

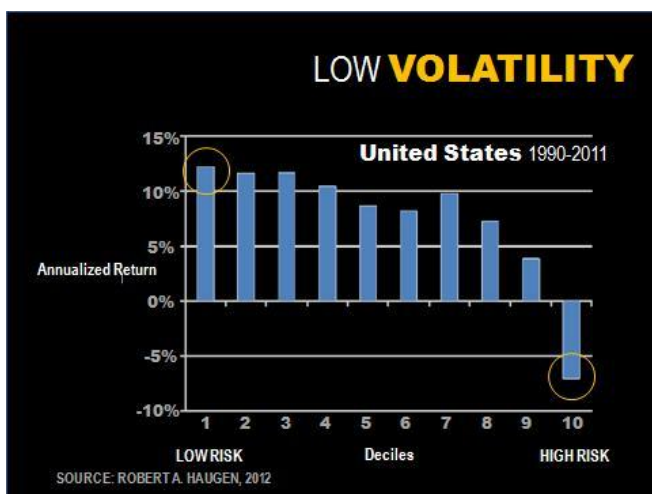


ADVANCED TRENDS: PORTFOLIO CONSTRUCTION

PÜR investing Inc. is registered as a portfolio manager, and is a software developer that engineers tools to help individual investors and their advisors be more successful.

Pressure to gather assets and less time to manage portfolios conflicts with the advisor’s main competition, the do-it-yourself (DIY) investor.

I will discuss an effective way to build portfolios and efficiently monitor and rebalance them using a sophisticated approach that DIYs can’t use.



LOW VOLATILITY STRATEGIES: U.S. EQUITIES

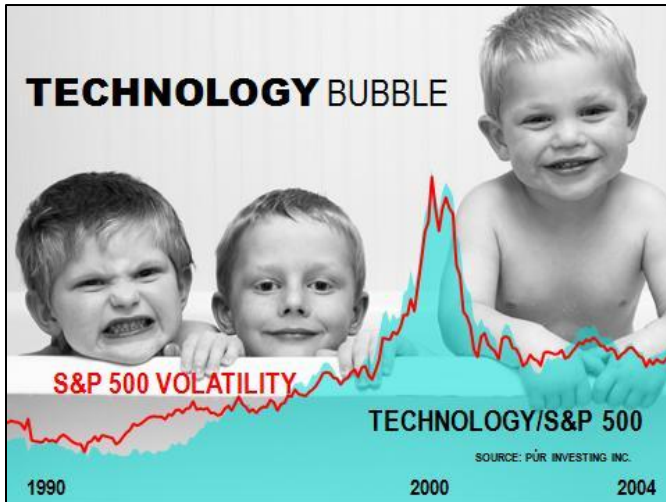
U.S. financial economist Robert Haugen measured the 24-month volatility of U.S. stocks from 1990-2011, put them into deciles from low risk (left) to high risk (right) and plotted their annualized returns as shown in the chart. He repeated this calculation monthly over the testing period. A relatively uniform relationship between low volatility and higher returns was the result. This is a surprising result if you believe that risk equals return.

Haugen and colleagues ran a similar test for other developed and emerging markets and found comparable if not completely uniform relationships.



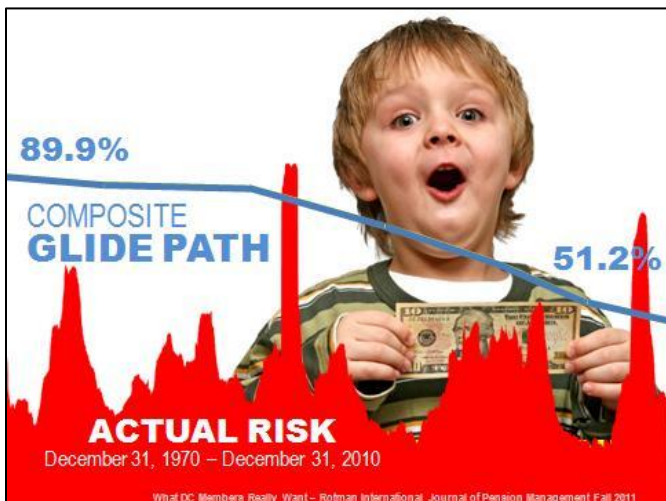
LOW VOLATILITY

In Canada, BMO and Powershares have introduced low beta (ZLB) and low volatility (ULV) ETFs using different methodologies. The BMO Low Volatility ETF (ZLB) is shown in the chart with iShares S&P/TSX (XIC) since late October 2011. ZLB avoided two spikes in market volatility, one in November-December 2011 and another in March-April 2012. ZLB is actually a low beta ETF that measures sensitivity to market movement, a component of volatility. The Powershares S&P 500 Low Volatility (ULV) ETF is based on a more traditional calculation of volatility. The Powershares S&P 500 High Beta (UHB) uses beta as the volatility measure like BMO.



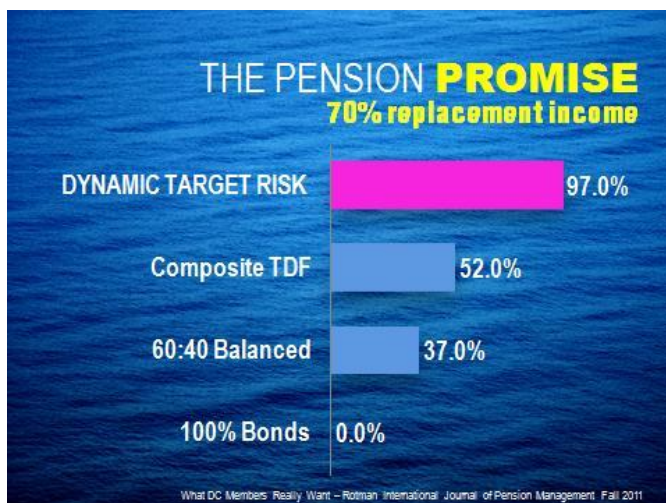
REBALANCING TO A FIXED ASSET MIX

The green area is the technology sector's weight in the S&P500 from 8% (1990) to over 30% (2000). The red line is the standard deviation of the S&P 500 smoothed. Most balanced portfolios with a policy asset mix, like 60% equities: 40% bonds, rebalanced to it. As the market moved higher, managers sold stocks and bought other assets. Intuitively correct (selling high), but market risk was clearly higher in 2000. These portfolios were exposed to extreme risk. This is fine if you have time to skate back on side. Retail clients can't afford this. Like bath water temperature, adjusting to personal preferences is straightforward. Add and subtract risk to keep clients in their comfort zone.



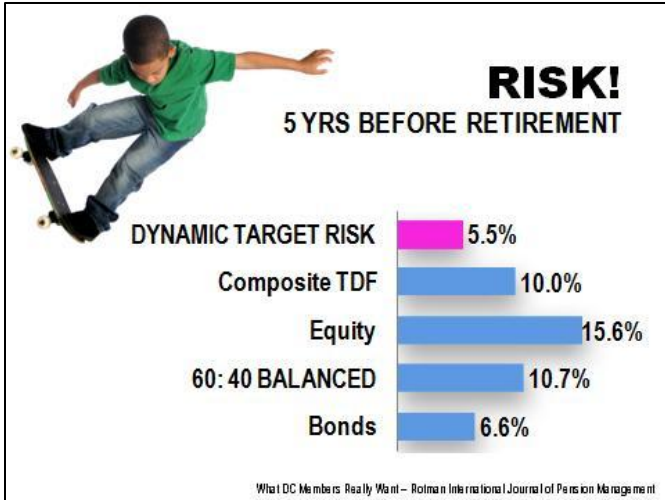
TARGET DATE FUNDS

Gathering 2 of every 3 new dollars flowing into DC pensions in the U.S., target date funds are hot! They automatically reduce equity exposure as a target date approaches making them an attractive vehicle for investors. PÜR asset-weighted the equity glide paths of Fidelity, Vanguard and T. Rowe Price (collectively 76% of industry AUM) to measure the historical risk of the strategy. The red area shows the actual risk using S&P500 risk for equities and zero risk for cash. If risk were being reduced, the red area and blue line would be more parallel. There is clearly a disconnection between asset allocation and risk reduction.



THE PENSION PROMISE

In a paper for the Rotman International Journal of Pension Management, PÜR tested how successfully various strategies would have been in delivering a benefit similar to a defined benefit (DB) pension plan of 70% replacement income for a minimum of 20 years. We used a 9% annual contribution rate and other standard assumptions. 60:40 Balanced Funds delivered 70% replacement income only 37% of the time. The Composite Target Date Fund was better at 52%, but still only "a flip of a coin" likelihood. Making three changes, PÜR was able to improve the likelihood to 97%.



RISK 5 YEARS BEFORE RETIREMENT

Controlling risk (standard deviation) just before retirement is important. This was a point of criticism of near-dated TDFs in 2008-2009 leading to a Senate Sub-Committee hearing and an SEC study and recommendations (about labelling). The Composite TDF (10.0%) improved upon the 60:40 Balanced strategy (10.7%).

PUR reduced risk using a Dynamic target risk approach to 5.5%, half that of the Composite TDF and 60:40 Balanced Funds and lower than bonds.



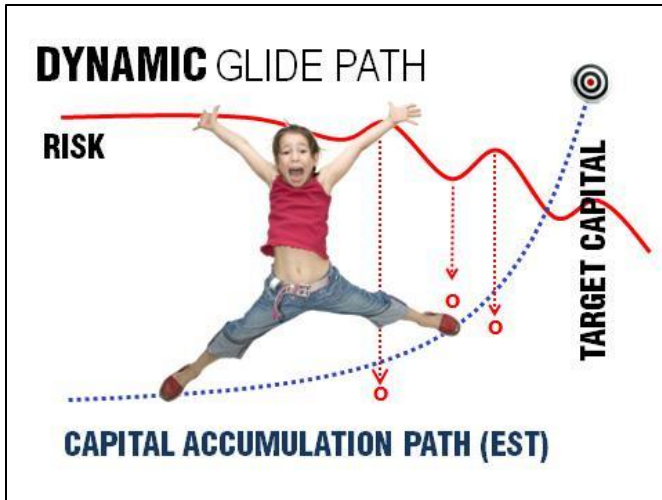
MATCHING CLIENT GOALS TO A PORTFOLIO

If clients apportion their assets by goal, they will see that the final portfolio’s asset mix relates directly to their needs. “Basic” refers to food, clothing and shelter, with which little risk can be afforded, and has a very short time horizon. “Growth” is for lifestyle enhancement and has a longer investing time horizon. “Legacy” is for philanthropy and inheritances to children or grandchildren and involves the longest time horizon. In this example using equity exposures, extending client weights may result in something like a 60:40 asset mix, but clients can appreciate the connection between their goals and the strategic mix.



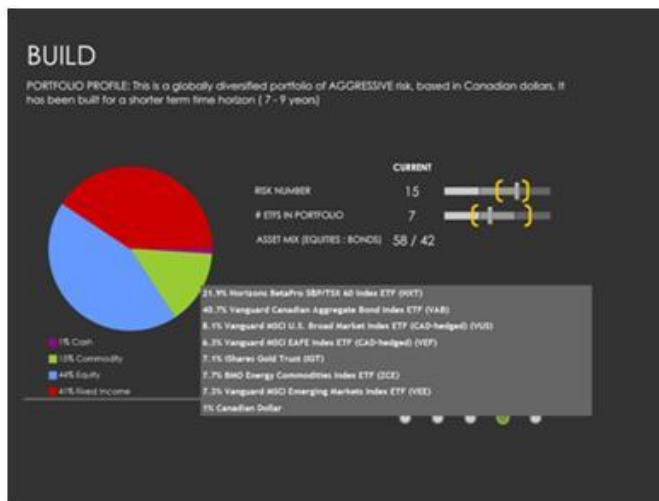
BUILDING A RETURN FLOOR

While using asset mix can help investors understand how a portfolio is devised, using risk numbers can be even more valuable. For low risk Basic needs, a “5” means managing to a five year time horizon with the theoretically minimum expectation of return of all capital plus inflation with a 95% probability. Not 100% but pretty good. The maximum 12-month downside would be -5% with a 99.863% probability. Again, not perfect but a source of confidence. Similar time horizons and downsides apply to Growth and Legacy. The result is a portfolio with a return floor from which to build.



DYNAMIC GLIDE PATH

Establishing target capital that will provide the income in retirement allows for the estimation of a capital accumulation path. This will change over time but provides a general destination, like a GPS device. Actual experience will be above or below this path. We use risk rather than asset allocation for the glide path. When actual experience falls below the path we increase risk modestly and reduce risk when we get ahead.



ETF PORTFOLIO CONSTRUCTION TOOL

Qualified IIROC advisors and registered portfolio managers are welcome to test drive the beta version of PÜR's ETF Construction Tool that uses constant volatility rebalancing. Enter client risk tolerance, time horizon, knowledge, and portfolio size and the optimizer will generate a portfolio from the list of ETFs you select from the embedded ETF Screener, like the one available on the TMX Money website.

http://www.tmxmoney.com/en/sector_profiles/exchange_traded_funds/screener.html

For more information contact Mark Yamada:
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ADVISOR OF THE FUTURE

Peering into the future, this future advisor will be focused on three characteristics that will be standard requirements:

1. Personal portfolio **FIT**. Building portfolios around client needs rather than trying to match clients to products.
2. Balancing the **RISK** temperature for each client's portfolio to prevailing market risk.
3. Working towards a **GOAL** improves the chance of getting there.