

Tactical Asset Selector

Seeking better “balance” in a stocks-bonds portfolio

The traditional “balanced portfolio” of (say) 60 percent equities and 40 percent bonds has enjoyed a long following in the US investment community. Assets other than stocks, bonds and cash are still not widely held by retail investors, and for some it’s challenging enough to find a comfortable balance between the opportunity from stocks and the safety in bonds, and then to stick to it. Annual returns from a 60:40 mix of stocks and long Treasuries have a compound mean of 9.7 percent and a standard deviation of 10.2% pts.

But what investors call a balanced portfolio is not necessarily a diversified asset mix.¹ Diversification originates from mixing assets whose returns bear the lowest possible correlations to one another. When dealing with only a handful of asset classes, it’s highly desirable that those included be inversely and consistently correlated. That is far from the case with stocks and bonds. A stocks portfolio would be better “balanced” if it contained another asset whose capital gains are inversely correlated with those from both stocks and bonds. For that purpose gold works well.

Stocks, bonds and volatility. The correlation between stock and bond returns varies over time and according to circumstances, though it is slightly positive on the average. In a report some years ago we found that it turns inverse temporarily during stock-market collapses: “the bond market cushions sudden stock-market declines, but does not mit-

The tradeoff between risk and return in a mix of stocks and bonds can be shifted favorably by including a suitable third asset such as gold.

igate sudden stock-market gains.”² The appeal of a balanced portfolio lies in the potential for remunerative but stable returns. The volatility of return from a suitable mix can be less than that from

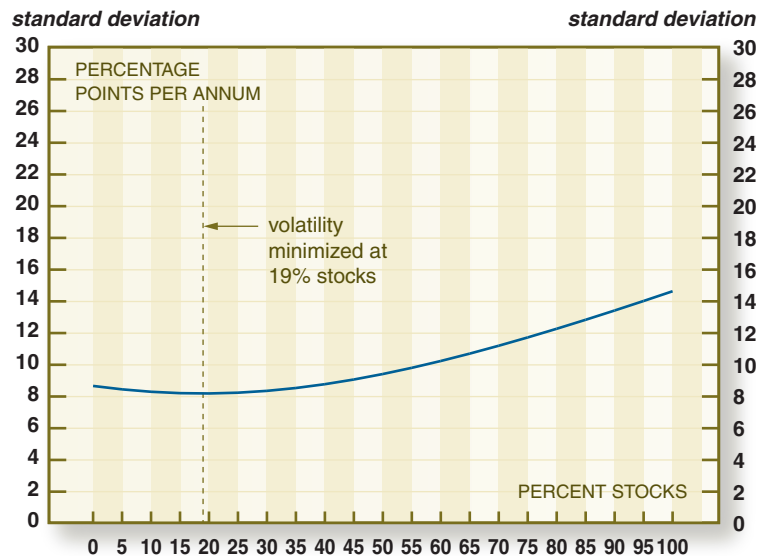
any of the constituent assets. This can be seen in Figure One, which illustrates various mixes of the S&P 500 index and long Treasury bonds.

Using annual returns for the period 1970-2016 as a whole, the chart shows that volatility is minimized at a mix of 19 percent stocks, 81 percent bonds. The standard deviation of annual returns for this minimizing portfolio (8.2% pts) is a lot less than for stocks alone (14.6% pts), but only slightly less than for bonds (8.7% pts). Average compound total returns for stocks, bonds and the volatility-minimizing mix of the

Figure One

Volatility of Annual Return for a Mix of Stocks and Bonds

calendar-year average data from 1970



Data: Calendar-year averages of monthly total-return indices for the S&P 500 stocks and long Treasury bonds (University of Chicago/Dimensional Fund Advisors).

1. “What would a truly diversified portfolio look like?” *Strategic Asset Selector*, H. C. Wainwright & Co. Economics, October 17, 2006.
2. “How the correlation between stocks and bonds varies with performance,” *Equity-Market Outlook*, Wainwright, January 31, 2008, p.2; see also “The shape of the correlation between stock and bond returns,” *Strategic Asset Selector*, Wainwright, October 31, 2008.

two are, respectively: 9.9 percent, 8.5 percent and 9.0 percent.

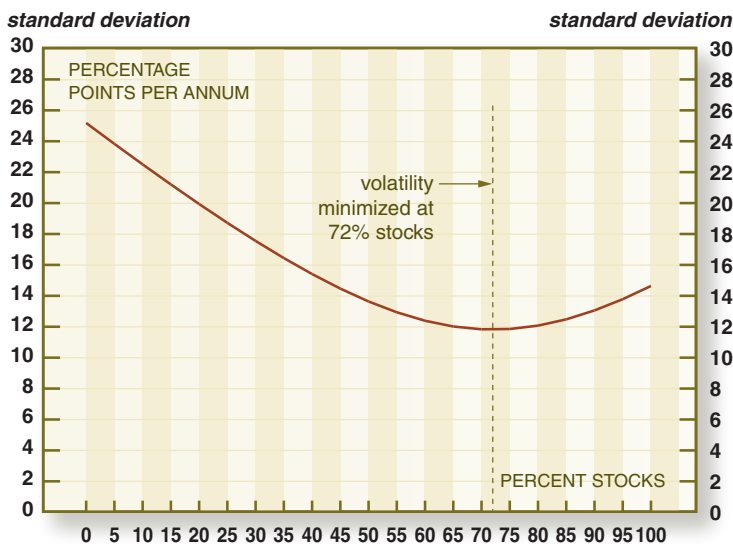
Volatility of stocks-gold and stocks-bonds-gold mixes. Another *Wainwright* report found great scope for reducing the volatility of an equities portfolio by introducing gold rather than bonds as a diversifying instrument.³ **The relationship between stocks and gold is contrastingly inverse and much more consistent.** Figure Two shows the standard deviation of annual returns for various mixes of the S&P 500 index and gold.

The shape of the volatility curve is deeper, reflecting the inverse correlation and its greater diversifying power. Moreover, it takes much less gold in the mix to minimize volatility than it takes bonds in Figure One. **The most stable mix, 72 percent stocks 28 percent gold, has a standard deviation of 11.8 percentage points.** That is more volatile than a

Figure Two

Volatility of Annual Return for a Mix of Stocks and Gold

calendar-year average data from 1970



Data: Calendar-year averages of monthly total-return indices for the S&P 500 stocks (University of Chicago/Dimensional Fund Advisors); and of the month-end spot price for gold (*Metals Week*).

Table 1

Volatility of Annual Return from a Mix of Stocks, Bonds and Gold

calendar-year average data from 1970

fraction of bonds	fraction of stocks																				
	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	1.00
1.00	8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.95	7.9	8.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.90	7.4	7.7	8.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.85	7.1	7.2	7.5	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.80	7.1	6.9	7.0	7.5	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.75	7.4	6.9	6.8	7.0	7.5	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.70	8.0	7.3	6.8	6.7	7.0	7.5	8.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.65	8.8	7.9	7.2	6.8	6.8	7.1	7.7	8.5	-	-	-	-	-	-	-	-	-	-	-	-	-
0.60	9.7	8.7	7.8	7.2	6.9	6.9	7.3	7.9	8.8	-	-	-	-	-	-	-	-	-	-	-	-
0.55	10.7	9.6	8.6	7.8	7.3	7.0	7.1	7.5	8.2	9.1	-	-	-	-	-	-	-	-	-	-	-
0.50	11.9	10.7	9.6	8.7	7.9	7.4	7.3	7.4	7.8	8.5	9.4	-	-	-	-	-	-	-	-	-	-
0.45	13.1	11.9	10.7	9.7	8.8	8.1	7.7	7.5	7.7	8.2	8.9	9.8	-	-	-	-	-	-	-	-	-
0.40	14.3	13.1	11.9	10.8	9.8	9.0	8.3	8.0	7.9	8.1	8.6	9.3	10.2	-	-	-	-	-	-	-	-
0.35	15.6	14.3	13.1	12.0	10.9	10.0	9.2	8.6	8.3	8.3	8.5	9.1	9.8	10.7	-	-	-	-	-	-	-
0.30	16.9	15.6	14.4	13.2	12.1	11.1	10.2	9.5	9.0	8.7	8.7	9.0	9.6	10.3	11.2	-	-	-	-	-	-
0.25	18.3	17.0	15.7	14.5	13.3	12.2	11.3	10.4	9.8	9.4	9.2	9.2	9.5	10.1	10.8	11.7	-	-	-	-	-
0.20	19.6	18.3	17.0	15.8	14.6	13.5	12.4	11.5	10.8	10.2	9.8	9.6	9.7	10.1	10.6	11.4	12.3	-	-	-	-
0.15	21.0	19.7	18.4	17.1	15.9	14.7	13.7	12.7	11.8	11.1	10.6	10.3	10.2	10.3	10.7	11.2	12.0	12.8	-	-	-
0.10	22.4	21.0	19.7	18.5	17.2	16.0	14.9	13.9	13.0	12.2	11.5	11.0	10.8	10.7	10.9	11.2	11.8	12.6	13.4	-	-
0.05	23.8	22.4	21.1	19.8	18.6	17.4	16.2	15.2	14.2	13.3	12.5	11.9	11.5	11.3	11.3	11.5	11.9	12.4	13.2	14.0	-
0.00	25.2	23.8	22.5	21.2	19.9	18.7	17.6	16.4	15.4	14.5	13.6	12.9	12.4	12.0	11.8	11.9	12.1	12.5	13.1	13.8	14.6

Data: As for Figures One and Two.

3. "How much bullion would equity investors need to hold to insure against inflation?" *Strategic Asset Selector*, Wainwright, June 14, 2010.

60-40 stocks-bonds mix, reflecting the fact that gold by itself is much more volatile than bonds. But its higher average return of 10.1 percent helps to compensate for that.

When a volatility curve is drawn for mixes of bonds and gold, its shape is even deeper, reflecting the strength of the inverse correlation between gold and bond prices. **The volatility-minimizing mix (consisting of 83 percent bonds, 17 percent gold) has a standard deviation of 7.1% pts, and an average compound return of 8.8 percent.**

A mix of stocks, bonds and gold. The evident power of gold to stabilize either a stocks or a bonds portfolio raises the question whether investors could do better still by mixing all three assets. Table 1 on the previous page shows the standard deviation of annual return from a variety of mixes of stocks, bonds and gold.

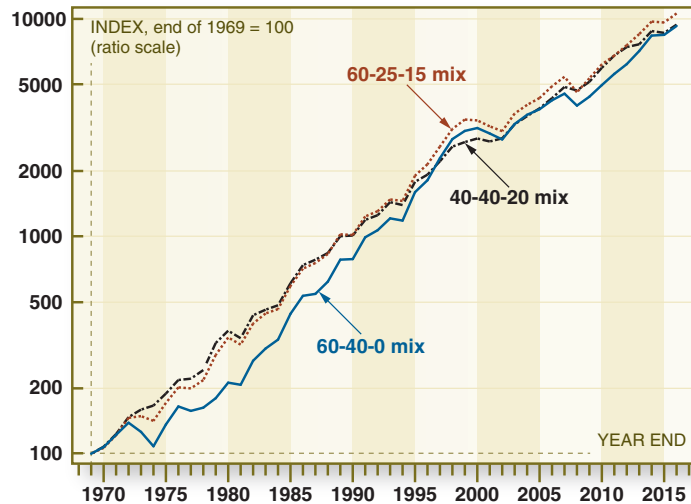
Moving away from a 60:40 mix of stocks and bonds by including gold in the portfolio both adds to return and reduces volatility. For example, a mix that is 60 percent stocks with the remainder divided between bonds (25 percent) and gold (15 percent) has an average annual return of 9.9 percent with a standard deviation of 9.5% pts. A mix that is 40 percent bonds with the remainder divided between stocks (40 percent) and gold (20 percent) has an average return of 9.7 percent with a standard deviation of 7.9% pts. Either of these portfolios, or any intermediate mix, could be described as offering a more favorable “balance” than the standard 60:40 balanced portfolio.

Figure Three compares the cumulative return histories of these differ-

Figure Three

Cumulative Returns from Mixes of Stocks, Bonds and Gold

calendar-year average data from 1970



Data: As for Figures One and Two.

ent mixes of stocks, bonds and gold, comparing them with the 60:40 stocks-bonds mix. The three asset mixes clearly produce more consistent trajectories than stocks and bonds alone.

Table 2 reviews the risk-return characteristics of the three portfolios. Also included in the table is the lowest-volatility mix of the three assets that can be found in Table 1. This does not resemble the traditional 60:40 balanced portfolio at all, consisting of 15 percent stocks, 15 percent gold and 70 percent bonds. It has an extremely low standard deviation of 6.7% pts. but the average return of 9.1 percent is lower than for 60:40.

Investment conclusions. A mix of 60 percent stocks and 40 percent bonds has long been a central benchmark for

US investors. It is known as a “balanced portfolio” because of the tradeoff between return and volatility. The terms of this tradeoff benefit from the intermittent tendency for the two assets to offset each other’s weak periods. As business risk is heightened stock prices flag, while capital flows into investment havens such as bonds, thereby providing a compensating gain in the balanced portfolio. **But this vision of risk is one-dimensional and, in any case, stock and bond returns are positively correlated most of the time. Balance is not the same as diversification.**

Capital is also driven by currency risk – away from financial assets (including both stocks and bonds) into hard assets such as commodities, real estate and gold. **A truly balanced portfolio, therefore, should contain not only stocks and bonds but also one or more hard assets.**

Gold serves this purpose well. Our calculations show that including gold in a mix of stocks and bonds not only adds to return but also reduces volatility.

Table 2

Average Return and Volatility from Various Mixes of Stocks, Bonds and Gold

Asset mix	Compound annual average return (percent)	Standard deviation (percentage points)
60% stocks, 40% bonds	9.67	10.24
60% stocks, 25% bonds, 15% gold	9.91	9.54
40% stocks, 40% bonds, 20% gold	9.67	7.89
15% stocks, 70% bonds, 15% gold	9.14	6.73

Data: As for Figures One and Two.

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