## Accumulation

Stock Market Allocation	Final Balance	Total Contribution	Average Contribution
100%	1.89M	360.00K	1.00K
80%	1.49M	360.00K	1.00K
60%	1.15M	360.00K	1.00K
40%	874.99K	360.00K	1.00K
20%	659.53K	360.00K	1.00K
0%	494.55K	360.00K	1.00K

Time (Years)	Final Balance	Total Contribution	Average Contribution
10	197.69K	120.00K	1.00K
15	356.88K	180.00K.	1.00K
20	560.58K	240.00K	1.00K
25	876.75K	300.00K	1.00K
30	1.49M	360.00K	1.00K
35	2.52M	420.00K	1.00K
40	4.38M	475.00K	1.00K

Initial Balance (\$)	Final Balance	Total Contribution	Average Contribution
0	1.49M	360.00K	1.00K
10.00K	1.61M	360.00K	1.00K
20.00K	1.73M	360.00K	1.00K
50.00K	2.09M	360.00K	1.00K
100.00K	2.70M	360.00K	1.00K

Yield	Final Balance	Total Contribution	Average Contribution
0%	1.38M	360.00K	1.00K
2%	1.49M	360.00K	1.00K
4%	1.61M	360.00K	1.00K
6%	1.74M	360.00K	1.00K
8%	1.89M	360.00K	1.00K
10%	2.06M	360.00K	1.00K

# Accumulation and Withdrawal in Stock Market Investments

Rick Butler, Gabe Karras, Chris Liakos - S Maniccam - Computer Science

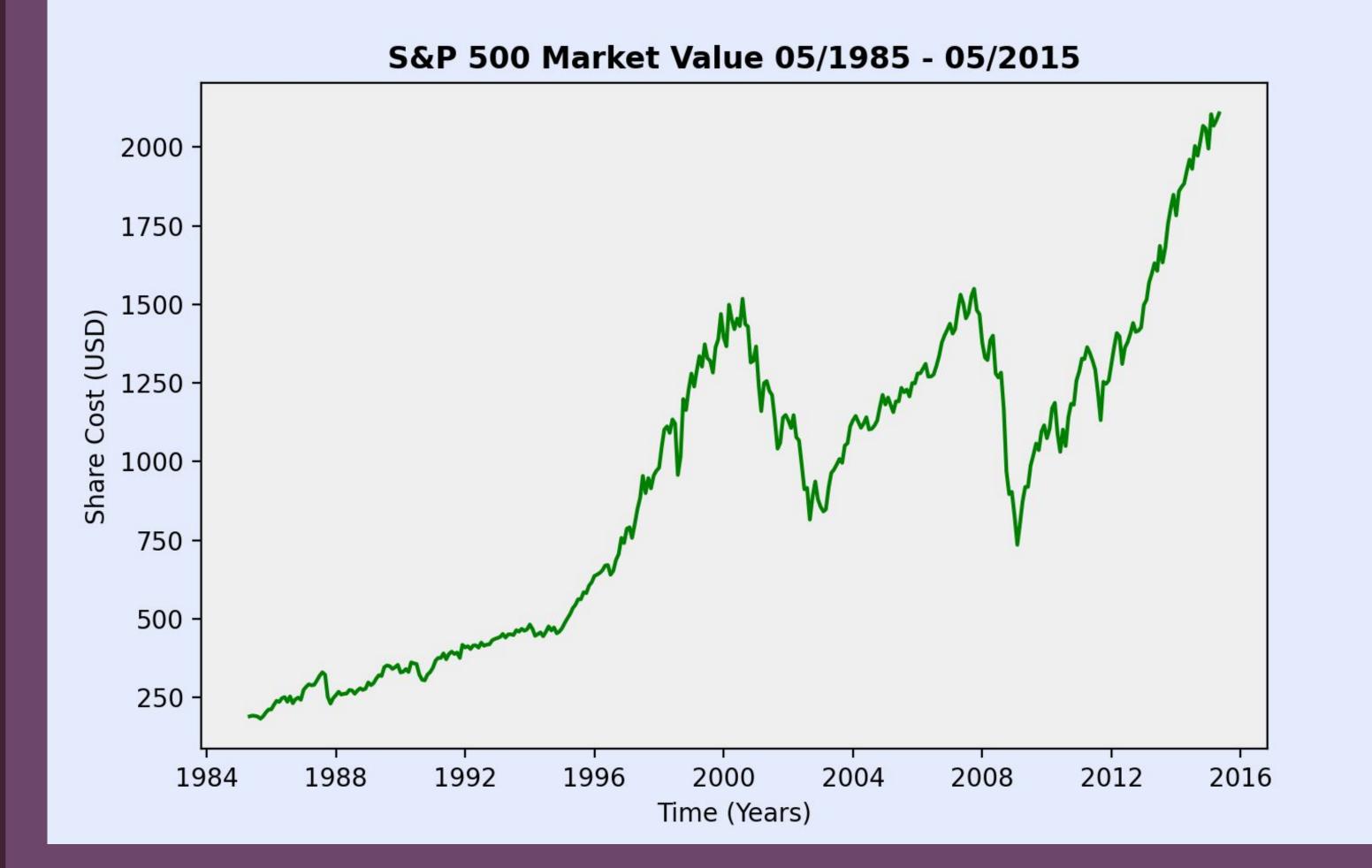
#### **Control Values:**

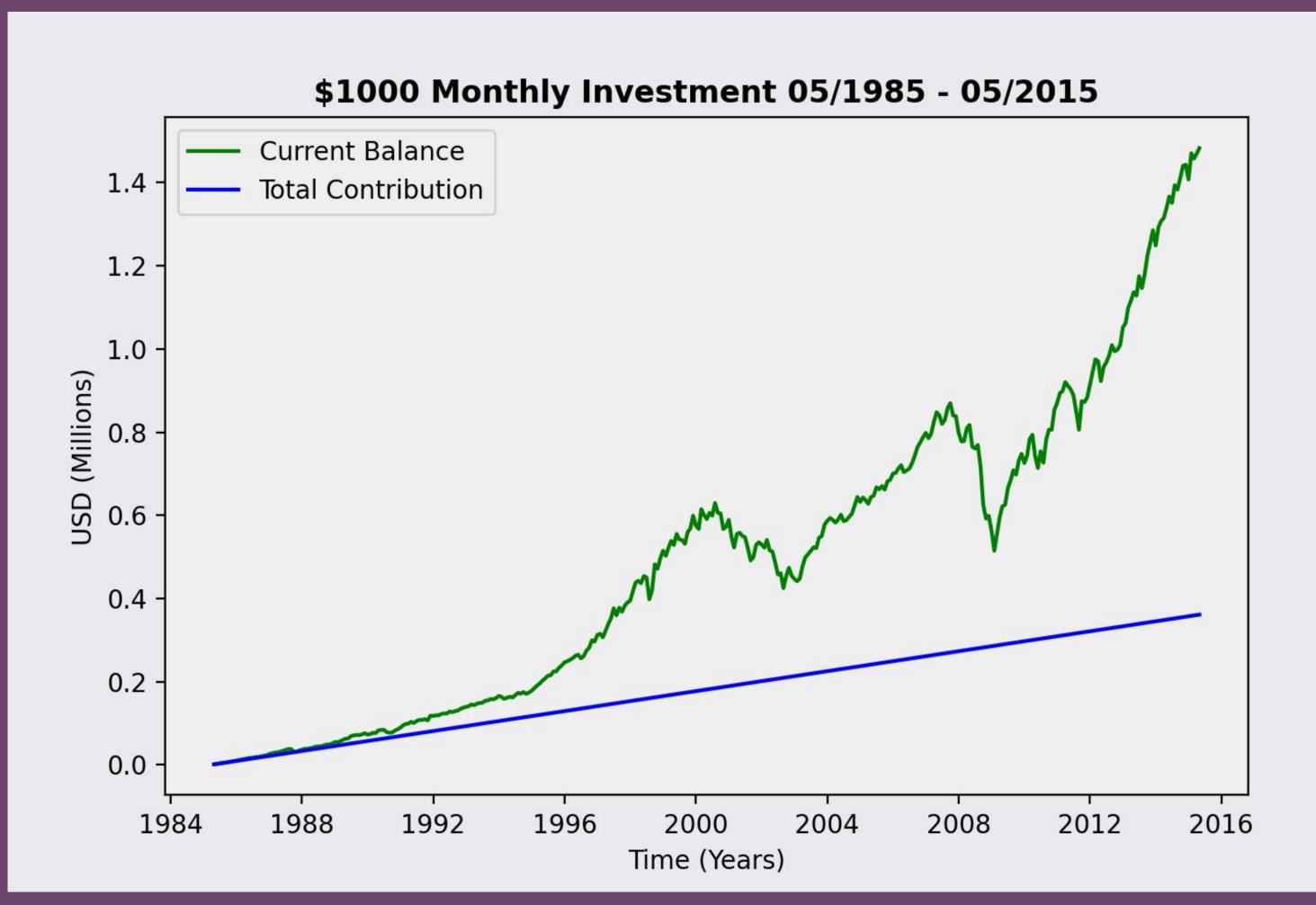
30 Years \$0 Initial Balance 2% Yield \$1K Monthly Contribution 0% Contribution Increase 80% Stock Allocation

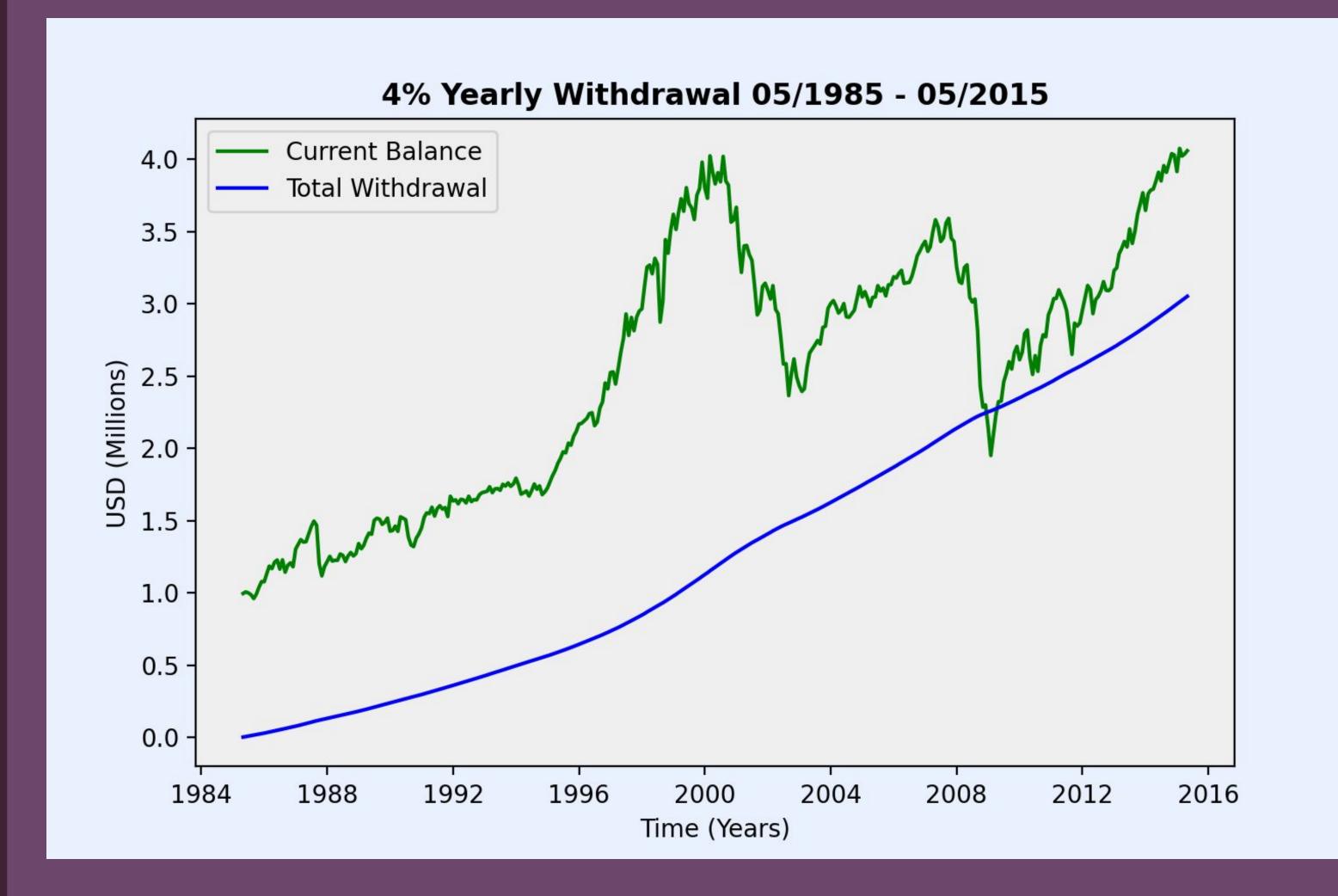
Monthly Contribution Amount (\$)	Final Balance	Total Contribution	Average Contribution
500	743.68K	180.00K	500.00
1.00K	1.49M	360.00K	1.00K
1.50K	2.23M	540.00K	1.50K
2.00K	2.97M	720.00K	2.00K
2.50K	3.72M	900.00K	2.50K
3.00K	4.46M	1.08M	3.00K

Annual Contribution Increase	Final Balance	Total Contribution	Average Contribution
0%	1.49M	360.00K	1.00K
2%	1.82M	390.06K	1.36K
4%	2.27M	681.99K	1.89K
6%	2.91M	967.67K	2.69K
8%	3.81M	1.40M	3.88K
10%	5.10M	2.04M	5.67K

Glide Path (From 60% Allocation)	Final Balance	Total Contribution	Average Contribution
100%	1.57M	360.00K	1.00K
80%	1.35M	360.00K	1.00K
60%	1.15M	360.00K	1.00K
40%	971.14K	360.00K	1.00K
20%	814.31K	360.00K	1.00K
0%	677.93K	360.00K	1.00K







### Control Values:

30 Years \$1M Initial Balance 2% Yield

4% Annual Withdrawal
0% Withdrawal Increase
80% Stock Allocation

Annual Withdrawal Percentage	Final Balance	Total Withdrawal	Average Withdrawal
0%	12.14M	0.00	0.00
2%	6.64M	1.85M	5.13K
4%	3.62M	2.57M	7.14K
6%	1.98M	2.76M	7.68K
8%	1.08M	2.72M	7.55K
10%	591.18K	2.58M	7.17K

Annual Withdrawal Increase	Final Balance	Total Withdrawal	Average Withdrawa
0%	3.62M	2.57M	7.14K
2%	2.34M	3.05M	8.46K
4%	1.22M	3.39M	9.41K
6%	463.14K	3.49M	9.70K
8%	106.92K	3.36M	9.34K
10%	11.53K	3.15M	8.74K

Glide Path (From 60% Allocation)	Final Balance	Total Withdrawal	Average Withdrawal
100%	3.46M	2.27M	6.31K
80%	2.89M	2.13M	5.92K
60%	2.39M	1.99M	5.54K
40%	1.95M	1.87M	5.18K
20%	1.57M	1.74M	4.84K
0%	1.25M	1.63M	4.53K

## Lelithdrawal

I	Stock Market Allocation	Final Balance	Total Withdrawal	Average Withdrawal
ı	100%	5.27M	3.26M	9.05K
I	80%	3.62M	2.57M	7.14K
I	60%	2.39M	1.99M	5.54K
I	40%	1.50M	1.53M	4.25K
I	20%	912.51K	1.17M	3.25K
	0%	545.61K	903.94K	2.51K

Time (Years)	Final Balance	Total Withdrawal	Average Withdrawal
10	1.62M	516.01K	4.30K
15	1.82M	847.49K	4.71K
20	2.02M	1.23M	5.12K
25	2.50M	1.76M	5.86K
30	3.62M	2.57M	7.14K
35	4.92M	3.52M	8.37K
40	7.79M	5.12M	10.79K

Final Balance	Total Withdrawal	Average Withdrawal
3.62M	2.57M	7.14K
7.24M	5.14M	14.27K
10.86M	7.71M	21.41K
14.48M	10.27M	28.54K
18.10M	12.84M	35.68K
	3.62M 7.24M 10.86M 14.48M	Balance       Withdrawal         3.62M       2.57M         7.24M       5.14M         10.86M       7.71M         14.48M       10.27M

Yield	Final Balance	Total Withdrawal	Average Withdrawal
0%	3.22M	2.40M	6.68K
2%	3.62M	2.57M	7.14K
4%	4.06M	2.74M	7.62K
6%	4.55M	2.94M	8.16K
8%	5.12M	3.15M	8.75K
10%	5.76M	3.38M	9.40K