Fine Tuning Your Asset Allocation 2016

Here's how retirees can fine tune their bond-to-stock allocation

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Lots of investors are wary of bonds these days, with the prospect that interest rates could nudge upward again. And although bonds won't make you much money, for most people, they are a necessary portfolio component. So, how do you decide what the proper allocation of you porfolio is?

Think of an automobile. Its purpose is to get you from one place to another. For that you need an engine. But it would be pure folly to build a car without brakes, even though the purpose of the car isn't to stop, it's to move.

In a portfolio, equities are the engine; they provide the power to get you somewhere. Bonds are like brakes. They should keep you safe when the equities get a bit rambunctious.

The crucial question, which I'll address here, is how much of your portfolio should be in bonds and how much in equities.

Expected returns vs. hoped-for returns

This question illustrates a classic trade off between the higher expected returns of equities and the lower risk of bonds.

A good tool for figuring out the right combination for you is a table of numbers that have been helpful to thousands of investors over the years.

Each column in the top part of the table shows year-by-year returns for 11 combinations of diversified equities and bonds, from 100% bonds t 100% stocks. A 12th column shows that year's return of the S&P 500 Index for reference. These numbers can give you a realistic look at what it would have been like, from 1970 through 2015, to own various combinations of equities and bonds.

For example, if your portfolio were 100% invested in diversified equities, you can see that there were a few pretty bad years. The worst by far was 2008, with a loss of 41.7%.

The years 1973, 1974 and 1990 also had double-digit losses in the all-equity portfolio. However, the payoff for long-term investors who could stay the course was a 46-year compound return of 11.4%.

For one other example, look down the 50/50 column, and you'll see that having half your portfolio in bond funds reduced the losses significantly: The only double-digit loss was in 2008.

The bottom part of this table tries to quantify the risks of each combination by showing the worst returns for various periods: three months, six months, 12 months, etc.

How much risk can you take?

To get the most from this table, you should know how much risk or loss you can accept without engaging in panic selling or losing sleep, and you should know what long-term return you require in order to meet your needs or goals.

To determine those figures, you might want to download a free chapter from my book "Financial Fitness Forever." Once you have done that, you can put this table to work.

Do you want the highest return you can get within your risk tolerance? If so, look at the bottom part of the table and imagine sustaining the losses in each column. Pick a column with losses you believe you'll be able to tolerate. This is tricky, and I recommend you get help with this from a financial consultant.

Or do you want the lowest-risk way to meet your financial needs? If so, find the column with a return that's close to what you need.

Although the numbers in the table are from the past, I think they indicate the kind of losses that investors should be prepared to face in the future. The 46-year period shown here included three severe bear markets and a stunning one-day crash in 1987 in which the U.S. stock market lost 22% in just one trading session.

I also think that it's prudent to assume that future returns will be less than those shown here — perhaps two percentage points less than the long-term return in each column.

For example, the table shows a compound return of 8% for an allocation of 30% in stocks. If you subtract two percentage points from each of the compound returns, you'll see that in order to achieve 8%, you should have about 70% in stocks.

If that's too risky, you can plan to save more money each year or postpone retirement for a year or two. This suggestion is definitely conservative. But if this prompts you to save more, I don't think you will be sorry.

What I've learned

I have spent years studying this table, and here are three things I've learned:

Adding 10 percentage points of equities (and thus subtracting 10 points of bonds) tends to add about 0.55% to the long-term return.
Each additional 10 percentage points of exposure to stocks increases a portfolio's volatility by 10% to 20%.
No matter what equity/bond combination you choose, this table shows you the bad years. And bad years can turn stock-market fans into people who are seeking expensive "alternative" products that are likely to have lower long-term returns and higher risks than a well-diversified stock and bond portfolio.
A few historical notes

These 46 years were tough on bonds, including large swings in interest rates, in both directions. In the early 1980s, rates were so high that banks were offering 16.5% on 2.5-year certificates of deposit. Some investors thought they would never need to own stocks again. Ha!

This was truly a "golden age" for equity investors, and many baby-boomers who put money aside for retirement can be thankful for their lucky timing.

During this period, investors in the 100% diversified equity portfolio experienced 15 consecutive years (1975-1989) of positive returns and a 25-year period (1975-1999) with only one losing calendar year (1990).

The 25-year compound return for the diversified portfolio was 17.1%, and 17.2% for the S&P 500. These returns encouraged many investors to dream of early retirement.

Yet those who began saving just 16 years ago weren't so lucky. Since the turn of the century, the S&P 500 has suffered four annual losses, including three in a row (2000 through 2002) and another stunning loss in 2008.

This period was a struggle for investors, as the S&P 500 provided a disappointing 4.1% compound rate of return vs. 6.8% for the much more broadly diversified portfolio. These returns provided little hope to those who had planned to retire early.

How you would have experienced the past 46 years depended to a large extent on when you started investing. Results that might look like they came from skill or wisdom may in fact be in large part due to good luck.

You can't ever know in advance the best time to invest or the best time to withdraw your money.

But I'm pretty certain that if you diversify properly and keep your expectations reasonable, the probabilities of success will be on your side. To learn more about using these stock/bond combinations, check out my podcast "Fine Tuning Your Asset Allocation."

Richard Buck contributed to this article.

Fine Tuning Table - Using Ultimate Buy & Hold Equity Portfolio

1.00% Management Fee is subtracted from all portfolios, except the S&P 500

Year	100% Bonds	10/90	20/80	30/70	40/60	50/50	60/40	70/30	80/20	90/10	100% Stock	S&P 500
1970	13.7%	11.9%	10.2%	8.5%	6.8%	5.1%	3.4%	1.8%	0.1%	-1.6%	-3.2%	4.0%
1971	6.6%	9.0%	11.3%	13.7%	16.1%	18.5%	21.0%	23.5%	26.0%	28.5%	31.1%	14.3%
1972	3.7%	5.2%	6.7%	8.3%	9.8%	11.4%	12.9%	14.5%	16.1%	17.6%	19.2%	19.0%
1973	3.4%	1.1%	-1.1%	-3.4%	-5.6%	-7.8%	-10.0%	-12.1%	-14.2%	-16.3%	-18.4%	-14.7%
1974	6.5%	3.3%	0.2%	-2.9%	-5.9%	-8.8%	-11.7%	-14.5%	-17.3%	-19.9%	-22.6%	-26.5%
1975	6.7%	10.2%	13.8%	17.4%	21.1%	24.9%	28.7%	32.6%	36.5%	40.5%	44.5%	37.2%
1976	8.6%	9.6%	10.6%	11.6%	12.5%	13.5%	14.4%	15.3%	16.2%	17.0%	17.9%	23.8%
1977	2.1%	4.4%	6.7%	9.0%	11.4%	13.9%	16.4%	18.9%	21.5%	24.2%	26.8%	-7.2%
1978	1.6%	4.2%	6.9%	9.7%	12.5%	15.4%	18.3%	21.3%	24.3%	27.4%	30.6%	6.6%
1979	6.0%	7.1%	8.1%	9.2%	10.2%	11.2%	12.3%	13.3%	14.3%	15.3%	16.3%	18.4%
1980	6.4%	8.3%	10.3%	12.2%	14.2%	16.1%	18.1%	20.0%	22.0%	23.9%	25.8%	32.4%
1981	9.7%	9.1%	8.5%	7.9%	7.2%	6.6%	6.0%	5.4%	4.7%	4.1%	3.4%	-4.9%
1982	22.5%	21.5%	20.5%	19.5%	18.5%	17.5%	16.5%	15.5%	14.5%	13.5%	12.4%	21.4%
1983	7.1%	9.1%	11.1%	13.2%	15.3%	17.4%	19.5%	21.7%	23.9%	26.1%	28.4%	22.5%
1984	12.9%	12.3%	11.7%	11.1%	10.5%	9.8%	9.2%	8.6%	7.9%	7.2%	6.5%	6.3%
1985	15.4%	18.0%	20.7%	23.5%	26.3%	29.2%	32.1%	35.1%	38.1%	41.2%	44.4%	32.2%
1986	11.0%	12.9%	14.8%	16.7%	18.6%	20.6%	22.6%	24.5%	26.5%	28.6%	30.6%	18.5%
1987	3.1%	4.5%	5.8%	7.1%	8.4%	9.7%	10.9%	12.0%	13.1%	14.1%	15.0%	5.2%
1988	5.1%	6.8%	8.6%	10.4%	12.3%	14.1%	16.0%	17.9%	19.8%	21.8%	23.8%	16.8%
1989	10.9%	11.8%	12.6%	13.4%	14.3%	15.1%	15.9%	16.7%	17.5%	18.3%	19.1%	31.5%
1990	9.5%	7.2%	5.0%	2.8%	0.6%	-1.6%	-3.8%	-5.9%	-8.0%	-10.1%	-12.2%	-3.1%
1991	14.1%	15.0%	15.9%	16.8%	17.7%	18.6%	19.4%	20.2%	21.1%	21.9%	22.7%	30.5%
1992	6.2%	5.7%	5.3%	4.8%	4.4%	3.9%	3.4%	3.0%	2.5%	2.0%	1.5%	7.6%
1993	8.6%	10.6%	12.7%	14.7%	16.8%	19.0%	21.1%	23.3%	25.5%	27.7%	29.9%	10.1%
1994	-4.2%	-3.6%	-3.0%	-2.4%	-1.8%	-1.2%	-0.7%	-0.1%	0.5%	1.1%	1.6%	1.3%
1995	15.4%	15.4%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.4%	15.4%	37.6%
1996	2.1%	3.2%	4.3%	5.4%	6.5%	7.6%	8.8%	9.9%	11.0%	12.1%	13.3%	23.0%
1997	5.9%	5.8%	5.7%	5.6%	5.5%	5.3%	5.2%	5.0%	4.8%	4.6%	4.4%	33.4%
1998	7.0%	7.0%	6.9%	6.8%	6.6%	6.4%	6.1%	5.8%	5.4%	4.9%	4.4%	28.6%
1999	-1.5%	0.6%	2.8%	4.9%	7.1%	9.3%	11.6%	13.8%	16.1%	18.5%	20.8%	21.0%
2000	10.6%	9.3%	7.9%	6.6%	5.3%	3.9%	2.6%	1.3%	0.0%	-1.3%	-2.6%	-9.1%
2001	7.1%	6.2%	5.3%	4.4%	3.5%	2.5%	1.5%	0.5%	-0.6%	-1.7%	-2.8%	-11.9%
2002	11.3%	9.3%	7.3%	5.3%	3.2%	1.2%	-0.9%	-2.9%	-4.9%	-7.0%	-9.0%	-22.1%
2003	2.4%	6.4%	10.4%	14.6%	18.9%	23.3%	27.9%	32.5%	37.4%	42.3%	47.4%	28.7%
2004	3.0%	5.0%	7.0%	9.0%	11.1%	13.2%	15.3%	17.4%	19.6%	21.8%	24.0%	10.9%
2005	0.8%	2.1%	3.3%	4.6%	5.9%	7.1%	8.4%	9.7%	11.0%	12.2%	13.5%	4.9%
2006	2.0%	4.1%	6.3%	8.4%	10.6%	12.9%	15.1%	17.4%	19.8%	22.1%	24.5%	15.8%
2007	8.2%	7.7%	7.2%	6.7%	6.1%	5.6%	5.0%	4.4%	3.8%	3.1%	2.5%	5.5%
2008	7.1%	1.2%	-4.4%	-9.8%	-14.9%	-19.9%	-24.7%	-29.2%	-33.6%	-37.8%	-41.8%	-37.0%
2009	1.0%	4.6%	8.3%	11.9%	15.6%	19.4%	23.1%	26.8%	30.6%	34.3%	38.1%	26.5%
2010	4.5%	6.2%	7.9%	9.6%	11.2%	12.8%	14.3%	15.9%	17.3%	18.8%	20.1%	15.1%
2011	6.9%	5.3%	3.7%	2.0%	0.4%	-1.3%	-3.0%	-4.7%	-6.4%	-8.1%	-9.9%	2.1%
2012	2.4%	4.0%	5.6%	7.2%	8.8%	10.3%	11.9%	13.5%	15.1%	16.6%	18.2%	16.0%
2013	-4.5%	-1.9%	0.7%	3.4%	6.2%	9.0%	11.9%	14.8%	17.9%	20.9%	24.1%	32.4%
2014	2.4%	2.4%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.4%	13.7%
2015	-0.2%	-0.5%	-0.7%	-1.0%	-1.3%	-1.5%	-1.9%	-2.2%	-2.5%	-2.9%	-3.2%	1.4%
Annualized Return	6.2%	6.8%	7.4%	8.0%	8.6%	9.1%	9.6%	10.1%	10.6%	11.0%	11.4%	10.3%
Standard Deviation	4.1%	4.1%	4.6%	5.4%	6.5%	7.8%	9.1%	10.5%	11.9%	13.3%	14.8%	15.3%
Worst 3 Months	-4.8%	-5.3%	-8.5%	-12.4%	-16.4%	-20.3%	-24.1%	-27.7%	-31.3%	-34.7%	-38.1%	-29.6%
Worst 6 Months	-4.5%	-6.3%	-10.2%	-15.8%	-21.2%	-26.3%	-31.1%	-35.7%	-40.1%	-44.2%	-48.2%	-41.8%
Worst 12 Months	-4.5%	-5.4%	-11.6%	-17.5%	-23.2%	-28.5%	-33.6%	-38.3%	-42.9%	-47.1%	-51.1%	-43.3%
Worst 36 Months Annualized	-0.8%	0.0%	0.3%	-2.1%	-4.4%	-6.8%	-9.2%	-11.5%	-13.8%	-16.2%	-18.5%	-16.1%
Worst 60 Months Annualized	1.0%	1.7%	1.9%	1.2%	0.4%	-0.5%	-1.3%	-2.2%	-3.2%	-4.1%	-5.1%	-6.6%
Worst Drawdown	-5.5%	-7.2%	-11.9%	-18.0%	-25.0%	-31.8%	-38.1%	-43.9%	-49.2%	-54.1%	-58.6%	-50.9%

Fine Tuning Table - Using S&P 500 Fund

(No Management Fee subtracted. ***S&P fund expense ratio of 0.1% assumed***.)

Year	100% Bonds	10/90	20/80	30/70	40/60	50/50	60/40	70/30	80/20	90/10	100% Stock	S&P 500
1970	14.8%	13.8%	12.8%	11.8%	10.7%	9.6%	8.5%	7.4%	6.3%	5.1%	3.9%	4.0%
1971	7.7%	8.4%	9.1%	9.8%	10.5%	11.2%	11.8%	12.4%	13.0%	13.6%	14.2%	14.3%
1972	4.8%	6.1%	7.5%	8.9%	10.3%	11.7%	13.1%	14.5%	15.9%	17.4%	18.9%	19.0%
1973	4.5%	2.5%	0.5%	-1.5%	-3.4%	-5.3%	-7.3%	-9.2%	-11.0%	-12.9%	-14.8%	-14.7%
1974	7.5%	3.8%	0.2%	-3.4%	-6.9%	-10.4%	-13.8%	-17.1%	-20.3%	-23.5%	-26.5%	-26.5%
1975	7.7%	10.5%	13.3%	16.2%	19.1%	22.0%	25.0%	27.9%	31.0%	34.0%	37.1%	37.2%
1976	9.7%	11.1%	12.6%	14.0%	15.4%	16.8%	18.2%	19.6%	21.0%	22.3%	23.7%	23.8%
1977	3.1%	2.1%	1.0%	0.0%	-1.1%	-2.1%	-3.2%	-4.2%	-5.2%	-6.3%	-7.3%	-7.2%
1978	2.6%	3.1%	3.6%	4.0%	4.4%	4.8%	5.2%	5.5%	5.9%	6.2%	6.5%	6.6%
1979	7.1%	8.2%	9.3%	10.5%	11.6%	12.7%	13.8%	15.0%	16.1%	17.2%	18.3%	18.4%
1980	7.5%	9.9%	12.4%	14.9%	17.4%	19.9%	22.4%	24.9%	27.4%	29.8%	32.3%	32.4%
1981	10.8%	9.1%	7.5%	5.9%	4.3%	2.7%	1.1%	-0.4%	-2.0%	-3.5%	-5.0%	-4.9%
1982	23.7%	23.6%	23.5%	23.3%	23.1%	22.9%	22.6%	22.3%	22.0%	21.7%	21.3%	21.4%
1983	8.2%	9.6%	10.9%	12.3%	13.8%	15.2%	16.6%	18.0%	19.5%	20.9%	22.4%	22.5%
1984	14.0%	13.3%	12.5%	11.8%	11.0%	10.2%	9.4%	8.6%	7.8%	7.0%	6.2%	6.3%
1985	16.5%	18.0%	19.6%	21.1%	22.7%	24.2%	25.8%	27.3%	28.9%	30.5%	32.0%	32.2%
1986	12.1%	12.8%	13.5%	14.2%	14.9%	15.5%	16.2%	16.7%	17.3%	17.8%	18.4%	18.5%
1987	4.1%	4.7%	5.2%	5.5%	5.8%	6.0%	6.1%	6.0%	5.8%	5.5%	5.1%	5.2%
1988	6.1%	7.2%	8.2%	9.3%	10.3%	11.4%	12.4%	13.5%	14.6%	15.6%	16.7%	16.8%
1989	12.0%	13.9%	15.8%	17.7%	19.6%	21.5%	23.5%	25.4%	27.4%	29.4%	31.4%	31.5%
1990	10.6%	9.3%	7.9%	6.6%	5.2%	3.8%	2.4%	1.0%	-0.4%	-1.8%	-3.2%	-3.1%
1991	15.3%	16.8%	18.3%	19.8%	21.3%	22.8%	24.3%	25.7%	27.2%	28.7%	30.1%	30.5%
1992	7.2%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.6%
1993	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.6%	9.6%	10.1%
1994	-3.2%	-2.7%	-2.3%	-1.8%	-1.4%	-0.9%	-0.5%	0.0%	0.4%	0.9%	1.3%	1.3%
1995	16.6%	18.5%	20.4%	22.4%	24.4%	26.5%	28.5%	30.6%	32.7%	34.9%	37.1%	37.6%
1996	3.1%	5.0%	6.9%	8.8%	10.7%	12.6%	14.6%	16.6%	18.6%	20.6%	22.6%	23.0%
1997	7.0%	9.4%	12.0%	14.5%	17.1%	19.7%	22.3%	24.9%	27.6%	30.3%	33.1%	33.4%
1998	8.1%	10.2%	12.4%	14.5%	16.6%	18.7%	20.8%	22.8%	24.8%	26.8%	28.7%	28.6%
1999	-0.5%	1.5%	3.6%	5.7%	7.8%	9.9%	12.0%	14.2%	16.4%	18.6%	20.8%	21.0%
2000	11.7%	9.6%	7.4%	5.3%	3.2%	1.1%	-1.0%	-3.1%	-5.1%	-7.1%	-9.2%	-9.1%
2001	8.1%	6.2%	4.2%	2.2%	0.2%	-1.9%	-3.9%	-5.9%	-8.0%	-10.0%	-12.1%	-11.9%
2002	12.4%	8.7%	5.0%	1.4%	-2.2%	-5.7%	-9.1%	-12.5%	-15.8%	-19.1%	-22.2%	-22.1%
2003	3.5%	5.8%	8.2%	10.7%	13.1%	15.6%	18.1%	20.7%	23.3%	25.9%	28.5%	28.7%
2004	4.0%	4.7%	5.4%	6.1%	6.8%	7.4%	8.1%	8.8%	9.4%	10.1%	10.8%	10.9%
2005	1.8%	2.2%	2.5%	2.9%	3.2%	3.5%	3.8%	4.1%	4.4%	4.7%	5.0%	4.9%
2006	3.0%	4.2%	5.5%	6.7%	8.0%	9.2%	10.5%	11.8%	13.1%	14.4%	15.7%	15.8%
2007	9.3%	9.0%	8.6%	8.3%	7.9%	7.6%	7.2%	6.8%	6.4%	6.0%	5.5%	5.5%
2008	8.1%	2.8%	-2.4%	-7.3%	-12.0%	-16.6%	-21.0%	-25.2%	-29.2%	-33.1%	-36.8%	-37.0%
2009	2.0%	4.4%	6.9%	9.3%	11.8%	14.3%	16.7%	19.2%	21.7%	24.2%	26.6%	26.5%
2010	5.5%	6.6%	7.7%	8.7%	9.7%	10.7%	11.7%	12.5%	13.4%	14.2%	15.0%	15.1%
2011	8.0%	7.5%	7.0%	6.5%	5.9%	5.3%	4.7%	4.1%	3.5%	2.8%	2.1%	2.1%
2012	3.4%	4.7%	5.9%	7.2%	8.4%	9.6%	10.9%	12.1%	13.4%	14.6%	15.8%	16.0%
2013	-3.6%	-0.4%	2.8%	6.2%	9.6%	13.2%	16.8%	20.5%	24.3%	28.3%	32.3%	32.4%
2014	3.4%	4.4%	5.4%	6.4%	7.4%	8.4%	9.5%	10.5%	11.5%	12.5%	13.5%	13.7%
2015	0.8%	0.9%	1.1%	1.2%	1.3%	1.3%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%

Annualized Return	7.3%	7.7%	8.0%	8.4%	8.7%	9.0%	9.3%	9.6%	9.8%	10.0%	10.2%	10.3%
Standard Deviation	4.1%	4.2%	4.7%	5.7%	6.8%	8.1%	9.5%	10.9%	12.3%	13.8%	15.3%	15.3%

Worst 3 Months	-4.6%	-4.7%	-6.2%	-9.2%	-12.3%	-15.3%	-18.3%	-21.1%	-24.0%	-26.7%	-29.6%	-29.6%
Worst 6 Months	-4.1%	-4.7%	-8.1%	-12.9%	-17.6%	-22.1%	-26.3%	-30.4%	-34.3%	-38.0%	-41.6%	-41.8%
Worst 12 Months	-3.6%	-3.3%	-8.5%	-13.5%	-18.4%	-23.0%	-27.4%	-31.6%	-35.6%	-39.4%	-43.0%	-43.3%
Worst 36 Months Annualized	0.2%	1.6%	1.8%	-0.3%	-2.5%	-4.6%	-6.7%	-8.8%	-11.1%	-13.7%	-16.2%	-16.1%
Worst 60 Months Annualized	2.0%	3.3%	2.3%	1.2%	0.2%	-0.9%	-2.0%	-3.1%	-4.3%	-5.4%	-6.6%	-6.6%
Worst Drawdown	-4.7%	-5.5%	-8.8%	-14.1%	-19.6%	-25.7%	-31.4%	-36.7%	-41.7%	-46.4%	-50.7%	-50.9%

UBH-FT-RD Tables Update for 2016 (RX).xlsx / Fine Tuning Table (S&P)