FACTORS IN FOCUS

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And Then There Was None

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When the legendary art collector Albert Barnes died in 1951, he established a $9 million foundation responsible for the ongoing operations of a museum (or "educational institution," as he considered it) that featured his substantial art collection. While $9 million is a significant sum today, the inflation-adjusted value from 1951 is a staggering $90 million! Considering this generosity, you might expect the foundation and the museum to be thriving. You would be wrong. By the early 1990s, the Barnes Foundation had practically run out of money and the museum has been forced to move several times.

The instructions Barnes left behind for his foundation were extremely detailed and restrictive. But no directive was more confining than his insistence that the foundation invest all the assets in government bonds. Barnes, who compiled his art fortune in the depths of the Great Depression, viewed stocks as "flimsy securities," not fit for serious investment.

Redefining Safety

Here's what we know that Barnes didn't: Government bonds are "safe" in the sense that they are default free, backed by the full faith and credit of the U.S. Government. But for an institution or an individual who requires meaningful growth or an ongoing income stream that keeps pace with inflation, bonds aren't nearly as safe as many assume. In the 30 years after Barnes's passing, inflation averaged 4.3% per year, yet long-term U.S. Government bonds returned only 2.3%—$1 invested in bonds in 1952 was only worth only $0.56 in purchasing-power terms by 1981. Returns net of inflation that are insufficient to meet your long-term spending rate? Now that's risk.

Unfortunately, the fate of Barnes was unnecessary. Stocks (S&P 500), while demonstrating greater short-term volatility than bonds, represent a much better investment to exceed inflation over time. Indeed, over the 30-year period mentioned above, the S&P 500 outpaced inflation by 5.6% per year. Had the Barnes Foundation been invested in stocks in 1952 with the requirement of a 5% ($450,000 on $9 million) annual income stream adjusted for inflation, the foundation would be worth $3.2 billion today! Annual withdrawals would have risen tenfold to more than $4 million by 2016. It's hard to imagine a more successful long-term outcome, *which is the ultimate measure of safety*.

What Worries You?

What relevance does the Barnes legacy have for modern-day investors? A recent survey conducted by Dimensional Fund Advisors found that the single greatest fear of respondents was "not having enough money to live comfortably in retirement," with a close second being "a significant investment loss in a market downturn." My hunch is that the two are closely related—we naturally equate investment failure with significant losses (however temporary), not sub-par long-term returns. The Barnes Foundation's experience is a vivid example of the real risks that investors face. It's not a loss of principal, but a long-term and irreversible erosion of purchasing power that you need to guard against.

Blue Chip Blues

Part of what propelled the S&P 500 to meteoric heights over the last few decades was the unprecedented bull market of the 1990s. From 1991 to 1999, the Vanguard S&P 500 Fund compounded at +20.7% per year. Every $1 invested at the start had grown to $5.40 by decade end. The best decade for large cap US stocks in modern history fueled many early retirements and influenced many more existing retirement portfolios.

You may assume, based on the exemplary long-term track record of stocks and our previous example, that an S&P 500-centric retirement allocation would have performed quite well this century. Again, you'd be wrong. Had you retired in 2000 with $1 million in the Vanguard S&P 500 Fund and tried to withdraw $50,000 per year (5%) annually adjusted for inflation, Table 1 finds that you

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would have **run of money by December 2016**. The S&P 500's 40% decline from 2000-2002 and the 50% decline from 2007-2009 imposed a drag on returns too great for the index to overcome. Adding 30% to the Vanguard Total International Index Fund wouldn't have mattered much—you'd be down to $49,673 by August 2017.

Spread It Out

This brings us to our second important lesson for understanding the risks of long-term investing—*added safety comes from spreading your assets out*. While the S&P 500 Index holds hundreds of names, they are all large US companies; multinational corporations much the same as the thousands of non-US companies in the Vanguard Total International Index. When large cap stocks underperform, a portfolio invested exclusively in them won't be successful, regardless of their headquarters.

Now imagine that our hypothetical retiree ignored short-term performance in the 1990s and didn't plunk everything into large-cap indexes. Instead they included smaller and more value-oriented US and international stocks in their portfolio along with the S&P 500. Value and small companies hadn't performed as well as the S&P 500 in the 1990s, but their 70-year track record in the US market and 25-year history in non-US developed countries to that point was impressive from a total return and diversification perspective.

Table 1: Growth of $1M Since 2000, Net of $50K Annual Withdrawals Adjusted for Inflation

Retirement Portfolio Allocation	August 2017 Ending Balance
All-Stock US **Index** Fund Mix	$0
All-Stock Global **Index** Fund Mix	$49,673
All-Stock **Asset Class** Mix	$1,742,459
65/35 Balanced **Asset Class** Mix	$1,447,348

Allocation Specifics:

All-Stock US **Index** Fund Mix = Vanguard S&P 500 Fund

All-Stock Global **Index** Fund Mix = 70% Vanguard S&P 500 Fund, 30% Vanguard Total International Stock Index Fund.; rebalanced annually.

All-Stock **Asset Class** Mix = 21% Vanguard S&P 500 Fund, 21% DFA US Large Value Fund, 28% DFA US Small Value Fund, 18% DFA Int'l Value Fund, 12% DFA Int'l Small Value Fund; rebalanced annually.

65/35 Balanced **Asset Class** Mix = 65% "All-Stock Asset Class Mix," 35% DFA Five-Year Global Bond Fund; rebalanced annually.

This "asset class" investing approach would have yielded a markedly different result, also summarized in Table 1. Not only did the more diversified "All-Stock Asset Class Mix" not run out of money in 2016, but it was worth over $1.7 million by August 2017, after $1 million in cumulative withdrawals. The lackluster return on the Vanguard S&P 500 Fund (+4.9% per year) was more than offset by the the +10.6% and +10.5% annual returns on US and international small-cap value stocks. Seventeen years into a retirement that began on the eve of one of the greatest stock market declines in modern history, the estimated withdrawal rate this year had dropped to just 4% of the current portfolio value.

In fact, the higher and more consistent return of the diversified stock asset class portfolio was such that an all-stock allocation wasn't even necessary for success. Diluting the stock mix with 35% in short-term global bonds (the "65/35 Balanced Mix") for added stability still turned out OK. A $1 million portfolio grew to over $1.4 million by August 2017, net of withdrawals, and the balanced investor experienced bear market losses in 2002 and 2008 that were about 40% less than an all-stock portfolio and the S&P 500.

Timeless Advice For Today's Concerns

Achieving a successful investment experience, retirement or otherwise, requires a complete assessment of your goals and a critical diagnosis of your risks and how to manage them. That's one of the important jobs of a financial advisor and why we always discuss your portfolio within the context of your long-term plans.

Despite conventional wisdom, we know that traditionally "safe" assets aren't very safe when measured on an inflation-adjusted, multi-decade horizon. Never has this been truer than today, with interest rates still at close to record lows. While stocks are a better bet to fund our long-term objectives, concentrating in a handful of companies or just one or two asset classes is also a recipe for disaster. You might hit a homerun if the asset class you pick goes on a tear, but all individual assets go through unpredictable ebbs and flows. Diversifying more broadly means accepting that you'll always hold things that are performing poorly, especially on a relative basis, but also that you won't be invested exclusively in what is doing the worst at any point in time.

An emphasis on investment growth (as opposed to principal stability) and informed diversification among "essential" asset classes—large/small and growth/value stocks globally, and minimal amounts of high quality, short-term global bonds where appropriate, can offer you *greater long-term safety* by minimizing the risks of running out of money or being mauled by the next bear market.

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