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November 26, 2018
A Recent History of U.S. Demographics

• Post-WWII: 1946-1964: Baby Boom → Larger cohort size
  • Fertility rate jumps from 2.3% in 1930s to 3.6% in 1960s
• Advances in medicine and public health → Increased life expectancy
  • 1940s: Average man lives to <65 years old
  • 2016: Average person can live to ~78 years old
• Advances in contraceptives → Further control over fertility rate
• 1960s: Increase in female workforce participation (levels off)

Retirement age has remained relatively constant
Demographic Change: Shifting Age Distribution

Adjusted Dependency Ratio: 1950-2050

Source: “Demographics and Capital Market Returns” by Robert D. Arnott and Anne Casscells
Consequences on Markets

• Labor and productivity (not our focus)

• Consumption and savings life-cycle: Different age profiles are distinct in their economic behaviors
  • Demand in different industries
    • i.e.: Housing, medical services, education
  • Saving: People prefer consumption smoothing
    • Capital market
Housing Market: Key Features

- Constitutes a large part of household wealth
- Houses are only available for sale in national market
- A limited basic need: All households require some form of residence, but the average household doesn’t need multiple
- Non-uniform demand across age groups
Housing Market: Possible Predictions

• 2 extremes:
  • Forward-looking households and price elasticity
    • Anticipating the aging population (weaker future demand for housing), current prices decline
    • Lower prices →
      • Price-elastic households invest in more housing now
      • Price-elastic suppliers (builders) reduce their construction
    • Effect: Gradual and relatively smaller-magnitude price changes
  • Myopic households and price inelasticity
    • Effect: Relatively larger price changes and house price volatility
      • Households require larger discounts for consumption

• Conflicting literature and predictions on housing market
Life Cycle Theory of Savings

Capital Market: Key Features

• Retirees liquidate assets to pad retirement income and buy others
• More retirees than ever selling assets to proportionately smaller population of potential buyers
• Retirees expect to live longer → Must support themselves for longer
• Life cycle risk aversion hypothesis: Risk aversion increases with age
  • Non-uniform asset selling pressure:
    • Favor fixed-income assets (i.e.: TIPS)
    • Rely less on growth (higher-risk/reward) assets
Capital Market (cont.)

• Supply and demand shifts raise risk premiums

Solutions and Possible Policies

• Demographics problem must be solved w/ “real” solution, not financial:

• Potential Solutions:
  • Improved productivity via technology
    • Case Study: Japan
  • Increasing/eliminating mandatory retirement age
    • Rises in acceptable retirement age acceptable as supply/demand drive retirement costs up
  • Increasing 3rd World Trade
Solutions and Possible Policies (cont.)

• Catering to elderly’s demands
  • Expanding markets towards older age groups’ favored goods/services

• Increased working-age immigration/retiree emigration
  • Unfeasible due to:
    • Massive scale of immigration/emigration required
    • Political barriers
Questions?
Works Cited


