Will the Shift to Stocks and Bonds By Households Be Destabilizing?

By Donald P. Morgan

In the last decade, households have tended to shift out of bank deposits and money market funds and into stocks and bonds. Some analysts and journalists worry that the shift could be destabilizing to the economy and financial markets. Consumption spending, it is argued, might fluctuate more because households have invested in riskier stocks and bonds. Financial markets also could be more volatile because households might behave as short-sighted novices who will sell assets in panic at the first dip in the market. In addition, the pension and mutual funds through which households invest tend to trade more actively than households. The increasing role of such heavy traders, it is feared, might increase financial market volatility.

This article contends such concerns, though understandable, are exaggerated. The first section shows that the shift into stocks and bonds primarily indicates aging American workers are saving for retirement. The second section shows that portfolio shifts in the past did not destabilize consumption, and argues that new investors this time around will not destabilize financial markets. Households, for their part, are investing for long-run goals and therefore are likely to ride out short-term bumps in the market. Moreover, the role of institutional investors in the market has been trending up for 30 years without any accompanying trend in the volatility of stock prices.

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THE SHIFT IN HOUSEHOLD PORTFOLIOS

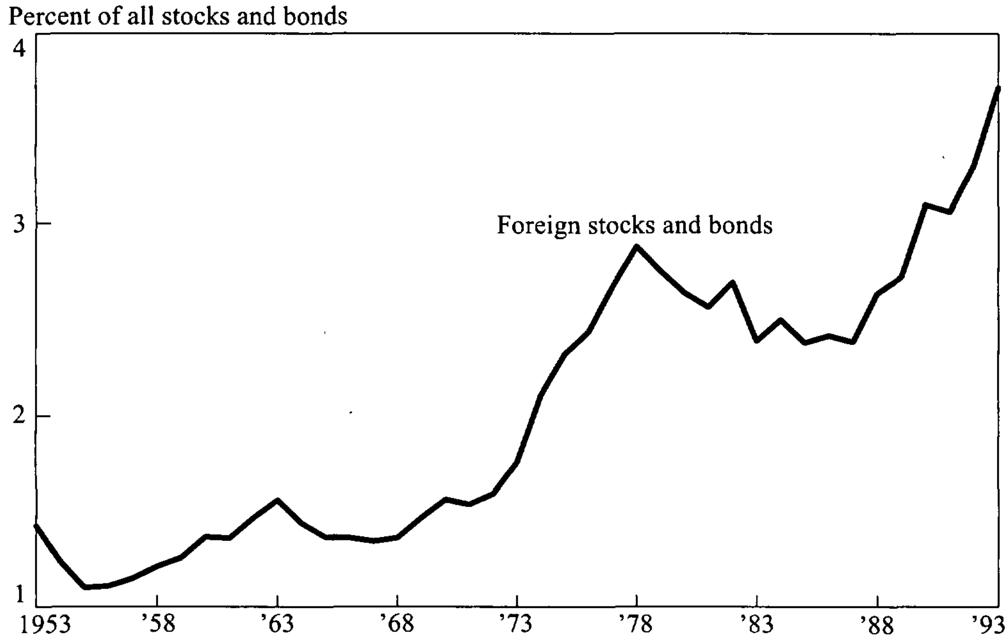
American households own a large portfolio of financial assets divided among safe assets, such as bank deposits and money market shares, and riskier assets, such as stocks and bonds. Over the last decade, some households have assumed riskier portfolios by substituting stocks and bonds for bank deposits and money market shares.

Dimensions of the shift

Even though the shift into stocks and bonds has drawn attention only recently, the trend began in the early 1980s (Chart 1).[1] The share of financial assets invested in stocks and bonds increased from 60 percent in 1982 to about 75 percent in 1993, the highest share since 1961. The share of financial assets invested in deposits and money market shares decreased over that period from 40 percent to 25 percent, the lowest share since 1961.

Chart 3

U.S. Residents Have Invested in Foreign Stocks and Bonds



Note: U.S. residents include households and corporations.
Source: Flow of Funds Accounts, Federal Reserve System.

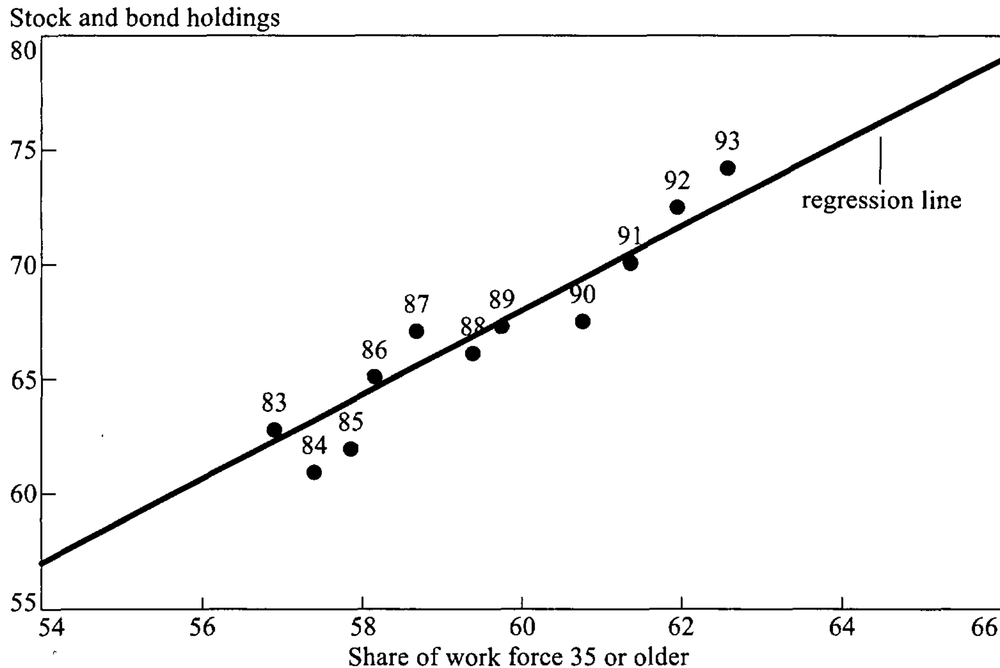
tion plans increased from 30 percent in 1982 to about 43 percent in 1990 (Private Pension Plan Bulletin). Under such plans, payments to retirees are determined by the value of assets in the pension. The risk of declining asset prices is thereby borne by the pension holders themselves. Under the alternative of defined benefit plans, in contrast, payments to retirees are independent of the value of pension assets. The company sponsoring the plan, therefore, bears the risk of declining asset prices. This risk is shared by the federal government because defined benefit plans are insured by the Pension Benefit Guaranty Corporation. Given these differences between the two types of plans, the households investing through defined contribution plans are bearing more risk.

Investing abroad might also increase portfolio risk because the prices of foreign stocks and bonds fluctuate more than in the United States. For example, the standard deviations of monthly stock and bond returns in the United States in the 1980s were only 4.8 percent and 3 percent, compared with 6.6 percent and 4.6 percent on average in Japan, Germany, Britain, and Canada (Tesar and Warner).[3] In addition, foreign investments entail exchange rate risk because foreign assets are usually purchased with that country's currency. After selling the asset, U.S. investors must convert the foreign currency to dollars. Depreciation of the foreign currency against the dollar, therefore, could reduce the return on the investment.

Chart 6

Stock and Bond Holdings Have Risen as Expected, Given the Aging Work Force

Percent of household financial assets



Note: The regression line was estimated over 1952-93.
Source: Flow of Funds Accounts, Federal Reserve System, Author's calculation.

households began shifting out of stocks and bonds, and they invested only a small share in stocks and bonds until they shifted back in the early 1980s. These past portfolio shifts allow a simple test of whether consumption spending fluctuates more when households invest heavily in stocks and bonds.

The volatility of consumption is found to be unrelated to the share of financial assets invested in stocks and bonds over the last three decades (Chart 7). Consumption growth was actually a bit less volatile over 1963-72 when the share was high than over 1973-82 when the share was low. And while volatility increased a little in the mid-1980s after households began shifting back into stocks and bonds, it has since declined to its historical average.[9] The stability of consumption during past portfolio shifts into stocks and bonds should assuage fears that the recent shift will destabilize consumption spending.

One possible reason why shifts into stocks and bonds have not destabilized consumption is that consumption is not very sensitive to changes in wealth. Researchers estimate that, as a rule, households reduce their current consumption by only about 5 cents for every dollar decline in their wealth (Brayton and Mauskopf).[10] Consistent with this rule, Garner estimates consumption fell by only about $40 billion after the stock market crashed in 1987, which cost households about $750 billion in wealth.[11] Because households now own more stock than in 1987, a proportionate drop

that insure those assets, which in turn reduces the risk that taxpayers must bail out those agencies. Such risks are real and substantial, as illustrated by the savings and loan bailout and by the current deficit of the Pension Benefit Guaranty Corporation (Becketti).

This reasoning, and the evidence before it, suggests the recent portfolio shift merely reallocates risk to new investors. This reallocation itself might increase aggregate risk if, however, new investors destabilize financial markets.

Will new investors destabilize financial markets?

Some analysts and journalists are concerned that the households now investing in stocks and bonds will destabilize financial markets. Others worry that pensions and mutual funds will increase volatility because these institutions trade more heavily than households.

Household investors. Some observers portray new household investors as short-sighted novices who are misinformed about the risks they face. The image of new investors as short-sighted speculators possibly comes from the suspicion that households began buying stocks and bonds recently because of the steep yield curve and booming stock market. This suspicion breeds another: the recent investors are novices because they have not yet experienced a normal market correction. Seeming to support the suspicion that new investors are novices is a survey finding that two of every ten people who purchased a stock or bond mutual fund between July 1991 and July 1993 were first-time buyers.[13] These novices may even be misinformed because, if they purchased stock and bond funds from a bank, they may think the mutual fund is federally insured.

This profile of new household investors seems distorted for several reasons. First, households appear to have shifted to stocks and bonds to save for retirement, not because they are short-sighted speculators. The long-term investment goal of households suggests they are prepared to ride out short-term drops in the market. Second, the new investors are not necessarily novices. Because households began shifting their portfolios back in 1982, the 1987 stock market crash taught them the risks involved. Moreover, the fraction of first-time buyers in recent years may be no higher than in the 1950s and 1960s.[14] Recent investors are certainly not young or uneducated: the survey of recent stock and bond fund investors found their median age was 44 and over half had college degrees. Third, only a small fraction of recent investors could mistakenly believe their stock and bond funds were federally insured. The same survey found less than 10 percent of recent investors purchased such funds from a bank, and presumably only a fraction of those investors were misinformed.[15]

For these reasons, a more accurate profile suggests the new household investors are middle-aged, well-educated investors pursuing a long-term investment goal. Such investors seem unlikely to behave in a manner that would destabilize financial markets.

Institutional investors. Some analysts also worry that pensions and mutual funds could increase market volatility because these increasingly prominent institutions trade more actively than households. Institutional investors do indeed trade, or turn over, their assets more often than households (Froot, Perold, and Stein). At the rate households traded in the 12 months ending in 1990, for example, they would take almost five years to turnover their portfolios. Pensions and mutual funds, in contrast, would have turned over their portfolios in about two years at the rate they traded over that period. The more prominent market role of such heavy traders could therefore increase trading volume.

The role of institutional traders has been trending up for 30 years, however, without noticeably increasing the volatility of stock prices (Chart 8). The standard deviation of the real growth rate

quarter of 1987, while the Morgan Stanley foreign index fell only 11 percent, about half as much.[16]

Because of this low correlation, researchers agree that foreign diversification can stabilize wealth despite the additional exchange rate risk (Obstfeld). Tesar and Warner calculate that investing in the United States, Japan, Britain, Germany, and Canada—with each country weighted according to its market share of all markets—was safer over the 1980s than investing in just U.S. stocks or bonds, notwithstanding exchange rate risk. Moreover, investors can hedge against exchange rate fluctuations with a futures contract that guarantees a certain exchange rate, as many mutual funds do.

CONCLUSION

Concerns that the shift into stocks and bonds by households will destabilize aggregate consumption or financial markets seem exaggerated. Consumption remained stable in the 1950s and 1960s when households had as much invested in stocks and bonds as they do today. In addition, new investors are not likely to destabilize financial markets. Households seem to be investing for retirement and therefore are likely to ride out short-run bumps in the market. And the role of institutional investors in the market has been trending up for 30 years without any accompanying trend in the volatility of stock prices.

ENDNOTES

1 The Federal Reserve's Flow of Funds measures bonds at book value and stocks at market value. Bonds include all credit market instruments held by households. Holdings of each type of asset (stocks and bonds versus deposits and money market shares) include direct and, as best as possible, indirect holdings through mutual funds, life insurance companies, pensions, and bank trusts. Holdings through private pensions, state and local pensions, and bank trusts were decomposed into each type of asset using tables L123, L124, and L133 from the Flow of Funds Tables, September 1993. It was not possible, however, to decompose holdings through mutual funds, life insurance companies, and federal pensions so those holdings were assumed to be invested only in stocks and bonds; that assumption is reasonable because those institutions hold relatively small amounts of deposits and money market shares. Holdings of each type of asset are expressed as a percentage of household financial assets excluding security credit, miscellaneous assets (direct and indirect), and noncorporate equity.

2 Some analysts claim that the shift from direct stock and bond holdings to domestic mutual funds will stabilize aggregate consumption because mutual funds are better diversified. This argument is a fallacy of composition; individuals' consumption may be more stable following such a shift, but aggregate consumption is unaffected because variations in individuals' consumption cancel in aggregate.

3 These are the standard deviations of excess returns: the monthly return on stocks or bonds less the holding period return on a 30-day Treasury bill or Eurorate.

4 The growing popularity of mutual funds over direct investment could reflect several factors. Households may better understand the benefits of diversification now. Mack discusses several other possible reasons. Increased advertising by mutual funds after the SEC adopted rule 12b-1 in 1980, which permits mutual funds to pay for advertising with their assets, may have increased their market share. The introduction of IRA and Keogh accounts in 1982 may also have favored mutual funds to the extent mutual funds are more convenient for opening such accounts. The popularity of mutual funds cannot reflect declining costs, however; from 1982 to 1992 expenses of domestic stock funds rose from 1.08 percent of assets to 1.49 percent, while expenses of bond funds remained constant at about 0.9 percent of assets (Mack).

5 These figures are annual averages.

6 Among short-term assets, bank deposits were especially low during the 1990s as banks seemed to lower their rates relative to other short-term rates in response to weak loan demand, reduced competition from the struggling thrift industry, and new capital requirements.

7 A third reason for not using the steep yield curve to explain the portfolio shift is that it assumes investors allocate their

wealth in response to current yields rather than expected future yields.

[8] In particular, the spread between the ten-year bond rate and the federal funds rate—current, lagged, or both—was insignificant in explaining yearly changes in the share of assets held in stocks and bonds, given the share of workers 35 or older. Alternatively, the increased share of wealth in stocks and bonds could reflect capital gains on existing holdings, rather than new inflows. However, that explanation begs the question: after enjoying capital gains, why didn't households re-balance their portfolios by shifting into safer deposits? Perhaps because households were aging and therefore desired a larger share of wealth invested in stocks and bonds. In any case, demographic shifts remain highly significant in explaining portfolio shifts even when the regression includes the annual market return on the S&P 500—current, lagged, or both; regardless of the specification, the demographic variable has a t-statistic between 30 and 40. These regression results are available from the author.

[9] The standard deviation of consumption growth was 0.47 percent over 1963-72 and 0.52 percent over 1973-82. The standard deviation was 0.76 percent over 1983-87 and 0.41 percent over 1988-93. These figures are the average over the period of the data plotted in Chart 7. Those data are the standard deviation each year of the monthly growth rate of personal consumption expenditures. Although monthly data seem to provide a more meaningful measure of volatility, using quarterly consumption growth leads to the same conclusion: the volatility of quarterly consumption growth—total or just durables—is unrelated to the share of financial assets invested in stocks and bonds.

[10] This small estimated impact of changes in wealth on consumption accords with the life-cycle theory of consumption, which holds that households will reduce their spending gradually over their entire lifetime rather than all at once when their wealth falls (Modigliani and Brumberg).

[11] According to the rule, consumption would fall $37.5 billion = .05 x $75. Consumption actually declined by only $1 billion over the fourth quarter of 1987 because income and other factors changed. Garner held these other factors constant to isolate the impact of the crash on consumption.

[12] The reallocation might have a small, or second-order, effect on aggregate business risk if the firms' managers were inclined to pursue riskier investment projects as a result of the changes in claims against it.

[13] The survey of 1,000 people was commissioned by The Investment Company Institute, a mutual fund trade association.

[14] That new investors over the last decade are investing through mutual funds, rather than directly in the market, suggests investors are more sophisticated than their counterparts in the 1950s and 1960s. Households then were much more likely to buy directly in the market than to invest through mutual funds, which is puzzling. Middle-class investors tried to lower their risk by investing in relatively safe public utilities and, to a lesser extent, mutual funds (Crockett and Friend).

[15] It is implausible that investors who purchased stock and bond mutual funds through brokers and directly from mutual funds would believe such purchases were insured.

[16] The Morgan Stanley index of stock markets in 24 countries is denominated in dollars and so includes exchange rate risk.

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