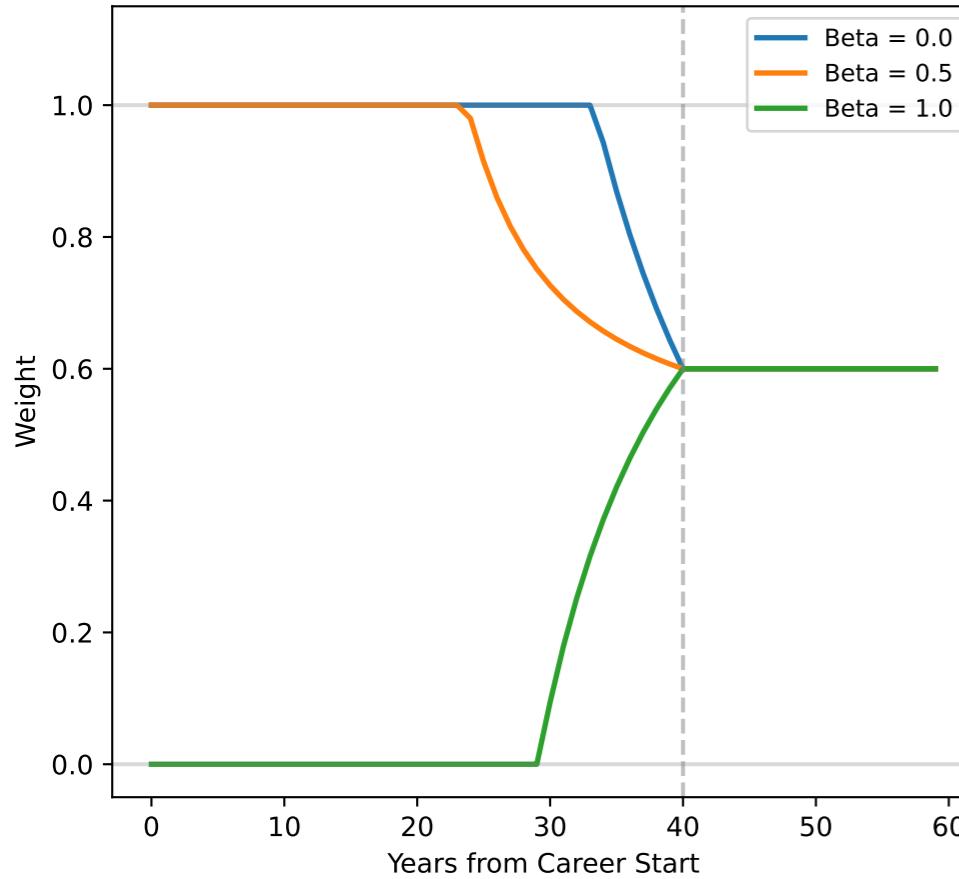
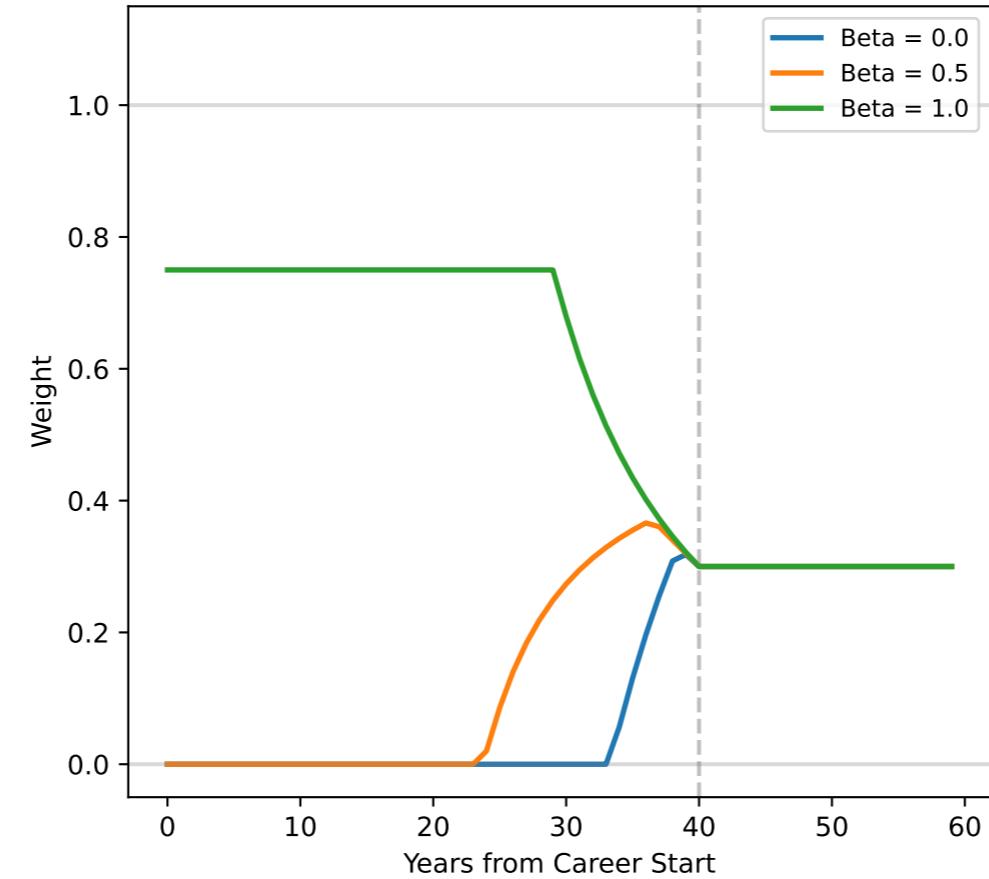


Effect of Stock Beta on Portfolio Allocation

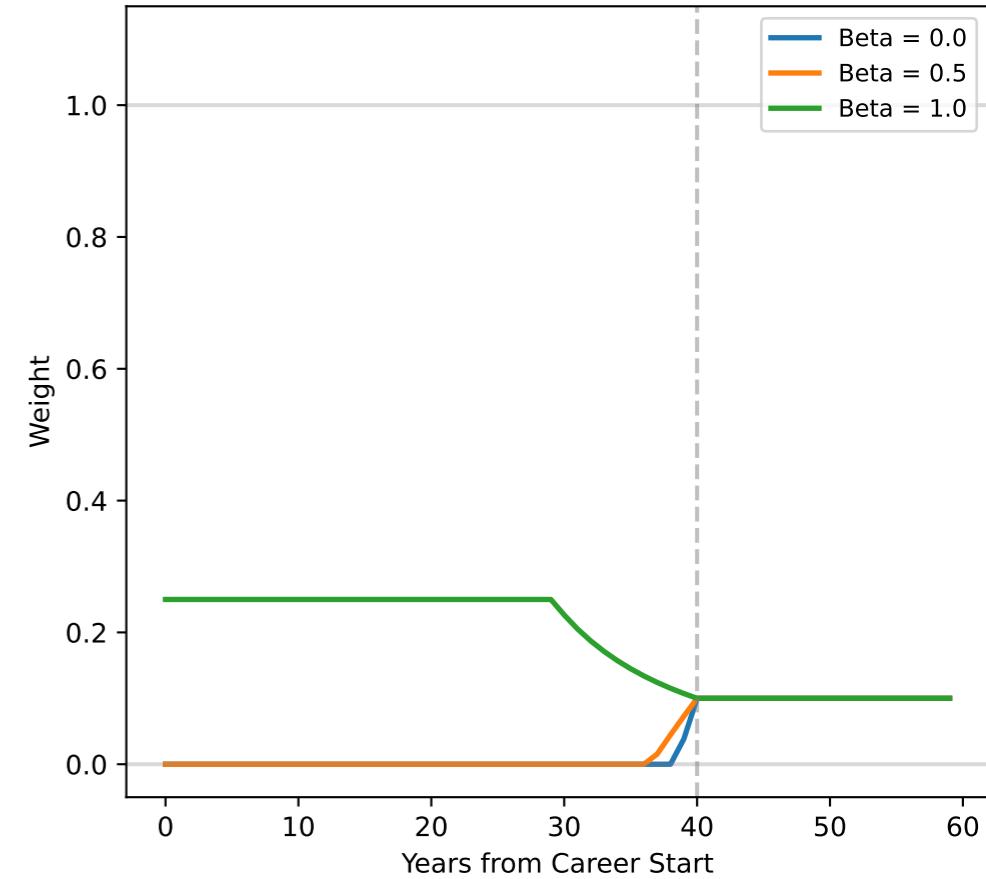
Stock Weight by Beta



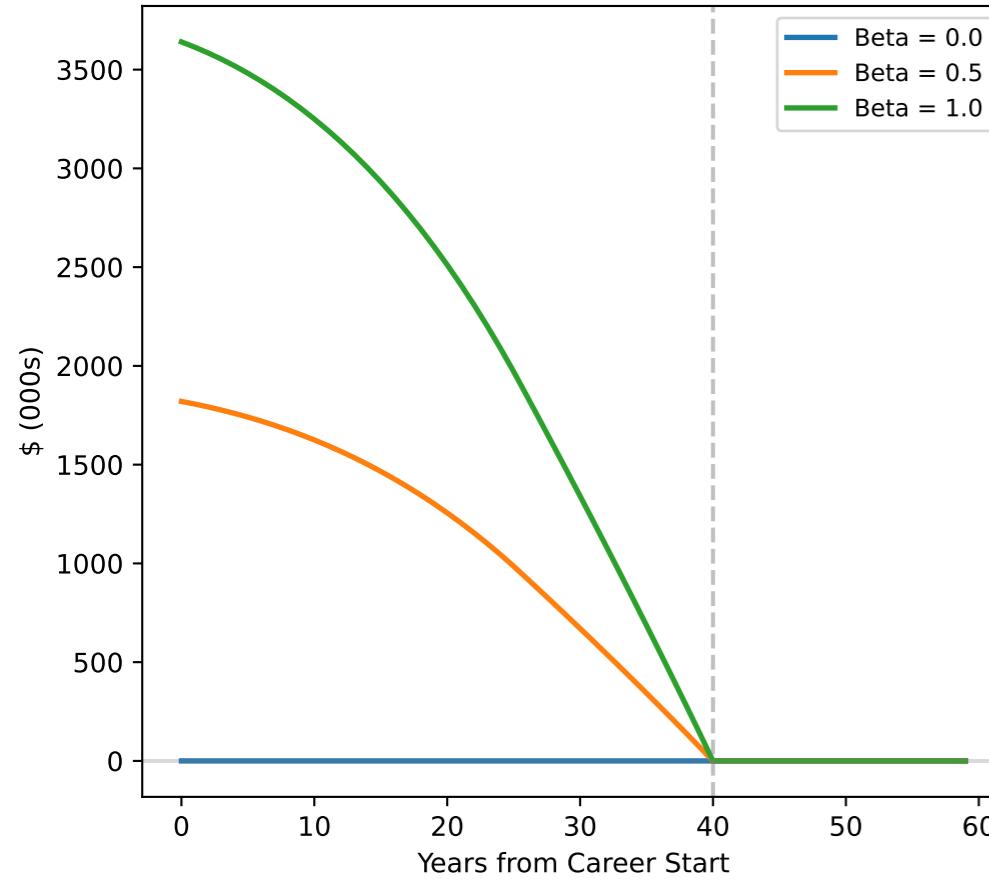
Bond Weight by Beta



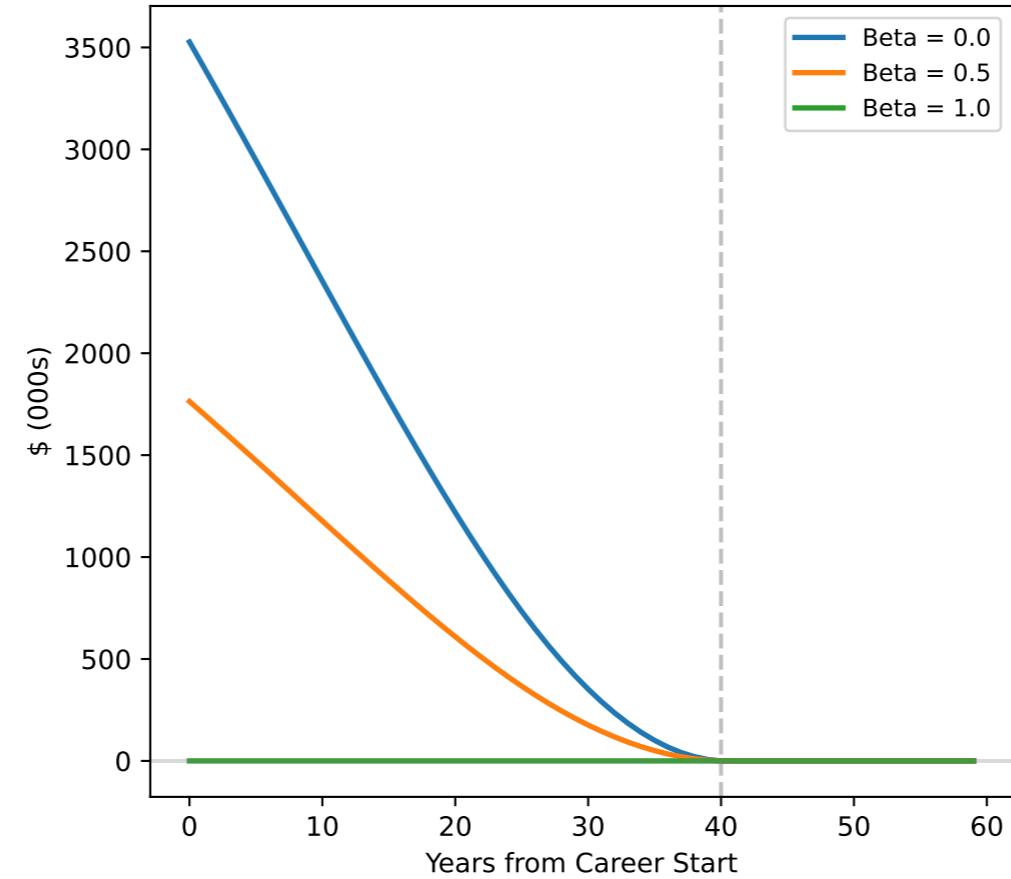
Cash Weight by Beta



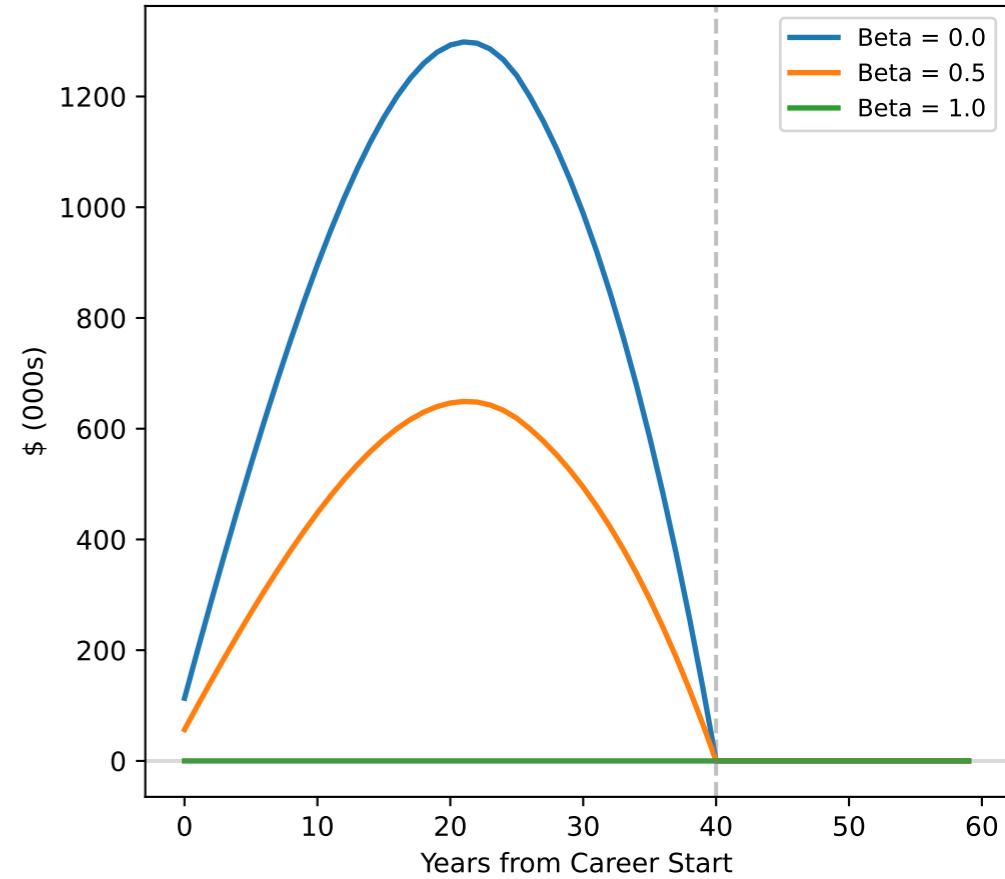
Stock Component of Human Capital



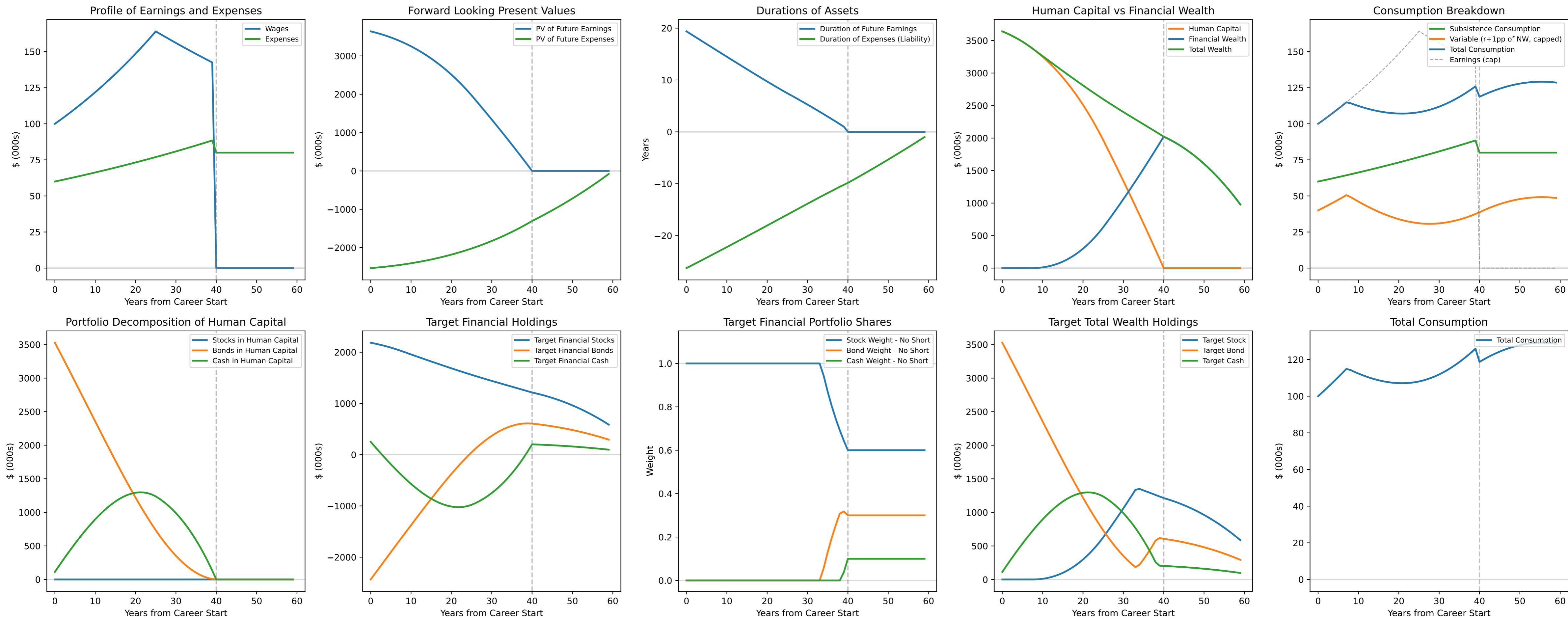
Bond Component of Human Capital



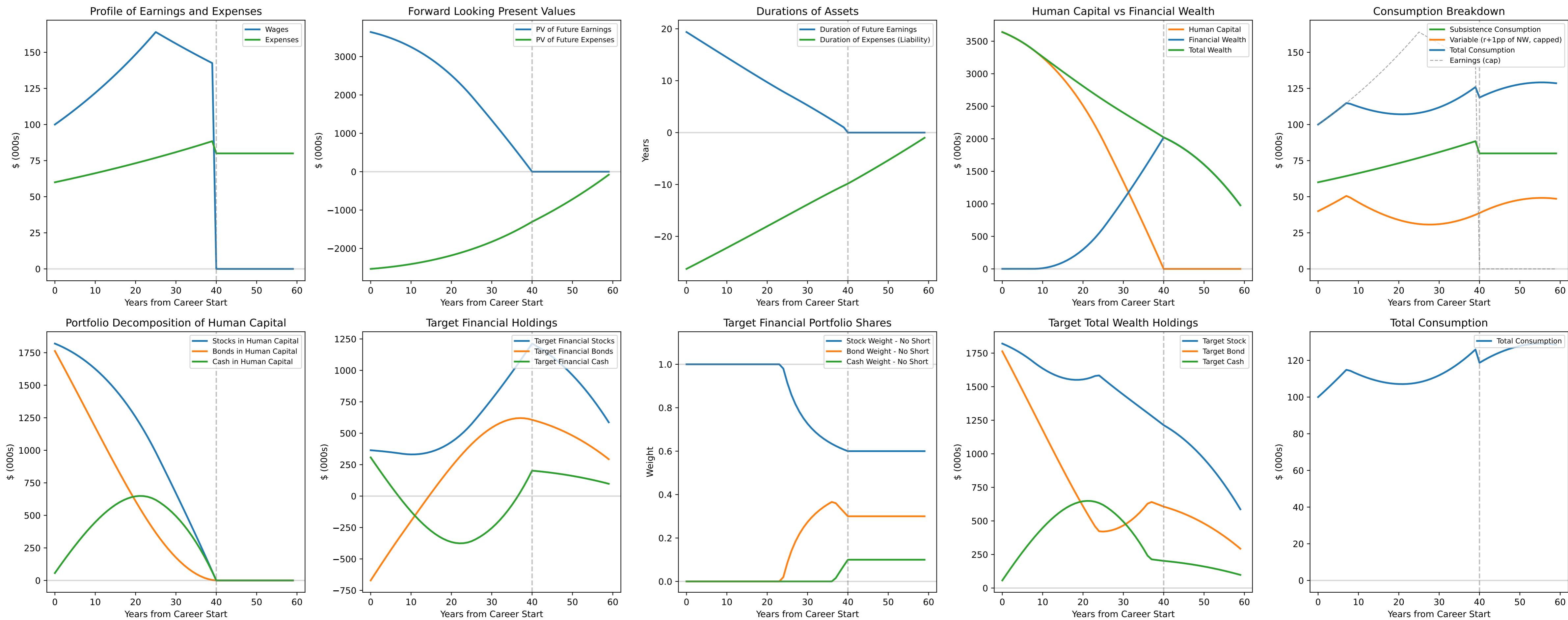
Cash Component of Human Capital



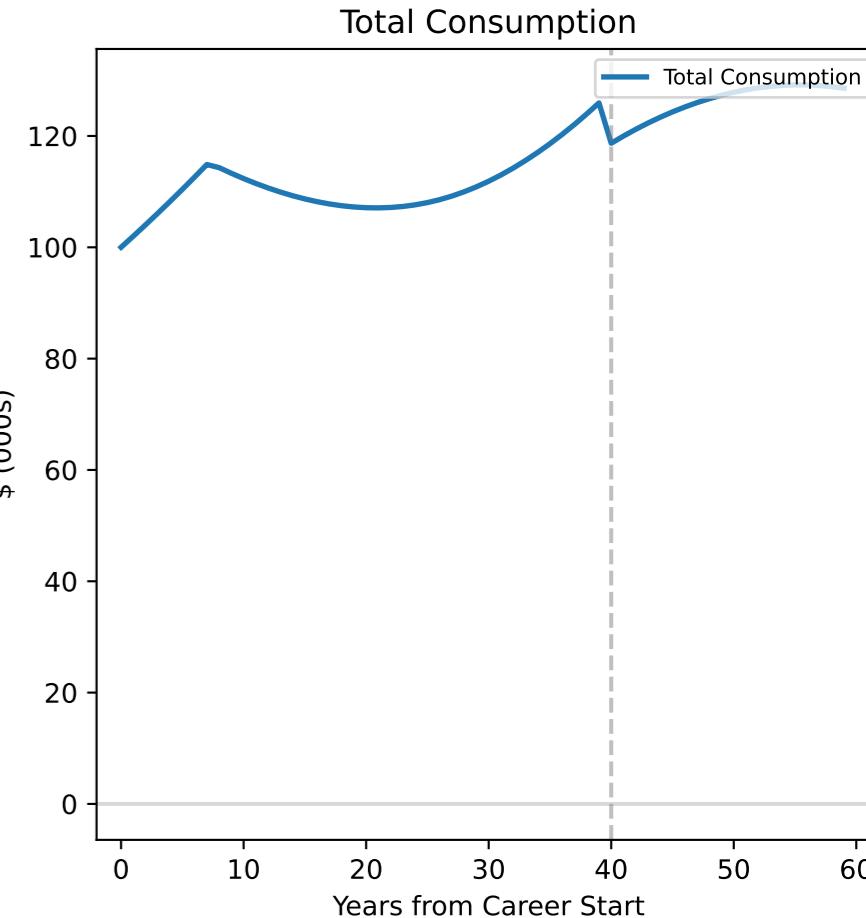
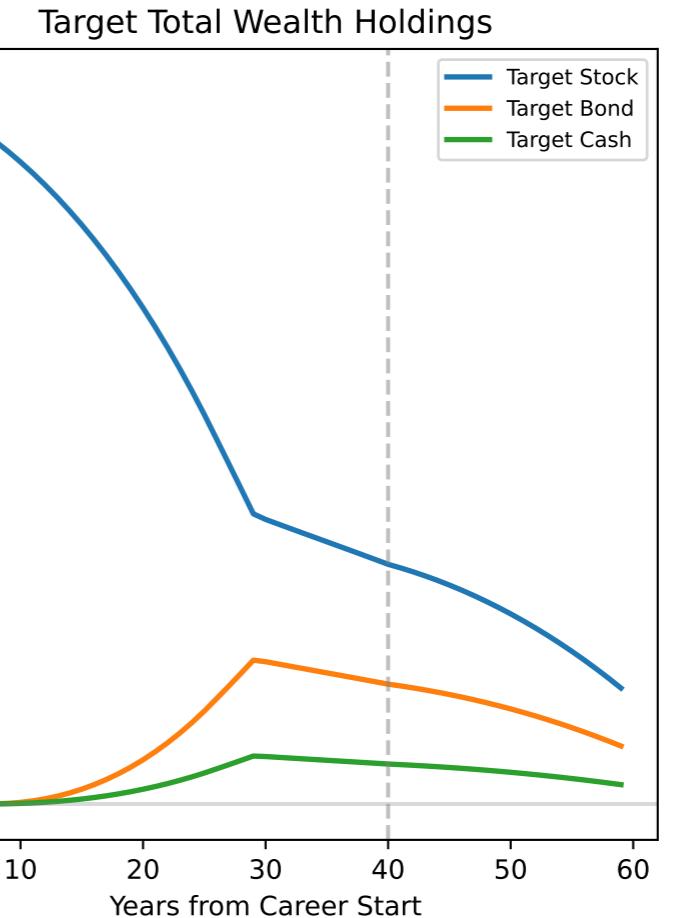
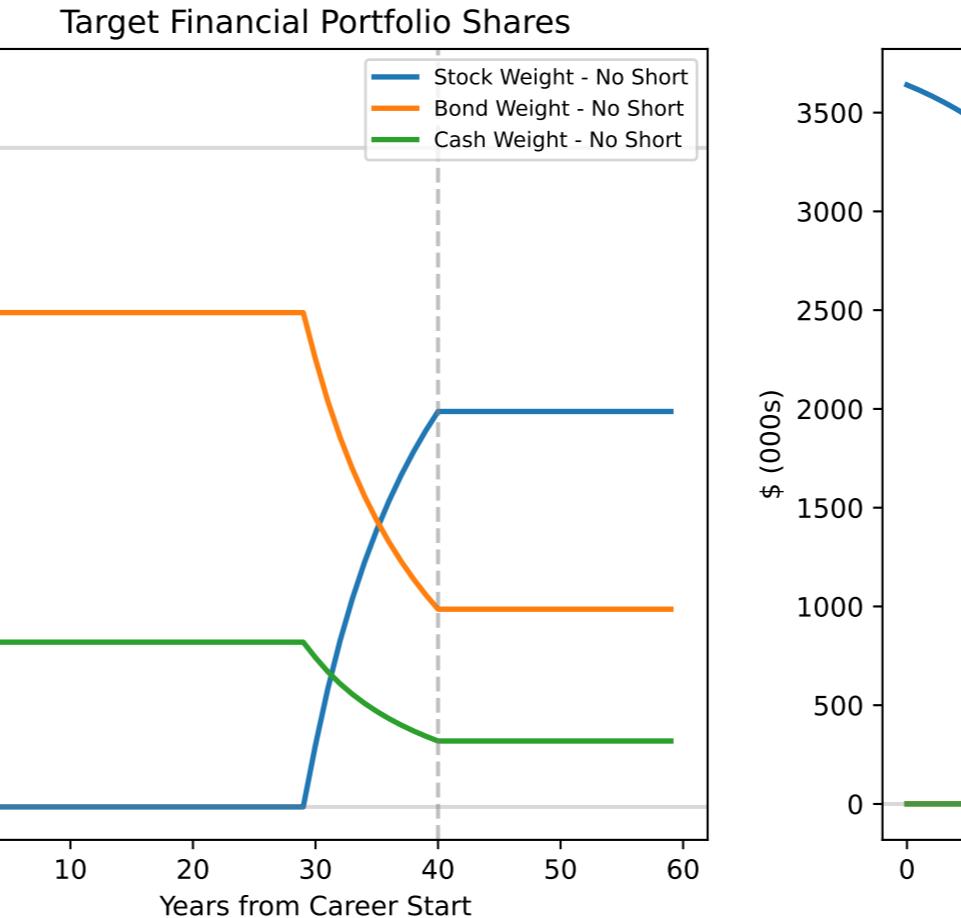
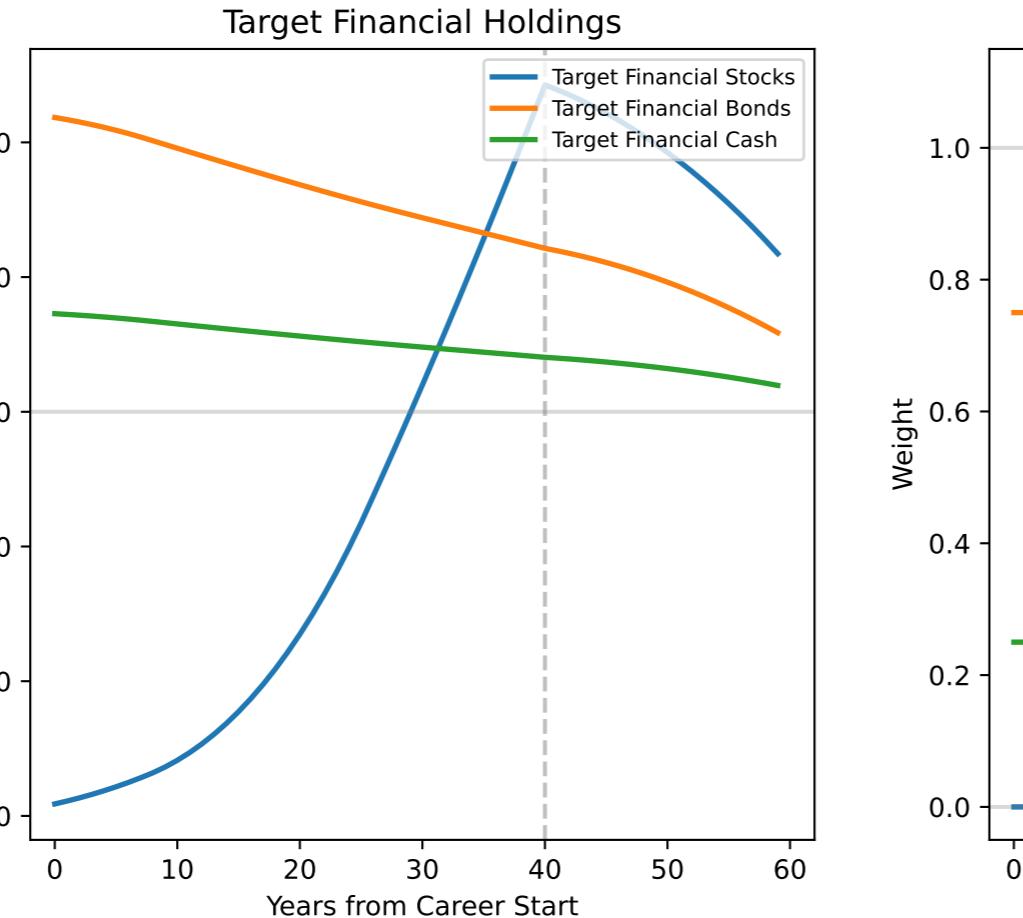
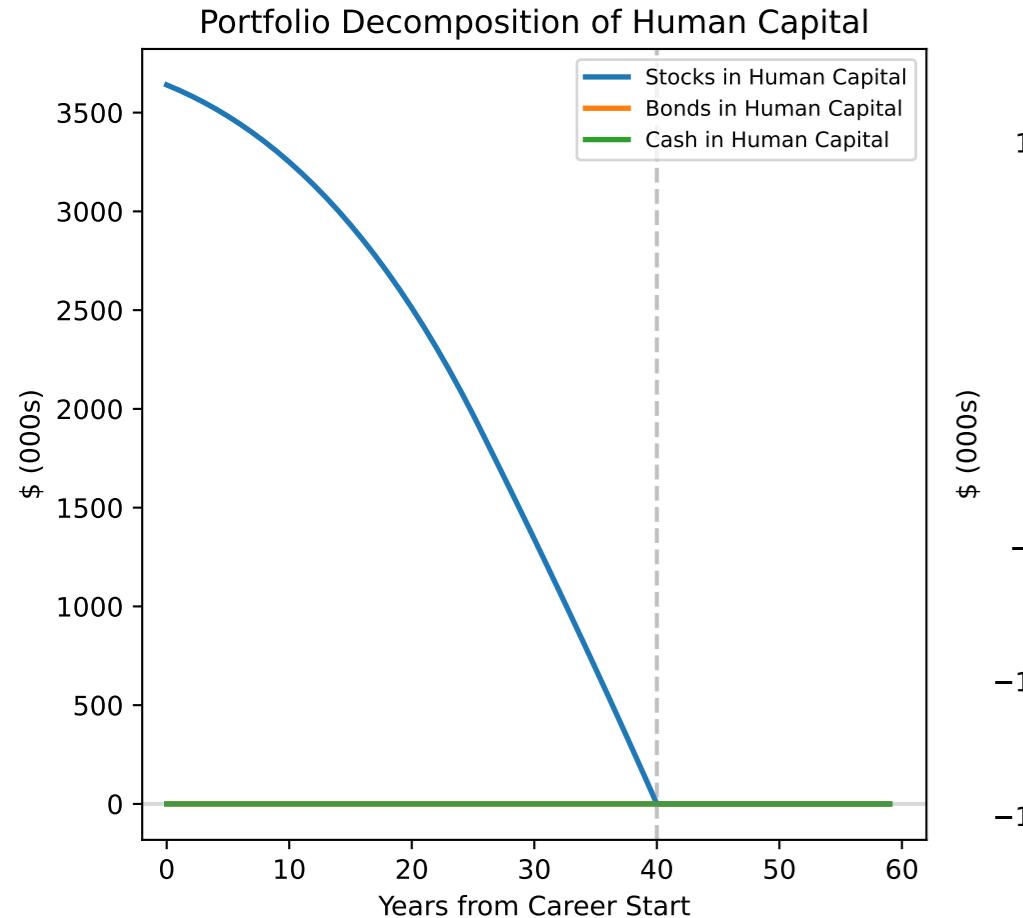
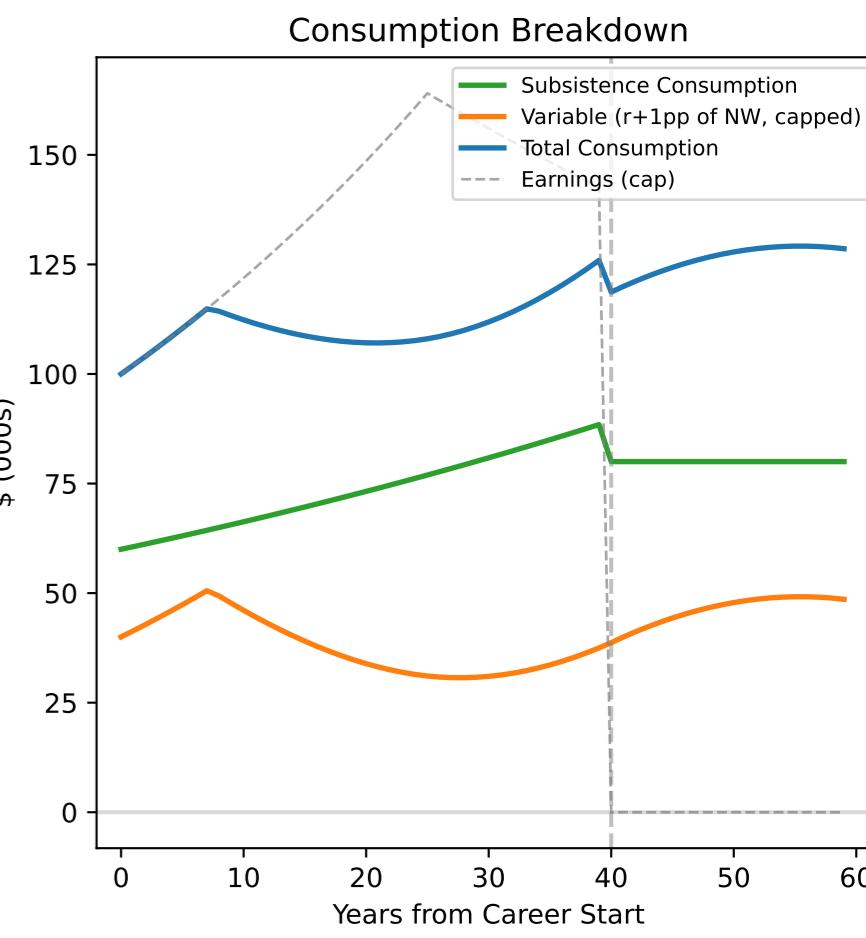
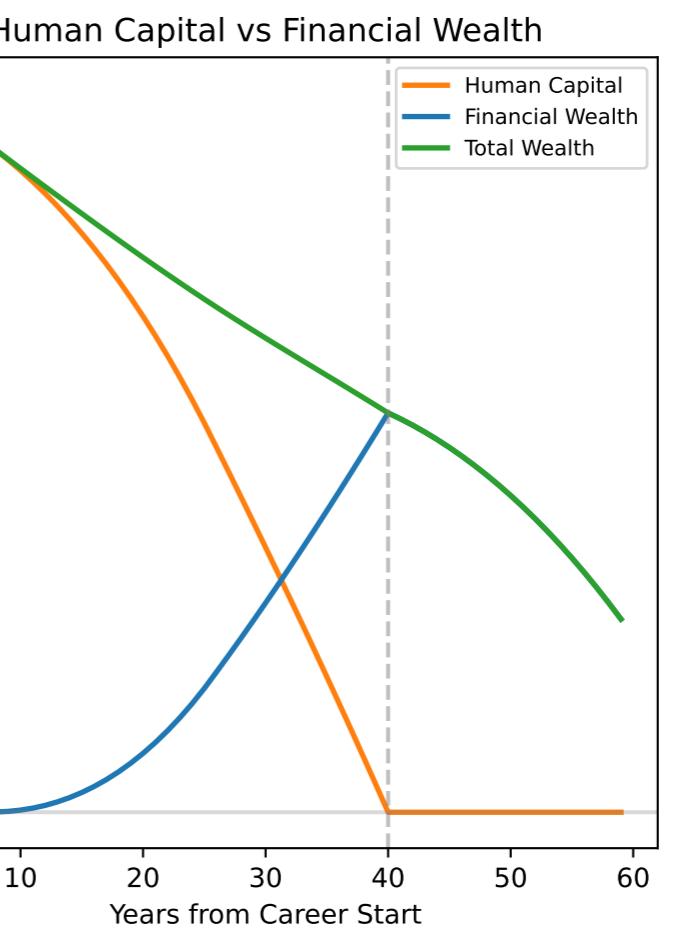
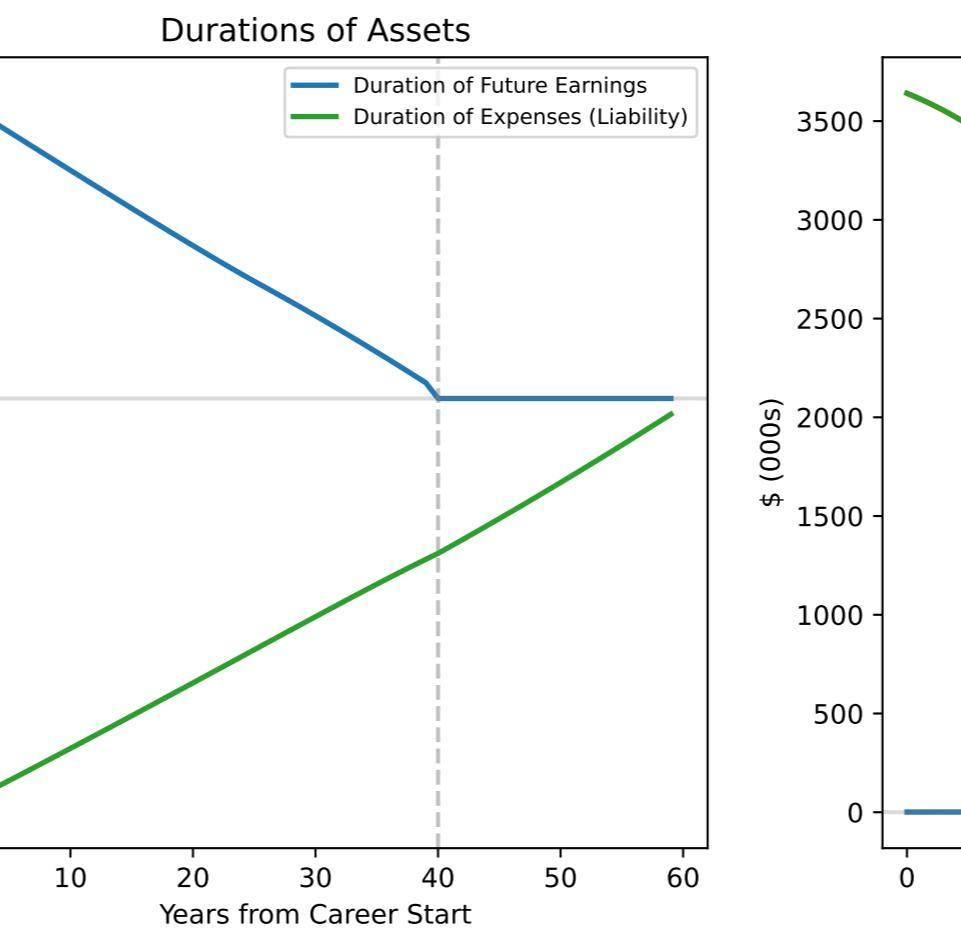
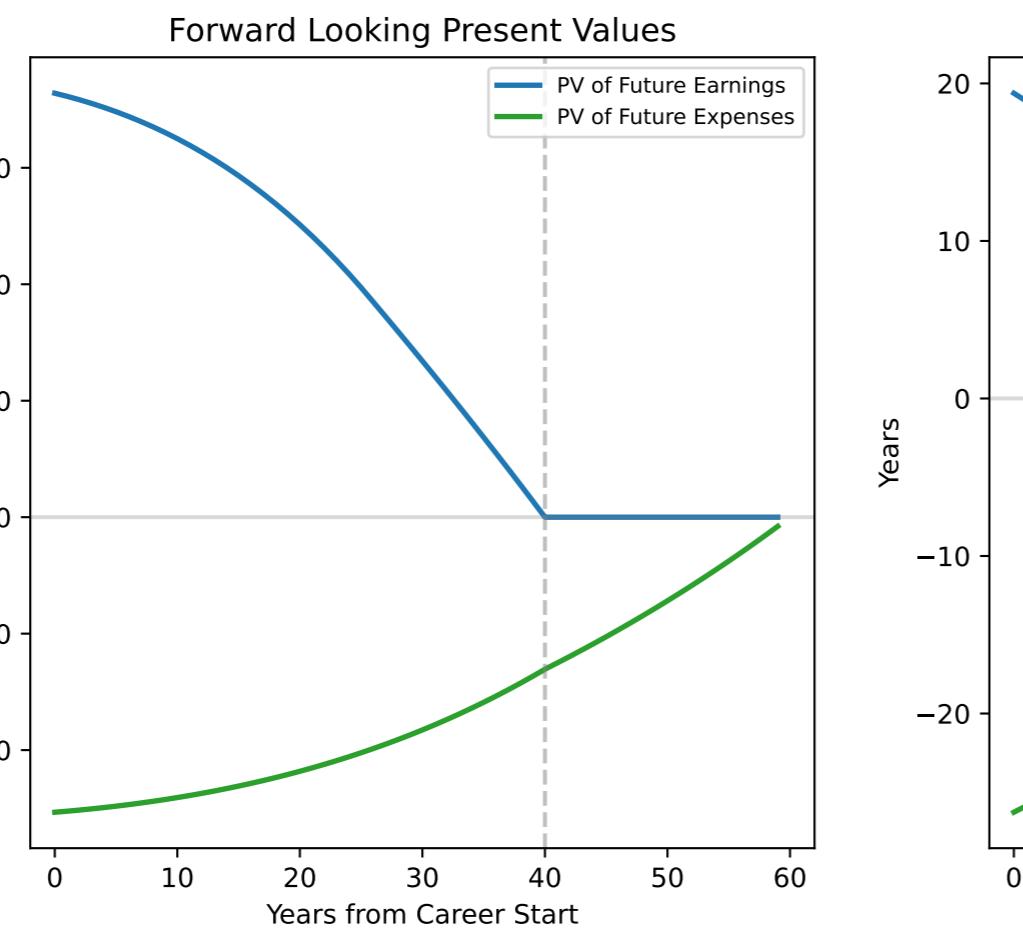
Lifecycle Investment Strategy - Beta = 0.0



Lifecycle Investment Strategy - Beta = 0.5



Lifecycle Investment Strategy - Beta = 1.0



Lifecycle Investment Strategy Parameters

Age Parameters:

- Career Start: 25
- Retirement Age: 65
- Planning Horizon: 85

Income Parameters:

- Initial Earnings: \$100k
- Earnings Growth: 2.0%
- Peak Earnings Age: 50

Subsistence Expense Parameters:

- Base Expenses: \$60k
- Retirement Expenses: \$80k

Consumption Model:

- Total Consumption = Subsistence + Rate x Net Worth
- Net Worth = Human Capital + Financial Wealth - PV(Future Expenses)
- Consumption Rate = Median Return + 1pp

Human Capital Allocation:

- Stock Beta: 0.10
- Bond Duration Benchmark: 20.0 years

Target Total Wealth Allocation:

- Stocks: 60%
- Bonds: 30%
- Cash: 10%

Economic Parameters:

- Risk-Free Rate: 2.0%
- Equity Risk Premium: 4.0%
- Rate Persistence (phi): 1.00

Key Insights:

1. Consumption = Subsistence + (Median Return + 1pp) of Net Worth.
2. Net Worth accounts for human capital and future expense liabilities, not just financial wealth.
3. As net worth grows, variable consumption increases, allowing higher spending while preserving subsistence.
4. The "Consumption / FW" chart shows what share of financial wealth is spent each year.