Comments on " Optimal life-cycle portfolios for heterogenous workers" by F.C. Bagliano, C. Fugazza, and G. Nicodano

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What the paper does

it provides a life-cycle portfolio choice model

which features contemporaneous correlation between stock returns and permanent income shocks

and delivers a U-shape (or an increasing) age profile of the equity shares

I like the paper

- The topic is relevant. We do not have a clear understanding of household life-cycle profiles of portfolio shares (and stock ownership)

- The exercise is well executed: the approach is very useful, we need "structural" models.

The model in a nutshell

- Human wealth is risky and can provide a hedge against stock (and bond) market risk, depending on the correlation between stock (bond) market returns and income shocks.

- After retirement, human wealth drops, but becomes certain. Uncertainty on human capital resolves over time. Individuals value the resolution of uncertainty depending on their risk aversion.

For the chosen parametrization

- The age-profile is either U-shaped (zero correlation between income and stock market risk, see Figure 4)

- or increasing (positive correlation between income and stock market risk and relatively high relative risk aversion, see Figure 6)

Figure 4: $\rho_{sY} = 0$ and $\gamma = 5$

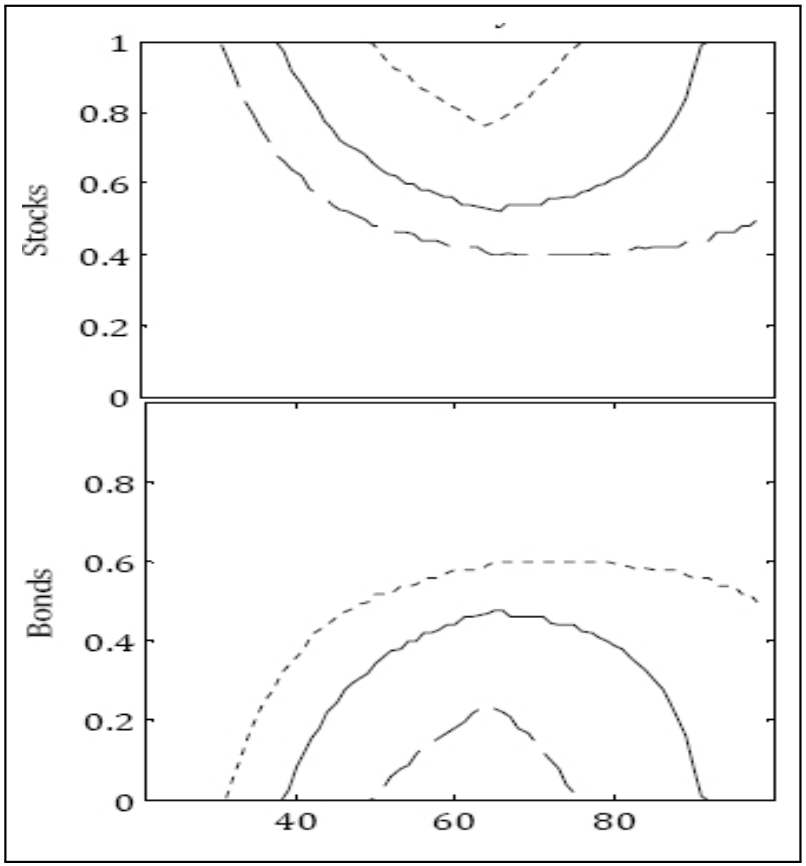
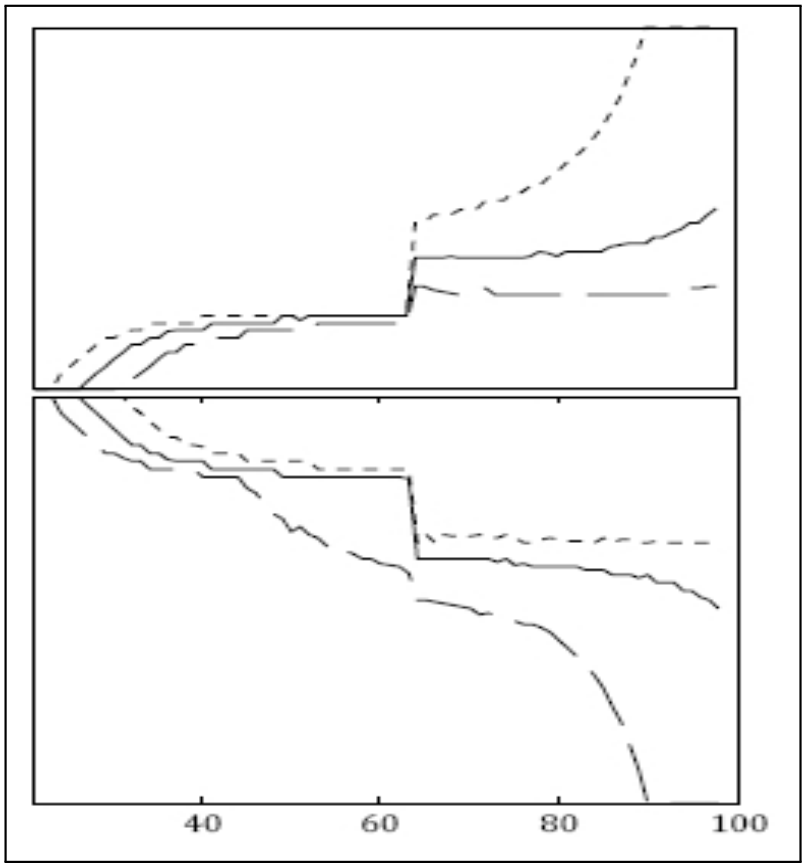


Figure 6: $\rho_{sY} = 0.2$ and $\gamma = 8$



$$\sigma_{\varepsilon}^2 = 0.0106,\ \sigma_{n}^2 = 0.0738,\ \lambda = 0.68,\ \rho_{sb} = 0.2.$$

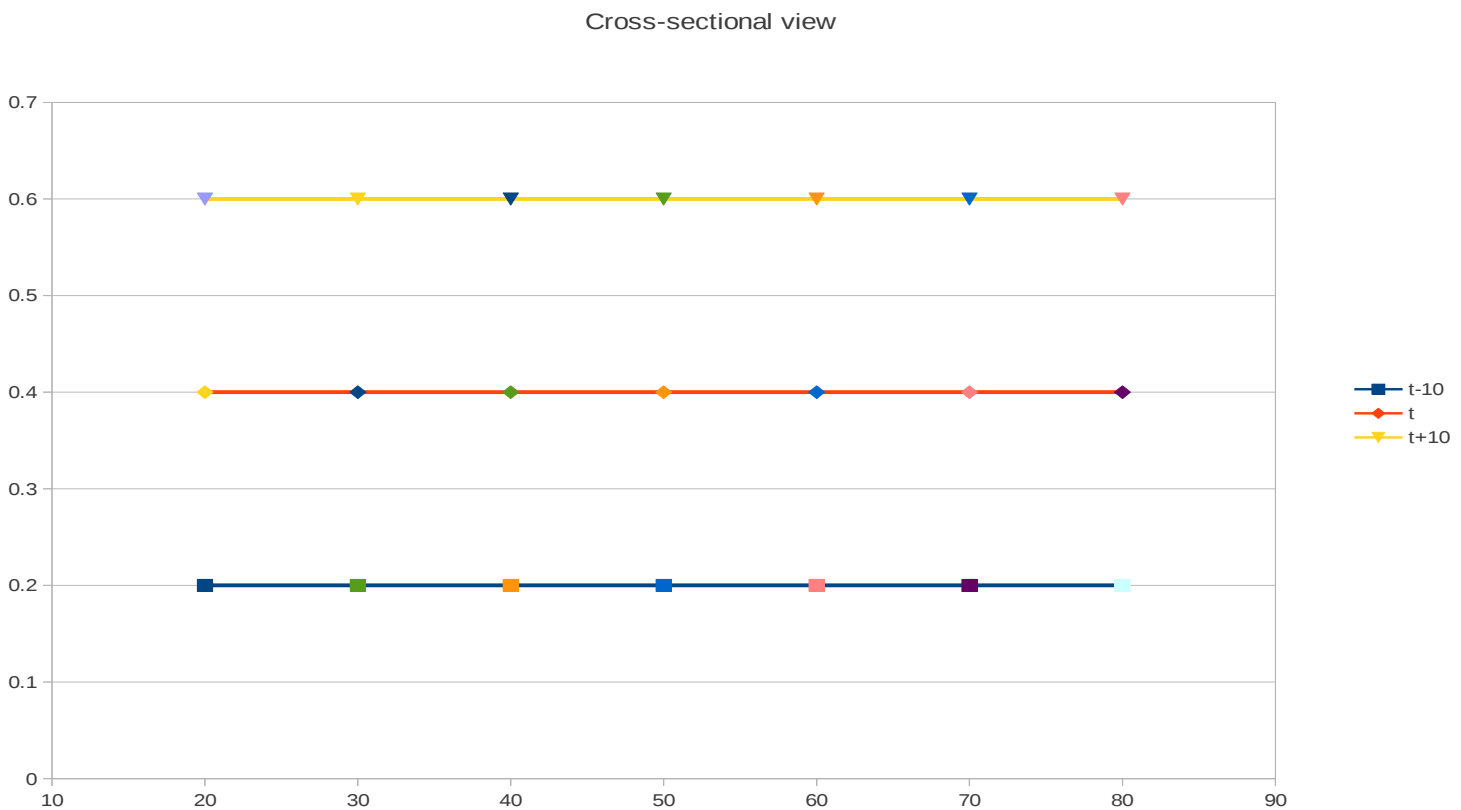
Age, time and cohort effects

$$a_{it} \equiv t - b_i$$

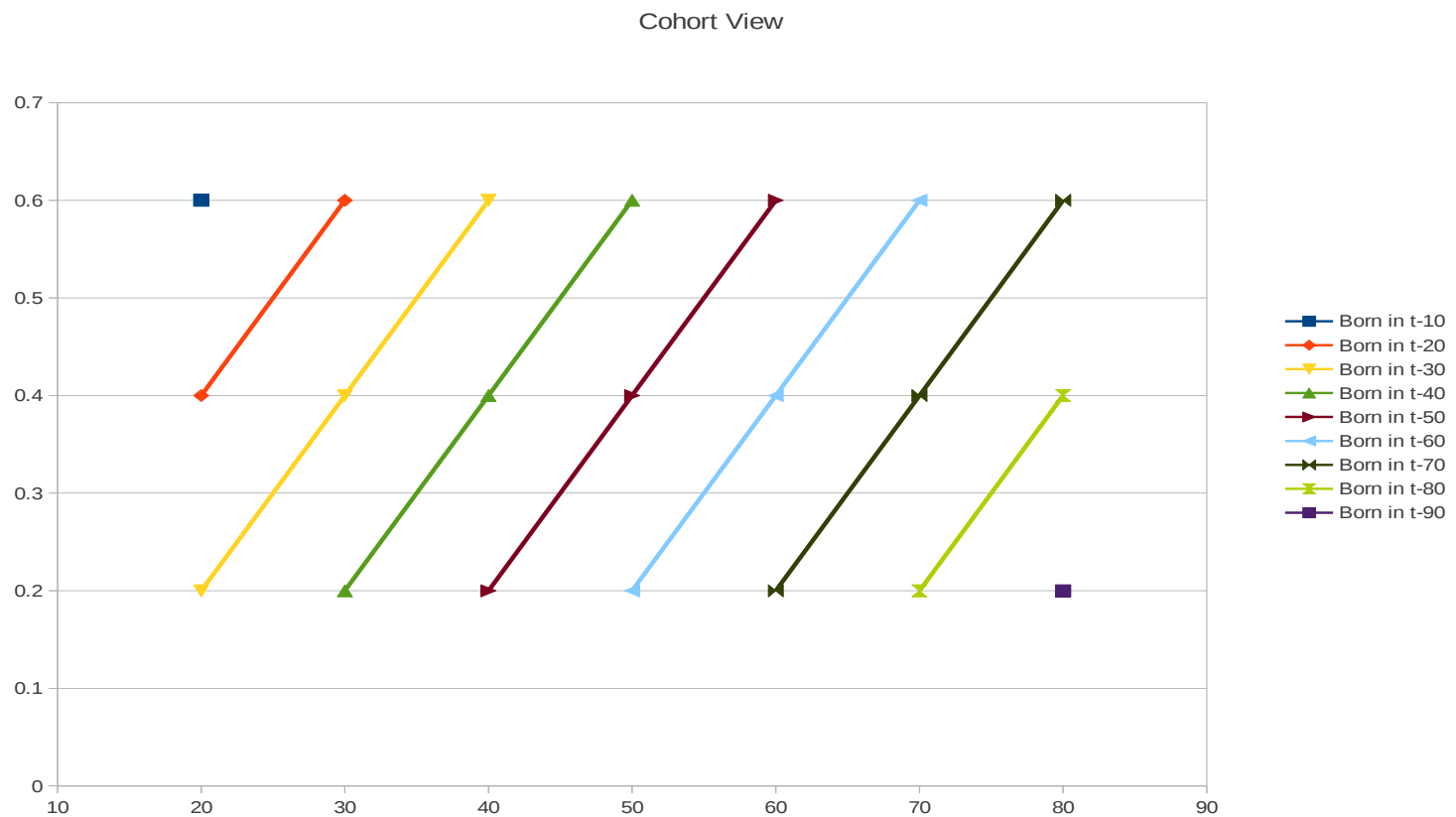
any function of age, time and cohorts can written as:

$$f(a_{it}, t, b_i) \equiv \begin{cases} g(a_{it}, b_i) & \text{or} \\ h(a_{it}, t) & \text{or} \\ j(t, b_i) & \end{cases}$$

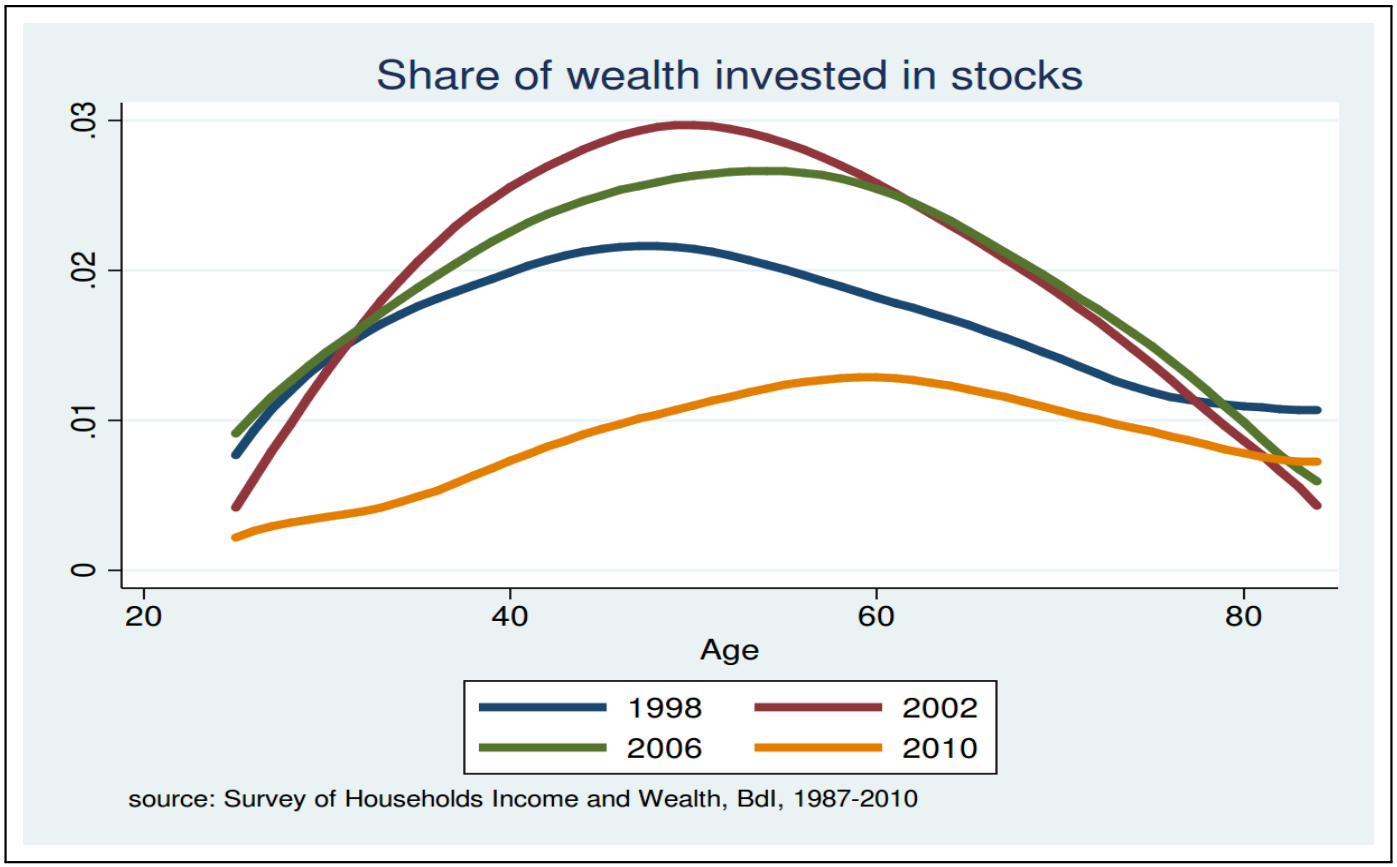
A simple example, Cross-section view



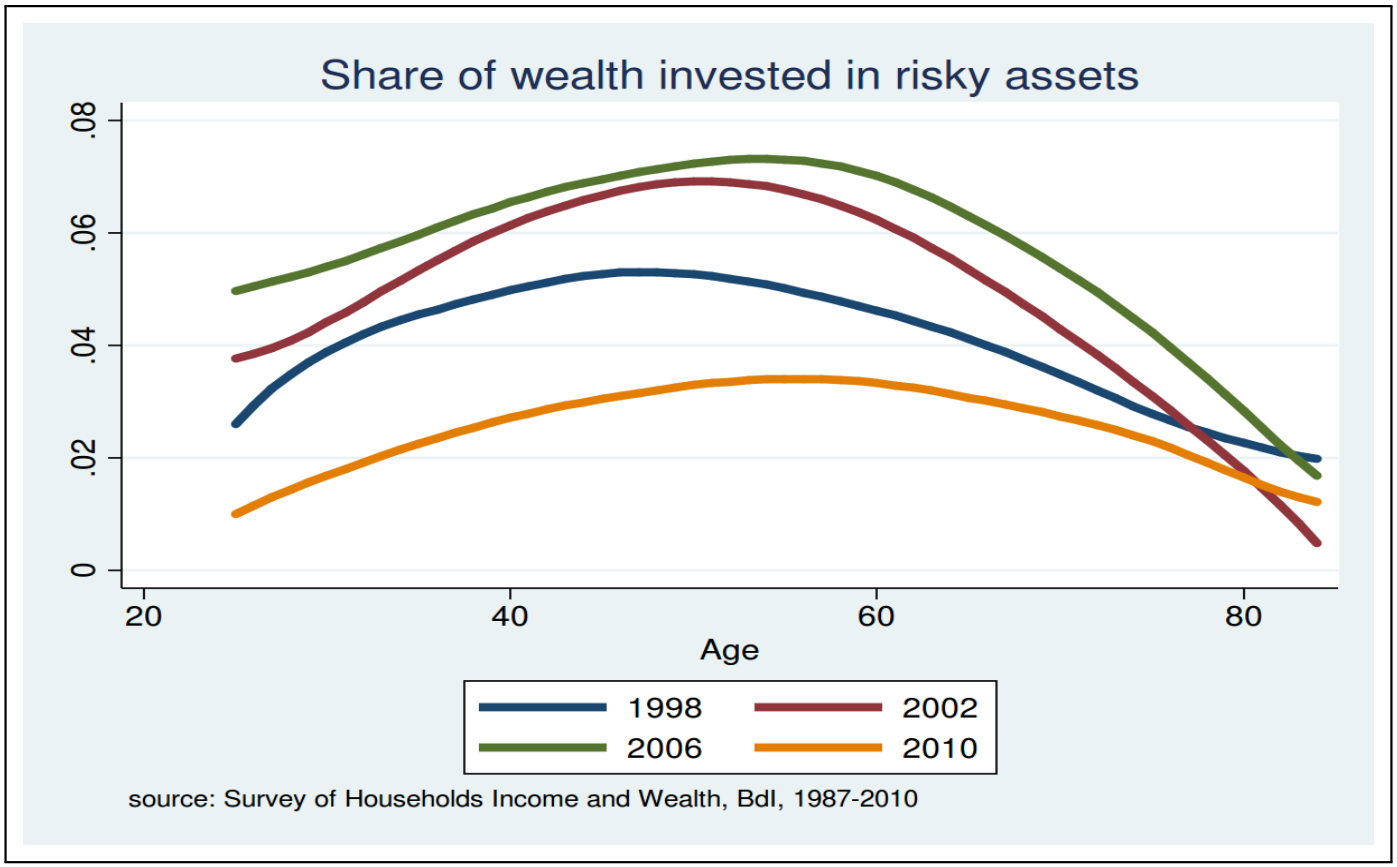
A simple example, Cohort view



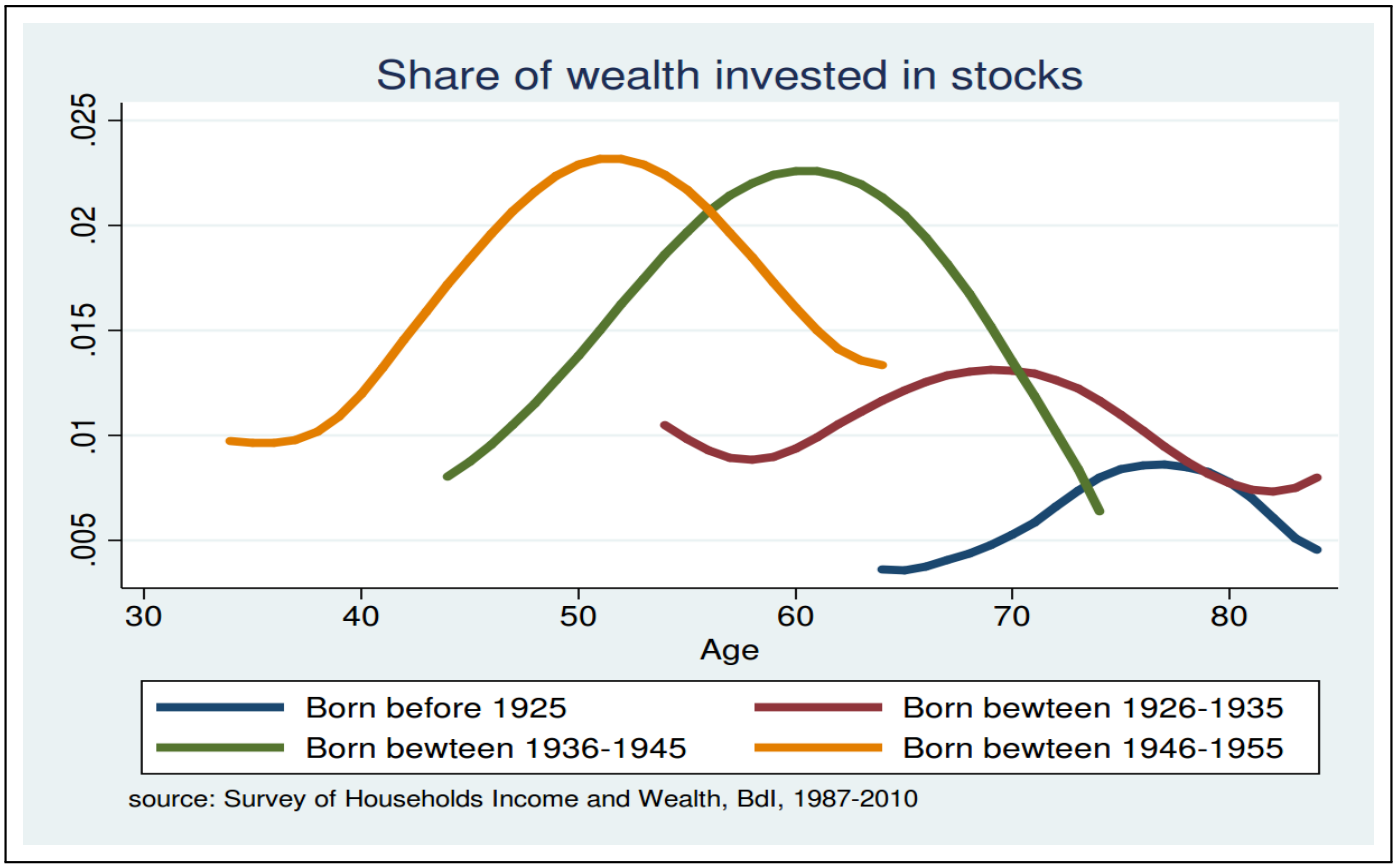
Cross-sectional view, Italy, Stocks



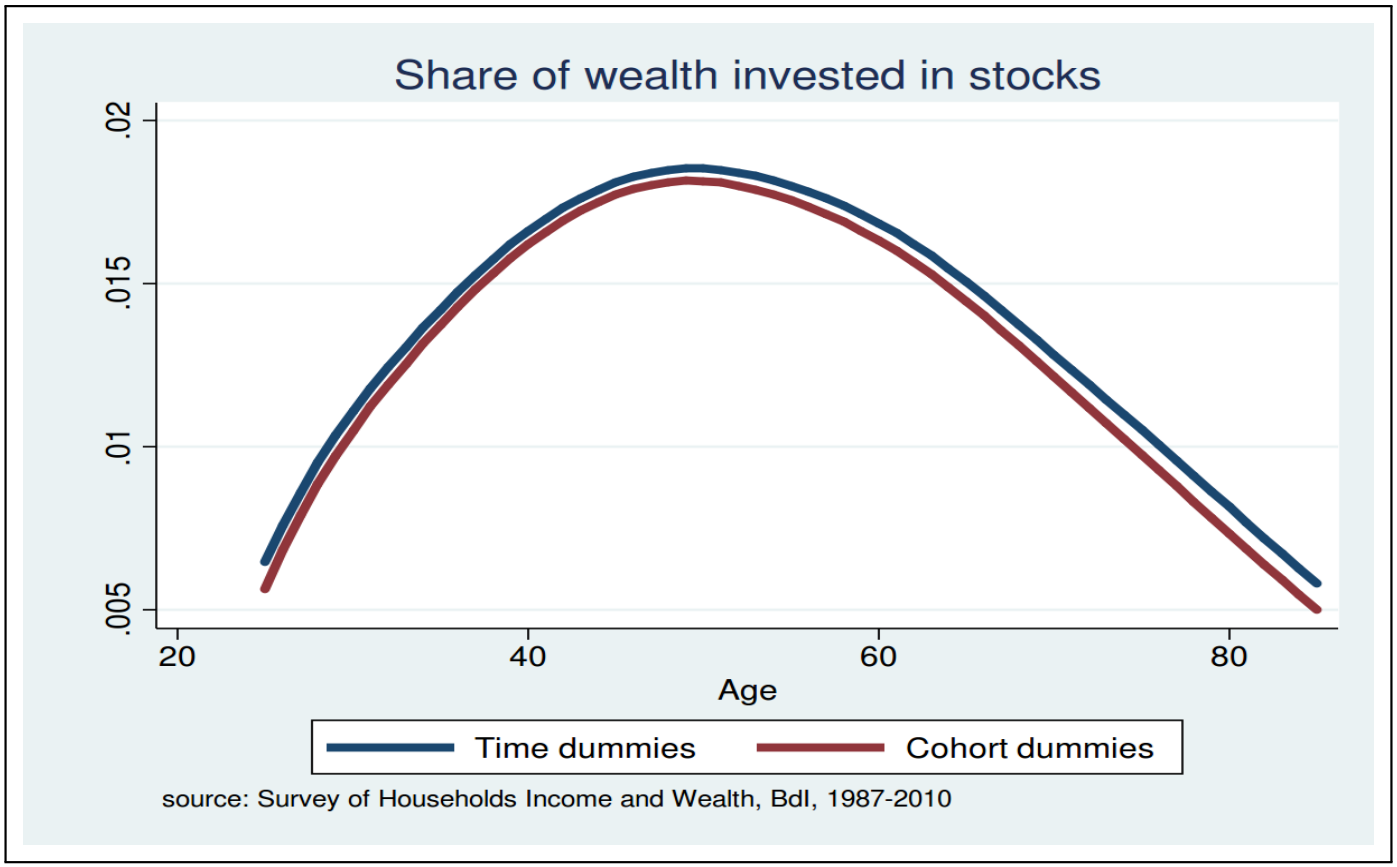
Cross-sectional view, Italy, Risky assets



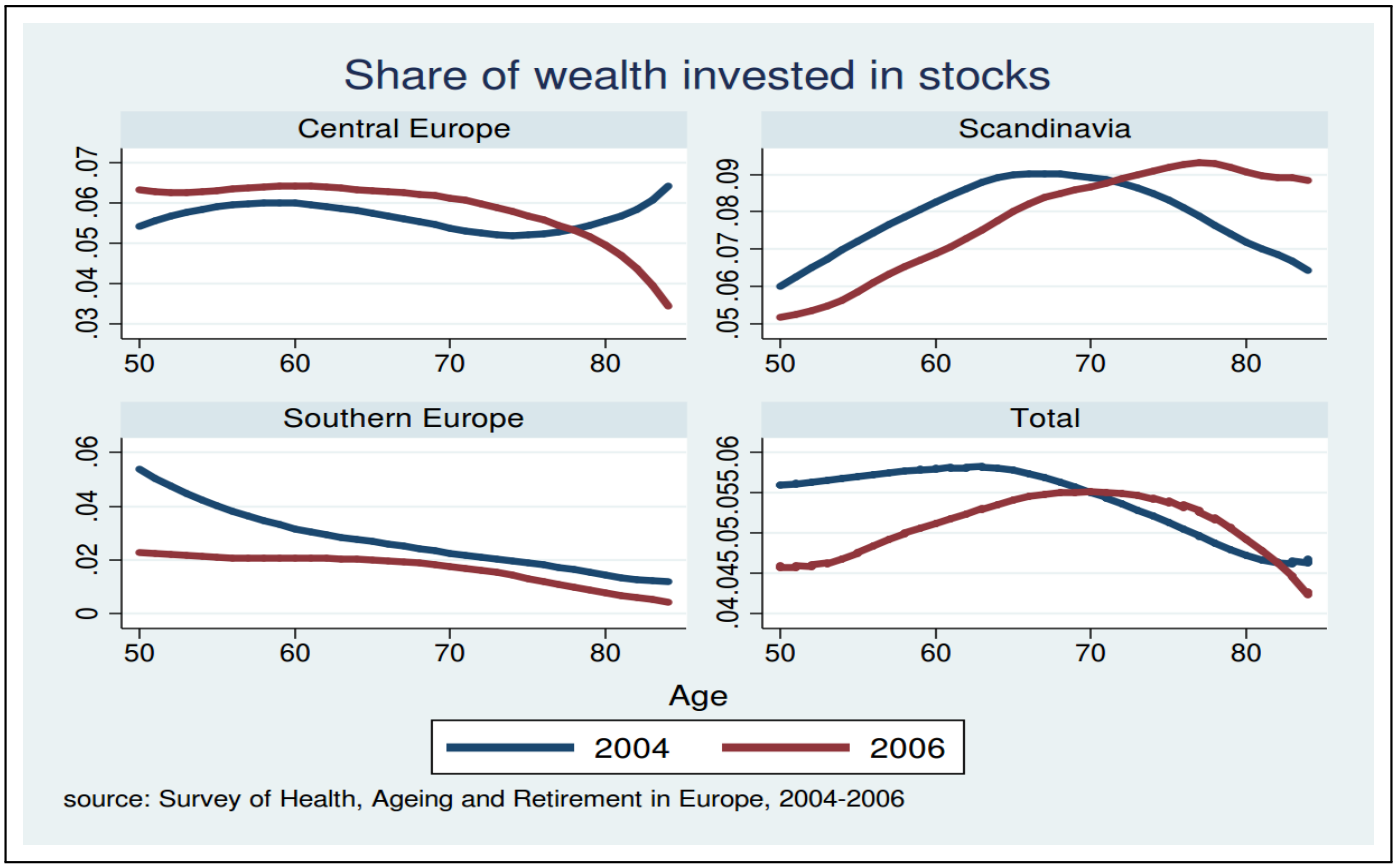
Cohort view, Italy, Stocks



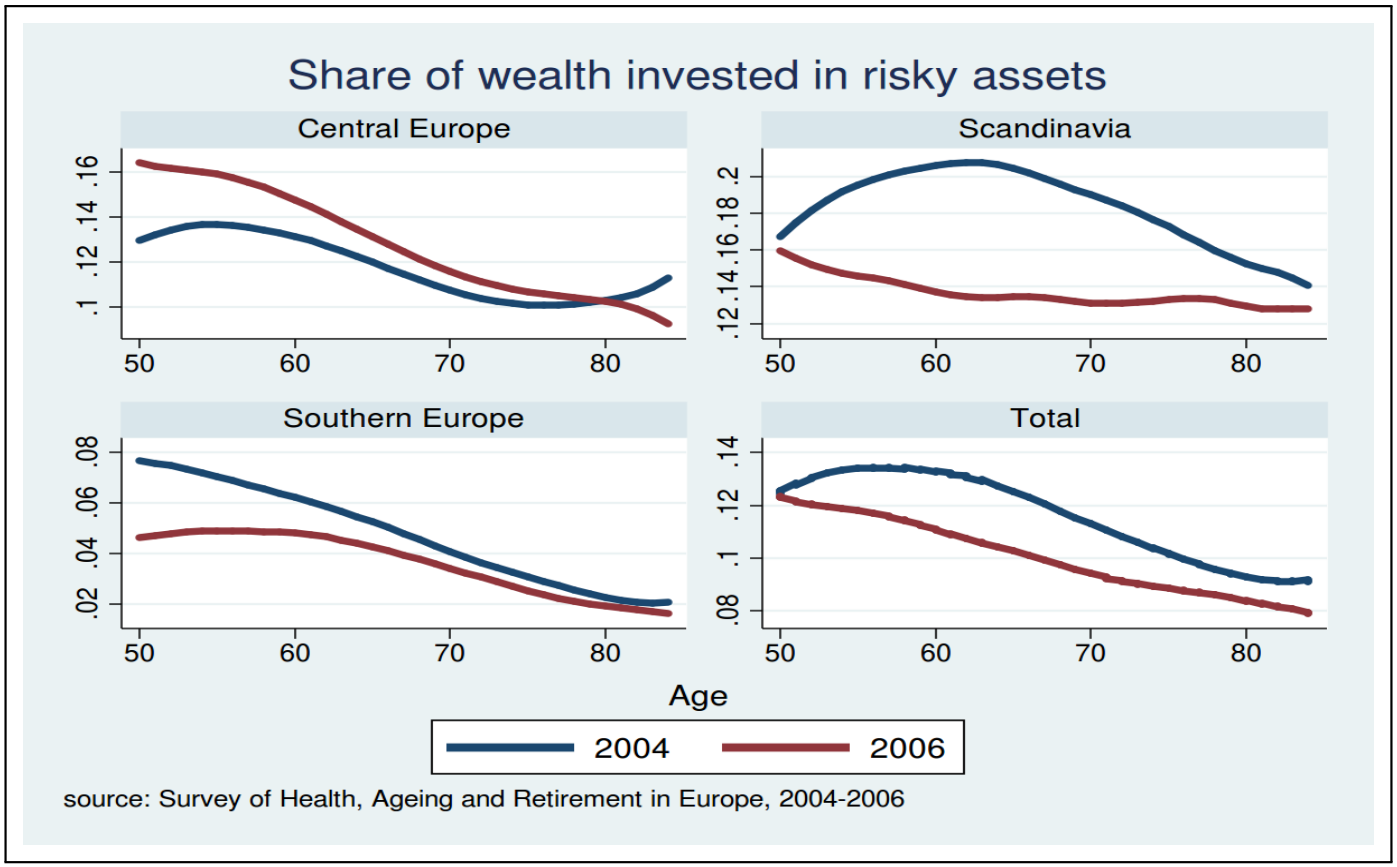
Age effects, Italy, Stocks



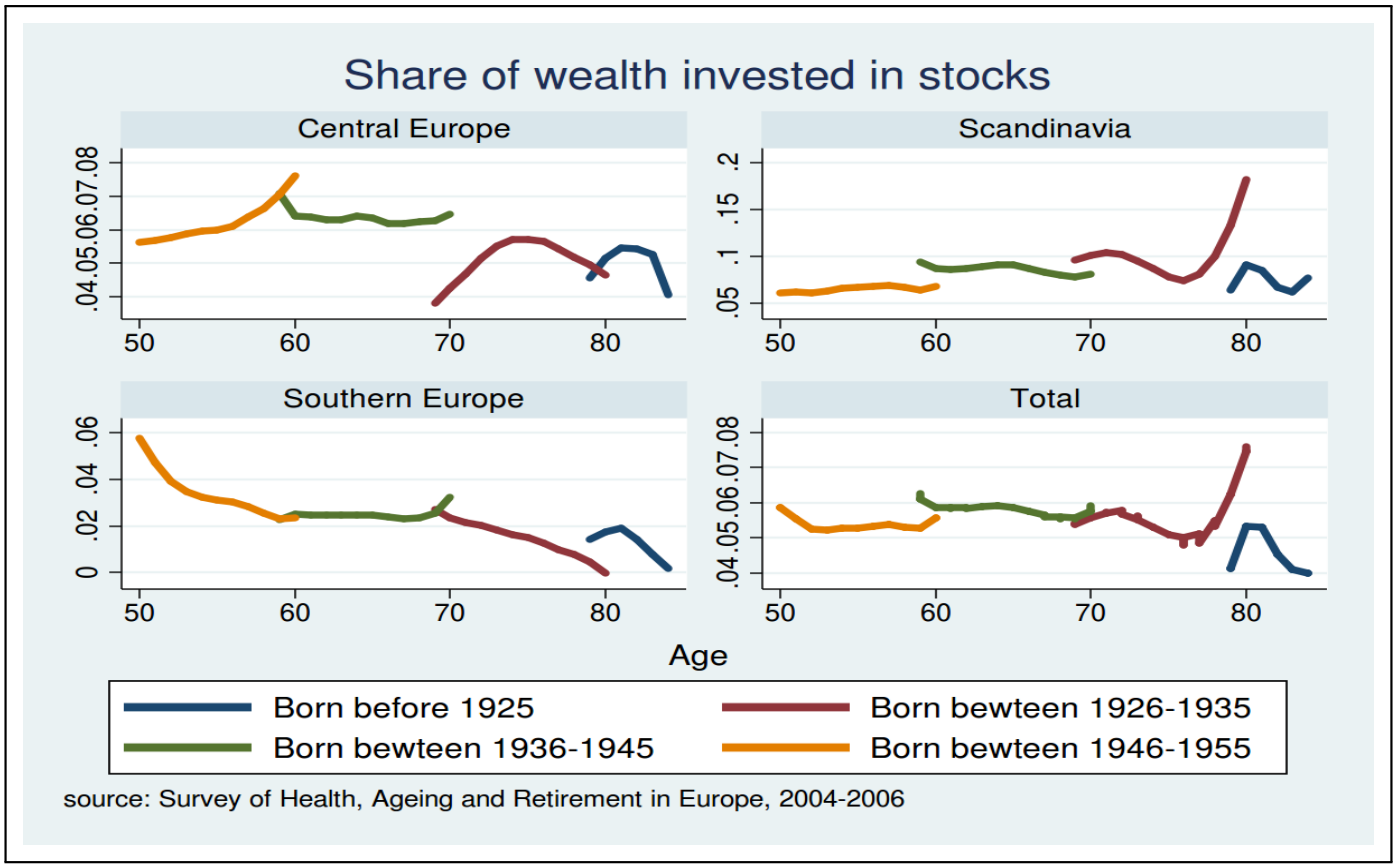
Cross-sectional view, EU, Stocks



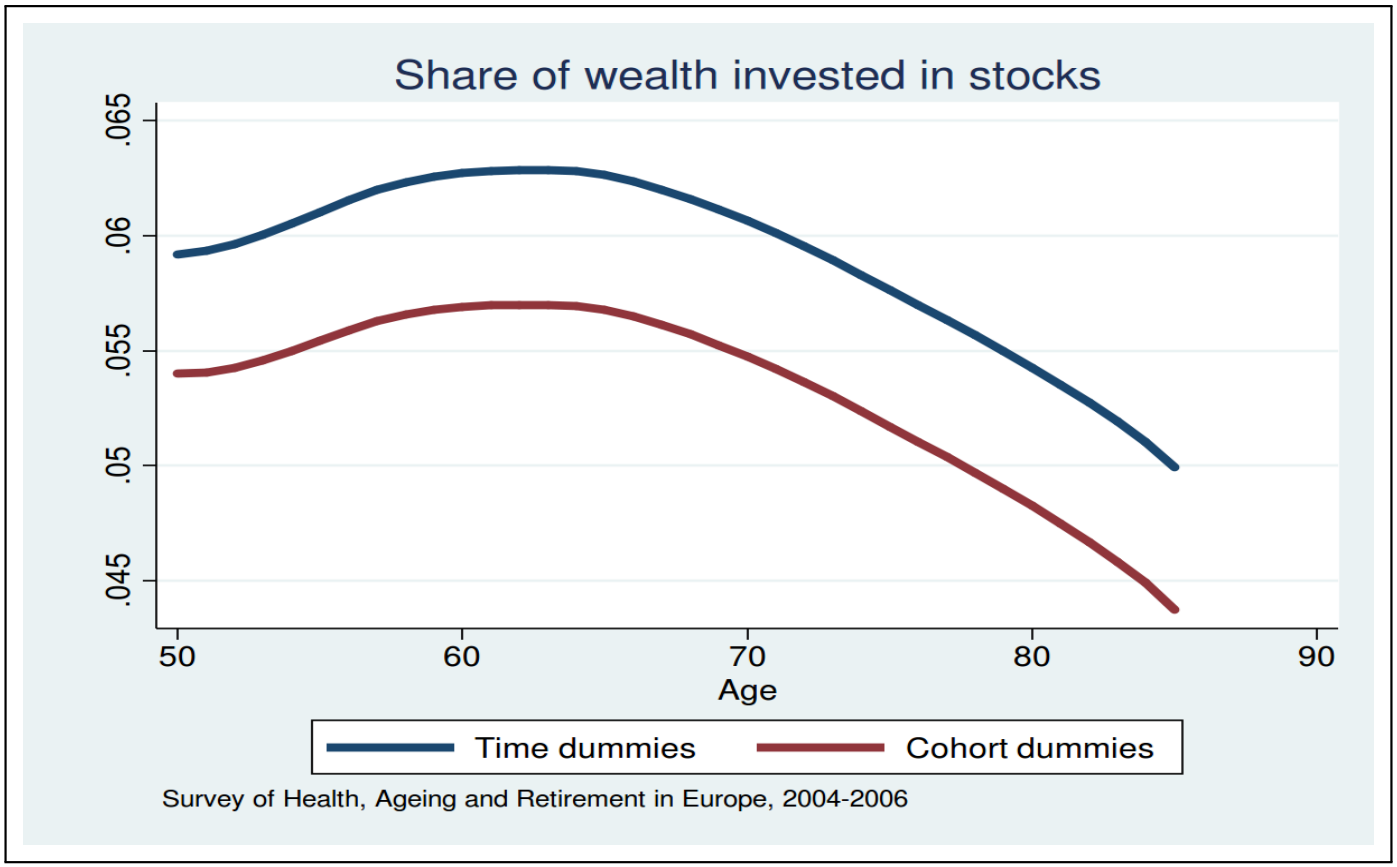
Cross-sectional view, EU, Risky assets



Cohort view, EU, Stocks



Age effects, EU, Stocks



Bottom lines

Try to generate age-profiles with are compatible with alternative identification assumption.

Emphasize the results on non-participation.