The Sequence of Returns Matters

The Story of the Smiths and Johnsons:

By retirement at age 65, both the Smiths and Johnsons were able to save $500,000 for their future needs. Both of them decided to leave their money in the stock market, tracking the S&P 500. They decided to take the recommended 4% of their starting amount of $500,000 each year and increase it by 3% each year to accommodate for inflation.

The chart below represents hypothetical S&P 500 returns over a period of 30 years. For this example, the Smiths experience returns from 1979 to 2009, while the Johnsons experience these same returns in opposite order. Over the 30 year period, both families experience the same 9% return. However, the Johnsons early negative returns had a profound effect on their retirement nest egg.

The Johnsons:

Huge market setback in the first year of retirement
Receive $664,319 over 24 years
Ran out of retirement income at 89

The Smiths:

No big market setbacks until 21 years into retirement
Receive $951,508 over 30 years
$2,679,209 left over

As the chart on the next page shows, the sequence of returns matters. The order in which you experience losses and gains is more important than the losses and gains themselves. With the S&P 500 at record highs, sequence of returns may be more important than ever. Doesn't it make sense to insure your future income?

This chart demonstrates how, in spite of an average 9% rate of return for the 30 year period, the Johnson's early negative returns impacted their retirement nest egg.

THE JOHNSONS (EARLY LOSS)				THE SMITHS (EARLY GAIN)		
Net Return	Withdrawal	Balance	Age	Net Return	Withdrawal	Balance
		$500,000	65			$500,000
-35.61%	$20,000	$301,941	66	9.34%	$20,000	$526,676
2.16%	$20,600	$287,855	67	28.91%	$20,600	$658,362
11.65%	$21,218	$300,168	68	-9.98%	$21,218	$571,472
5.55%	$21,855	$294,974	69	12.71%	$21,855	$622,251
8.44%	$22,510	$297,372	70	18.58%	$22,510	$715,339
21.94%	$23,185	$339,432	71	.81%	$23,185	$697,953
-21.27%	$23,881	$243,342	72	26.74%	$23,881	$860,705
-10.02%	$24,597	$194,358	73	17.59%	$24,597	$987,477
-11.82%	$25,335	$146,057	74	3.85%	$25,335	$1,000,166
18.49%	$26,095	$146,973	75	7.57%	$26,095	$1,049,765
25.95%	$26,878	$158,240	76	30.65%	$26,878	$1,344,630
32.30%	$27,685	$181,662	77	-9.24%	$27,685	$1,192,684
18.73%	$28,515	$187,177	78	27.82%	$28,515	$1,495,943
35.20%	$29,371	$223,698	79	4.34%	$29,371	$1,531,535
-1.36%	$30,252	$190,404	80	6.90%	$30,252	$1,607,026
6.90%	$31,159	$172,390	81	-1.36%	$31,159	$1,554,011
4.34%	$32,094	$147,782	82	35.20%	$32,094	$2,068,973
27.82%	$33,057	$155,835	83	18.73%	$33,057	$2,423,493
-9.24%	$34,049	$107,385	84	32.30%	$34,049	$3,172,152
30.65%	$35,070	$105,227	85	25.95%	$35,070	$3,960,376
7.57%	$36,122	$77,069	86	18.49%	$36,122	$4,656,671
3.85%	$37,206	$42,831	87	-11.82%	$37,206	$4,069,229
17.59%	$38,322	$12,041	88	-10.02%	$38,322	$3,623,118
26.74%	$15,261	$0	89	-21.27%	$39,472	$2,812,878
.81%			90	21.94%	$40,656	$3,389,395
18.58%			91	8.44%	$41,876	$3,633,720
12.71%			92	5.55%	$43,132	$3,792,274
-9.98%			93	11.65%	$44,426	$4,189,602
28.91%			94	2.16%	$45,759	$4,234,225
9.34%			95	-35.61%	$47,131	$2,679,209

AVERAGE ANNUAL NET RETURN 9%