



## The Ultimate Income Strategy – Higher Yield and Lower Volatility

By Geoff Considine  
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Investors, especially those in the de-accumulation phase of their retirement, count on high income and low volatility. Achieving the best possible tradeoff between yield and risk is a major challenge for advisors. Over the last two years, I've shown how to construct a low-risk portfolio – the ultimate income portfolio (UIP) – that yields over 9.0%. Let's look back at how those portfolios performed and the components of this year's UIP.

My original motivation for creating the UIP in 2010 was to find a way to consistently compare the yields on a wide range of potential investments to their respective risk levels (volatilities) and, in so doing, to help investors to make optimal trade-offs to achieve the highest portfolio yield for any given level of risk. The results of my analysis showed that it was possible to generate a high level of income with moderate risk. After one year, my [original UIP](#) performed exactly [as projected](#), generating 9.7% in income.

Over the last two years, yields on Treasury bonds have dropped to unprecedented lows and the yields of other fixed-income instruments have fallen in tandem. Because of a substantial rally, yields on equities are also substantially lower. Given those challenges, it is now more crucial than ever for income-oriented investors to apply a robust and objective approach to building income portfolios.

Let's review the core concepts behind the UIP and my methodology for constructing each year's new iteration of it. I'll discuss how the 2010 and 2011 UIPs have performed relative to expectations, and reveal the components of this year's UIP.

### The methodology behind the UIP

The UIP is based on the following foundations:

1. Yield is observable;
2. Risk is measurable (by observing historical volatility and option-implied volatility);
3. Options on ETFs provide a standardized and consistent risk measure; and
4. Covered calls sold against income-generating assets provide incremental income.

Let's look at how these precepts allow us to construct a portfolio that combines high levels of income with low risk.

This emphasis on investment characteristics that are directly observable (yield) and measurable (risk) contrasts with other portfolio construction methodologies, which usually



rely on assumptions about the future returns from equities. Those projected returns hinge on an equity-risk premium that is neither observable nor directly measurable. Any estimate of the equity-risk premium is based on our beliefs and is therefore subject to a significant uncertainty, in the form of what's known as "estimation risk." By focusing on observable and measurable characteristics, I reduce that estimation risk.

The maturing market for options on ETFs provides a transparent and consistent measure of risks across all major asset classes. The prices of options are largely determined by the expected risk in the underlying security. Financial data sites have calculators that use options prices to back out the level of risk (volatility) implied by options prices. Implied volatility is a key variable in asset allocation decisions, because it is the market's consensus estimate of risk in any given asset class.

I have performed extensive benchmarking of the Monte Carlo portfolio simulation tool that I developed (Quantext Portfolio Planner) to ensure that the model's projections for portfolio risk are reasonable, based on its use of implied volatilities. (For more on this, see Appendix A of this article, which shows how closely projected risk for the components of the updated UIP compare to implied volatilities of the options used to construct it.)

Selling call options against the holdings of a portfolio provides a low-risk way to generate additional income. By selling calls, you are giving up possible gains if the market rallies. For an income investor, however, price appreciation is a secondary concern. Further, you can select the strike prices of the call options that you sell to retain more or less of the upside potential. Choosing call options with higher strike prices allows you more potential to gain, but it also reduces the amount of income you get from selling the options.

Advisors have told me options are too much trouble to incorporate into client portfolios. Even a covered-call strategy, which is as simple and safe as options strategies get, requires resources to implement and manage. But it's worth the effort. The incremental yield from a conservative covered-call strategy provides income that exceeds what 10-year Treasury bonds can offer.

## **Evolution of the UIP**

My original 2010 version of the UIP combined an allocation to a closed-end (CEF) high-yield bond fund (COY) with equities in three sectors: utilities, telecoms, and pharmaceuticals.



**Original UIP from August 2010**

| Name                 | Ticker | Percentage of Funds |
|----------------------|--------|---------------------|
| High Yield Bond Fund | COY    | 10%                 |
| Con Ed               | ED     | 10%                 |
| Dominion             | D      | 10%                 |
| Pinnacle West        | PNW    | 10%                 |
| Xcel                 | XEL    | 10%                 |
| Duke                 | DUK    | 10%                 |
| Verizon              | VZ     | 10%                 |
| AT&T                 | T      | 10%                 |
| Glaxo                | GSK    | 10%                 |
| Bristol Meyers       | BMY    | 10%                 |

At the time that I proposed it, this portfolio had a 6.1% yield. The market has rallied dramatically since then. As the price of a stock or bond increases, its yield decreases. Those increases are to the advantage of current investors but lower the expected yield. COY had a yield of 10.5% when that first version of the UIP was published. Today, COY yields 7.8%. The yield of this portfolio is 4.7%, considerably lower than the 6.1% when the portfolio was first constructed, but still very attractive when compared to a range of other alternatives.

The projected risk (volatility) of this portfolio was 21%, equal to the implied volatility of a long-term bond index (TLT) at the time. Over the next 12 months, the annualized volatility of the portfolio was 8%, half of what was originally projected. The risk constraints for the projected volatility are intended to maintain portfolio volatility at an acceptable level. The lower-than-expected volatility benefited investors.

By selling covered call options against the nine equities in this portfolio, the UIP generated an additional 3.6% in annual return, bringing the total annualized income up to 9.7%. This additional income available owed primarily to the high level of volatility that persisted in the capital markets at the time. Higher levels of volatility increase the values of options.

The income for the 12-month period was 9.7% and the portfolio gained an additional 5.1% in return from price appreciation, for a total return of 14.8%.

**UIP as of August 2011**

In [August 2011](#), I reviewed the performance of the UIP and modified the asset allocation by including MLPs (KMP and EPD) and, less significantly, by replacing the high-yield CEF (COY) with a high-yield ETF (HYG) with a lower expense ratio.



**Updated UIP from August 2011**

| Name                    | Ticker | Percentage of Funds |
|-------------------------|--------|---------------------|
| iShares High Yield      | HYG    | 15%                 |
| AT&T                    | T      | 10%                 |
| Kinder Morgan           | KMP    | 10%                 |
| Verizon                 | VZ     | 9%                  |
| Glaxo                   | GSK    | 9%                  |
| Bristol Myers           | BMY    | 9%                  |
| Duke Energy             | DUK    | 9%                  |
| Con Ed                  | ED     | 7%                  |
| Frontier Communications | FTR    | 6%                  |
| Enterprise Products     | EPD    | 6%                  |
| CenturyLink             | CTL    | 5%                  |
| Windstream              | WIN    | 5%                  |

The other change was that I varied the weights of the portfolio components to maximize yield while minimizing risk. This portfolio also achieved a yield of 6.1% over the ensuing 12 months, equal to the yield at the time of its construction, in part thanks to the contributions from the MLPs and some riskier (but higher yield) stocks, such as FTR and WIN.

I selected call options to sell against each of these holdings, choosing the strike prices to retain some potential price appreciation; the income from these increased the portfolio's yield by 2.6%. The total expected income from the portfolio, then, was 8.7% for the total portfolio (6.1% in direct income plus 2.6% in option premiums) – slightly less than the previous year, but still robust.

In the year that has passed since I created the 2011 UIP, the market enjoyed a substantial rally, benefiting the portfolio. From the end of July 2011 (that article came out on August 2) through the end of July 2012, the S&P 500 has provided a total return of 8.8%. The total return of the 2011 UIP over that period was 18.0%, more than doubling the S&P 500.

If call options were sold against the holdings, the portfolio's total return over this period would have been 10.5%, consisting of 6.6% in income and 4.9% in price appreciation and call option premiums. The gains from the holdings are capped by the options, but the option premium increases the total income. The projected income for this portfolio at the time of construction was 8.7%. The realized total return, including the sales of the covered calls, exceeded that because the market rose.



## UIP for 2012

As the stock market has rallied over the past couple of years, the income available from equities and traditional fixed-income classes has fallen. Alternative income-generating assets, such as MLPs and CEFs, are more attractive. I have analyzed both of these investment vehicles on a standalone basis (see this [article](#) on MLPs and this [article](#) on CEFs) and concluded that they provide the desired income streams that equities and traditional fixed income could not, justifying their inclusion in the 2012 UIP.

I included a position in a closed-end fund (EOD), the Wells Fargo Global Dividend Opportunity Fund, which came to my attention through a [survey](#) of the CEFs with the highest yield relative to their risk levels.

I added two new MLPs to the portfolio (BWP and CLMT) and maintained the previous positions in Kinder Morgan (KMP) and Enterprise Products Partners (EPD). AT&T (T) has rallied to the extent that its current yield is unattractive, so I removed it from the portfolio. I added France Telecom (FTE), on the other hand, for its high current yield. Along with Windstream (WIN) and Frontier Communications (FTR), those are clearly risky positions. Those three stocks each have trailing three-year volatility at least 50% greater than the S&P 500.

I included modest allocations to nominal bond funds (EDV and SHY). These funds (as well as FTE) provide diversification, because they are negatively correlated to the returns from the rest of the portfolio.

## UIP as of August 2012

| Name                                    | Ticker | Current Yield | Percentage of Funds |
|---|--------|---------------|---------------------|
| iShares IBOXX High Yield Bond Fund      | HYG    | 6.9%          | 20%                 |
| Wells Fargo Global Dividend Opportunity | EOD    | 13.6%         | 8%                  |
| France Telecom                          | FTE    | 11.8%         | 5%                  |
| Duke                                    | DUK    | 4.6%          | 6%                  |
| Con Ed                                  | ED     | 3.9%          | 6%                  |
| Boardwalk Pipeline Partners             | BWP    | 7.9%          | 6%                  |
| Windstream                              | WIN    | 10.3%         | 5%                  |
| Astrazeneca                             | AZN    | 6.0%          | 4%                  |
| Centurylink                             | CTL    | 6.9%          | 4%                  |
| Frontier Communications                 | FTR    | 8.6%          | 4%                  |
| Kinder Morgan                           | KMP    | 6.0%          | 4%                  |
| Enterprise Products Partners            | EPD    | 4.8%          | 4%                  |
| Calumet Specialty Products              | CLMT   | 8.6%          | 5%                  |
| Navios Maritime Partners                | NMM    | 12.5%         | 4%                  |
| Vanguard Extended Duration Treasury     | EDV    | 2.9%          | 5%                  |
| iShares Barclays 1-3 Year Treasury      | SHY    | 0.5%          | 10%                 |

This portfolio has an annualized yield of 6.98% and trailing three-year volatility of 9.6%, which is 61% of the S&P 500's (15.7%). The projected volatility for this portfolio is 14.9%,



as compared to 24.5% for the implied volatility of the S&P 500 (SPY) and 22.4% for long-term bonds (TLT). The projected volatility of the portfolio is, in fact, very close to the 2011 UIP's projected level (15.2%).

The next step is to sell covered call options against the positions in the portfolio for which there are exchange-traded options. The U.S. stock market is near five-year highs. Reflecting concerns about the economy, investors have a high consensus forecast for risk (volatility), as the fairly high prices for call options on many of the elements of the UIP reflect.

The prices of call options that I sought reflected strike prices that allowed the portfolio to retain some potential for price appreciation. There are no options on EOD (because it is a CEF) and no options on EDV. There are options on the short-term bond ETF (SHY), but the premium available for selling the calls is negligible, so it does not make sense to sell these options. I selected the longest-dated options available for each ticker and calculated the annualized income yield. For the options that do not have 12 months or more to expiration, I assumed that comparable premiums will be available to allow us to sell another set of covered calls.

### **Covered-call positions**

| Name                                    | Ticker | Current Price | Strike Price | Expiration Date | Bid for Call Option | Annualized Yield from Call Premium |
|---|--------|---------------|--------------|-----------------|---------------------|------------------------------------|
| iShares IBOXX High Yield Bond Fund      | HYG    | \$92.15       | \$93.00      | 03/16/13        | \$0.30              | 0.59%                              |
| Wells Fargo Global Dividend Opportunity | EOD    | \$8.26        |              |                 |                     |                                    |
| France Telecom                          | FTE    | \$14.02       | \$15.00      | 02/16/13        | \$0.35              | 5.27%                              |
| Duke                                    | DUK    | \$65.47       | \$70.00      | 01/18/14        | \$2.30              | 2.52%                              |
| Con Ed                                  | ED     | \$61.43       | \$65.00      | 01/18/14        | \$2.10              | 2.45%                              |
| Boardwalk Pipeline Partners             | BWP    | \$26.88       | \$30.00      | 03/16/13        | \$0.15              | 1.01%                              |
| Windstream                              | WIN    | \$9.73        | \$10.00      | 01/18/14        | \$0.54              | 3.98%                              |
| Astrazeneca                             | AZN    | \$47.28       | \$50.00      | 01/18/14        | \$2.50              | 3.79%                              |
| Centurylink                             | CTL    | \$42.26       | \$45.00      | 01/18/14        | \$1.70              | 2.88%                              |
| Frontier Communications                 | FTR    | \$4.63        | \$5.00       | 01/18/14        | \$0.30              | 4.65%                              |
| Kinder Morgan                           | KMP    | \$81.84       | \$85.00      | 01/18/14        | \$2.52              | 2.21%                              |
| Enterprise Products Partners            | EPD    | \$52.79       | \$55.00      | 01/18/14        | \$2.00              | 2.72%                              |
| Calumet Specialty Products              | CLMT   | \$27.60       | \$30.00      | 02/16/13        | \$0.50              | 3.82%                              |
| Navios Maritime Partners                | NMM    | \$14.18       | \$15.00      | 03/16/13        | \$0.45              | 5.76%                              |
| Vanguard Extended Duration Treasury     | EDV    | \$127.05      |              |                 |                     |                                    |
| iShares Barclays 1-3 Year Treasury      | SHY    | \$84.45       |              |                 |                     |                                    |

The additional income provided by selling these call options is an annualized 2.01%. The actual yield may be somewhat higher or lower, depending upon the prices at which we are able to replace those that expire mid-way through the year (see the expiration dates above). If I assume instead that we will not sell additional options later in the year, the additional income from the covered calls is slightly lower, at 1.8%.

When we combine the income generated by the portfolio holdings (6.98%) with the income provided by selling covered call options (2.01%), the total expected income for this portfolio is 8.99%. The projected risk for the UIP is equal to that of a portfolio that is 63% allocated to the S&P 500 and 37% allocated to the aggregate bond index (AGG).



## Has the UIP performed as expected?

Let's look at how well the UIP has done over the last two years, by comparing its actual returns and risk to what I predicted when I constructed those portfolios in 2010 and 2011. The table below summarizes the projected and realized performance of the UIP:

### Summary statistics

|          | Expected Yield<br>When Constructed | Realized Total<br>Return (12 months) | Realized Total Yield<br>(12 months) | Projected Volatility | Realized Volatility<br>(12 months) |
|----------|------------------------------------|--------------------------------------|-------------------------------------|----------------------|------------------------------------|
| 2010 UIP | 9.7%                               | 14.8%                                | 9.7%                                | 21.0%                | 8.0%                               |
| 2011 UIP | 8.7%                               | 10.5%                                | 9.3%                                | 15.2%                | 9.3%                               |
| 2012 UIP | 9.0%                               | n/a                                  | n/a                                 | 14.9%                | n/a                                |

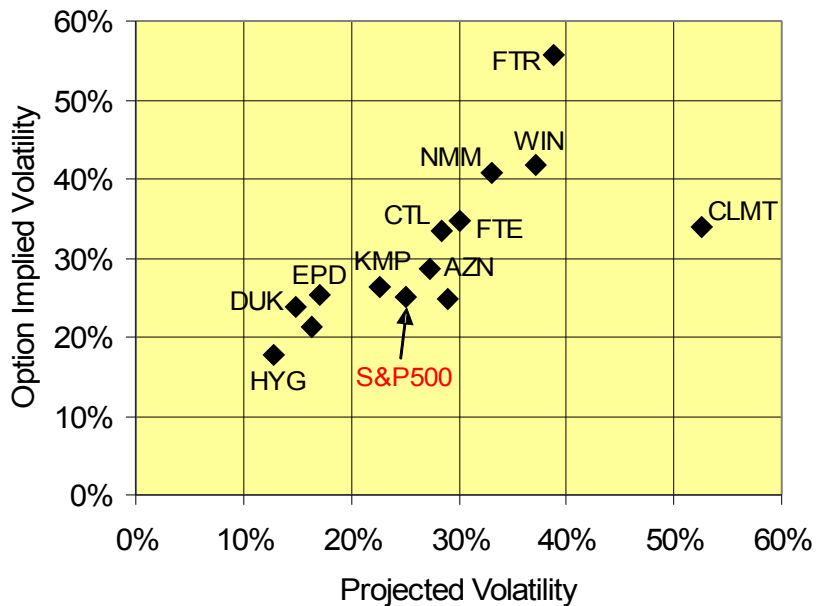
The performance of the 2010 and 2011 portfolios reflects data for the 12 months following portfolio construction, reflecting the assumption that a new portfolio would be created each year to incorporate my latest research.

The n/a designations for the 2012 UIP are for data not yet available. The realized total return includes income generated directly by the portfolio holdings as well as option premiums from selling covered calls and price appreciation (if applicable) up to the strike price of the options. The realized total yield includes income generated directly by the portfolio (dividends, bond coupon payments, and distributions) as well as option premiums collected from selling covered calls.

The UIP strategy has performed consistently with expectations for each of its first two years. Today, yields on even the higher-yielding equities are fairly low and expected volatility, as measured by options prices on the S&P 500, is quite high. The track record of my UIPs illustrates exactly what I thought when I created them: Despite unprecedented, historically low interest rates, there remain compelling opportunities for substantial income at modest levels of risk – if you know how to identify them.

## Appendix A: Projected volatility versus implied volatility

The chart below shows the projected volatility for each portfolio component in the 2012 UIP versus the implied volatility for the longest-dated listed put options. These results show how well the projected volatilities match the implied volatilities. The two outliers are CLMT and FTR. CLMT, in particular, is far off the relationship. Given this disagreement, I have made only a modest allocation to CLMT and FTR.



Geoff Considine is founder of Quantext and the developer of Quantext Portfolio Planner, a portfolio management tool. More information is available at [www.quantext.com](http://www.quantext.com).

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