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WATS

Beyond The Trinity Study

In 1996 three professors from Trinity University in San Antonio wrote a paper entitled "Retirement Savings: Choosing a Withdrawal Rate That Is Sustainable." The focal point of the paper centered on the concept of "portfolio success rates," which is the likelihood a particular portfolio would have been successful based on a rolling-period analysis of historical data. The study soon gained national attention as an effective way to plan for spending in retirement.

As with any paper, assumptions were made in order to run the calculations. For example, 1) the portfolios were limited to simple combinations of Large Cap Stocks and Corporate Bonds, 2) success was defined as the retiree not running out of money, and 3) the withdrawal strategy assumed the retiree would always maintain buying power regardless of market performance.

Now You Can Specify What it Means to be Successful

WATS incorporates the basic methodology found in the Trinity Study and goes well beyond it, allowing the user to control these and other assumptions. With **WATS**, you can 1) run any asset in the portfolio that has historical data, 2) define success in your own terms and 3) test withdrawal strategies that maintain buying power or that depend on market performance.

"WATS is the most complete software package on the market for examining the sustainable withdrawal rate from your retirement portfolio. In addition, it provides optimal asset allocations given the retiree's spending needs, investment horizon, and risk tolerance--all this based on historical experience in the capital market! WATS is on the leading edge of retirement planning. I recommend it."
Dr. Philip L. Cooley, co-author of the Trinity Study

The most significant enhancement to the Trinity Study is the portfolio optimization program called Black Box. This program has the amazing capability of finding optimal asset allocations based on historical success rates.

Maximum Sustainable Withdrawal Rates
With 100% Historical Success
Ending Value Above Zero

Horizon Years	MSR	Portfolio L	CB	T
5	16.82	35.24	64.76	
10	8.83	29.14	0.04	70.82
15	6.34	25.28	0.02	74.71
20	5.06	23.35		76.65
25	4.38	43.34		56.66
30	3.99	62.05		37.95

The table to the left was computed using Ibbotson data from 1946 to 2000. The assets available to the optimizer were Large Cap Stocks (L), Corporate Bonds (CB) and US T-Bills (T).

To understand the results, consider the 20-year horizon. The maximum sustainable withdrawal rate (MSR) is 5.06%, which is the percentage of account value that can be withdrawn the first year.

In this study, subsequent year withdrawals are adjusted by prior year inflation rates so that buying power is maintained throughout the horizon. Other options available include keeping withdrawals constant, increasing withdrawals by a constant percentage or basing withdrawals on market performance.

One portfolio capable of achieving this 5.06% withdrawal rate was composed of 23.35% Large Cap Stocks and 76.65% Corporate Bonds. Of the thousands of portfolios considered, this one allowed the highest withdrawal rate such that the portfolio did not run out of money in any 20-year period from 1946 to 2000 (1946-1965, 1947-1966, …, 1981-2000).

For many investors, the idea of 100% historical success is too conservative. They would rather increase their risk to some degree in order to increase their withdrawal rate.

With Black Box, you control the historical success rate. The table on the right is the same study run with a historical success rate of 90% rather than 100%. As expected, the withdrawal rates are higher, and the portfolios are slightly more aggressive.

Maximum Sustainable Withdrawal Rates
With 90% Historical Success
Ending Value Above Zero

Horizon Years	MSR	Portfolio L	CB	T
5	19.83	34.25		65.75
10	9.75	13.35	28.07	58.58
15	6.61	31.21	4.20	64.60
20	5.22	26.80		73.20
25	4.54	62.84		37.16
30	4.06	65.85	0.01	34.14

Black Box also allows you to control the ending value goal. For instance, many retirees hope to leave part of their retirement savings to their children. You can specify the ending value goal of the portfolio as above zero, at least equal to the original value, or at least equal to the inflation-adjusted value.

Maximum Sustainable Withdrawal Rates
With 90% Historical Success
Ending Value Equal to or Above Original Value

Horizon Years	MSR	Portfolio L	CB	T
5	3.31	36.53	22.07	41.39
10	3.82	28.80		71.20
15	4.09	39.09		60.91
20	4.03	46.13		53.87
25	3.84	61.76		38.24
30	3.74	75.00		25.00

Like the previous table above, the table on the left lists portfolios with a 90% historical success rate. Unlike the two previous tables, though, the ending value goal in this table is to end with at least as much money as you started.

Black Box can run any historical success rate with any combination of assets, various types of withdrawal strategies, and ending value goals. There simply isn't enough space on this page to show you all the types of scenarios you can run. The bottom line is that **WATS** allows you to find personalized solutions to a wide range of problems.

Pricing, Demo and Customer Satisfaction

There are two versions of WATS, the Advisor Edition for $199 and the Personal Edition for $49.95. The Personal Edition uses the same simulation engine as the Advisor Edition but does not have 1) Morningstar import, 2) Black Box, 3) IRR Calculator or 4) Efficient Frontier Modeling.

Certain affiliates save 10% or more off the regular price of $199. Call toll-free 1-888-863-0221 or email info@zunna.com to see if you qualify for special pricing.

To run an on-line demo of WATS using your web browser, please visit our website at www.zunna.com. For more information call toll-free 1-888-863-0221 or email info@zunna.com.

Our goal is total customer satisfaction. All of our products have a 30-day money back guarantee. We invite you to try our products risk-free. If you are unhappy for any reason we will refund the full purchase price.