

Personal Finance Project

Sidharth Baskaran¹ and Hamzah Rasool¹

¹Liberal Arts and Science Academy

March 29, 2022

Contents

1	Overview	2
2	Contingencies	2
3	Personal Expenditures	3
4	Assets	3
5	Low-Risk Investments	3
6	High-Risk Investments	3
7	Python Simulation	3

1 Overview

In the United States, it is a common trend for those with lower incomes to remain in that standard of living due to an inability to save—the emphasis is placed on survival and short-term growth over long-term well-being of one and their family’s future. With this new proposal, the objective is to draft a realistic and attainable plan to amass significant residual wealth while relying on a modest income and a frugal expenditure lifestyle. The general approach to our financial plan involves framing our post-tax annual income expenditure primarily around low-risk investment techniques: namely a Roth IRA account and a Series I Savings Bond, to which annual contributions are maxed-out.

Furthermore, we aim to purchase a very conservative number shares annually in high-risk sectors such as stocks of well-known technology corporations and promising startup industries. Taking this approach, we primarily rely on reliable investments while taking the benefits of high-risk investments, but with minimal risk. In regards to personal expenditures necessary for a modest lifestyle, we propose to limit expenditures on luxury items and aim to purchase used items wherever necessary, for they minimize loss when taking into consideration capital investments with large depreciation (i.e. motor vehicles).

Due to the high financial barrier of entry to real estate, we aim to simply purchase a modest home when our savings afford a cash purchase. Given that we utilize two low-risk investment vehicles, the excess wealth exceeding \$2.5 million will safely allow this expenditure among others.

For the purpose of this study, we base simulations and cost-of-living estimates in Albuquerque, New Mexico. We utilize the tax rate of 30% for all taxable accounts and do not account for sales tax on purchases for simplicity. We will also utilize the 1% inflation rate for the purchase of personal essentials.

2 Contingencies

In order to plan for contingency events, we propose to maintain the required \$55,000 emergency fund throughout the simulated lifetime of 25 to 68 years. By age 30, this fund will be established by equal installments over each of the 5 years. After this, a smaller annual amount will be incrementally contributed to augment its growth. In order to harness the power of compounding and minimize risk, we will utilize a high-yield investment account paired with a savings account (The Balance). In the first five years, we contribute aggressively to each account in equal portions of \$5500. Thus, disregarding interest we will end up with a base salary’s worth of \$55000 in the emergency fund in 5 years. The added returns will count as padding for volatility in markets.

1. A savings account will be opened, and \$5500 will be contributed annually until 2027. Thereafter, \$2500 will be contributed.
2. Likewise, \$5500 will be invested into the S&P 500 index fund annually until 2027, with \$2500 thereafter.

Note that we will not utilize an untaxed Roth IRA for the emergency fund in order to avoid the 10% penalty for an unplanned withdrawal (Investopedia Roth IRA Penalty).

3 Personal Expenditures

budget apartment rent all the details

4 Assets

house car

5 Low-Risk Investments

bonds roth ira

6 High-Risk Investments

stocks

7 Python Simulation

python code