

*Drawing a Hard Line*

9/7/12

*Executive Summary*

Managing a portfolio to provide retirement income is complicated. The purpose of this paper is to use the concepts of the Critical Path, to provide a logical framework for undertaking this task. The Critical Path is a theoretical concept but has useful implications in the real world.

The Critical Path is the amount of capital, plotted over time, needed to provide a particular must-achieve-objective.

The Critical Path provides a way to divide retirees into those who can take risk and those who cannot. The concept is based on risk capacity.

Retirees on or below the Critical Path can take no risk. They should use investments that provide guaranteed returns. If they are willing to change their objectives so as to move above the Critical Path, they can free themselves of these investment restraints.

Retirees above the Critical Path can invest using traditional investment strategies that strive for higher returns than what third parties will guarantee. They should design their strategies so they will never approach the Critical Path and become controlled by its constraints.

The Critical Path is a convenient dividing line between those advisors arguing that individuals should invest very conservatively (Bodie and Taqqu) and the traditional world of investing where investors are encouraged to take on some risk to seek more favorable returns.

Riskless investments do not exist. Guaranteed products provide the closest thing to riskless returns. Guaranteed products pass the risk to a third party, presumably one more able to take the risk. Products that provide guaranteed returns typically provide bond like returns.

The paper identifies several situations when the restrictions of the Critical Path may not apply and a retiree on or below the Critical Path can use investment products other than those with guaranteed returns. These include:

- 1 There is a long planning horizon and objectives are likely to change.
- 2 Over long planning horizons retirees may wish to retain investment risk because third parties guaranteed returns are based on prevailing interest rates which are believed to be unrealistically low.
- 3 Investing in stocks is an option if one believes over the long term stocks will *always* outperform bonds (the equity premium). Institutions providing guaranteed returns presumably are not willing to make this assumption.
4. During periods of Financial Repression, such as is occurring now, when governments force interest rates to artificially low, and presumably, temporary levels. Long term commitments perhaps should not be locked in during these periods.

One of the more useful benefits of the Critical Path is advisors can use it to encourage clients to modify unachievable plans. Changes such as increasing savings, delaying retirement, or demanding less income in retirement may move them above the Critical Path and make it possible to invest in potentially risky, but higher returning investments.