U.S. Household Finance in the 1990s

FRANCIS H. SCHOTT, PhD

Abstract: *Household financial management during the 1990s is a success story because aggregate net worth has risen considerably. A strong stock market and broadened stock market participation have helped materially as the U.S. public has recognized the potential of equities, especially in diversified mutual funds and for the purpose of retirement planning. Major negatives in personal finance include a still-declining savings rate, a run-up of credit card debt and of delinquencies as well as record bankruptcies. Strengthened consumer financial education, especially in the workplace, is likely to be a lasting legacy of the 1990s and a promising area for financial institution services.*

Household financial management by the U.S. public has undergone rapid evolution in the 1990s and by and large constitutes a story of progress. After a slow start in the early 1990s, household net worth has risen sharply since mid-decade. The diversification of personal financial assets into equities, specifically mutual funds, has played a key part in the gain. The clearly perceived rising need for personal financial planning, especially for retirement, has been a potent spur to individual action.

It is also true, however, that attitudes toward and results of financial management have not turned uniformly positive in the 1990s. High debt/income ratios and low personal savings remain facts of life in the United States, and personal bankruptcies have risen to new heights in the late 1990s. Furthermore, 1998 brought a sharp reminder that capital gains from equities are an uncertain component of rising household wealth. Perhaps the most important sign of progress in personal finance is the evident rise in the demand for and acquisition of consumer financial education — a likely permanent legacy of the 1990s.

Rising Net Worth and Equity Holdings

During the eight-year period ending in 1997 (1989 is the base), household net worth increased by almost $14 trillion to nearly $34 trillion, or 6.7 percent, annually. Table 1 shows that the excess in asset growth over that of liabilities was largely driven by the rapid increase in the value of household equity holdings. Such holdings rose at roughly 15 percent annually over the eight-year period. In the process equities doubled their share in total household assets to almost a quarter, and this relative gain occurred even in the early parts of the decade when the total rise in net worth was only small and slow.

Joseph Nocera's *A Piece of the Action — How the Middle Class Joined the Money Class* perfectly characterizes in its title the main consequence of the drive toward equity ownership.[1] By 1995, about 41 percent of families owned stocks directly or indirectly, up from roughly 32 percent at the beginning of the decade (see Table 2A). The largest percentage increases in stock ownership occurred among families in the lower brackets of 1995 incomes, as the figures clearly show. Despite the broadening of equity ownership, however, such holdings remain more prevalent in the higher income groups, both in the percentage of families owning stocks and in the proportion of financial assets that equities represent. Thus, in the mid-1990s stock holdings ranged from less than a quarter of families' financial assets in the under-$25,000 income bracket to nearly 50 percent in the over-$100,000 bracket.[2]

The main motivating factors in the public's increased interest in equities are clear. The origins go back to the 1970s and early 1980s when high inflation and low, controlled bank interest rates created a forced-draft environment favorable to money market and bond funds. The stock market began steadily to perform quite well during the protracted economic expansion of the 1990s. Mutual fund complexes stood ready to offer their equity products as the traditional barrier of market volatility began to

This issue of the Journal went to press in February 1999.

crumble. Simultaneously, the public became acquainted with the favorable record of equities as an investment for the long term. Indeed, as the safety of Social Security came to be questioned and as government policy came to favor long-term savings through IRAs and 401(k)s, the growth of individual interest in equities became a logical economic response. Corporate restructuring and downgrading of defined benefit plans in the early 1990s coincided perfectly with the increased need for and availability of defined contribution plans. Thus, rising personal responsibility for retirement met with the discovery of equities as a popular investment vehicle. Very significantly, the proportion of individual retirement savings held in equities rose during the 1990s to close to the 50 percent-plus ratio long typical of defined benefit plans.[3]

During the first seven years of the decade, the Standard & Poor's 500 stock market index advanced at an annual rate of over 13 percent. During 1995 through 1997 alone, the index rose at roughly 24 percent annually. Thus, the question is highly pertinent whether the rising role of equities in consumer portfolios may reflect actual net inflows into equities or the effect of capital gains alone.

TABLE 1*
U.S.Household Assets, Liabilities and Net Worth, 1989 and 1997
(in billions of dollars, rounded)

		1989	1997	Eight-year growth rate (percent per annum)
1.	Total Assets	23,480	39,330	6.7
	Selected components:			
	Tangible assets	9,110	12,170	3.7
	Financial assets	14,370	27,160	8.3
	Directly held corporate equities	1,960	5,630	14.1
	Mutual fund shares	810	2,640	16.0
2.	Total Liabilities	3,420	5,760	6.7
	Selected Components:			
	Home Mortgages	2,240	3,770	6.7
	Consumer credit	790	1,260	6.0
3.	Net Worth (1-2)	20,060	33,580	6.7
	Memo: Household Net Worth as a percentage of disposable personal income	513.5	570.6	

Source: Board of Governors, Federal Reserve System**

* The statistics include nonprofit organizations, but households account for approximately 90% of the total. Equity values are at market while most other assets are measured at book. Mutual fund shares include money market and bond/income funds.

** Federal Reserve Board, Flow-of-Funds Accounts, Z.1,104,June 1998.

Investment Company Institute data, in the five years ending in 1997, indicate that of the approximately $3 trillion in growth in value of household-held equity and mutual funds, two-thirds are capital gains while one-third represents net inflows into the funds. Thus, the "rebalancing" of consumer portfolios in favor of equities is heavily, but not exclusively, the result of capital gains.[4]

The institutionalization of consumer-held equities has been proceeding for several decades; directly held stocks have declined in relative importance while those held through institutions have increased. Table 2B shows plainly that the number of direct shareholders of individual equities has stagnated in the early 1990s while the broadening of equity ownership has been associated with a variety of institutional arrangements. Mutual funds have been the leaders in taking advantage of the exceptional opportunity afforded by a long-lasting bull market, raising their lead share in institutional holdings of equities for individuals by 27 percent annually in 1990 through 1997.[5]

However, other institutions have also followed the path of providing diversified portfolios for the newly equities-oriented investor. Thus, life insurance companies' equity holdings for individuals on the basis of variable annuities and other relevant insurance assets have increased at about double the rate of traditional life insurance reserves during the 1990s, and life companies have invested heavily in establishing or acquiring mutual fund complexes. Similarly, commercial banks, seeing growth in their traditional checking and savings deposits slow to a crawl, are in the midst of a wave of diversification into the securities business.[6]

Real estate, which used to be the mainstay of consumer assets, has grown at only 3.6 percent annually during the 1990s — about the aver-

Mortgage debt remains the largest single component of household debt.

age inflation rate — and has thus lost ground to financial assets in general and equities in particular. Yet, homeownership among families has remained at over 60 percent. The weakness of real estate markets during the first half of the decade accounts for much of the lag, but there is unquestionably some decisional component of this development. Most likely, the newly required focus on individual retirement planning has encouraged the increased reliance on financial assets.

Recent Problems in Household Finance

Three important negative factors have to be weighed carefully when reaching a net judgment on the outcome of consumer financial activity in the 1990s. These factors are (1) the continuing rise in household debt relative to income after a very brief halt early in the decade; (2) the substantial rise in charge-offs (uncollectable debt) for several types of indebtedness and an equally symptomatic rise in bankruptcies; and (3) last, but not least, a continuing decline in the personal savings rate.

Household debt has been rising at slightly below 7 percent during the 1990s (see Table 1). This advance, expected in a growing economy, is usually judged relative to personal income. Among the most prominent such measures are the ratio of debt to income (a direct measure) and the debt service burden relative to income (an indirect measure). Both are shown in Table 3. The two measures can differ substantially: the first ratio is suggestive of the burden of the debt; the second ratio is responsive to the terms of the debt (such as interest rates and maturities) and may be of greater analytical value, especially in appraising future consumer spending.

After a decline early in the decade from record levels in the late 1980s, both ratios have risen again. By 1996-97, they reached historical highs except for the late 1980s. Mortgage debt remains the largest single component of household debt. Gradually declining interest rates and the rising popularity of home equity loans account for a number of strong housing years with rising mortgage debt during the 1990s. Yet, the dynamic element in the overall increase in debt and debt service has been revolving credit, mainly credit card debt. In fact, during the early 1990s credit cards supplanted automobile loans as the second largest consumer debt item (after mortgages).[7] By the late 1990s, the strong rise in credit card debt drew increased official attention, in particular warnings to banks by the Federal Reserve Board. The rise was accompanied by a distinct uptick in bad-debt write-offs (also shown in Table 3).

The eight-year economic expan-

TABLE 2
U.S. Shareownership, 1989-95
(millions of persons and percent)

A. Percentage of Families Holding* Stock Directly or Indirectly	1989	1992	1995
1. All families (income in 1995 dollars)	31.7	37.2	41.1
2. Income $10,000 - 25,000	13.1	19.4	25.3
3. Income $25,000 - 50,000	33.1	41.6	47.7
4. Income $50,000 - 100,000	54.0	64.1	66.7
5. Income above $100,000	79.7	79.1	83.9

Source: Federal Reserve Bulletin**

**Family Finances in the U.S.: Recent Evidence from the Survey of Consumer Finances, 83 Fed. Res. Bull. No. 1,12 (Jan. 1997). The total number of families who were sampled in 1995 was about 100 million.

B. Number of Shareowners* (in millions of persons)	1989	1992	1995
1. Directly held stock	27.0	29.2	27.4
2. Add direct holdings of mutual funds	31.5	35.3	38.6
3. Add 401(k) & other employer-related savings	42.1	51.5	59.6
4. Add IRAs, Keogh, variable annuities, and defined contribution plans	52.3	61.4	69.3

Sources: New York Stock Exchange and Economic Report of the President**

* The family figures in Table 2A are not fully reconcilable with the number of persons figures in Table 2B. However, the figures in Table 2B assume that joint tenancy holdings (typical of couples) represent two stockholders. Thus, in 1995 roughly 41 million families (Table 2A) correspond to about 69 million people (Table 2B), an intuitively reasonable relationship.

** New York Stock Exchange, Shareownership 1998, 23(forthcoming 1999); Economic Report of the President 321(Feb. 1998). The adult population (over 20 years of age) in 1995 numbered 188 million.

sion is, of course, a key factor underlying the rise of all types of debt. The capacity to borrow is directly correlated with rising jobs and incomes. The particularly striking increase in credit card debt, however, calls for additional specific explanations. It would appear that the combination of downwardly sticky credit card charges in the face of a declining interest rate environment gave lenders a special incentive to seek to issue additional credit cards to existing and new borrowers. On the demand side, rising wealth and a disproportionate increase in the population at peak borrowing age (25 to 40) both favored the growth of debt.[8]

Rising indebtedness in and of itself would hardly have given rise to official and private analyst concerns. As noted, consumer assets and household net worth were rising by more than debt virtually throughout the 1990s. What set off alarm bells was and is the rise in delinquencies and bankruptcies in the face of an improving aggregate picture.

Mortgage delinquencies alone have declined marginally in the 1990s. Credit card and other consumer loan delinquencies, however, sharply rose again from 1994 to 1996 after a dip early in the decade, as already noted. They did so despite the pickup in the pace of economic growth after a slow start in the expansion. There seemed to be no good economic reason for rising delinquencies at peak prosperity. The leveling-off in delinquencies and a possible slight decline in 1998 at below-peak rates indicate that lenders and consumers alike are improving their credit judgment under the pressure of necessity.

The rise in personal bankruptcies has, of course, sharply accentuated legitimate concern regarding the public's handling of debt. In the 12-year period ending in 1997, personal bankruptcies rose by over 14 percent annually, from a previously roughly stable $300,000 to $350,000 to $1.35 million a year in 1997 before (at least temporarily) leveling off in late 1997/early 1998. Aggregate economic conditions cannot account for this increase any more than for the rise of delinquencies. It is widely believed that a shift to Chapter 7 bankruptcies (full discharge of debt) from Chapter 13 (calling for a repayment plan) was encouraged by a change in the federal bankruptcy statute in 1978. However, it is equally clear that social opprobrium of bankruptcy has waned. A National Bankruptcy Review Commission, created by Congress in 1994, was unable to achieve substantial consensus on the causes and possible cures for the bankruptcy explosion in its final report of October 1997. Yet by the late 1990s, strong pressure to reduce the incidence of bankruptcy made a further revision of the federal bankruptcy statute likely.[9]

The nation's low and still-declining personal savings rate in a sense explains the persistent growth of debt and credit problems. The United States has long had the lowest savings rate among developed nations, but the 1990s have witnessed new lows in both of the leading measures of such savings, as plainly shown in Table 4. "National income" savings simply subtracts all consumption from after-tax income to reach a savings residual. "Flow-of-funds" savings adds to that concept an allowance for the residual value (i.e., net of depreciation) of consumer durables. The two measures, both imprecise, are often used as an (imperfect) crosscheck of each other, but both clearly lead to the same (already stated) conclusion for the 1990s.

Until recently, the discussion of the causes and consequences of low U.S. savings had been dominated by the drain on savings that large federal deficits constituted. With the virtual elimination of such deficits, the personal savings decline has come into even sharper relief as a contributing factor to national economic problems. A large portion of the investment boom of much of the 1990s has had to be financed by capital inflows from abroad, which constitute another form of national indebtedness. Further-

TABLE 3
Household Debt Burden and Credit Card Charge-offs
(1987-97)

	Household debt as a percentage of Disposable Personal Income (DPI)	Debt service as a percentage of DPI	Credit card charge-offs as a percentage of outstanding credit card balances
1987	0.84	17.1	3.62
1992	0.88	16.5	5.23
1995	0.93	16.5	3.91
1997	0.98	17.0	5.80

Sources: Board of Governors, Federal Reserve System, Federal Reserve Bank of New York, and Economic Report of the President*

* Board of Governors, Federal Reserve System, Balance Sheet of Households and Nonprofit Organizations, Z.1,104 (June 1998); Donald Morgan and Ian Toll, Federal Reserve Bank of New York, Bad Debt Rising, 3 Current Issues No. 4 (1997); and Supra Economic Report of the President, at 69.

Explanations of the decline in the savings rate both abound and remain largely unprovable.

more, insufficient savings, especially for retirement, indirectly aggravate the clearly foreseeable problems of Social Security in the next century.

Explanations of the decline in the savings rate both abound and remain largely unprovable. Government policy has played a part. Thus, three Brookings Institution researchers trace the "dramatic decline in U.S. savings to government redistribution (of resources) from current young … to current older ones, and a sharp increase in the propensity of older Americans to consume out of their remaining resources."[10]

The age composition of the active population, with the bulk of the baby boomers remaining in the peak borrowing period, is a contributory explanation, previously noted in connection with rising credit card debt. The ready availability of both credit cards and home equity loans may well be reducing the perceived need for savings for emergencies. Finally, persistent and substantial capital gains in widened-ownership equities may be viewed as the equivalent of additional savings. Thus, a scholarly literature distinguishing active and passive saving is emerging: the former is the diversion of personal income away from consumption and the latter equals unrealized capital gains.[11] This very plausible explanation — and indeed the phenomenon itself, whatever the reason — bodes ill for the need to improve individual provision for retirement. Making an assumption of good equity performance, or the hope for such, may become an excuse for lowering one's savings rate. The positive effect of individual exploitation of equity potentials may thus be lost. Conversely, the savings rate should rise in a period of stock market weakness, but any such inverse explanation correlation between equity performance and the savings rate has not been proved.

The combination of a long period of nearly full employment and the traditionally high consumption propensity of the U.S. public is a reasonable explanation of the additional decline of the savings rate in the 1990s. This combination has overridden any and all congressional attempts to strengthen savings by special devices such as IRAs, Keoghs, and 401(k)s. These appear to have changed the form of savings without changing the downtrend in the total.

Striking a Balance

It is no easy task to evaluate the evolution of consumer financial positions over the decade of the 1990s on a net basis. Nevertheless, there are a few reasonably clear points. First, the net advance in consumer financial positions has been unevenly distributed both temporally and sectorally. Thus, the gain in consumer wealth was slow over the first half of the decade and sped up in the second half. The slowness of the economic recovery from the 1990 to 1991 recession impaired wealth accumulation while the years 1995 through 1997 were dominated by record stock market performance. Evidently the last word has not been spoken as the stock market faltered in 1998. Nevertheless, even if the stock market remained at the end-of-1997 level for the remainder of the decade, its rise for 1990 to 1999 would be a solid 10.5 percent annually compounded (and similarly high for the five years 1995 to 1999 alone) — roughly around the average performance of stocks over the two decades from 1978 to 1997.[12] Thus, short of economic catastrophe, the decade's likely favorable equity investment result will sustain the net advance in consumer wealth, although it has to be assumed that the assumption of debt will also slow down with a stable rather than rising stock market.

The broader point of the previously noted distributional imbalance

TABLE 4
U.S. Personal Saving Rate
(Two measures, in percentages)
1987-97

	Personal Saving as a residual of income after consumption* ("National Income")	Personal Saving (incl. net fixed asset accumulation) relative to income* ("Flow of Funds")
1987	5.3%	10.0%
1992	6.2	11.5
1995	4.8	7.8
1997	3.7	5.4

Source: Board of Governors, Federal Reserve System**

* The main difference between the two concepts relates to the treatment of the net accumulation of tangible assets (e.g., equity in residential housing and automobiles after depreciation). An estimate of this accumulation is included in the second column, not in the first one.

** See Board of Governors, Federal Reserve, Flow of Funds Derivation of Measures of Personal Saving, Z.1,17, June 1998 and earlier issues. The two measures cannot be fully reconciled but both point unequivocally downward after the early 1990s.

U.S. Household Finance in the 1990s

is that rising overall net wealth in the consumer sector has in all likelihood accentuated the concentration of wealth at the upper end of the scale. Because of the rising role of equity ownership among the population at large, however, it may well be that the recent increase in net wealth is focused on the upper third or even one-half of the wealth/income distribution rather than on the traditional upper 10 to 15 percent.

As noted, wealth increases with income and education. Increasing returns to education are among the most striking developments of the past two decades. They are, of course, related to premiums for technical skills (especially on the computer) and the declining demand for unskilled labor in an increasingly service-oriented economy. These apparently irreversible trends have had an obvious bearing on both relative incomes and wealth among the skilled and technically educated and those who have fallen behind.

The diversion of savings into tax-advantaged retirement plans is a consumer response to new incentives that, while rational in itself, fails to address the insufficiency of all savings, including those for retirement purposes.[13] It may well be that the uncertainties surrounding Social Security are still interpreted optimistically by the general public. Equally likely, the decline in defined benefit plans has not yet struck home among large parts of the labor force. In either explanation, a strong stock market has provided a rationale for many to postpone more individual provision for retirement.

Increased consumer attention to personal finance may well be the most permanent of the legacies the 1990s will leave to household financial management. There is no direct measurement of the effect on consumer knowledge of the numerous specialized magazines and additional newspaper columns covering personal finance that have sprung up, but studies on the effectiveness of financial education in the workplace are now available. "As of 1994, 88 percent of large employers offered some form of financial education, and more than two-thirds added these programs after 1990."[14] Such educational programs primarily address retirement planning, and "both participation in and contributions to voluntary savings plans are significantly higher when employers offer retirement seminars. The effect is typically much stronger for nonhighly compensated employees than for highly compensated employees."[15] These findings are, of course, wholly compatible with lagging savings from incomes for other than retirement and/or benefiting from tax breaks.

The Outlook

Some speculation on the outlook appears necessary, if for no other reason than the possibility of sudden turns in household finance near the end of this unfinished decade. One immediate question is whether "Our Love Affair with Stocks" (front-page headline of *Business Week,* June 3, 1996) will survive the recurrence of volatility and/or a pronounced downturn, whatever the reason. The second half of 1998 constitutes a test case: the newly developed trust in equity performance might be undermined by the feared and possibly self-fulfilling consequences of a flight from equity.

Important analysts, such as the Investment Company Institute, flatly deny that mutual fund shareholders are likely to panic during a stock market downturn: "Though not insensitive to market movements, shareholders have a long-term perspective...(They) exhibit patience during...share sell-offs." In support of this position, the Institute notes that nearly two-thirds of shareholders own more than one type of equity fund, that 54 percent of stock fund owners also own bond funds, and that the median length of time for mutual fund ownership is ten years.[16]

Similarly, the Presidential Task Force on Market Mechanisms (the Brady Commission) stated after the market crash of October 19 and 20, 1987, that a few large institutions and not the general public accounted for a high proportion of the massive selling. This conclusion, however, has been challenged on the ground that there was "widespread dumping of a stupendous volume of shares by a great number of smaller investors," although institutions did sell larger amounts in dollar volume.[17]

The matter remains unresolved. Each major stock market move has its own characteristics. Thus, it is possible that a gradual erosion in the market, as in the late summer and fall of 1998, may have had a different effect on investor confidence than a sudden crash such as the one which occurred in October 1987. The close linkage of the rise in stock ownership to increased personal retirement planning is reassuring. Yet, the market was carried to record-high price/earnings (P/E) ratios from 1995 to 1997 at least in part by "momentum investing" — the upward move of the market itself generated additional inflows. Depending on the length and severity of the current market correction, that same effect may in itself push the market down, regardless of economic fundamentals.[18]

A question that is beginning to concern scholars is whether the established premium of stocks over fixed-investment can withstand the mass interest in stocks that gradually developed in earlier decades but came to fruition in the 1990s. The advance in P/E ratios has (by definition) eroded dividend yields so that price advances have become a larger part of the total return on stocks. This may be an unsustainable development, given the recently proved-again volatility of equity

. . . enhanced financial education of the broad public is likely to be a lasting legacy of the 1990s.

prices. One scholar has suggested that the premium on investment in stocks may persist but at a reduced differential versus bonds.[19] Such a conclusion may be premature if the next few years reaffirm the downside to, and riskiness of, stock ownership.

Finally there is the question whether debt accumulation, defaults, and bankruptcies will continue to rise at the high rates of recent years. The likely answer is "no," provided the normal business cycle reasserts itself even if only in attenuated form. This is a very good bet despite the record-long economic expansion of 1991 to 1998. Growth beyond the economy's long-run potential carries the seeds of its end. As human resources reach their capacity in progressively lower unemployment, labor costs and eventually prices tend to escalate, thus requiring Federal Reserve restraint. Similarly, financial excesses virtually always occur close to the peak of an expansion: it was the real estate market before the last recession of 1990 to 1991; it is the stock market and hedge funds in 1998. Such developments may be ameliorated and postponed, but are not eliminated, by international competition and rising U.S. trade deficits.

As noted, enhanced financial education of the broad public is likely to be a lasting legacy of the 1990s. Such progress should continue into the next millenium. This implies a further growth in financial versus tangible assets as well as additional asset diversification. Therefore, offering a diversified mix of investment vehicles in a growing but highly competitive environment will be the key to institutional success. Adequate retirement savings have taken hold as a personal objective of large segments of the public and constitute a growth market for institutions.[20] Yet, the inadequacy of total personal savings for all combined purposes constitutes a serious limiting factor on individual financial management as well as on institutional providers. If there is a cure for insatiable consumption, no one has found it, most likely because the very description of low savings as a problem by financial planners and economists is virtual anathema to large segments of the U.S. public. **J**

Editor's Note: Data input ended October 1998.

(I/R Code No. 4000.00/2500.00)

Francis H. Schott, PhD, is a director of Mutual of America and a past director of Equitable Variable Life, New York, N.Y. He was senior vice president and chief economist of Equitable Life from 1967 to 1991 and has served as president of the National Association of Business Economists and chair of the ACLI Investment Research Committee. He holds a bachelor's degree from Oberlin College and received his doctorate from Princeton University.

(1) Joseph Nocera, A Piece of the Action - How the Middle Class Joined the Money Class 464.(1994).
(2) *See* The 1995 Survey of Family Finances, Federal Reserve Board (83 Fed. Res. Bull, No.1, 1-23) (Jan. 1997). This latest available tri-annual endeavor of the Federal Reserve Board represents the basic source for the subject of this article. The results of the next (1998) Survey of Family Finances (forthcoming in 1999) will unquestionably show a strong continuation of the equity ownership trends shown in Table 2.
(3) *See* James M. Poterba and David A. Wise, *Individual Financial Decisions in Retirement Savings Plans and the Provision of Resources for Retirement*, Work. Paper No. 5762, Nat'l Bureau of Econ. Research, tbl. 3-5. Sept. 1996. Other researchers state that "assets held in large single-employer defined benefit pension plans are about half in equities, a fraction not very different from the current holdings of defined contribution plans." Olivia S. Mitchell and James F. Moore, *Retirement Wealth Accumulation and Decumulation*, Work. Paper No. 6178, Nat'l Bureau of Econ. Research, Sept. 1997.
(4) Investment Company Institute, 1997 Ann. Rep. 26. Net inflows into equity funds were positive throughout 1992-1997, with the largest inflows taking place in 1996-1997. These inflow figures have been measured against the growth of total mutual fund assets for the same period. *Id.* at 25.
(5) *See* Balance Sheet of Households and Nonprofit Organizations with Equity Detail. Federal Reserve Board, Flow of Funds, Z.1,116tbl.B.100e (June 1998). It may be noted that life insurance companies had the second-highest growth rate, almost 25 percent annually in the 1990s, in equity holdings for individuals. (Absolute amounts for life insurance are about one-third those of mutual funds.)
(6) *See* Francis H. Schott, *Consolidation and Convergence of Financial Institutions*, XXXI Bus. Econ. No. 4,31-36 (tracing and analyzing the conglomeration of financial institutions).
(7) *See* 84 Fed. Res. Bull No. 9, A35-A36 (Sept.1998). The relevant data can be traced in the series on "Consumer Credit" (usually tbl. A36) in the monthly Fed. Res. Bull. In mid-1998, revolving credit amounted to over $530 billion and automobile loans to over $420 billion. At the same time, residential mortgages outstanding were about $5.5 trillion.
(8) See Donald Morgan and Ian Toll, *Bad Debt Rising*, Federal Reserve Bank of New York, 3 Current Issues No. 4,1-5(March 1997) (strongly emphasizing the demand side of the explanation).
(9) *See* The Long-Term Uptrend in the Bankruptcy Rate, Economic Report of the President 74-76 (Feb. 1998) (explaining the background of the problem and the difficulty of finding adequate explanations for the uptrend in bankruptcies). In the waning days of the 105th Congress in late 1998, it appeared possible that legislative action might again be postponed amidst continuing controversy over solutions acceptable to both lender and borrower interests. *See, e.g.*, Margaret Manix, *Bankruptcy Reform Rush*, U.S. News and World Rep., Oct. 12, 1998, at 79.
(10) Jagadeesh Gokhale et al., *Understanding the Postwar Decline in U.S. Saving: A Cohort Analysis*, Brookings Papers on Economic Activity No.1, 315-407 (1996).
(11) *See e.g.*, Erik Hurst et al., *The Wealth Dynamics of American Families*, Brookings Papers on Economic Activity No. 1, 267-337 (1998).
(12) All calculations of common stock returns in this article are based on Council of Economic Advisers, Economic Report of the President, tbl. B-95, 390 (Feb. 1998). The annual figures of daily averages for the Standard & Poor's 500 index (excl. dividends) stood at 98.2 in 1977; 322.8 in 1989; 460.3 in 1994, and 872.7 in 1997. It will be recalled that long-term returns on stocks, e.g., 1926-1995 as calculated by Ibbotson Associates (the standard source) show a figure of nearly 10%. Work. Paper No.5762, Nat'l Bureau of Econ. Research, *supra* note 3, at 1. The comparable 1926-1995 figures for long-term bonds and short-term Treasury bills are 4.8% and 3.8%, respectively.
(13) *See* Eric M. Engen et al., *The Effects on*

Tax-based Saving Incentives on Saving and Wealth, Work. Paper No. 5759, Nat'l Bureau of Econ. Research, Sept. 1996 (exploring the relationship between tax-incentives and total savings) . This paper concludes that "little if any of the overall contributions to existing saving incentives have raised private or national saving." It should be noted, however, that tax-incentivized saving is beginning to add to retirement incomes, thus effectively promoting a more limited objective of such incentives. *See* James M. Poterba et al., *Implications of Rising Personal Retirement Saving*, Work. Paper No. 6295, Nat'l Bureau of Economic Research 60, Nov. 1997.

(14) Patrick J. Bayer et al., *The Effects of Financial Education in the Workplace: Evidence from a Survey of Employers*, Work. Paper No. 5655, Nat'l Bureau of Econ. Research 1-2, July 1996.

(15) *Id.* at Abstract.

(16) Investment Company Institute, 1997 Ann. Rep.24, *Profiles of Mutual Fund Shareowners and the Industry*.

(17) Peter L. and Barbara S. Bernstein, *Where the Postcrash Studies Went Wrong*, Institutional Investor, Apr. 1988, at 4. This article also contains an able summary of the Brady Commission Report. Thus, to one's frustration, "analyses have never revealed a clear, single cause of the crash." E. Gerald Corrigan, *Comments*, Papers on Financial Services 1-8 (Robert E. Litan and Anthony M. Santomero, eds., Brookings-Wharton 1998).

(18) A recent study finds that momentum investing exists, but that it has no measurable effect on future returns. Hence the conclusion that momentum investing is "ephemeral and not the source of snowball effects." Peter Fortune, *Mutual Funds, Part II: Fund Flows and Security Returns*, Federal Reserve Bank of Boston, New Eng. Econ. Rev. 22, Jan.-Feb. 1998.

(19) Jeremy J. Siegel, Stocks for the Long Run, (1998), summarized in *Why Stocks are still the Investment of Choice*, Wall Street Journal, Sept. 16, 1998, at A22.

(20) *See* Paul Hoffman and Anthony M. Santomero, *Life Insurance Firms in the Retirement Market-Is the News all Bad?*, LII, J. Am. Soc'y CLU & ChFC, No.4, July 1998 at 70-86 (summary of significant implications for life insurance companies of the struggle for market share in the retirement savings market).