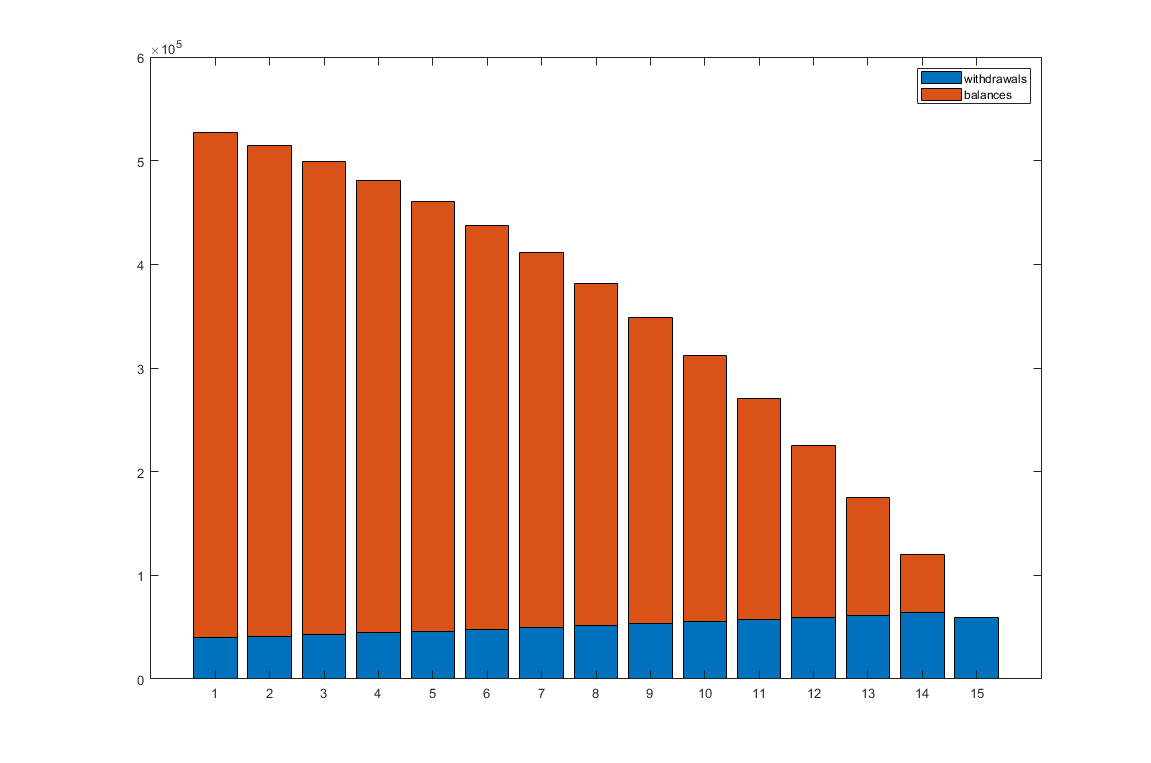
It takes 15 years. The bar chart is attached below:



Code:

capital = 500000;

ret = 5.5 / 100;

withdraw = 40000;

inf\_rate = 3.5 / 100;

inc\_rate = 0.025 / 100;

withdraw\_list = [];

balances\_list = [];

withdraw\_list(end+1) = withdraw;

remained\_amount = capital\*(1 + ret) - withdraw;

balances\_list(end+1) = remained\_amount;

year = 1;

while remained\_amount >= 0

year = year + 1;

inf\_rate = inf\_rate + inc\_rate;

withdraw = withdraw \* (1 + inf\_rate);

withdraw\_list(end+1) = withdraw;

remained\_amount = remained\_amount\*(1 + ret) - withdraw;

balances\_list(end+1) = remained\_amount;

end

if balances\_list(end) < 0

withdraw\_list(end) = withdraw\_list(end) + balances\_list(end);

balances\_list(end) = 0;

end

% bar plot

figure;

bar([withdraw\_list', balances\_list'], 'stacked');

legend('withdrawals', 'balances');