

Bears, bulls, and brokers: employment trends in the securities industry

Employment in the securities industry strongly correlates with stock market value; however, market volume does not exhibit the same relationship with the employment cycle

Michael H. Strople

Over the past several years, Americans have dramatically increased the amount of personal savings held in equities. This phenomenon, together with a general shifting of savings from interest-bearing deposits and bonds to individual stocks and mutual funds, has peaked awareness in investing. A pronounced shift from defined-benefit retirement plans to employee-funded plans has placed workers' retirement nest eggs more directly in the stock markets.¹ The ebbs and flows of the stock market generate much attention from individual investors. However, these cycles also have a direct impact on workers in the securities industry.

As measured by the Current Employment Statistics survey, employment in securities, commodities contracts, and investments appears to be highly cyclical, rising and falling much like the markets themselves.² The industry experienced modest job declines during the 1990–91 recession, rebounded during the expansion of the mid-1990s into 2000, declined once again with the 2001 recession, then rebounded in late 2003. This article examines whether the higher participation in the stock market (measured by stock market volume) or stock values (measured by stock prices) have influenced the employment cycle.

Brokers: securities industry employment

Since January 1990, there have been two periods of sustained employment weakness in the securi-

ties industry—1990–91 and early 2001 through October 2003. Both of these time periods coincided with or followed economy-wide recessions, reflecting the general parallel between cycles in the securities industry and the business cycle.

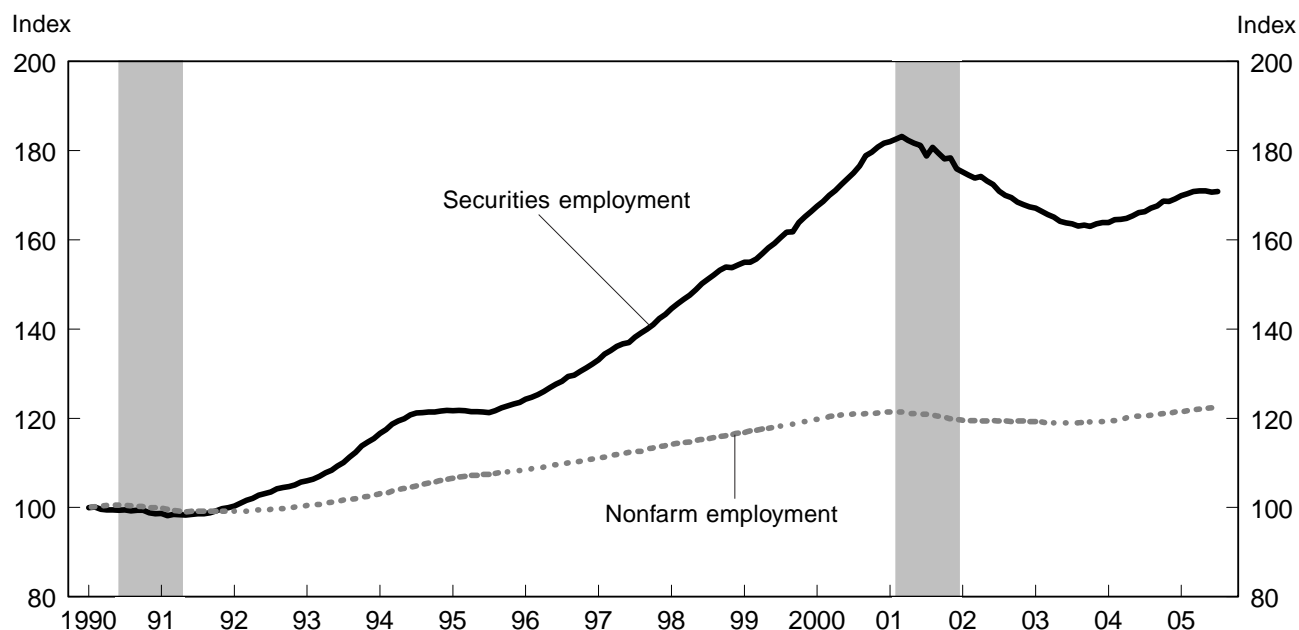
The recession of the early 1990s, which the National Bureau of Economic Research (NBER) designated as lasting from July 1990 to March 1991, was mild in terms of job losses in the securities industry.³ From the February 1990 employment peak to the February 1991 trough, the industry lost a modest 9,000 jobs, and then employment remained rather stagnant. By January 1992, employment had returned to its prerecession peak. So, while losses were mild over the recessionary period, the initial recovery was tepid at best.

After slow growth early in the recovery, employment in the securities industry experienced robust growth. From the employment trough in February 1991 (when the index was 98.2) to the March 2001 peak (when the index was 183.2), the industry gained more than 390,000 jobs, a nearly 87-percent increase. (See chart 1.) Over the same period, nonfarm employment increased by 22 percent. However, the growth rate in the securities industry was not evenly distributed across years. From 1992 to 1994, employment increased by an annualized 6.8 percent; in 1995, job growth slowed to 1.5 percent, while from 1995 to the employment peak in March 2001, growth accelerated to an annualized 7.8 percent.

The 1990's trend of strong employment growth

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Chart 1. Indexed total nonfarm and securities employment, seasonally adjusted



NOTE: January 1990 equals 100. Shaded areas represent recession.

differed considerably from the securities industry's experience after March 2001. Employment peaked in March 2001 and, by the trough in October 2003, the industry had shed 93,000 jobs, an 11-percent decrease. Like nonfarm employment, the securities industry's employment drop from peak to trough (31 months) lasted significantly longer than the 8-month recession. A series of factors in 2000 and 2001 exacerbated the impact of the economic downturn on the securities industry. First, the run-up in stock prices during the bull markets of the late 1990s led to fear that stocks were overvalued. This condition, also known as an asset-price bubble, had a clear impact on stock markets.⁴ Within 1 year of its February 2000 peak, the bubble burst as the NASDAQ Index declined by more than 50 percent. The Standards & Poor's 500 Index (S&P 500) suffered a 25-percent decline over a similar timeframe. The September 11, 2001, terrorist attacks, which resulted in the short-term closure of the New York Stock Exchange (NYSE), added momentum to markets already in decline. Lastly, several scandals shook investor confidence. Ranging from corporate governance to stock-broker ethics, investors were bombarded with bad news on a seemingly daily basis. While the impact of these events is difficult to quantify, they all likely played a role in the stock market declines, which led to large job losses.

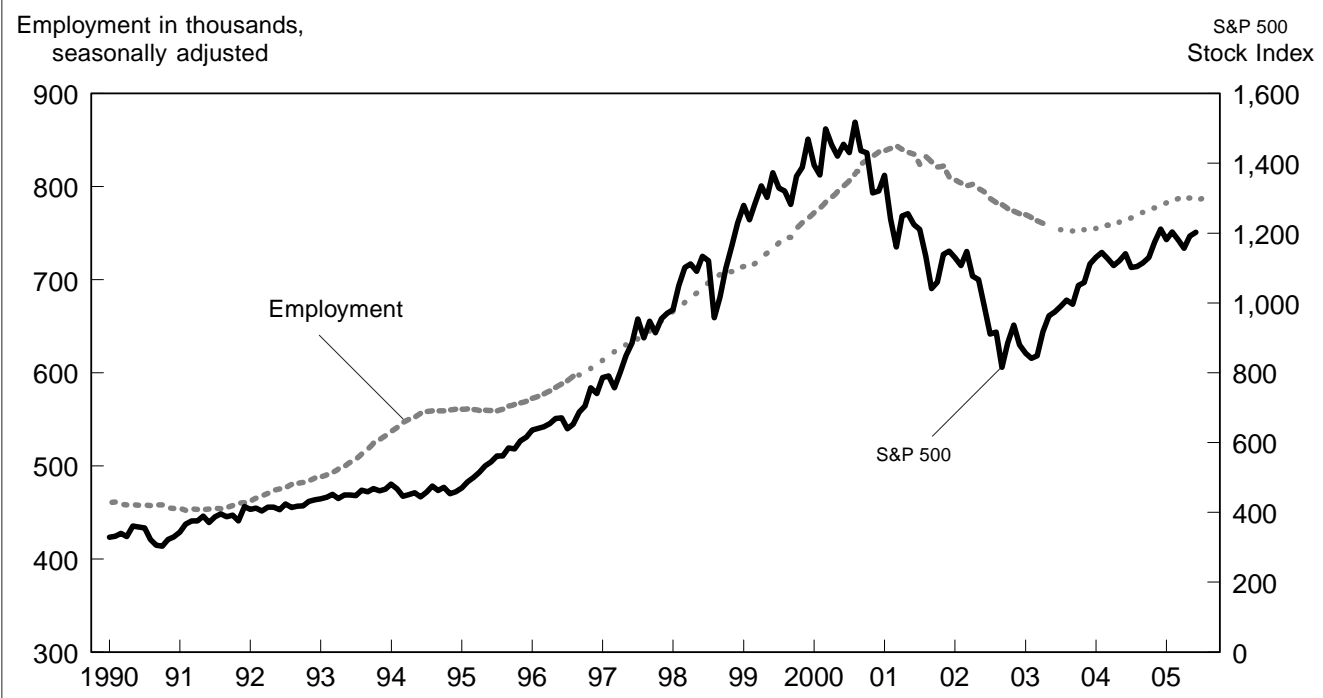
Since reaching an employment trough in October 2003, securities employment has grown at an annualized 3.6 percent, and the industry has replenished about one-third of the jobs lost during the recessionary and postrecessionary periods.

Bears and bulls: market value and employment

Employment in the securities industry shows a strong correlation with stock market indices, that is, with the market value. The S&P 500 has a broad industry representation and "is usually considered the benchmark of U.S. equity performance."⁵ As a result, it is used most extensively in the following analysis. The NASDAQ Index has strong technology and financial industry representation, which is useful when considering the technology stock bubble and troubles within the financial industries themselves.⁶ The value per share traded on the NYSE, which is one of the largest securities markets in the world, captures both market activity and value.⁷ Value per share traded is defined as the quotient of total trade value to total trades. The Dow Jones Industrial Average was omitted from this analysis, as it reflects the valuation of a small number of very large companies.

Market value affects employment in the securities indus-

Chart 2. Employment in securities, commodity contracts, and investments and the S&P 500, 1990–2005



SOURCE: BLS and S&P 500 monthly close.

try indirectly by means of corporate profits. As stock value increases, securities firms' profits typically increase, which often results in additional hiring. For example, in 2003, the markets experienced sharp increases in the S&P 500 Index and value per share traded on the NYSE. The strength in the markets coincided with widely reported strength in net earnings at brokerage firms.⁸

The S&P 500 and securities employment are directly correlated. Since 1990, employment trends lagged trends in market value by an average of 7 months. Six distinct periods in the S&P 500 Index are followed by similar periods in employment, both in direction and duration. (See chart 2 and table 1.)

The relationship of employment to the value per share traded on the NYSE is similar to that of the S&P 500. As value per share increased in the mid-1990s, employment followed. (See chart 3.) In April 1998, value per share peaked, and remained fairly constant until April 2000. Then, the value per share series dropped drastically. Employment losses lagged the drop in share value by 11 months. Value per share traded on the NYSE plummeted to a low in February 2003 then rebounded somewhat. The trough and eventual rise of share value preceded the employment trough and subsequent start of recovery by 8 months.

The relationship between the NASDAQ Index and securities

employment is not as consistent as employment's relationship with the S&P 500 Index. The S&P 500 has more comprehensive industry representation and, in turn, is relatively consistent in predicting changing trends in employment. While the NASDAQ also leads employment changes, the lead time varies perhaps because of the NASDAQ's concentration in technology and financial stocks. For example, in February 1995, growth in the NASDAQ began to accelerate, with the subsequent acceleration in employment growth lagging by about 7 months. (See chart 4.) The NASDAQ peaked in February 2000, preceding the employment peak by 13 months. When the

Table 1. S&P 500 Index and employment in the securities industry

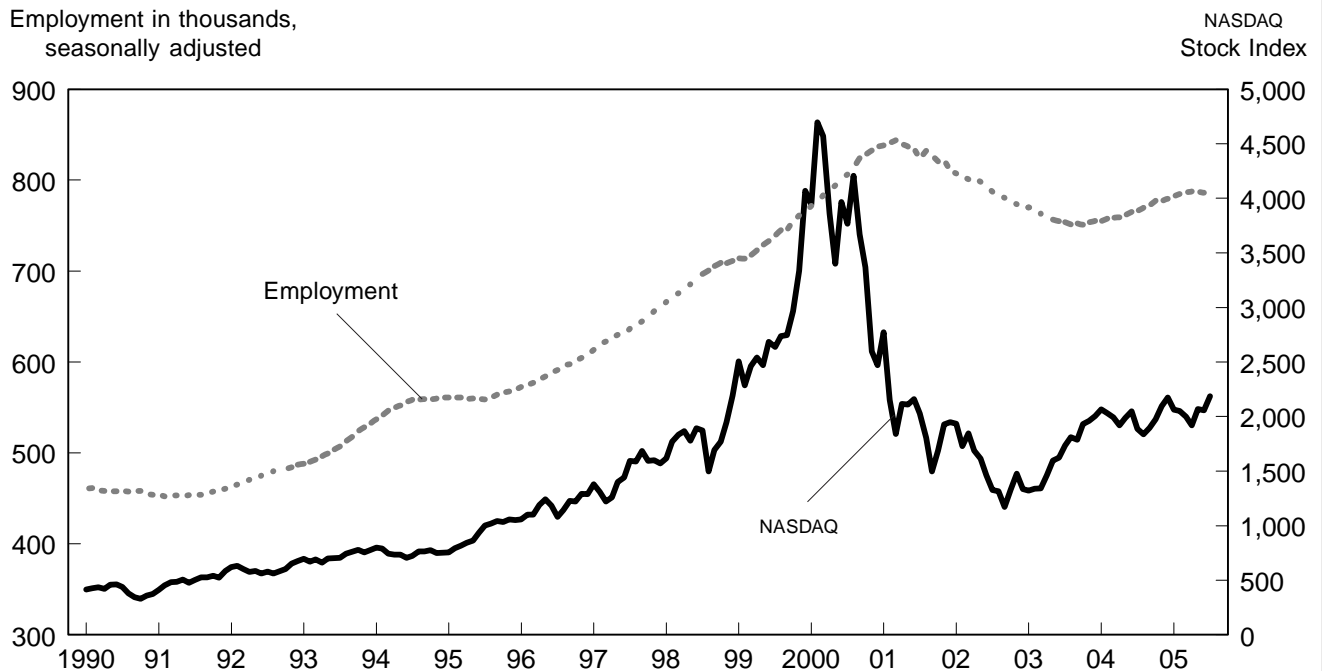
S&P 500 Index		Employment	
Points of inflection	Duration of trend	Points of inflection	Duration of trend
January 1990	10 months	January 1990	17 months
November 1990	39 months	June 1991	37 months
February 1994	11 months	July 1994	14 months
January 1995	68 months	September 1995	67 months
September 2000	30 months	April 2001	30 months
March 2003	28 months	October 2003	21 months

Chart 3. Employment in securities brokers versus value per share traded on the NYSE



SOURCE: BLS and the NYSE.

Chart 4. Employment in securities, contracts, and investments and the NASDAQ, 1990-2004



SOURCE: BLS and NASDAQ monthly close.

NASDAQ reached a trough in September 2002, the employment series continued downward for another 13 months.

Trade volume

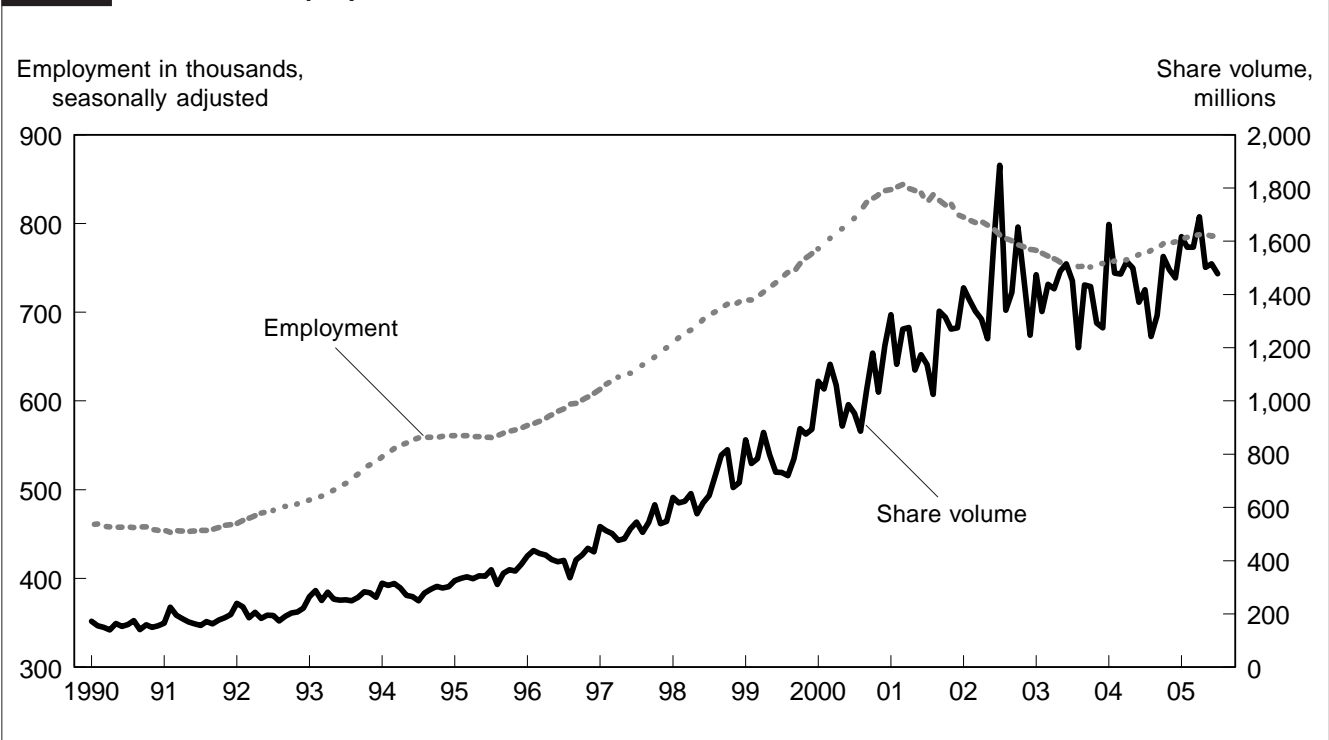
The volume of stock market activity and securities broker employment presumably would seem highly correlated. That is, high trade and share volume would increase the workload for brokers and dealers and thus spur hiring. Yet, an analysis of trends in share volume on the NYSE and NASDAQ, and in total trades executed on the NYSE, fails to show a clear predictive relationship between trade volume and employment since 1990.

Share volume (on the NYSE) captures the total number of shares traded each day. Employment and share volume both increased throughout the 1990s and into 2001. As employment peaked in March 2001, share volume continued to grow and then flattened out somewhat in late 2001. (See chart 5.) At first glance, the two series appear highly correlated in the 1990s, with employment leading a slowdown in the volume series. However, the correlation breaks down around the 2001 recession. This apparent lack of correlation does not mean employment and market activity are unrelated. It is likely that volume can have an underlying influence on hiring.

Average daily trades data show the average monthly activity on the NYSE as measured by trade executions, as opposed to the total number of shares traded. This series is less volatile than the share volume series and provides a different perspective on stock market activity. Like employment, average daily trades rose throughout the 1990s. (See chart 6.) Yet, after securities employment peaked in 2001, average daily trades continued to grow. Much like share volume, the average daily trades series flattened out somewhat in 2002 and 2003, coinciding with declining employment. Nonetheless, the weak correlation between securities employment and average daily trades through the 2001 recession suggests that they are not closely related. One potential explanation is that security trading became much more efficient in the late 1990s thanks to information technology advances. Another possible explanation is that the trading was increasingly performed by day traders, not payroll employees of securities firms. Day traders are essentially self-employed; therefore, their work falls out of the scope of the Current Employment Statistics survey.

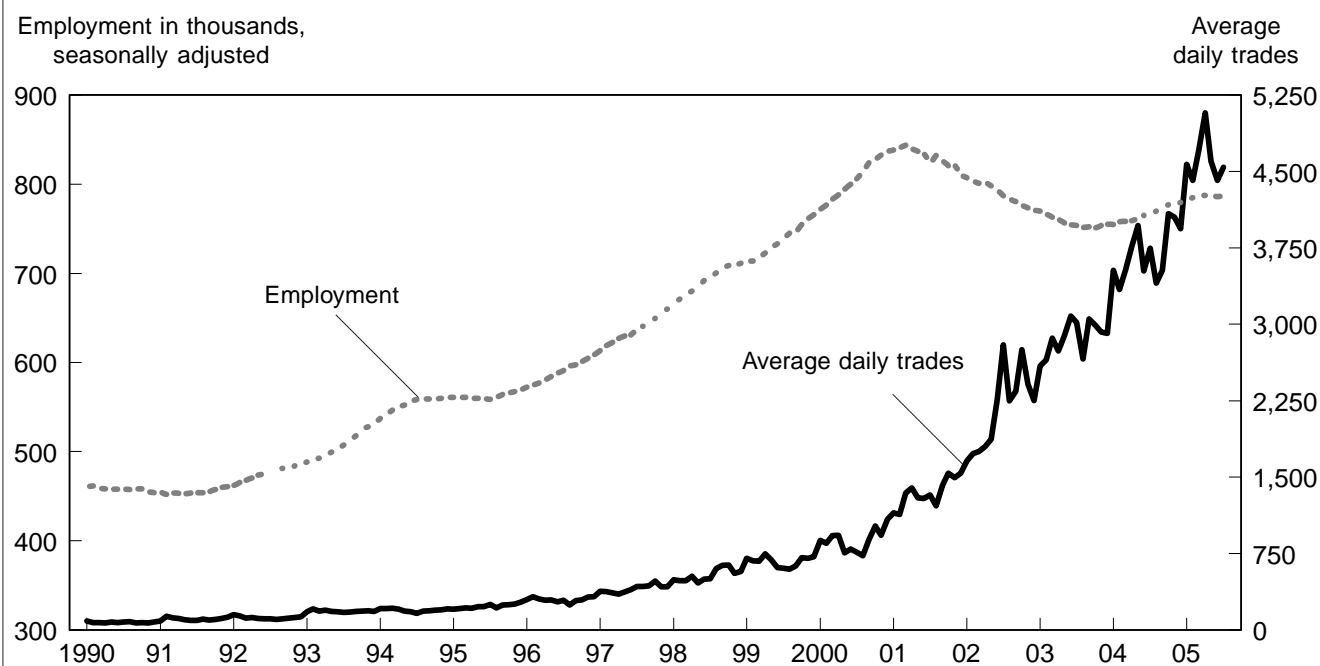
Individual investors became much more active in the stock market during the 1990s. The day trading phenomenon, whether as full-time work or simply “recreational” buying and trading stocks online, soared during the late 1990s.⁹ In a

Chart 5. Securities employment versus share volume



SOURCE: BLS and the NYSE.

Chart 6. Securities employment versus average daily trades



SOURCE: BLS and the NYSE.

special study conducted by the Securities and Exchange Commission (SEC), the number of full-time day traders was estimated at less than 7,000; however, considerably more investors use the Internet to participate part-time in day trading or to execute trades. As a whole, day-trading activity was estimated to have added as much as 15 percent to the NASDAQ's daily volume.¹⁰ Furthermore, during the 1990s, individuals gained more direct control over retirement savings as many firms moved from defined-benefit pensions to defined-contribution plans, such as 401k and similar type retirement accounts. These two phenomena may have contributed to increased market activity without leading to payroll employment growth in the securities industry.

Another phenomenon that possibly boosted the trading volume is a general shift in personal savings. From 1989 to 2001, there was a net decrease in interest-bearing savings, while over the same time period, a net increase in the amount of savings allocated to individual stocks and mutual funds.¹¹ (See table 2.)

This shift in stock market participation was widespread. From 1992 to 2001, direct and indirect stock ownership increased by 15.2 percentage points across all families, and by 2001, more than 50 percent of all families owned stock either directly or indirectly. While higher income families continued to have a greater proportion of stock owners, there

was a double-digit increase in ownership in all families but the poorest 20 percent, whose stock ownership rose 5.1 percentage points between 1992 and 2001.¹² In short, during the 1990s, personal investment in the stock market increased rapidly. Day trading, easy access to stock markets via the Internet, greater participation in 401k and similar accounts, and a general shift of personal savings to equities helped boost volume substantially. Advancements in technology and investment in these technologies has allowed firms to handle this surge in volume without necessarily having to add jobs to payrolls.¹³

EMPLOYMENT IN THE SECURITIES INDUSTRY has shown a strong correlation with stock market value, particularly the S&P 500. Turns in market value have consistently led turns in employment, and the rates of growth have also been relatively similar, as strong increases (decreases) in value were followed by strong increases (decreases) in employment. The same cannot be said about market volume. Volume increased rapidly during the mid-1990s and into the recession. Day trading and more people exerting direct control over retirement savings likely account for part of the rapid growth. Despite high trading volumes, market value fell through the recession and beyond, and securities employment fell with it.

Table 2. Percent distribution of financial assets of all families, by type of asset, 1989, 1992, 1995, 1998, and 2001

Type of financial asset	1989	1992	1995	1998	2001	Net change, 1989–2001
Total	100.0	100.0	100.0	100.0	100.0	–
Transaction accounts	19.1	17.5	13.9	11.4	11.5	–7.6
Certificates of deposit	10.2	8.0	5.6	4.3	3.1	–7.1
Savings bonds	1.5	1.1	1.3	.7	.7	–.8
Bonds	10.2	8.4	6.3	4.3	4.6	–5.6
Stocks	15.0	16.5	15.6	22.7	21.6	6.6
Mutual funds (excluding money market funds)	5.3	7.6	12.7	12.4	12.2	6.9
Retirement accounts	21.5	25.7	28.1	27.6	28.4	6.9
Cash value of life insurance	6.0	5.9	7.2	6.4	5.3	–.7
Other managed assets	6.6	5.4	5.9	8.6	10.6	4.0
Other	4.8	3.8	3.3	1.7	1.9	–2.9

SOURCE: Survey of Consumer Finances, Federal Reserve Board, 2001 and 1998, and author's calculations.

Notes

¹ 1998 *Survey of Consumer Finances* and 2001 *Survey of Consumer Finances* (Federal Reserve Board) on the Internet at <http://www.federalreserve.gov/pubs/oss/oss2scfindex.html> (visited December 12, 2005).

² Data on employment used in this article are from the Current Employment Statistics (CES) program, which surveys 160,000 nonfarm businesses representing about 400,000 establishments monthly. For more information on the program's concepts and methodology, see *BLS Handbook of Methods*, on the Internet at <http://www.bls.gov/ces/> (visited August 5, 2005). The employment series used in this article begins in 1990 and is seasonally adjusted. The term "securities industry" is used interchangeably with 2002 North American Industry Classification System code 523, Securities, Commodity Contracts, and Other Financial Investments and Related Activities.

³ For more information on recessions, recoveries, the National Bureau of Economic Research Business Cycle Dating Committee, and related topics, see the National Bureau of Economic Research website, on the Internet at <http://www.nber.org/cycles/main.html> (visited December 12, 2005).

⁴ Federal Reserve Governor Ben S. Bernanke, "Asset Price 'Bubbles' and Monetary Policy," Remarks presented before the New York Chapter of the National Association for Business Economics, New York, New York, October 15, 2002, on the Internet at <http://www.federalreserve.gov/boarddocs/speeches/2002/20021015/default.htm> (visited December 2, 2005).

⁵ "The Motley Fool Index Center: S&P 500 Index," *The Motley Fool*, on the Internet at <http://www.fool.com/school/indices/sp500.htm> (visited December 12, 2005).

⁶ "Nasdaq Composite Index: Composition," *Street Authority.com*, on

the Internet at <http://www.streetauthority.com/terms/index/nasdaqcomposite.asp> (visited December 12, 2005).

⁷ "About the New York Stock Exchange: Overview," *NYSE, New York Stock Exchange*, on the Internet at <http://www.nyse.com/about/1088808971270.html> (visited December 12, 2005).

⁸ "Letter to Shareholders and Clients: Financial Highlights," *Merrill Lynch 2003 Annual Report*, on the Internet at <http://www.ml.com/annualmeetingmaterials/2003/ar/letter2.asp> (visited December 12, 2005); "Financial Highlights," *The Goldman Sachs 2003 Annual Report*, on the Internet at http://www.gs.com/our_firm/investor_relations/financial_reports/annual_reports/2003/pdf/GS03AR_completefinancials.pdf (visited December 12, 2005); *The Bear Stearns Companies Inc. 2003 Annual Report*, on the Internet at http://www.bearstearns.com/bear/bsportal/Info.do?left=Investor%20Relations&top=SEC%20Filings&sub=sec_edgar (visited December 12, 2005).

⁹ Michael Meyer, "Rolling the dice with a click of the mouse," *Newsweek*, Aug 9, 1999, p. 30.

¹⁰ "Day Trading in Context," *Special Study: Report of Examinations of Day-Trading Broker Dealers*, Part III, A (Office of Compliance Inspections and Examinations, U.S. Securities and Exchange Commission, Feb. 25, 2000), on the Internet at <http://www.sec.gov/news/studies/daytrading.htm> (visited November 10, 2004).

¹¹ 1998 and 2001 *Survey of Consumer Finances*, on the Internet at <http://www.federalreserve.gov/pubs/oss/oss2/scfindex.html>.

¹² *Ibid.*

¹³ *Career Guide to Industries, 2004–05 Edition*, Bulletin 2571 (Bureau of Labor Statistics, March 2004).