

Ec 234A, Macroeconomic Finance: Lecture 14

May 3, 2011

Outline for today

1. Bubbles and crashes
2. Topics in consumption

1. Bubbles and crashes

- If prices are expected to depart further from fundamentals, investors may want to “ride the bubble.”
- Isaac Newton attempted to ride the South Sea Bubble:
 1. Sold shares in 1720, profited 3,500 pounds
 2. Re-entered the market later, ended up losing 20,000 pounds.
 3. “I can calculate the motions of heavenly bodies, but not the madness of people.”
- Druckenmiller of Soros’ Quantum Fund entered internet bubble late: “We thought it was the eight inning, and it was the ninth.”

Abreu-Brunnermeier model

- Bubble persists because arbitrageurs cannot coordinate *temporally*.
- Risky asset with initial price process $p_t = e^{gt}$
 - For $t \leq t_0$ price = fundamental value.
 - t_0 is exponential r.v. with hazard rate λ .
 - For $t > t_0$ fraction $(1 - \beta(t - t_0))$ of price is fundamental value
- Investors become sequentially aware of mispricing during $[t_0, t_0 + \eta]$
- When selling pressure $> \kappa$, price drops to fundamental value
 - Otherwise, bubble bursts on final date $t_0 + \tau$

Investment strategies

- Each investor has \$1 \implies after $t_0 + \eta\kappa$ mispricing is bubble.
- Conflicting investment incentives: ride the bubble vs. exist before the crash.
 - Optimal strategy: hold for a fixed horizon τ^1 then sell.
- Types of equilibria:
 1. Exogenous crash: when η and κ high, $t_0 + \tau^1 + \eta\kappa > t_0 + \tau$
 2. Endogenous crash
- Key elements of the model: dispersion of opinion and need for coordination.

Synchronizing events

- News and other events that help coordinate selling can have disproportionate impact on prices.
- Independent synchronizing event can yield “responsive” equilibrium, where investors who know of the bubble sell
 - Bubble may burst in response to unrelated news events.
 - If bubble fails to burst \implies signal that mispricing is recent \implies bubble gets stronger.

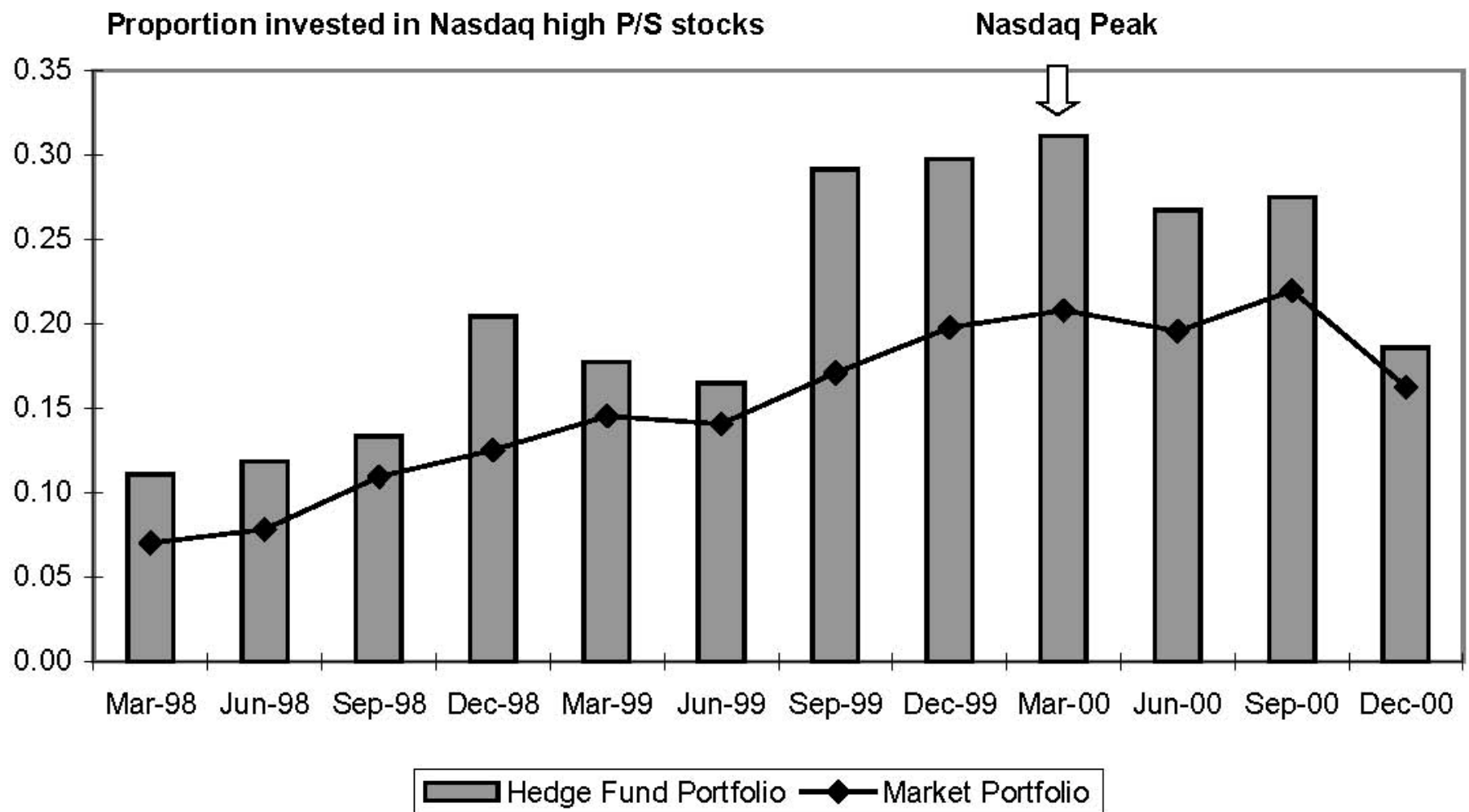


Figure 2. Weight of Nasdaq technology stocks (high P/S) in aggregate hedge fund portfolio versus weight in market portfolio. At the end of each quarter, we compute the weight, in terms of market value, of high P/S quintile Nasdaq stocks in the overall stock portfolio of hedge funds, given their reported holdings on form 13F. For comparison, we also report the value-weight of high P/S stocks in the market portfolio (all stocks on CRSP).

2. Topics in consumption

1. PIH: Parker, Souleles, Johnson, McClelland (2011)

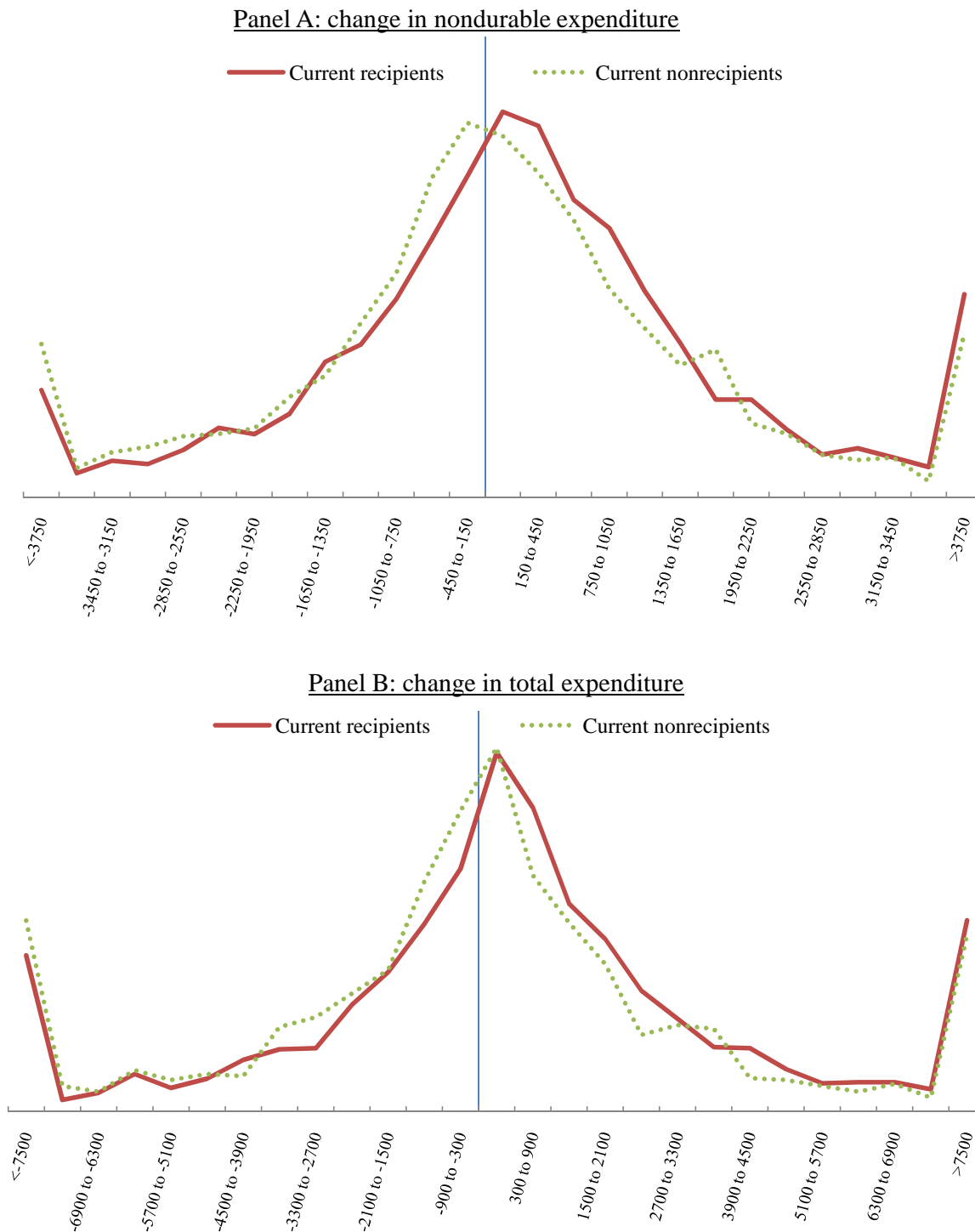
- 2008 stimulus payments disbursed at random times \implies hholds spent 50-90%.

2. Consumption v.s expenditure: Aguiar-Hurst (2005)

- Decline in food expenditure at retirement matched with rise in time spent shopping/cooking
- Quality and quantity of food intake does not fall at retirement

3. Retirement savings

Figure 2: Histograms of change in expenditure for ESP recipients during the program



Notes: Plots are histograms of change in expenditures in household-periods. The sample of households includes only households receiving only on-time ESPs at some time. The sample period includes only periods in which some households report receiving on-time ESPs during the second three-month period covered in the change (interviews from June through October 2008). The total number of households is normalized to be equal across samples so that the histogram is a discrete estimate of the density function.

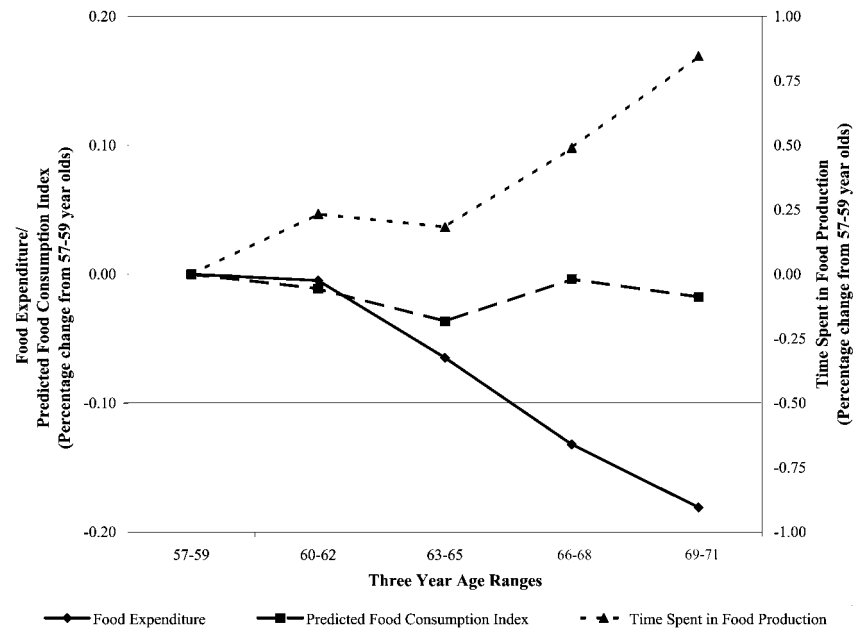


FIG 1.—Percentage change in food expenditure, predicted food consumption index, and time spent on food production for male household heads by three-year age ranges. Data are taken from the pooled 1989–91 and 1994–96 cross sections of the CSFII, excluding the oversample of low-income households. The sample is restricted to male household heads (1,510 households). All series were normalized by the average levels for household heads aged 57–59. All subsequent years are the percentage deviations from the age 57–59 levels. See Sec. IV for details of data and derivation of food consumption index

- Choi et al (many papers): Large default effects. Active decisions help.
- Lusardi (2003): Hholds with older siblings or past shocks have higher retirement savings.

4. Self control problems

- Laibson and coauthors: hyperbolic discounting and consumption

5. Network effects in consumption

- Angelucci and De Giorgi (2006): Exogenous increase in some villagers' income raises other villagers' consumption.
- Kuhn et al (2009): Neighbor winning the lottery increases vehicle consumption.

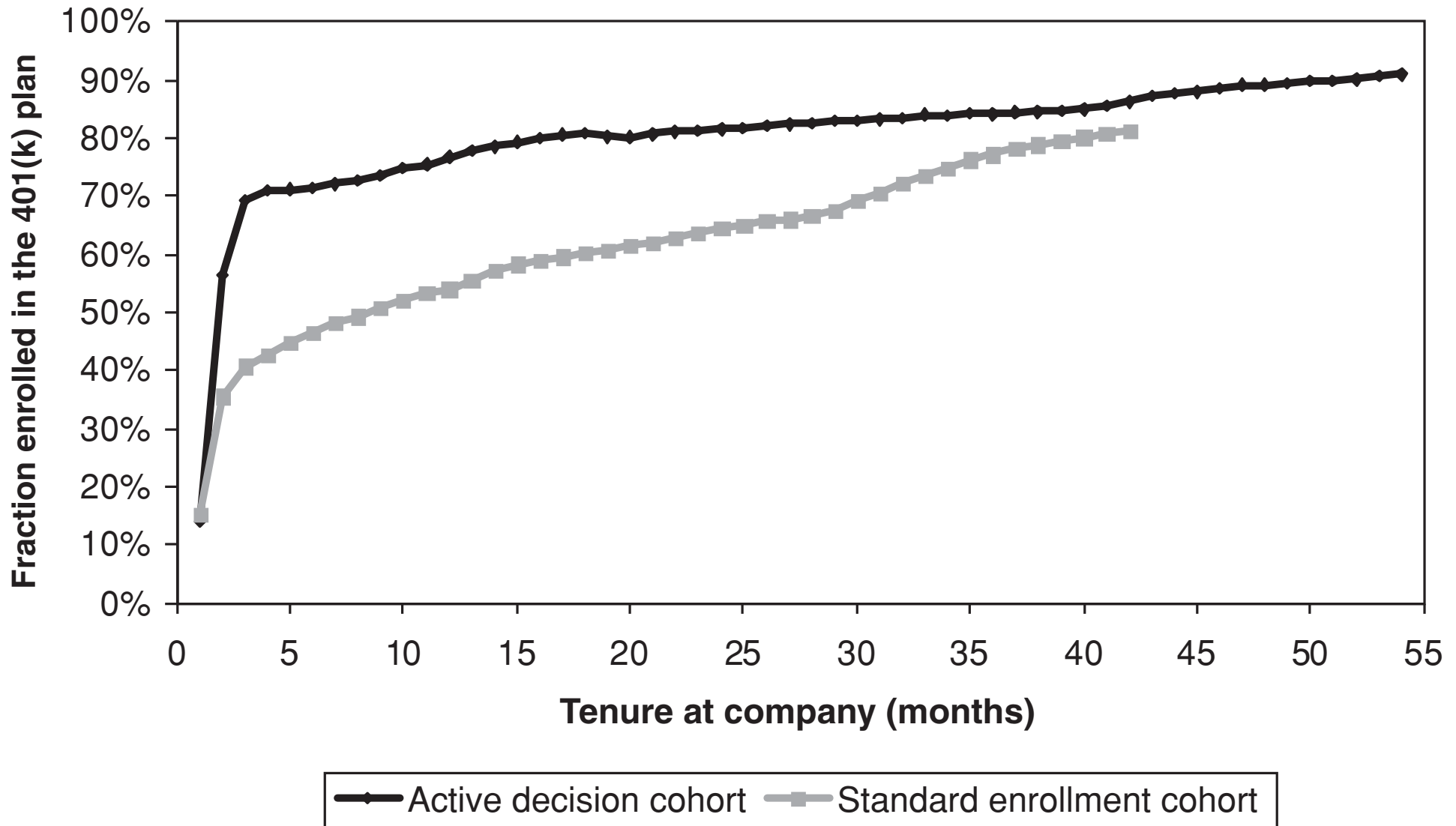


FIGURE II

Fraction of Employees Enrolled in the 401(k) Plan by Tenure at Company

An employee is counted as enrolled in the 401(k) even if he or she has stopped contributing to the plan. The series are not monotonically rising because they are constructed from multiple cross sections, so the samples are not fixed over time.

Other stuff in finance

- 234C: Corporate finance
 - Investment
 - Financing
 - Corporate governance
- Behavioral finance
- Household finance