Lifetime Benefit (Withdrawals + Ending Bal)	**$5,457,207**	**$6,985,108**

Increased Total Benefit of increasing returns 0.5%/year is: $1,527,901

The Hidden Superpower: Finding "Just" an Extra Half-Percent

Next Merriman introduces what the rest of the Boot Camp series is really about: small, repeatable edges.

Not gambling. Not guessing. Not "this one weird trick."

Instead: improving returns by **tiny amounts** through better portfolio construction, lower costs, better diversification, smarter rebalancing habits, and avoiding behavioral mistakes.

And then he shows what a mere **0.5% improvement** can do.

Table 2

Impact of an additional 1% in annual return

Inputs	Scenario 1	Scenario 3
Accumulation Phase Average Return	***8.00%***	***9.00%***
Distribution Phase Average Return	***6.00%***	***7.00%***
Starting Contribution Amount	$6,000	
Annual Contribution Increase	0.00%	
Start Investing Age	25	
Accumulation Phase Duration	40	
Start Retirement Age	65	
Retirement Duration	30	
End Retitrement Age	95	
Retirement Phase Withdrawal Rate	4.00%	

Results	Scenario 1	Scenario 3
Total Contributions (age to 64, years)	$240,000	$240,000
Portfolio Value @ Age 65 (Start Retirement)	$1,678,686	$2,209,751
Portfolio Value @ Age 95 (End Retirement)	$2,833,234	$4,943,035
Total Withdrawals (Age 65 to 95)	$2,623,973	$4,019,535
Total Lifetime Benefit (Withdrawals + Ending Bal)	**$5,457,207**	**$8,962,570**

Increased Total Benefit of increasing returns 1%/year is: $3,505,363

With only an extra half-percent in both phases:

- Retirement portfolio grows from ~**$1.7M** to ~**$1.9M**
- Retirement withdrawals grow from ~**$2.6M** to ~**$3.2M**
- Legacy grows from ~**$2.8M** to ~**$3.7M**

Total lifetime "return" (withdrawals + what's left) rises from ~**$5.5M** to nearly **$7.0M**.

That half-percent produced about **$1.5 million** more in lifetime value.

Not because you worked harder.
Not because you saved more.
But because compounding amplified every incremental gain over decades.

Then he runs the same idea at +1%:

- **9%** during accumulation
- **7%** during distribution

The outcome doesn't merely double the extra wealth. It grows more than "two times" because returns compound on returns, year after year.

This is the part people underestimate: compounding isn't linear. Improvements stack on the whole growing base.

"Now You Do Something About It": Your Contributions Matter Too

At this point, Merriman shifts from return assumptions to the part you control most directly: **how much you invest**.

He frames your portfolio like a business you own.

You are funding it.
It is growing.
Over time, it can become larger than many businesses in your town.

He uses his own story: Merriman Wealth Management began with **$15,000** in 1983. He didn't keep adding cash—he added sweat equity, and the business compounded in value.

Your portfolio can do something similar, except you don't have to build the product, hire staff, or run operations. You only have to fund it and stay disciplined.

Table 3: Increasing Contributions by 3% Per Year

Instead of contributing a flat $6,000 every year, Merriman shows the effect of increasing contributions by **3% annually** (roughly keeping pace with inflation).

That changes total contributions over 40 years from **$240,000** to roughly **$452,000**.

And the ending result isn't "a little higher." It's dramatically higher—because earlier contributions get more time to compound, and later contributions are larger.

In his example, a portfolio that might have ended around **$9 million** (under the higher-return assumptions) climbs to about **$12+ million** simply by stepping contributions up annually.

Table 3

Impact of increasing your investment 3% a year

Inputs	Scenario 3	Scenario 4
Accumulation Phase Average Return	9.00%	
Distribution Phase Average Return	7.00%	
Starting Contribution Amount	$6,000	
Annual Contribution Increase	***0.00%***	***3.00%***
Start Investing Age	25	
Accumulation Phase Duration	40	
Start Retirement Age	65	
Retirement Duration	30	
End Retitrement Age	95	
Retirement Phase Withdrawal Rate	4.00%	

Results	Scenario 3	Scenario 4
Total Contributions (age to 64, years)	$240,000	$452,408
Portfolio Value @ Age 65 (Start Retirement)	$2,209,751	$3,068,065
Portfolio Value @ Age 95 (End Retirement)	$4,943,035	$6,863,013
Total Withdrawals (Age 65 to 95)	$4,019,535	$5,580,807
Total Lifetime Benefit (Withdrawals + Ending Bal)	**$8,962,570**	**$12,443,820**

Increased Total Benefit of increasing contributions 3%/year is: $3,481,249

Starting Earlier: The Five-Year Difference That Can Add Millions

Then comes one of the most painful and motivating comparisons:

- Investor A starts at **25**
- Investor B starts at **30**
- Same contributions otherwise

Five years doesn't sound like much—until you see what it does to lifetime wealth.

Merriman's punchline: starting five years earlier can mean roughly **$4.6 million more** in total lifetime outcomes (withdrawals plus legacy), depending on the return assumptions.

And he makes a point that feels almost unfair but is true in the math:

You can't "lose" by starting earlier.

Even if the market is awful early on (like 2000–2004), dollar-cost averaging during downturns buys more shares at lower prices. If the market is great early on (like 1995–1999), you get a head start that compounds for decades.

You don't control which five-year stretch you get. But you *do* control whether your money is in the game.

The Big Pivot: The Past Has No Risk—But You Still Need It

Merriman warns about a trap in financial education: it's easy to talk about the past like it was obvious.

"There is no risk in the past." We always know what we *should* have done."

So anytime someone claims they have the "perfect" portfolio or "guaranteed" strategy, they may be ignoring the real-world messiness: fear, greed, inflation surprises, crises, and the emotional reality of watching your money drop.

This boot camp isn't about pretending those things don't exist. It's about **planning for them**.

Bonds: What They Are, Why They Help, and Why They Can Still Hurt You

Bonds are introduced as IOUs:

- you loan money to a government or company,
- they promise to pay it back,
- they pay interest as compensation.

In the simplest form, a U.S. government bond is often treated as "safe"—because the U.S. has historically been reliable in paying its obligations.

But Merriman adds nuance fast:

- A “guarantee” is only as good as the issuer.
- Bonds can be safe in the *short term* for money you truly need soon.
- Bonds can be surprisingly risky over longer periods, especially when interest rates move.

He emphasizes that bonds are useful when you need stability for near-term needs—like a down payment next year or tuition money soon.

But then he flips the script: bonds can also be **one of the least safe investments** in certain conditions (especially when investors misunderstand interest rate risk).

Bond Types: Short-Term, Intermediate-Term, Long-Term

He walks through three broad categories:

- **Short-term bonds**: lower yield, lower volatility
- **Intermediate-term bonds**: middle ground
- **Long-term bonds**: higher sensitivity to interest rates, bigger swings

He gives a vivid historical example: invest $100 about 98 years ago and see how it grows:

- long-term bonds grew to about **$11,000+** (~5% compound)
- short-term bonds grew to about **$2,400** (lower return)
- intermediate-term bonds landed around **$10,000**
- long bonds

He also highlights the one-year worst losses:

- short-term: about **-0.9%** (near break-even)
- intermediate-term: about **-9.4%**
- long-term: about **-26%**

That’s the “surprise” for many people: yes, bonds pay interest, but bond *prices* can fall a lot when rates rise—especially long bonds.

Table J2b - Fixed Income Returns: 1-yr Returns (1928 - 2025)

Summary Results for 98 1-year Periods (1928-2025)

	Short-Term Gov't Bond (one-month)	Intmed-Term Gov't Bond (5-year)	Long-Term Gov't Bond (20-30-years)
In 98 years $100 grows to:	$2,386	$10,315	$11,636
CRR over 98 years	3.3%	4.8%	5.0%
Best 1 year return	14.7%	29.1%	40.4%
Worst 1 year return	-0.02%	-9.4%	-26.1%
SD over 98 years	3.1%	5.8%	10.1%

Bonds Over Time: 15-Year and 40-Year Outcomes Can Still Vary Wildly

Merriman doesn't let bonds off the hook just because they're "safer."

He shows that over rolling 15-year periods (84 of them), short term bond returns ranged dramatically:

- best 15-year compound return: **~8.3%**
- worst 15-year compound return: **~0.2%**

That's basically "printing money" versus "MAKING almost nothing," depending on the starting point.

Then over 40-year periods, the range is still meaningful:

- best 40-year return: about **6.1%**
- worst 40-year return (for very short-term instruments): about **1.6%**

His point isn't "bonds are bad." It's: **you can't assume anything behaves the way you want in the short term**, and even long-term outcomes vary enough to affect real lives.

Table J2c - Fixed Income Returns: 15-yr Returns (1928 - 2025)

Summary Results for 84 15-year Periods (1928-2025)

	Short-Term Gov't Bond (one-month)	Intmed-Term Gov't Bond (5-year)	Long-Term Gov't Bond (20-30-years)
Avg 15 yr growth of $100	$169	$214	$225
Average 15 year CRR	3.5%	5.2%	5.6%
Best 15 year CRR	8.3%	11.3%	13.5%
Worst 15 year CRR	0.2%	1.4%	0.4%
Average 15 year SD	1.6%	4.8%	9.2%
Lowest 15 year SD	0.2%	0.9%	3.4%
Highest 15 year SD	3.2%	8.3%	15.5%

Table J2d - Fixed Income Returns: 40-yr Returns (1928 - 2025)

Summary Results for 59 40-year Periods (1928-2025)

	Short-Term Gov't Bond (one-month)	Intmed-Term Gov't Bond (5-year)	Long-Term Gov't Bond (20-30-years)
Avg 40 yr growth of $100	$556	$974	$969
Average 40 year CRR	4.4%	5.9%	5.8%
Best 40 year CRR	6.1%	8.1%	9.4%
Worst 40 year CRR	1.6%	2.8%	2.3%
Average 40 year SD	2.8%	5.8%	9.9%
Lowest 40 year SD	1.4%	3.1%	5.2%
Highest 40 year SD	3.7%	7.0%	13.0%

Stocks: Owning Businesses, Taking Risk, Fighting Inflation

When Merriman shifts to stocks, he frames them as ownership in real companies—mini slices of human effort happening all over the world.

Stocks can reward you in two ways:

1. **dividends** (cash paid out), and/or
2. **growth in value** (the company reinvests earnings and the stock price rises)

But stocks are volatile. They can go sideways for years. He uses Microsoft as a famous example: it hit a high around 2000 and didn't surpass it for **16 years**.

The company wasn't dead. The stock just got overpriced, then spent years growing into its valuation.

This is why he argues that as a long-term investor you need:

- humility about what you can predict,
- diversification,
- and emotional stamina.

Stocks and Inflation

Inflation is the silent problem most young investors underestimate. Merriman points out that what felt like normal starting pay decades ago would require **far more dollars today** to match purchasing power.

Bonds often struggle to beat inflation meaningfully over long spans—especially the safest short-term ones.

Stocks, historically, have offered the growth needed to outrun inflation, but the "price of admission" is volatility.

Stock Asset Classes: Not All "Stocks" Behave the Same

Instead of talking about individual companies, Merriman focuses on broad equity groups tracked by academics since 1928.

He highlights four major asset classes:

- **Large Cap Blend** (roughly the S&P 500 style)
- **Large Cap Value**
- **Small Cap Blend**
- **Small Cap Value**

Over ~98 years, the long-term compounded results he cites are roughly:

- Large Cap Blend: ~**10.2%**

- Large Cap Value: ~**11.1%**
- Small Cap Blend: **11.9%**
- Small Cap Value: ~**13.1%** (the "gold ring")

But the volatility is intense:

- small cap value best year: **+125%**
- small cap value worst year: **-55%**
- S&P 500 best year: **+54%**
- S&P 500 worst year: **-43%**

Then he shows a powerful idea: combining these four asset classes (25% each) historically produced around **11.8%** with smoother year-to-year experience than any single one alone.

Table J1b - Equity Index Returns: 1-yr Periods (1928-2025)

Summary Results for 98 1-year Periods (1928-2025)

	US LCB (S&P 500)	US LCV	US SCB	US SCV	US 4-Fund (SCV, LCV, SCB, LCB)	US All Value (SCV, LCV)	US 2-Fund (S&P 500, SCV)
In 98 yrs $100 grows to:	$1,398,153	$2,995,154	$5,934,277	$17,581,909	$5,590,514	$8,435,109	$6,425,538
CRR over 98 years	10.2%	11.1%	11.9%	13.1%	11.8%	12.3%	12.0%
Best 1 year return	54.0%	92.5%	111.2%	124.7%	96.2%	110.4%	89.9%
Worst 1 year return	-43.3%	-61.1%	-48.3%	-55.4%	-51.8%	-58.1%	-49.4%
SD over 98 years	19.6%	22.4%	27.8%	30.8%	24.1%	26.0%	23.9%

"Normal" Volatility: 15-Year and 40-Year Periods for Stocks

Merriman uses rolling periods to reset expectations.

Over 15-year spans:

- even the S&P 500 had a period compounding near **19%**
- and a period compounding under **1%**
- some value and small categories had 15-year stretches that were negative

That sounds horrifying until you zoom out:

Over 40-year spans (59 rolling periods since 1928), results get more predictable and, importantly, consistently positive:

- S&P 500 average around **11%**
- best 40 years about **12.5%**
- worst 40 years about **8.9%**
- small cap value best 40 years around **19%**
- small cap value worst 40 years still around **11.6%**

The takeaway: long-term investing works **if you actually stay long-term**.

Table J1c - Equity Index Returns: 15-yr Periods (1928-2025)

Summary Results for 84 15-year Periods (1928-2025)

	US LCB (S&P 500)	US LCV	US SCB	US SCV	US 4-Fund (SCV, LCV, SCB, LCB)	US All Value (SCV, LCV)	US 2-Fund (S&P 500, SCV)
Avg 15 yr growth of $100	$466	$595	$657	$865	$646	$731	$655
Average 15 year CRR	10.8%	12.6%	13.4%	15.5%	13.2%	14.2%	13.3%
Best 15 year CRR	18.9%	21.7%	23.2%	26.5%	22.2%	24.2%	21.7%
Worst 15 year CRR	0.6%	-0.6%	1.6%	-1.9%	0.6%	-0.9%	0.5%
Average 15 year SD	18.0%	20.0%	25.7%	28.4%	22.0%	23.6%	21.8%
Lowest 15 year SD	12.4%	12.5%	16.1%	17.8%	14.8%	15.6%	14.5%
Highest 15 year SD	30.7%	38.6%	45.8%	52.0%	40.7%	44.8%	40.1%

Table J1d - Equity Index Returns: 40-yr Periods (1928-2025)

Summary Results for 59 40-year Periods (1928-2025)

	US LCB (S&P 500)	US LCV	US SCB	US SCV	US 4-Fund (SCV, LCV, SCB, LCB)	US All Value (SCV, LCV)	US 2-Fund (S&P 500, SCV)
Avg 40 yr growth of $100	$6,572	$14,865	$16,407	$38,257	$16,834	$25,085	$17,157
Average 40 year CRR	11.0%	13.3%	13.6%	16.0%	13.7%	14.8%	13.7%
Best 40 year CRR	12.5%	15.6%	16.7%	19.1%	15.9%	17.2%	15.8%
Worst 40 year CRR	8.9%	8.8%	10.6%	11.6%	10.8%	10.7%	10.8%
Average 40 year SD	17.6%	19.1%	25.6%	27.5%	21.3%	22.6%	21.1%
Lowest 40 year SD	15.6%	16.2%	19.2%	21.7%	17.4%	18.6%	17.0%
Highest 40 year SD	23.2%	28.3%	34.8%	39.4%	30.4%	33.3%	30.3%

Daryl Bahls' Quilt Charts: The Fastest Way to Understand "Random"

Merriman introduces Daryl Balhs, who built a huge library of tables and charts used to teach investors what markets actually look like.

The quilt charts show yearly performance rankings with color coding:

- Red: S&P 500 / large blend
- Purple: large value
- Green: small blend
- Blue: small value
- 0range: the 4-fund portfolio (25% each)

The point is visual: the "winner" changes constantly. What's on top one year can be near the bottom the next.

He highlights recent examples:

- From 2017-2025, the S&P 500 led in most years
- in other periods, small and value dominated for long stretches
- in 1998–2007, the S&P sat near the bottom for years
- in 2000–2004, small cap value beat the S&P by an average of ~25% per year

This is where he warns about **recency bias**: people chase what's been working, especially after it's been working for a while—right before leadership often changes.

Table K1a - 4 US Asset Class Indexes & 4 Fund Combo Relative Return Ranking (1928-2025)

Quintile Rank	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
1	S&P 500 43.6%	LCV 2.8%	S&P 500 -24.9%	S&P 500 -43.3%	S&P 500 -8.2%	SCV 124.7%	SCB 15.6%	SCB 56.1%	SCV 66.6%	S&P 500 -35.0%
2	SCB 42.8%	S&P 500 -8.4%	LCV -34.1%	SCB -46.3%	4 Fund -10.3%	SCB 111.2%	4 Fund -0.2%	4 Fund 48.5%	SCB 52.6%	LCV -36.6%
3	4 Fund 35.8%	4 Fund -19.2%	4 Fund -34.7%	4 Fund -51.5%	SCV -10.5%	4 Fund 95.6%	S&P 500 -1.4%	SCV 47.7%	4 Fund 50.5%	4 Fund -42.6%
4	SCV 32.0%	SCB -34.0%	SCB -36.3%	SCV -55.4%	LCV -10.7%	LCV 92.5%	SCV -6.2%	S&P 500 47.7%	LCV 49.1%	SCB -48.3%
5	LCV 24.6%	SCV -37.0%	SCV -43.5%	LCV -61.1%	SCB -11.8%	S&P 500 54.0%	LCV -8.7%	LCV 42.4%	S&P 500 33.9%	SCV -50.5%

Quintile Rank	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
1	SCB 39.8%	S&P 500 -0.4%	SCB -3.6%	LCV 1.0%	SCV 34.1%	SCV 78.6%	SCV 52.6%	SCV 65.4%	LCV -6.3%	SCV 8.8%
2	SCV 32.6%	SCB -0.8%	LCV -5.4%	SCV -0.2%	4 Fund 25.4%	SCB 56.9%	SCB 42.1%	SCB 64.0%	S&P 500 -8.1%	LCV 7.2%
3	S&P 500 31.1%	4 Fund -2.5%	4 Fund -6.7%	4 Fund -5.5%	SCB 25.3%	4 Fund 48.1%	4 Fund 36.0%	4 Fund 51.9%	4 Fund -8.7%	S&P 500 5.7%
4	4 Fund 30.4%	SCV -3.8%	SCV -8.1%	SCB -11.0%	LCV 22.0%	LCV 31.0%	LCV 29.7%	LCV 41.9%	SCB -9.9%	4 Fund 5.3%
5	LCV 18.1%	LCV -4.9%	S&P 500 -9.8%	S&P 500 -11.6%	S&P 500 20.3%	S&P 500 25.9%	S&P 500 19.7%	S&P 500 36.4%	SCV -10.5%	SCB -0.7%

Quintile Rank	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
1	S&P 500 5.5%	SCB 20.8%	SCV 63.4%	S&P 500 24.0%	S&P 500 18.4%	S&P 500 -1.0%	SCV 64.3%	S&P 500 31.5%	SCB 8.2%	S&P 500 -10.8%
2	LCV 1.5%	SCV 19.7%	LCV 47.2%	LCV 19.2%	LCV 15.0%	SCB -3.0%	LCV 63.5%	4 Fund 25.0%	LCV 7.2%	LCV -14.1%
3	4 Fund -0.8%	S&P 500 18.8%	4 Fund 45.4%	4 Fund 16.7%	4 Fund 13.0%	4 Fund -5.0%	4 Fund 59.8%	LCV 23.6%	S&P 500 6.6%	4 Fund -14.6%
4	SCV -4.9%	4 Fund 18.7%	SCB 39.2%	SCB 13.8%	SCB 9.7%	LCV -5.3%	SCB 58.9%	SCV 23.5%	4 Fund 6.0%	SCB -14.8%
5	SCB -5.4%	LCV 15.5%	S&P 500 31.7%	SCV 9.9%	SCV 9.0%	SCV -10.6%	S&P 500 52.6%	SCB 21.3%	SCV 1.8%	SCV -18.6%

Quintile Rank	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
1	SCV 77.3%	SCB 19.3%	S&P 500 0.5%	SCB 29.8%	LCV -4.4%	SCV 29.5%	SCV 25.2%	SCV 40.0%	LCV -5.7%	SCB 79.1%
2	SCB 61.3%	SCV 15.2%	LCV -0.2%	SCV 29.3%	S&P 500 -8.7%	LCV 24.7%	4 Fund 19.6%	SCB 37.4%	SCB -7.3%	SCV 69.8%
3	4 Fund 57.5%	4 Fund 14.2%	SCB -2.7%	4 Fund 27.9%	4 Fund -9.8%	4 Fund 23.5%	LCV 18.9%	4 Fund 26.8%	4 Fund -8.1%	4 Fund 49.4%
4	LCV 48.1%	S&P 500 12.0%	4 Fund -3.3%	S&P 500 26.9%	SCV -10.3%	S&P 500 22.8%	SCB 17.6%	LCV 17.4%	SCV -9.6%	LCV 24.8%
5	S&P 500 43.4%	LCV 10.2%	SCV -10.8%	LCV 25.6%	SCB -15.7%	SCB 17.0%	S&P 500 16.5%	S&P 500 12.5%	S&P 500 -10.0%	S&P 500 24.0%

Quintile Rank	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
1	SCV 49.1%	S&P 500 -8.5%	LCV 11.0%	SCB 20.3%	S&P 500 19.0%	LCV -8.8%	LCV -17.6%	SCV 65.6%	SCV 58.4%	SCB 22.8%
2	SCB 40.0%	LCV -18.1%	S&P 500 4.0%	SCV 15.4%	LCV 17.1%	S&P 500 -14.7%	SCV -17.9%	SCB 54.4%	SCB 48.0%	SCV 22.2%
3	4 Fund 30.7%	4 Fund -20.7%	4 Fund 0.3%	4 Fund 14.9%	4 Fund 12.0%	4 Fund -22.5%	4 Fund -22.2%	4 Fund 51.5%	LCV 43.9%	4 Fund 9.6%
4	LCV 22.5%	SCB -27.3%	SCV -0.3%	S&P 500 14.3%	SCV 7.6%	SCV -30.0%	S&P 500 -26.5%	LCV 48.9%	4 Fund 43.6%	LCV 0.6%
5	S&P 500 11.1%	SCV -28.8%	SCB -13.5%	LCV 9.4%	SCB 4.3%	SCB -36.7%	SCB -27.0%	S&P 500 37.2%	S&P 500 23.8%	S&P 500 -7.2%

Quintile Rank	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
1	SCV 23.4%	SCB 38.8%	SCB 37.2%	SCV 20.5%	SCV 36.9%	SCV 48.9%	LCV 13.2%	SCB 32.8%	LCV 19.2%	LCV 5.5%
2	SCB 22.2%	SCV 35.2%	S&P 500 32.4%	LCV 9.1%	SCB 30.6%	SCB 38.8%	S&P 500 6.3%	S&P 500 32.2%	S&P 500 18.5%	S&P 500 5.2%
3	4 Fund 15.0%	4 Fund 29.6%	4 Fund 28.7%	4 Fund 7.6%	4 Fund 27.2%	4 Fund 35.6%	4 Fund 4.5%	4 Fund 31.5%	4 Fund 13.6%	4 Fund -0.8%
4	LCV 7.8%	LCV 26.1%	SCV 24.6%	SCB 5.7%	S&P 500 21.4%	LCV 32.1%	SCV 2.1%	LCV 30.7%	SCB 8.5%	SCV -5.3%
5	S&P 500 6.6%	S&P 500 18.4%	LCV 20.7%	S&P 500 -4.9%	LCV 19.9%	S&P 500 22.5%	SCB -3.5%	SCV 30.2%	SCV 8.3%	SCB -8.7%

Quintile Rank	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
1	SCV 34.3%	S&P 500 31.5%	S&P 500 -3.1%	SCV 47.2%	SCV 34.9%	SCV 26.2%	LCV 2.5%	LCV 41.4%	LCV 27.0%	SCV 39.2%
2	LCV 28.5%	LCV 31.0%	LCV -14.8%	SCB 46.6%	SCB 24.1%	LCV 21.3%	SCV 2.5%	S&P 500 37.6%	SCV 25.1%	LCV 36.7%
3	4 Fund 26.4%	4 Fund 22.5%	4 Fund -15.4%	4 Fund 38.7%	4 Fund 20.8%	SCB 20.7%	4 Fund 1.5%	4 Fund 35.4%	4 Fund 24.3%	4 Fund 34.7%
4	SCB 26.0%	SCB 14.0%	SCB -20.2%	S&P 500 30.5%	LCV 16.5%	4 Fund 19.6%	S&P 500 1.3%	SCB 31.4%	SCB 23.0%	S&P 500 33.4%
5	S&P 500 16.8%	SCV 13.3%	SCV -23.6%	LCV 30.5%	S&P 500 7.6%	S&P 500 10.1%	SCB -0.2%	SCV 31.4%	SCB 22.2%	SCB 29.5%

Quintile Rank	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	S&P 500 28.6%	SCB 22.9%	SCV 19.7%	SCV 28.4%	SCV -6.8%	SCV 67.1%	SCV 23.3%	LCV 11.0%	SCV 21.2%	S&P 500 5.5%
2	LCV 8.4%	S&P 500 21.0%	LCV 13.2%	SCB 14.7%	SCB -13.0%	SCB 55.7%	SCB 22.3%	4 Fund 7.8%	LCV 20.7%	SCB -5.1%
3	4 Fund 7.4%	4 Fund 15.1%	4 Fund 7.1%	4 Fund 8.3%	LCV -13.7%	4 Fund 47.4%	LCV 19.4%	SCV 7.6%	SCB 19.4%	4 Fund -5.6%
4	SCB -2.3%	LCV 8.7%	SCB 4.7%	LCV 2.0%	4 Fund -13.9%	LCV 38.3%	4 Fund 19.0%	SCB 7.4%	4 Fund 19.3%	LCV -10.2%
5	SCV -5.1%	SCV 7.8%	S&P 500 -9.1%	S&P 500 -11.9%	S&P 500 -22.1%	S&P 500 28.7%	S&P 500 10.9%	S&P 500 4.9%	S&P 500 15.8%	SCV -12.5%

Quintile Rank	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1	SCB -36.3%	SCV 49.6%	SCV 31.3%	S&P 500 2.1%	LCV 20.8%	SCB 44.8%	S&P 500 13.7%	S&P 500 1.4%	SCV 37.3%	S&P 500 21.8%
2	SCV -36.6%	SCB 39.1%	SCB 29.7%	LCV -2.6%	SCB 18.5%	SCV 42.6%	LCV 9.7%	LCV -3.8%	SCB 26.8%	LCV 16.9%
3	S&P 500 -37.0%	4 Fund 36.0%	4 Fund 23.9%	4 Fund -2.6%	4 Fund 18.2%	4 Fund 39.7%	4 Fund 7.8%	4 Fund -3.9%	4 Fund 25.0%	4 Fund 14.9%
4	4 Fund -38.2%	LCV 28.9%	LCV 19.5%	SCB -4.2%	SCV 17.3%	LCV 38.9%	SCB 4.3%	SCB -5.4%	LCV 24.0%	SCB 13.3%
5	LCV -42.8%	S&P 500 26.5%	S&P 500 15.1%	SCV -5.8%	S&P 500 16.0%	S&P 500 32.4%	SCV 3.4%	SCV -7.9%	S&P 500 12.0%	SCV 7.6%

Quintile Rank	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
1	S&P 500 -4.4%	S&P 500 31.5%	S&P 500 18.4%	SCV 42.6%	SCV -4.9%	S&P 500 26.3%	S&P 500 25.0%	S&P 500 17.9%		
2	4 Fund -10.8%	LCV 28.1%	SCB 15.2%	4 Fund 31.3%	LCV -7.1%	4 Fund 18.9%	4 Fund 14.7%	LCV 16.4%		
3	SCB -12.6%	4 Fund 25.5%	4 Fund 8.8%	S&P 500 28.7%	4 Fund -11.0%	SCB 18.5%	LCV 13.3%	4 Fund 12.2%		
4	SCV -12.6%	SCB 23.5%	SCV 3.8%	LCV 27.5%	SCB -13.8%	SCV 15.7%	SCB 11.9%	SCB 8.4%		
5	LCV -13.5%	SCV 19.1%	LCV -2.1%	SCB 26.4%	S&P 500 -18.1%	LCV 15.0%	SCV 8.7%	SCV 6.2%		

Data Source: Dimensional Fund Advisors Returns Web, see Data Disclosure for details

Quintile Rank	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
1	SCV 34.3%	S&P 500 31.5%	S&P 500 -3.1%	SCV 47.2%	SCV 34.9%	SCV 26.2%	LCV 2.5%	LCV 41.4%	LCV 27.0%	SCV 39.2%
2	LCV 28.5%	LCV 31.0%	LCV -14.8%	SCB 46.6%	SCB 24.1%	LCV 21.3%	SCV 2.5%	S&P 500 37.6%	SCV 25.1%	LCV 36.7%
3	4 Fund 26.4%	4 Fund 22.5%	4 Fund -15.4%	4 Fund 38.7%	4 Fund 20.8%	SCB 20.7%	4 Fund 1.5%	4 Fund 35.4%	4 Fund 24.3%	4 Fund 34.7%
4	SCB 26.0%	SCB 14.0%	SCB -20.2%	S&P 500 30.5%	LCV 16.5%	4 Fund 19.6%	S&P 500 1.3%	SCB 31.4%	S&P 500 23.0%	S&P 500 33.4%
5	S&P 500 16.8%	SCV 13.3%	SCV -23.6%	LCV 30.5%	S&P 500 7.6%	S&P 500 10.1%	SCV -0.2%	SCV 31.4%	SCB 22.2%	SCB 29.5%

Quintile Rank	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	S&P 500 28.6%	SCB 22.9%	SCV 19.7%	SCV 28.4%	SCV -6.8%	SCV 67.1%	SCV 23.3%	LCV 11.0%	SCV 21.2%	S&P 500 5.5%
2	LCV 8.4%	S&P 500 21.0%	LCV 13.2%	SCB 14.7%	SCB -13.0%	SCB 55.7%	SCB 22.3%	4 Fund 7.8%	LCV 20.7%	SCB -5.1%
3	4 Fund 7.4%	4 Fund 15.1%	4 Fund 7.1%	4 Fund 8.3%	LCV -13.7%	4 Fund 47.4%	LCV 19.4%	SCV 7.6%	SCB 19.4%	4 Fund -5.6%
4	SCB -2.3%	LCV 8.7%	SCB 4.7%	LCV 2.0%	4 Fund -13.9%	LCV 38.3%	4 Fund 19.0%	SCB 7.4%	4 Fund 19.3%	LCV -10.2%
5	SCV -5.1%	SCV 7.8%	S&P 500 -9.1%	S&P 500 -11.9%	S&P 500 -22.1%	S&P 500 28.7%	S&P 500 10.9%	S&P 500 4.9%	S&P 500 15.8%	SCV -12.5%

Quintile Rank	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1	SCB -36.3%	SCV 49.6%	SCV 31.3%	S&P 500 2.1%	LCV 20.8%	SCB 44.8%	S&P 500 13.7%	S&P 500 1.4%	SCV 37.3%	S&P 500 21.8%
2	SCV -36.6%	SCB 39.1%	SCB 29.7%	LCV -2.6%	SCB 18.5%	SCV 42.6%	LCV 9.7%	LCV -3.8%	SCB 26.8%	LCV 16.9%
3	S&P 500 -37.0%	4 Fund 36.0%	4 Fund 23.9%	4 Fund -2.6%	4 Fund 18.2%	4 Fund 39.7%	4 Fund 7.8%	4 Fund -3.9%	4 Fund 25.0%	4 Fund 14.9%
4	4 Fund -38.2%	LCV 28.9%	LCV 19.5%	SCB -4.2%	SCV 17.3%	LCV 38.9%	SCB 4.3%	SCB -5.4%	LCV 24.0%	SCB 13.3%
5	LCV -42.8%	S&P 500 26.5%	S&P 500 15.1%	SCV -5.8%	S&P 500 16.0%	S&P 500 32.4%	SCV 3.4%	SCV -7.9%	S&P 500 12.0%	SCV 7.6%

Quintile Rank	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
1	S&P 500 -4.4%	S&P 500 31.5%	S&P 500 18.4%	SCV 42.6%	SCV -4.9%	S&P 500 26.3%	S&P 500 25.0%	S&P 500 17.9%		
2	4 Fund -10.8%	LCV 28.1%	SCB 15.2%	4 Fund 31.3%	LCV -7.1%	4 Fund 18.9%	4 Fund 14.7%	LCV 16.4%		
3	SCB -12.6%	4 Fund 25.5%	4 Fund 8.8%	S&P 500 28.7%	4 Fund -11.0%	SCB 18.5%	LCV 13.3%	4 Fund 12.2%		
4	SCV -12.6%	SCB 23.5%	SCV 3.8%	LCV 27.5%	SCB -13.8%	SCV 15.7%	SCB 11.9%	SCB 8.4%		
5	LCV -13.5%	SCV 19.1%	LCV -2.1%	SCB 26.4%	S&P 500 -18.1%	LCV 15.0%	SCV 8.7%	SCV 6.2%		

The Quintile Frequency Table: Why the 4-Fund Mix Feels Smoother

Then comes one of the most persuasive “behavior” visuals: a quintile rank frequency table.

Instead of showing exact returns, it shows how often each asset class lands in:

- top 20% (1st quintile)
- middle ranks
- bottom 20% (5th quintile)

The S&P 500, for example, is in the top quintile less than a third of the time—but is in the bottom quintile 40% of the time too.

Small cap value is more often in the top—but also frequently in the bottom.

And the 4-fund strategy? It can't be extreme—because it's diversified.

Merriman's point: diversification doesn't guarantee higher returns every year. It increases the odds you won't feel like an idiot for a decade straight, which makes you more likely to stay invested.

Table K2a - Asset Classes & 4 Fund Combo (1928-2025)
- Return Rank Frequency -

			Quintile Rank Frequency				
Portfolio	**Asset Alloc.**	**CAGR**	**1**	**2**	**3**	**4**	**5**
US SCV	100% US SCV	13.1%	**36**	14	3	19	26
			37%	14%	3%	19%	27%
				<---------- 37% ---------->			
US SCB	100% US SCB	11.9%	17	**30**	6	29	16
			17%	31%	6%	30%	16%
				<---------- 66% ---------->			
US 4 Fund	25% US SCV 25% US SCB 25% US LCV 25% S&P 500	11.9%	0	11	**76**	11	0
			0%	11%	78%	11%	0%
				<---------- 100% ---------->			
US LCV	100% US LCV	11.1%	16	**31**	6	28	17
			16%	32%	6%	29%	17%
				<---------- 66% ---------->			
S&P 500	100% S&P 500	10.2%	29	12	7	11	**39**
			30%	12%	7%	11%	40%
				<---------- 31% ---------->			

Watching Too Often Makes You Do Dumb Things

Here's one of the most practical behavioral warnings in the session:

People think watching the market constantly makes them smarter.
It usually makes them *reactive.*

Merriman explains that over any year, the market often drops sharply at some point—even in years that finish strongly positive.

So, if you bail out during the scary part, you can easily miss the rebound.

Intra-Year Drawdowns: The "Ride" You Actually Experience

He points to an S&P 500 table that shows:

- **maximum intra-year drawdown** (peak to bottom during the year)
- and the **final calendar-year return**

Example: In 1950, the market was down about **14%** during the year but finished up about **31.7%**.

That's the behavioral trap: the drawdown feels like "proof" you should exit—right before the year ends green.

This table also helps explain why some people give up forever after big bear markets (like 1973–74). They didn't just see a bad year—they experienced fear for months, and it broke their trust in the system.

S&P 500 Index: Max Intra-Year Drawdowns vs. End of Year Total Returns (1950-2024)

Year	DD	TR	Year	DD	TR	Year	DD	TR	Year	DD	TR
1950	-14.0%	31.7%	1969	-16.0%	-8.5%	1988	-7.6%	16.6%	2007	-10.1%	5.5%
1951	-8.1%	24.0%	1970	-25.9%	3.9%	1989	-7.6%	31.7%	2008	-48.8%	-37.0%
1952	-6.8%	18.4%	1971	-13.9%	14.3%	1990	-19.9%	-3.1%	2009	-27.6%	26.5%
1953	-14.8%	-1.0%	1972	-5.1%	19.0%	1991	-5.7%	30.5%	2010	-16.0%	15.1%
1954	-4.4%	52.6%	1973	-23.4%	-14.7%	1992	-6.2%	7.6%	2011	-19.4%	2.1%
1955	-10.6%	31.6%	1974	-37.6%	-26.5%	1993	-5.0%	10.1%	2012	-9.9%	16.0%
1956	-10.8%	6.6%	1975	-14.1%	37.2%	1994	-8.9%	1.3%	2013	-5.8%	32.4%
1957	-20.7%	-10.8%	1976	-8.4%	23.9%	1995	-2.5%	37.6%	2014	-7.4%	13.7%
1958	-4.4%	43.4%	1977	-15.6%	-7.2%	1996	-7.6%	23.0%	2015	-12.4%	1.4%
1959	-9.2%	12.0%	1978	-13.6%	6.6%	1997	-10.8%	33.4%	2016	-10.5%	12.0%
1960	-13.4%	0.5%	1979	-10.2%	18.6%	1998	-19.3%	28.6%	2017	-2.8%	21.8%
1961	-4.4%	26.9%	1980	-17.1%	32.5%	1999	-12.1%	21.0%	2018	-19.8%	-4.4%
1962	-26.9%	-8.7%	1981	-18.4%	-4.9%	2000	-17.2%	-9.1%	2019	-6.8%	31.5%
1963	-6.5%	22.8%	1982	-16.6%	21.5%	2001	-29.7%	-11.9%	2020	-33.9%	18.4%
1964	-3.5%	16.5%	1983	-6.9%	22.6%	2002	-33.8%	-22.1%	2021	-5.2%	28.7%
1965	-9.6%	12.5%	1984	-12.7%	6.3%	2003	-14.1%	28.7%	2022	-25.4%	-18.1%
1966	-22.2%	-10.1%	1985	-7.7%	31.7%	2004	-8.2%	10.9%	2023	-10.3%	26.3%
1967	-6.6%	24.0%	1986	-9.4%	18.7%	2005	-7.2%	4.9%	2024	-8.5%	25.0%
1968	-9.3%	11.1%	1987	-33.5%	5.3%	2006	-7.7%	15.8%	2025		

DON'T FORGET WE HAVE TO GIVE JVL CREDIT BELOW TABLE ABOVE

Bear Markets and Real Life: Couples, Fear, and Control

Merriman gets personal here: uncertainty is real. Markets are out of your control. Life throws punches.

He talks about how painful it is when one partner understands volatility intellectually, but the other partner experiences every downturn as a threat to their entire future.

And frankly—both are reacting to something true:

- markets are volatile,
- nobody can promise outcomes,
- your plan must be built for humans, not spreadsheets.

He teases a future lesson: there are ways to cut volatility dramatically and still earn a "decent" return—not magical, not perfect, but realistic.

Why He Doesn't Want You Picking Individual Stocks

This is one of Merriman's strongest opinions in the session:

He does not believe most people should own individual companies as their core strategy.

You *can* build a portfolio of 100 stocks and basically create your own mutual fund. But what he's trying to prevent—especially for younger investors—is the common pattern:

"I'll just pick a handful of winners and hit a home run."

He cites research associated with Hendrik Bessembinder ("Do Stocks Outperform Treasury Bills?"). The takeaway he emphasizes is brutal:

- **Most public companies perform poorly over their lifetimes**
- a small minority of "superstar" companies drive the market's long-term gains
- about **96%** of companies earn something like **T-bill-ish** returns on average
- around **4%** of companies generate the extraordinary returns that lift the overall market

He also mentions a striking statistic: a large chunk of companies (he cites **58.6%**) produce lifetime returns below T-bills.

His bottom line: if you try to cherry-pick the winners, the odds are stacked against you. But if you own the broad market (or diversified asset classes), you automatically own the tiny slice of companies that create most of the wealth.

Diversification isn't exciting. It's effective.

Bringing It Home: Allocation Is Personal—Even for Him

Merriman closes by modeling what he wants investors to do: choose an allocation that matches real life.

He says he's not 100% equities in retirement. He and his wife are around **50% equities**, and within that equity portion, they have an equal balance of small and large companies, value and growth companies and U.S.. and international companies.

The goal isn't to be brave. The goal is to be positioned for:

- the return you need,
- the risk you can actually tolerate,
- the time horizon you're living.

And that's why "stocks versus bonds" is the $10 million decision. Over decades, stocks historically compound at much higher rates than bonds—but bonds can reduce volatility and protect near-term needs. The mix determines not just how much you might earn, but whether you can remain invested long enough to earn it.

He teases next week's session: the "10 best equity asset classes" according to academics, and what happens when you combine them into a portfolio.

He also encourages questions, with a plan to publish responses (podcast/audio/written) organized by topic—so future students can learn from what others asked. Send your questions and comments to paul@paulmerriman.com.
