

# SOCIAL SECURITY FORECASTING

AN ACTUARIAL STUDY OF THE OASDI TRUST  
FUND BALANCE PROJECTIONS &  
PROPOSALS FOR DELAYING FUND EXHAUSTION

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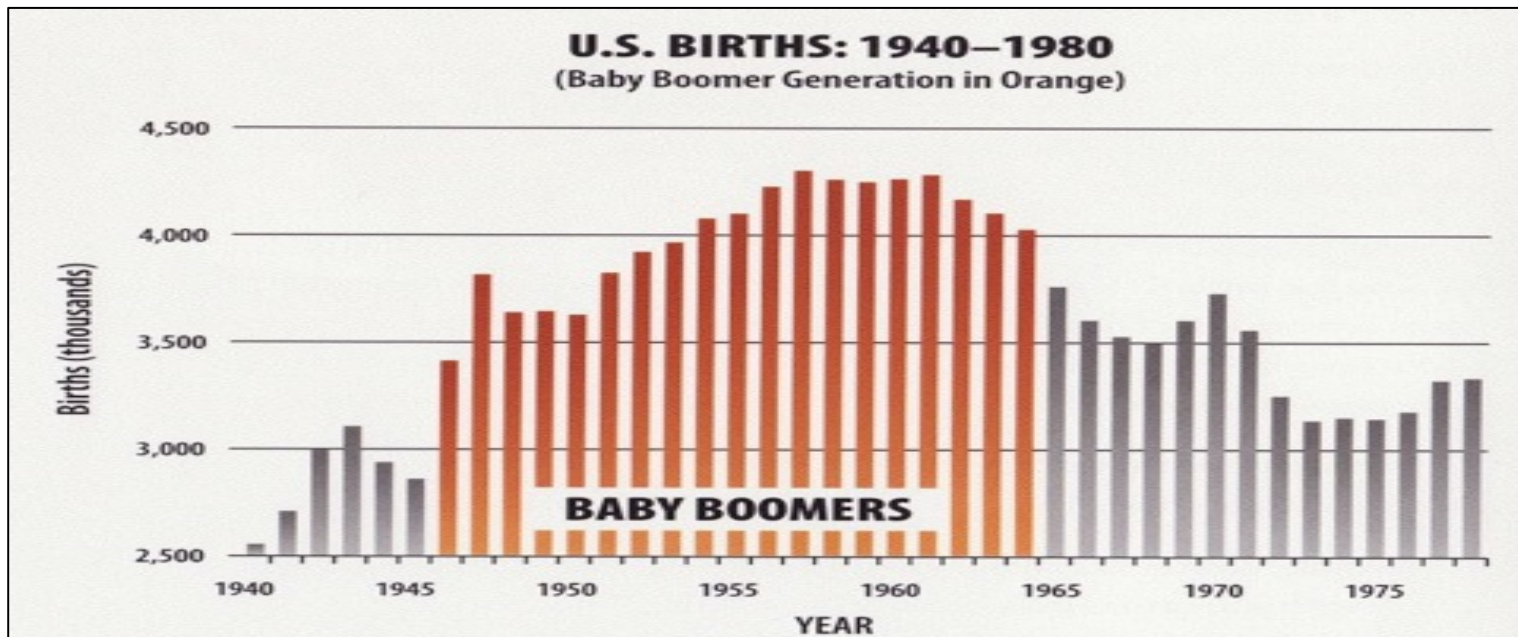
# The Social Security Administration

- Created 1935 to provide welfare to aged U.S. citizens
- Funded by a taxable portion of workers' earnings
- Many modifications since program induction
  - Adjustments for changing economy
- Funded using OASDI (The Old-Age, Survivors, And Disability Insurance) Social Security Trust Fund



# Challenges to Social Security Solvency

- Baby-boomer generation (born 1946-1964) retiring
- Low-birth-rate generations in employment
- Covered workers per beneficiary on decline
- Low levels of productivity in the U.S. economy



# Concerns for workers and retirees

- Currently, no plan in legislation in case of bankruptcy
- Concerns for retirees and near-retirees:
  - May receive only a percentage of promised benefit
  - Retirement age may be raised
- Concerns for current workers:
  - Must support current beneficiaries despite uncertainty in the system's long-term solvency
  - May see increase in retirement age and contribution rates
  - Likely to receive only a percentage of promised benefit

# Project Objectives

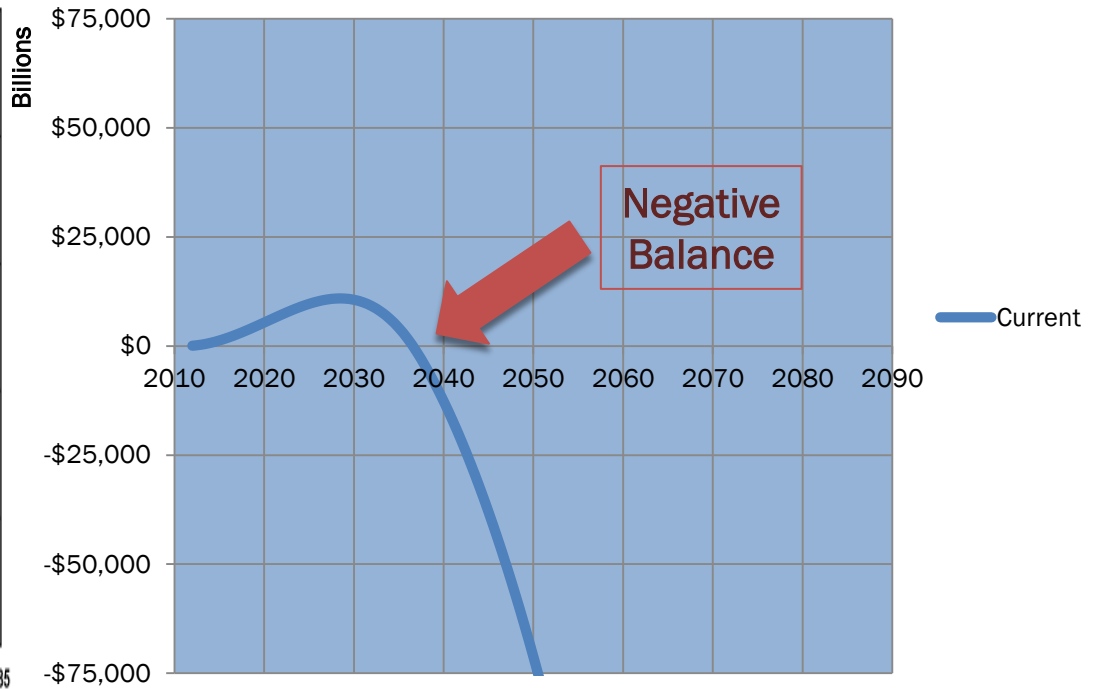
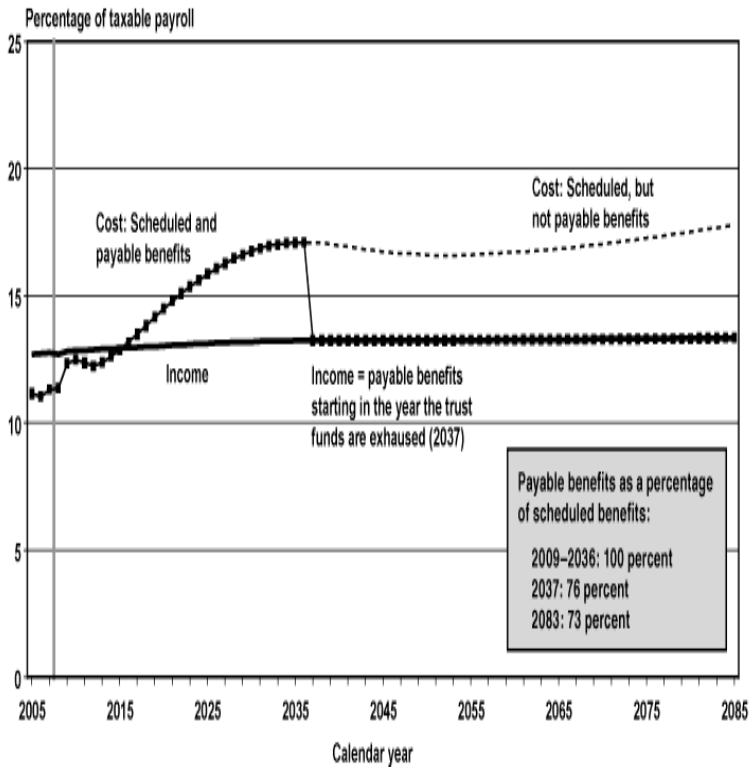
- Deterministic model of the Social Security trust fund:
  - U.S. Population
  - Employment
  - Retirement
  - Contributions
  - Benefit Calculation
- Test sensitivity of fund balance to variable assumptions



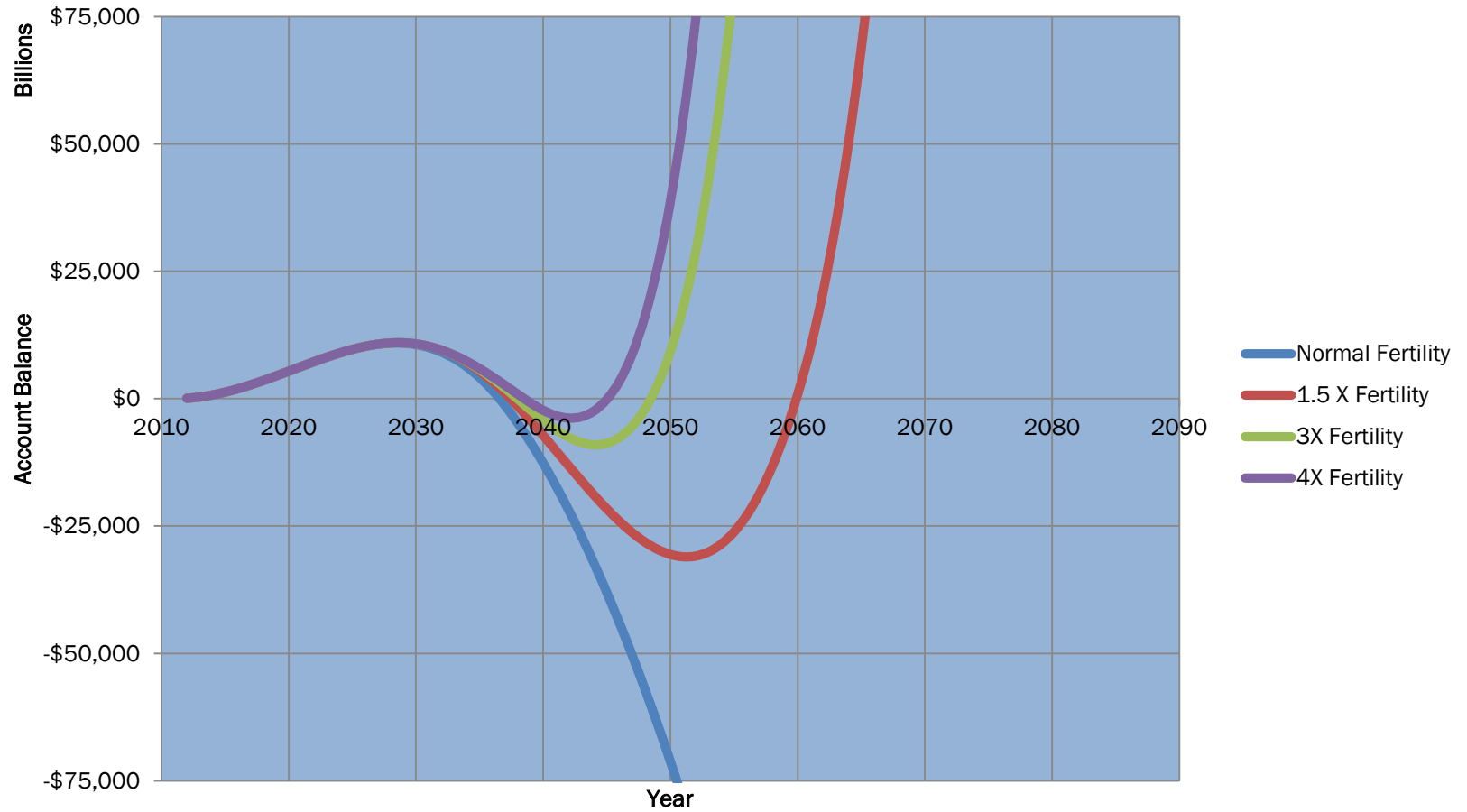
# Social Security Trustee Report

- SSA conducts annual actuarial study of trust fund using stochastic modeling
- 2012 Report projections:
  - Short-term (2012-2021) financial adequacy
  - Trust fund ratio peaks in 2012
  - OASDI exhausted by 2037

# SSA Projection vs. Project

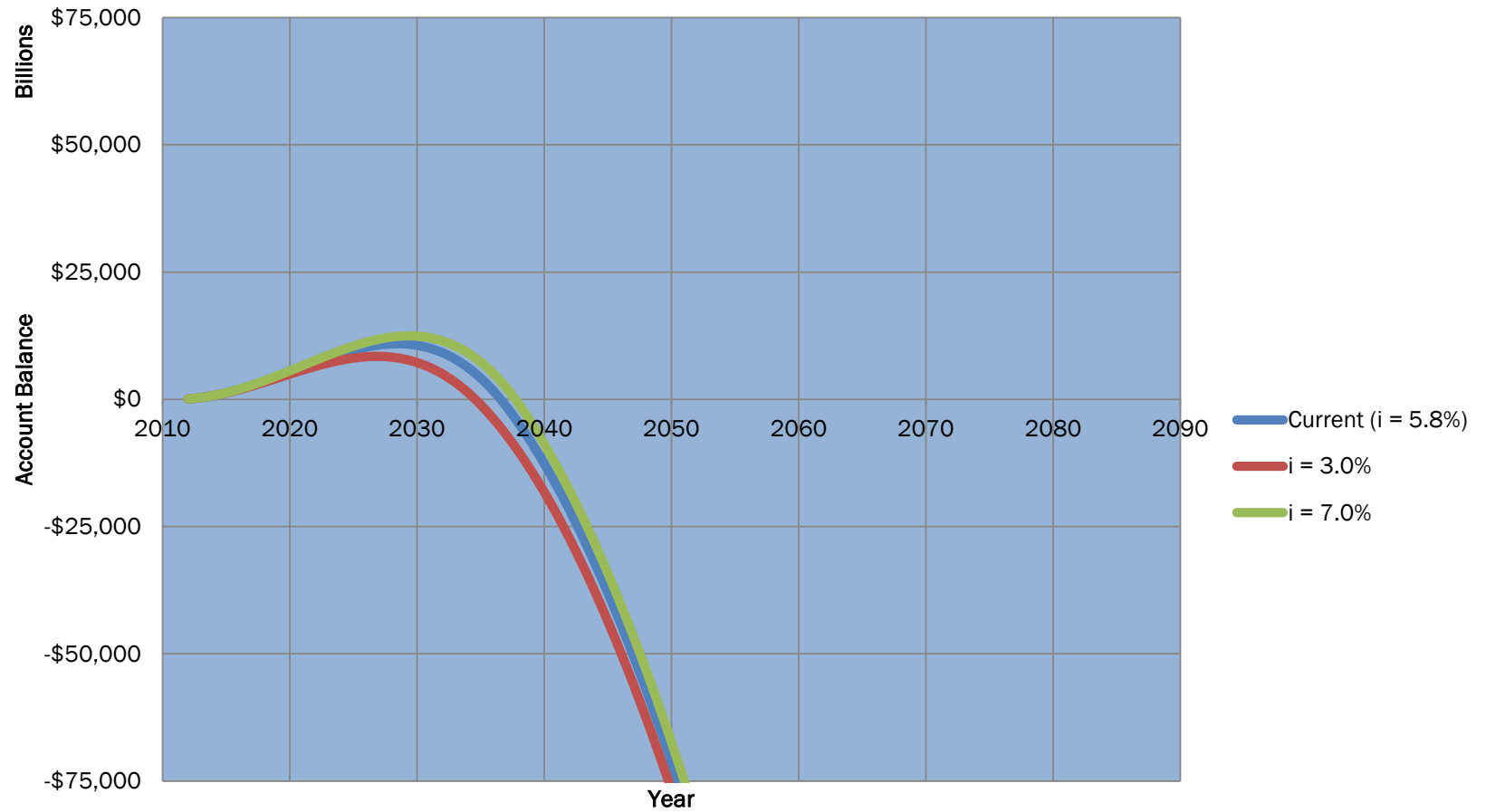


# Fertility

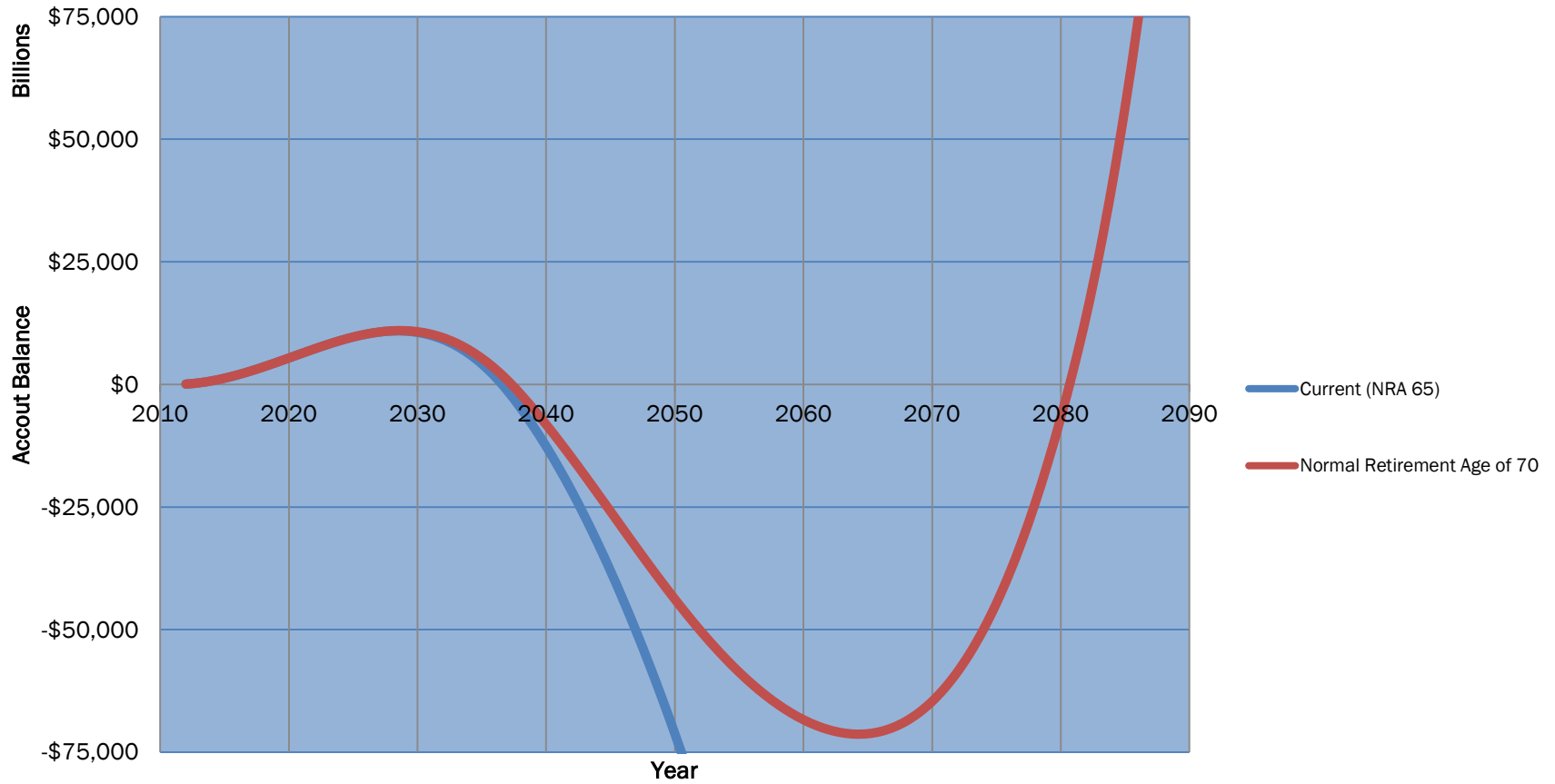




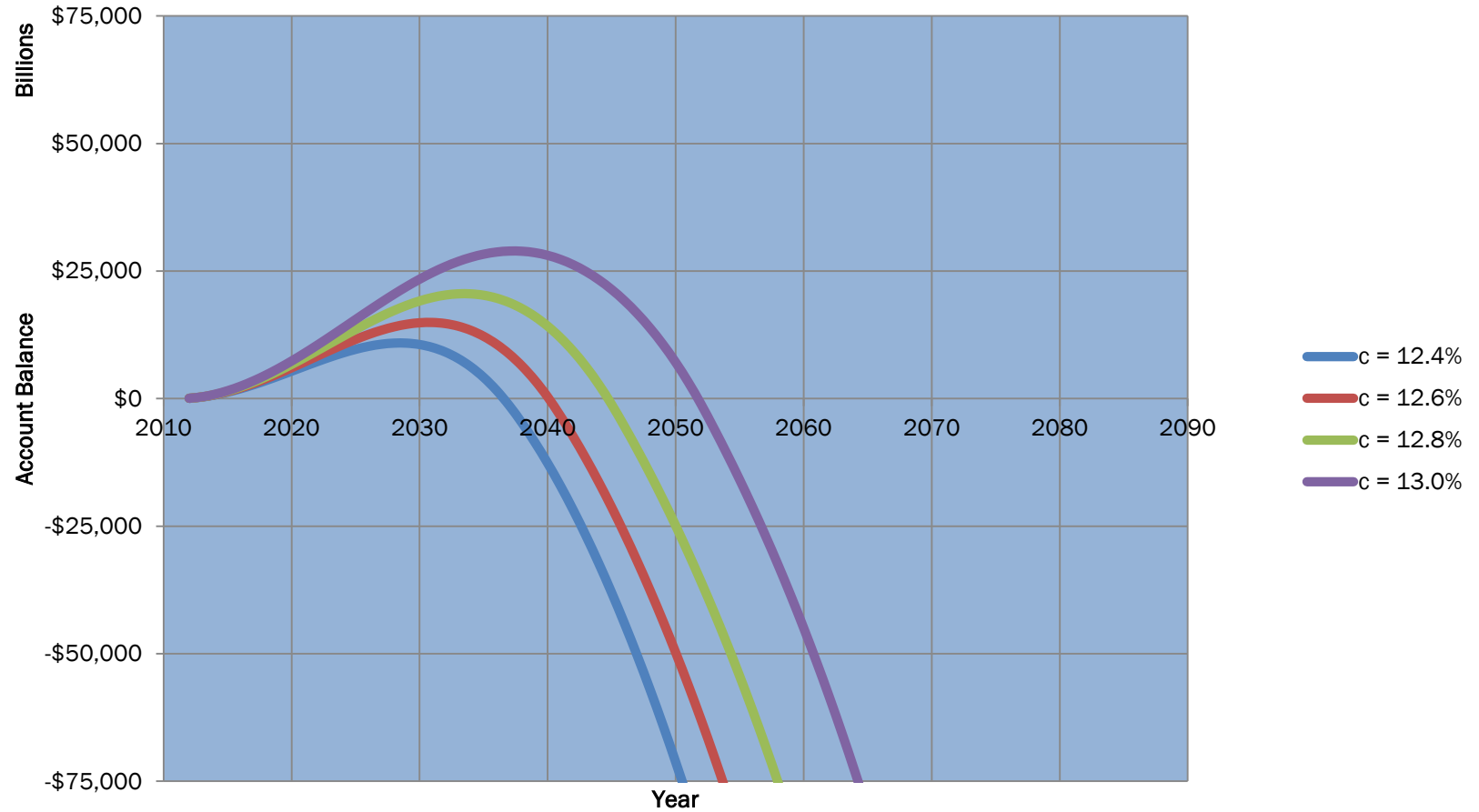
# Interest Rates



# Retirement Age



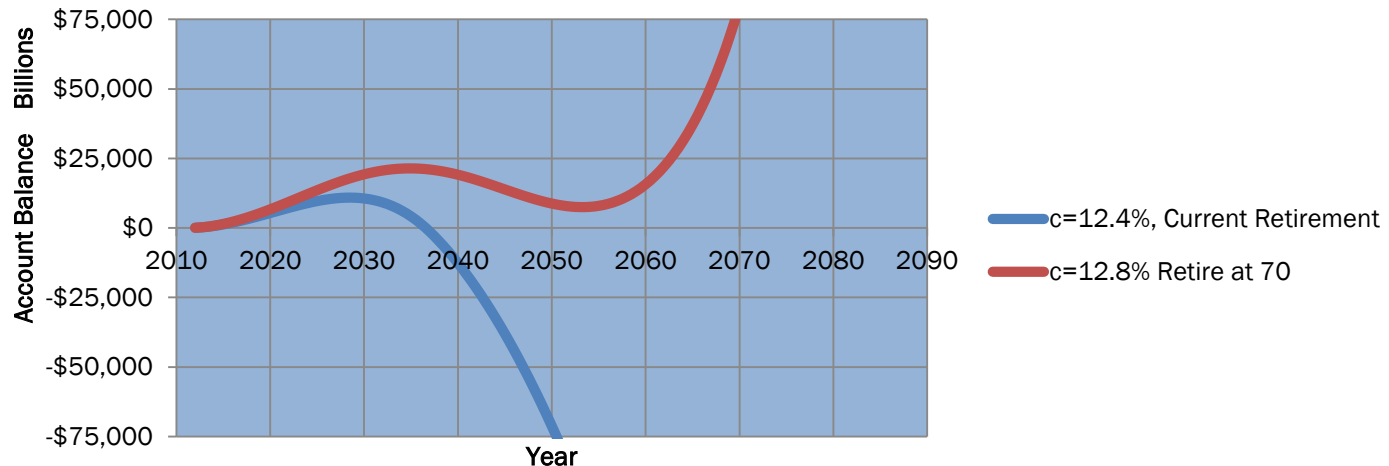
# Contribution Rates



# Findings

- Non-interest portion of OASDI exhausted by 2029
- Including interest, OASDI fund exhausted by 2037
- Increase in population fertility rate has minimal impact on short-term account balance
- Incrementally raising Normal Retirement Age to 70 does not delay exhaustion date
- Immediate increase in contribution rate delays but does not prevent exhaustion
- Short-term solvency is insensitive to variance in interest rates

# Proposed Solution



- Incrementally raising Normal Retirement Age to 70 for workers born in 1978
- Increasing employee and employer payroll tax contribution rates to 6.4%
- Both changes are unpopular with aging voters

# Questions?

