This PDF is a selection from a published volume from the National Bureau of Economic Research

Volume Title: Developments in the Economics of Aging

Volume Author/Editor: David A. Wise, editor

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-90335-4

Volume URL: http://www.nber.org/books/wise09-1

Conference Date: May 2005

Publication Date: March 2009

Chapter Title: Comment on "The Effect of Large Capital Gains or Losses on Retirement"

Chapter Authors: Courtney Coile

Chapter URL: http://www.nber.org/chapters/c11315

Chapter pages in book: (164 - 171)

Comment Courtney Coile

The stock market fluctuations of the past decade are unprecedented in recent U.S. economic history. Following five straight years of double-digit growth, the major stock market indices lost at least half of their value over a two-year period, starting in mid-2000. It was widely perceived that workers had accelerated their retirement during the boom and had been forced to delay retirement during the bust. For example, in July 2002 the cover story in Time magazine asked "Will You Ever Be Able to Retire?" Aggregate labor supply statistics seemed to provide some support for delayed retirement during the bust, as the labor force participation rate of men age fifty-five to sixty-four jumped by two percentage points between 2000 and 2002.

The chapter by Hurd, Reti, and Rohwedder explores the link between recent stock market fluctuations and retirement behavior. Although others have also examined this subject, including Coile and Levine (2006) and Kezdi and Sevak (2004), this paper is the first to focus on the effect of the market boom and bust on subjective retirement probabilities. This focus has two advantages. First, it allows the authors to look for responses that would not yet be reflected in behavior, such as a decision by a fifty-five-year-old worker to retire at age sixty rather than age sixty-two as a result of large capital gains in his or her 401(k) account. Second, it helps the author surmount the identification problem that has plagued some of the earlier literature: if there are unobservable differences between stockholders and nonstockholders, such as in preferences for leisure, then any differences in retirement behavior will confound the effect of these unobservable factors with the effect of market fluctuations. By looking at the change in retirement probabilities, the authors can control for these unobservable differences.

In their analysis, the authors use the Health and Retirement Study (HRS), a survey of the young elderly that began in 1992 and reinterviews participants every other year. The authors begin by examining changes in stock and other assets between waves of the survey. In table 4.2, they show that stockholders, who constitute roughly one-third of households, experienced large increases in average stock assets during the market boom and large decreases during the bust—for example, average stock assets rose by $44,900 (40.2 percent) from 1996 to 1998 and by $33,800 (23.3 percent) from 1998 to 2000, before falling by $40,500 (21.4 percent) from 2000 to 2002. These large changes in average stock assets are a necessary condition for finding an effect of market fluctuations on retirement, but may not be

Courtney Coile is an associate professor of economics at Wellesley College and a faculty research fellow of the National Bureau of Economic Research.

sufficient; since wealth data is notoriously skewed, one cannot tell how broadly these gains and losses were shared from these averages alone. Thus, it would be useful to see more of the distribution of changes in stock assets among stockholders.

Although not the central focus of this chapter, an interesting fact that can be gleaned from table 4.2 is that over any two-year period, about one-sixth of households change their stockholder status, half of them acquiring stocks and the other half selling them. Since this is a nontrivial share of households, it would be interesting to know more about these transitions—do they represent households opening or closing 401(k) or IRA accounts, households reallocating assets held outside of retirement accounts, or simply measurement error in asset reporting?

Next, the authors spend some time validating their dependent variable, the subjective probability of working past age sixty-two (P62); others, such as Hurd and McGarry (1995), have done similar validation exercises for other subjective probability measures in the HRS. The authors show that individuals who report a higher P62 are more likely to be in the labor force at the end of the sample period (2002) than other workers, and that the average value of P62 matches up well with the fraction of the sample that actually works past age sixty-two. They also provide a theoretical discussion of how P62 is expected to evolve over time, arguing that it should remain constant in the absence of unexpected, cohortwide shocks. In this analysis, they assume that individuals incorporate the probability of idiosyncratic shocks, such as negative health events, in their calculation of P62. It would be useful to extend this discussion to consider the case where people fail to fully incorporate the probability of negative shocks and explore how P62 would be expected to evolve over time in this case, since this is the key outcome measure of interest.

In their primary analysis, the authors compare the change in P62 over time for stockholders and nonstockholders. Although they do not use this specific language, in essence what they have is a double experiment resulting from the stock market boom and bust, where we expect the behavior of stockholders to differ from that of nonstockholders during the boom, and for this difference to reverse itself during the bust. Figure 4C.1 shows a stylized example of the expected change in P62 over time for the two groups. Based on the authors' theoretical discussion, the expected change in P62 is zero for nonstockholders, who experience no unexpected cohortwide shock. By contrast, for stockholders the expected change is zero between waves 2 and 3 when stock returns are fairly typical, negative between waves 3 and 4 and waves 4 and 5 when stock returns are higher than expected, and positive between waves 5 and 6 when stock returns are lower than expected. Figure 4C.2 shows the difference in the expected change in P62 for the two groups; since the line for the nonstockholders is flat at zero, this difference is simply the line for the stockholders group.

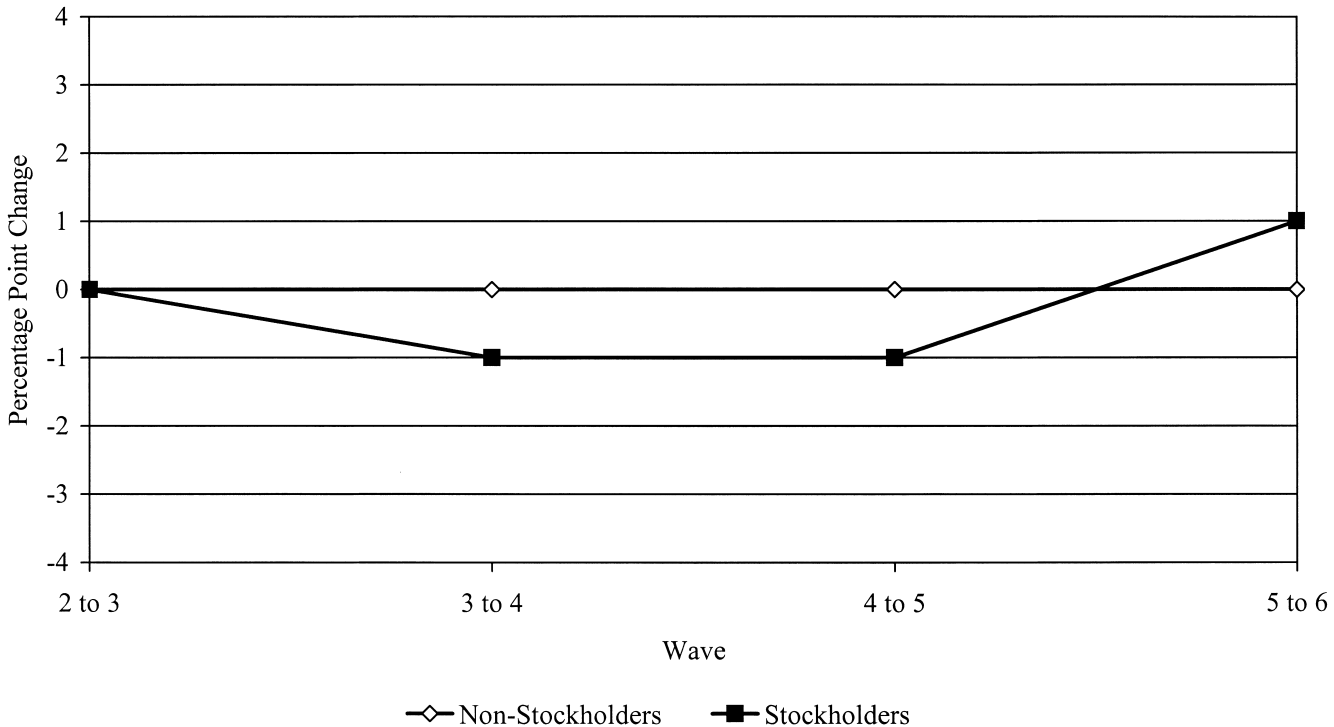

Fig. 4C.1 Expected change in P62, stockholders versus nonstockholders

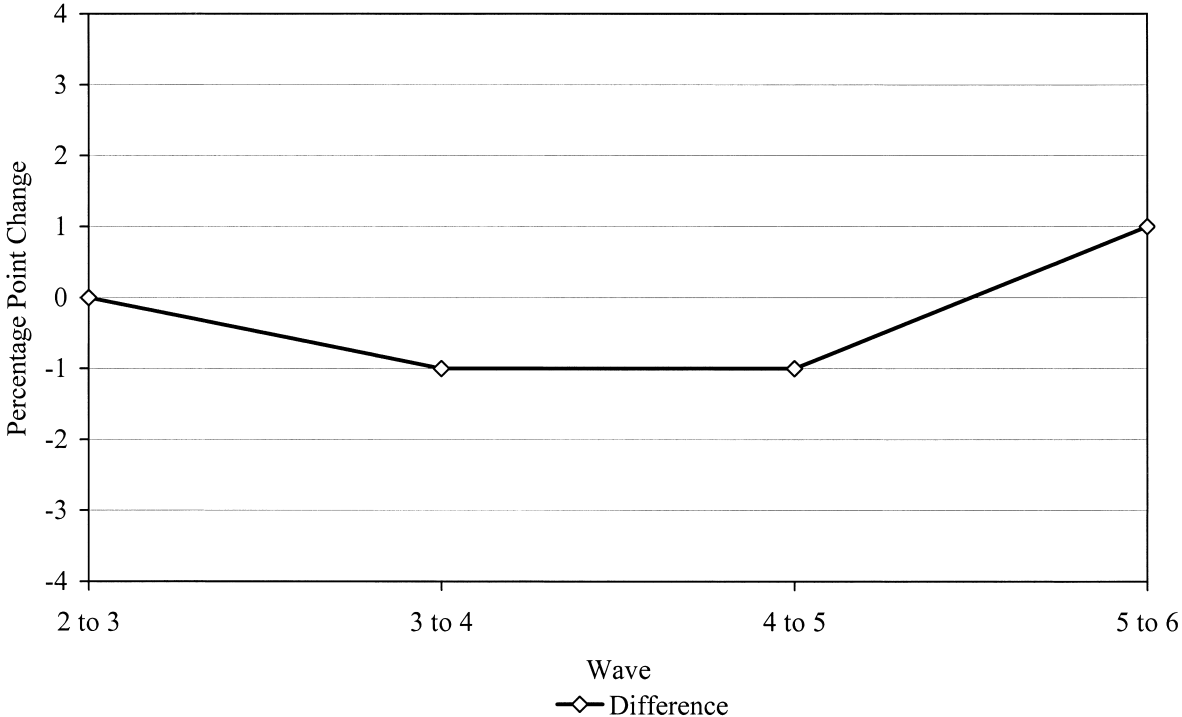

Fig. 4C.2 Expected change in P62, difference between stockholders and nonstockholders

The actual changes in P62 calculated by the authors (taken from their table 4.10) are shown in figures 4C.3 and 4C.4. The change in P62 over time for nonstockholders is essentially flat, as predicted, though it jumps up somewhat between waves 4 and 5 before returning to normal. The change in P62 for stockholders, however, does not have the expected pattern of falling in the middle waves while the market is booming and rising at the end when the market falls; indeed, the pattern is essentially the opposite of what was predicted. When one takes the difference between the two groups, the difference rises in the final period, as expected, but it does not fall in the middle periods.

What might explain the pattern observed in figure 4C.4? One possible explanation is that there is asymmetry in stockholders' response to unexpected wealth gains, so that they postpone retirement when the market crashes but do not accelerate it when the market soars. However, the data in figure 4.3 casts doubt on this theory, as the rising difference in the last period is driven primarily by nonstockholders lowering their assessment of P62 rather than by stockholders raising their assessment of P62. A second possibility is that nonstockholders are more likely to experience shocks like bad health news and layoffs, yet both groups believe they face the same risk. This situation would generate a positive difference in the expected change in P62 over time, because the nonstockholders would be incurring the shocks and reducing their probability of working past age sixty-two at a greater rate than stockholders. If the importance of unexpected shocks is rising with age, this could explain why the difference is rising over time, since the HRS sample ages over time. This is something the authors could account for in their analysis, by including such shocks as explanatory variables.

What can we conclude about the effect of market fluctuations on retirement behavior? The authors report that they find "no evidence that workers in those households that had large gains retired earlier than they had anticipated or that they revised their retirement expectations compared with workers in households that had no large gains." The same conclusion is reached by Coile and Levine (2006), looking at actual retirement behavior rather than the change in retirement expectations. There are two possible explanations for the lack of an effect. The first is that the number of people who experienced large unexpected wealth gains from market fluctuations is relatively small—indeed, Coile and Levine (2006) argue that this is the case. The second is that the effect of unexpected wealth on labor supply is fairly small. The authors are sympathetic to this argument, citing evidence from lotteries, and some of the other papers about stock market fluctuations seem to show this, too. For example, Coronado and Perozek (2003) find that being a stockholder is associated with retiring six months earlier than expected, but that each additional $100,000 of unexpected gains is associated with retiring only two weeks earlier than expected.

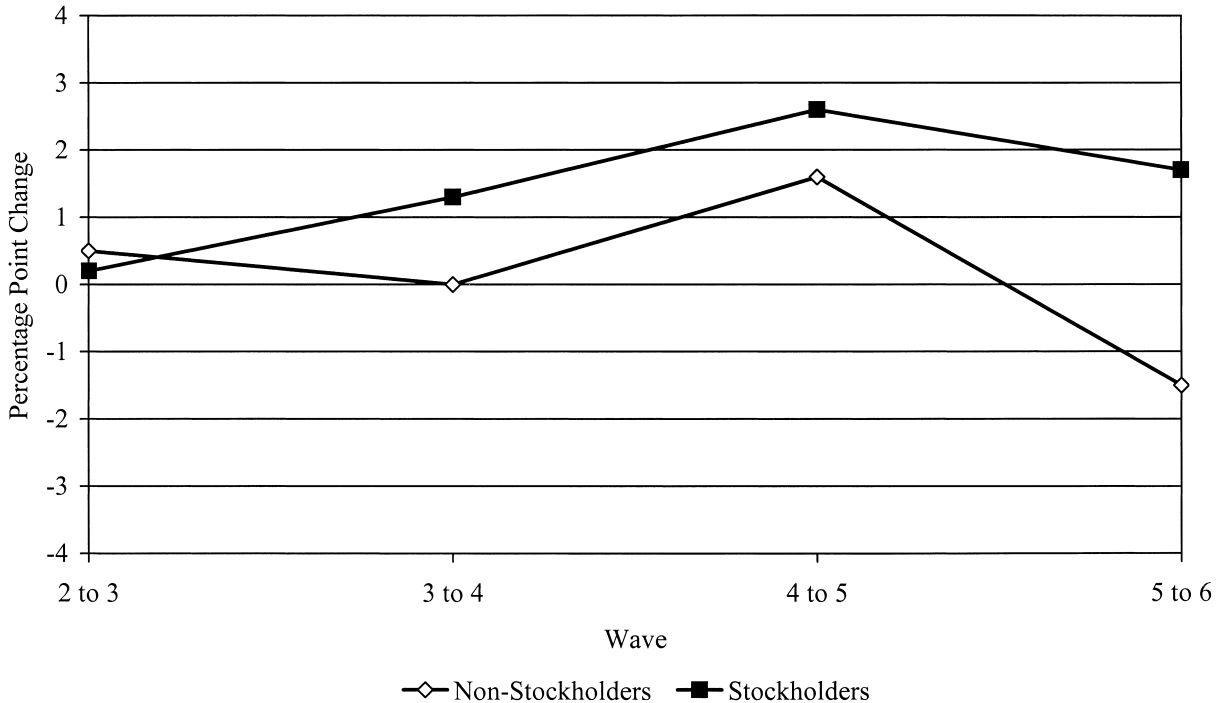

Fig. 4C.3 Actual change in P62, stockholders versus nonstockholders

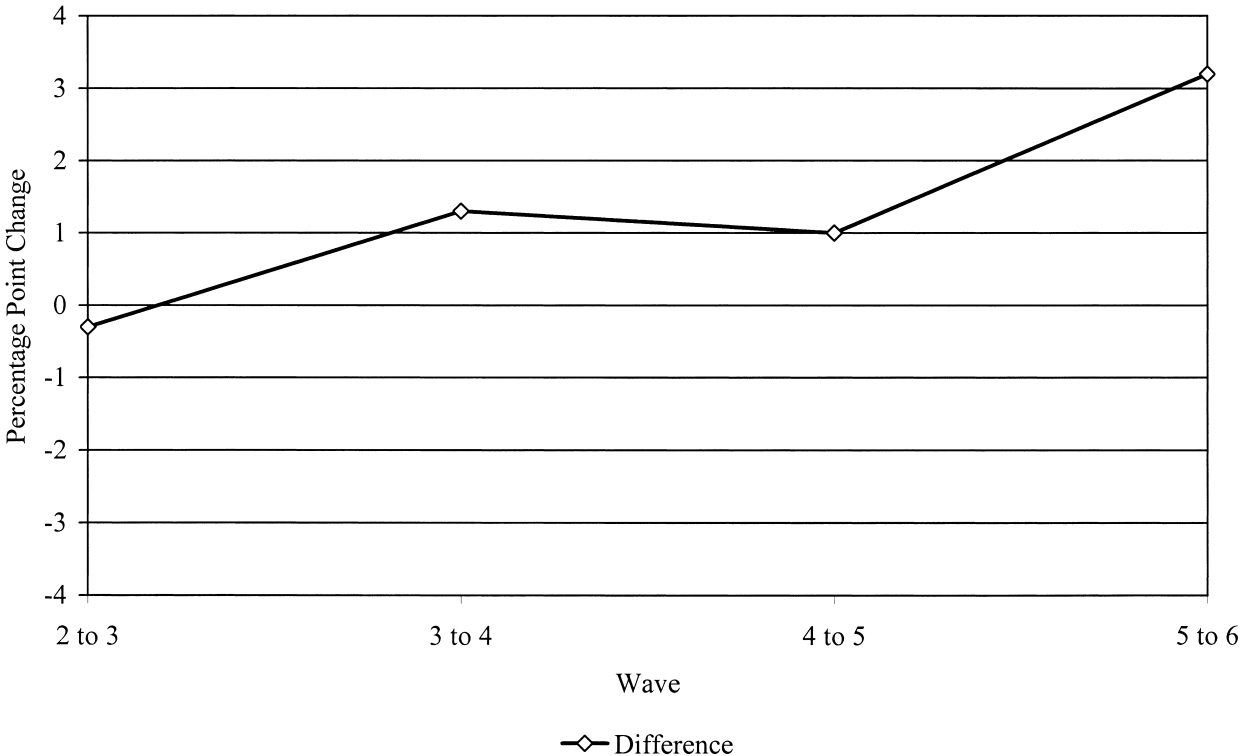

Fig. 4C.4 Actual change in P62, difference between stockholders and nonstockholders

While there is little evidence for a widespread labor market response to the recent market boom and bust, it is certainly possible that consumers have changed other behaviors in response to the market fluctuations. For example, households may have changed their consumption of goods and services or adjusted their plans to make a bequest. Households may also have adjusted their expectations about future market returns and may have altered savings or portfolio allocation decisions as a result. All of these questions are clearly fruitful areas for future research.

References

Coile, Courtney C., and Phillip B. Levine. 2006. Bulls, bears, and retirement behavior. *Industrial and Labor Relations Review* 59 (3): 406–29.

Hurd, Michael D., and Kathleen McGarry. 1995. Evaluation of the subjective probabilities of survival. *Journal of Human Resources* 30 (supplement): S268–S292.

Kezdi, Gabor, and Purvi Sevak. 2004. Economic adjustment of recent retirees to adverse wealth shocks. Michigan Retirement Research Center Working Paper no. 2004–75.