

**MUTUAL FUND SHAREHOLDER
RESPONSE TO MARKET DISRUPTIONS**

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Summary

With the rapid growth in mutual funds in the 1990s, economist Henry Kaufman and others² have expressed the concern that mutual funds may now pose a systemic risk to financial markets. They fear that a large and sudden drop in stock or bond prices could cause massive redemptions of mutual fund shares that would force portfolio managers to dump securities, thereby sending securities prices well below their fundamental values. To lessen the potential for mutual funds to be a destabilizing force in financial markets, Kaufman has recommended that mutual fund redemptions be subject to a waiting period of sixty or ninety days.

¹ Research Department, Investment Company Institute. Research assistance was provided by Joe McDonald, Natalia Parnly, and Jianguo Shang.

² Henry Kaufman, "Structural Changes in the Financial Markets: Economic and Policy Significance," *Economic Review*, Federal Reserve Bank of Kansas City, Second Quarter, 1994, pp. 5-15. Also see David Hale, "The Economic Consequences of America's Mutual Fund Boom," *The International Economy*, March/April, 1994, pp. 24-64 and David P. Morgan, "Will the Shift to Stocks and Bonds By Households Be Destabilizing?," *Economic Review*, Federal Reserve Bank of Kansas City, Second Quarter, 1994, pp. 31-44.

Several events in 1994 provide an opportunity to examine Kaufman's concern about the threat mutual fund shareholders may present to the stability of financial markets. These events include the tightening of monetary policy, capital support provided by fund sponsors to taxable money market funds, the bankruptcy of Orange County, California, and the devaluation of the Mexican peso. Each would appear to have had the potential to shake shareholder confidence in mutual funds and to trigger redemptions, perhaps on a scale resembling depositor runs on commercial banks before the creation of deposit insurance.

In light of the importance of systemic risk, this article examines the reaction of shareholders to developments last year. The principal findings are:

- Although the effects of events in 1994 are clearly evident in shareholder investment activity, none produced a bank-like run on mutual funds.
- The tightening in monetary policy begun in February 1994 led to an outflow from domestic bond and income funds, but it was spread over the remainder of the year and not concentrated within a short time period after the first tightening. The largest outflows occurred in March 1994 and in the fourth quarter, which likely reflected tax considerations.
- In contrast to domestic bond funds, equity funds posted inflows for the year that were the second highest on record.
- Between May and September 1994, losses in derivatives forced a number of mutual fund sponsors to inject capital into taxable money funds. Shareholders responded by shifting from sponsor-supported funds to other money funds. The outflows from the funds receiving support generally ended within three months after the support initiative was announced.
- The filing for bankruptcy by Orange County, California in December 1994 produced a response by shareholders in California bond and money funds that was similar to that of owners of taxable funds receiving sponsor support. Fund flows generally shifted in favor of other tax-exempt mutual funds for the first month or two after the filing.
- The devaluation of the Mexican peso in December 1994 sparked only small outflows from Latin American and emerging market equity funds despite sizable declines in the share prices of these funds. Emerging market bond funds had larger outflows, but they were in line with those experienced by these funds in the two months before the devaluation. Outflows at both bond and equity funds ended by April 1995.

- The failure of events in 1994 to produce a run on mutual funds likely reflects the characteristics of the typical mutual fund shareholder. The vast majority are either experienced individual investors or institutional investors. Relatively few shareholders made their first investment in mutual funds in the past three years. As shown in ICI surveys, the typical individual shareholder has a long-term investment horizon and some understanding of investment risk, and thus may not respond to short-term market volatility.
- Although the reaction of shareholders to developments in 1994 provides some reassurance that they may not be a source of instability for financial markets, it may well be that the critical test of shareholder stability has yet to occur. On this point, ICI shareholder research has found that shareholders have a basic understanding of investment risk, but some shareholders hold investment portfolios that are inconsistent with their stated risk tolerance.

Mutual Fund Shareholder Response to Market Disruptions

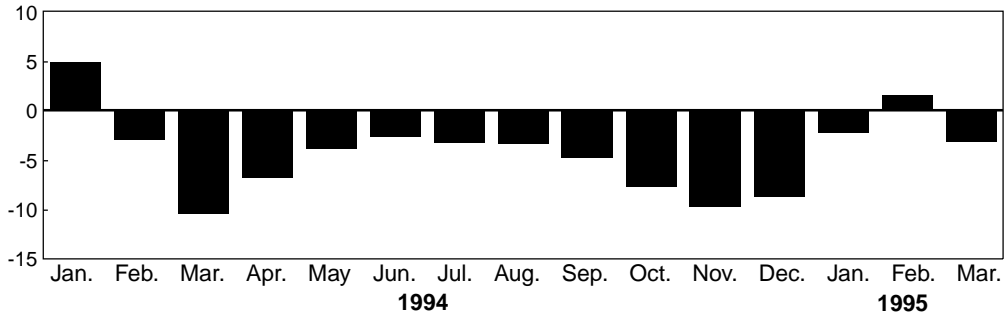
Monetary Tightening

Domestic bond funds. In February 1994, the Federal Reserve initiated a series of moves that raised the federal funds rate from 3 percent to 5½ percent by yearend. Other short-term interest rates rose by comparable amounts, and long-term yields increased about 1½ percentage points. These movements in interest rates contributed significantly to a heavy outflow from domestic bond funds (Figure 1) that cumulated to 12 percent of average net assets through March 1995.

Although some analysts might be tempted to view the net redemptions as consistent with Kaufman's thesis, the timing and pattern of the outflow were different from the "cascade of selling" brought on by "sudden, highly visible setbacks in stock prices, bond prices, or both" that was envisioned by Kaufman.³ Although there was some immediate reaction by domestic bond fund shareholders to the Federal Reserve's public announcement on February 4 of a tightening in policy, shareholder reaction was more muted in succeeding months. Domestic bond funds experienced net outflows of cash from shareholders in February of \$3.0 billion which increased to \$10.5 billion in March. However, the net outflows declined in

³ Kaufman, p. 7.

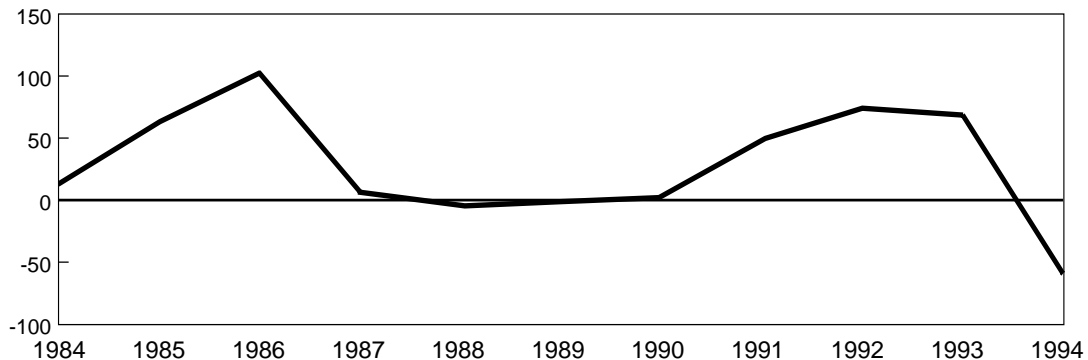
FIGURE 1
Monthly Net New Cash Flow of Domestic Bond Funds
 (billions of dollars)



Note: Net new cash flow is sales other than those from reinvested distributions less redemptions plus sales from exchanges less redemptions from exchanges.

succeeding months to \$2.6 billion in June 1994 before starting to increase again in July. Net outflows became especially heavy in the fourth quarter when shareholders likely recognized losses for tax purposes stemming from sizable decreases in net asset values that accompanied the tightening in monetary policy. During the fourth quarter, the average monthly outflow from domestic bond funds was equal to 1.8 percent of net assets, only slightly less than the outflow experienced in March, which was equal to 1.9 percent of net assets. Outflows in the other months ranged from 0.5 percent to 1.3 percent of assets.

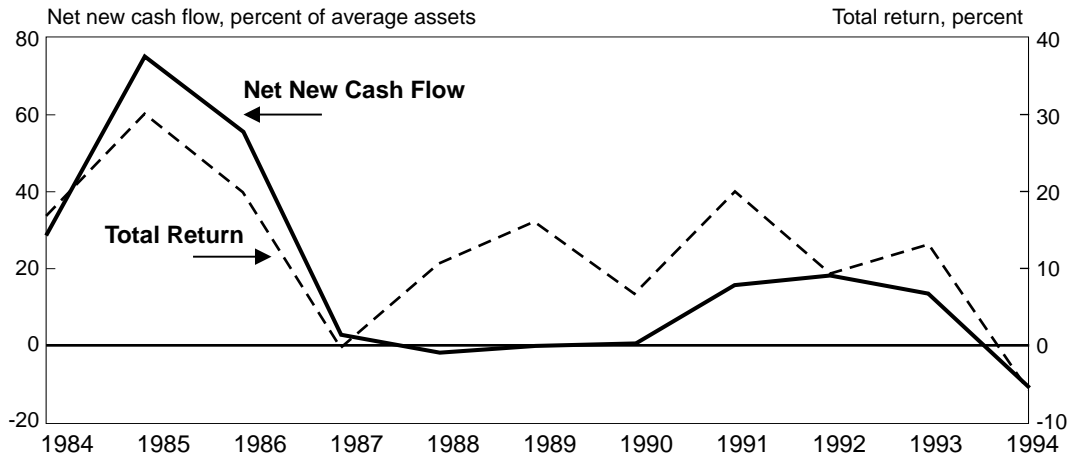
FIGURE 2
Annual Net New Cash Flow of Domestic Bond Funds
 (billions of dollars)



Note: Net new cash flow is sales other than those from reinvested distributions less redemptions plus sales from exchanges less redemptions from exchanges.

FIGURE 3
**Net New Cash Flow of Domestic Bond Funds
 and Total Return on Corporate Bonds**

(billions of dollars)

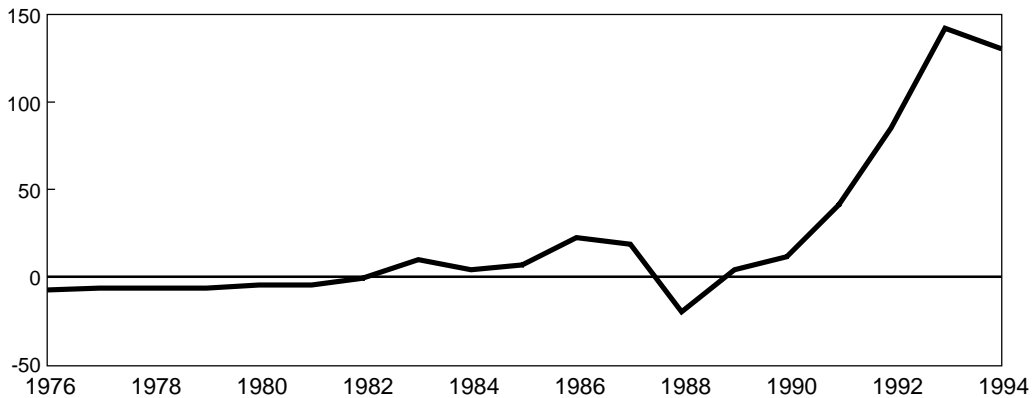


*Note: Net new cash flow is sales other than those from reinvested distributions less redemptions plus sales from exchanges less redemptions from exchanges; total return includes dividend income and capital appreciation.
 Source: Standard & Poor's (total return) and Investment Company Institute (cash flow).*

The outflow from domestic bond funds in 1994 and the inflow in the preceding three years is very similar to the movement in net flows to these funds in the mid and late 1980s (Figure 2). As in the current period of net redemptions, the outflow in 1987 was preceded by an extended period of heavy inflows associated with falling interest rates. The inflow came to a halt in the spring of 1987 with the tightening in monetary policy and did not resume until policy began to ease in mid 1989. These two experiences thus suggest that net flows to domestic bond funds are largely driven by interest rates. Indeed, movements in the total return on corporate bonds and the net flow to domestic bond funds, expressed as a percent of average net assets, have been closely related since 1984 (Figure 3).

Equity funds. In contrast to shareholders of domestic bond funds, equity fund shareholders did not respond, on balance, to the monetary policy tightenings by redeeming shares. To the contrary, equity funds last year recorded the second highest level of inflows (Figure 4). The net infusion of \$119 billion was only 7.9 percent below the record set in 1993 and 50.6 percent above the net flow in 1992. The strength in inflows last year occurred despite a lackluster performance in equity prices, but a close relationship between equity returns and cash flow has never existed (Figure 5).

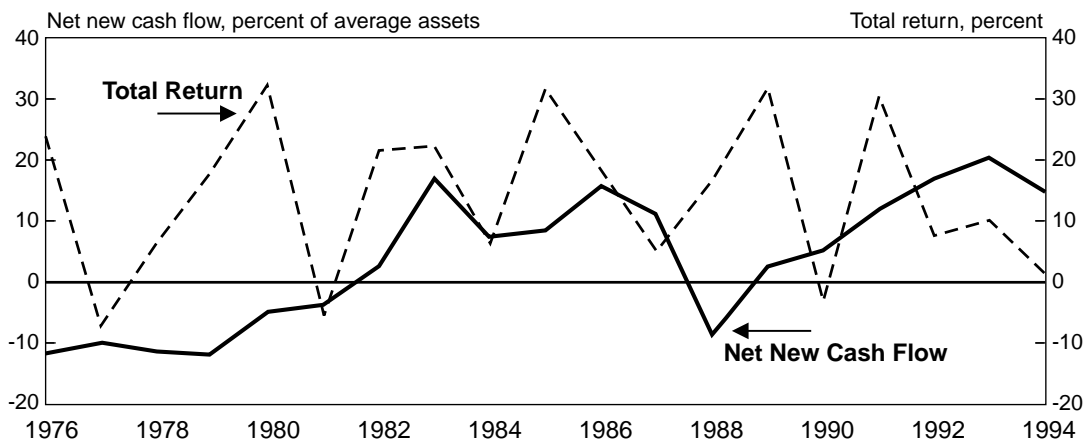
FIGURE 4
Annual Net New Cash Flow of Equity Funds
 (billions of dollars)



Note: Net new cash flow is sales other than those from reinvested distributions less redemptions plus sales from exchanges less redemptions from exchanges.

Market volatility in late March and early April. In late March and early April of 1994, stock and bond markets became highly volatile in the wake of the Federal Reserve's second increase in the federal funds rate on March 22, heavy sales of Treasury and mortgage-backed securities by hedge funds, and a strong March employment report released on April 1. Between March 22 and April 4, the Dow Jones Industrial Average fell 7 percent, recording especially large drops on

FIGURE 5
**Net New Cash Flow of Equity Funds
 and Total Return on the Standard & Poor's 500**
 (billions of dollars)



Note: Net new cash flow is sales other than those from reinvested distributions less redemptions plus sales from exchanges less redemptions from exchanges; total return includes dividend income and capital appreciation.
 Source: Standard & Poor's (total return) and Investment Company Institute (cash flow).

March 29 and 30. Over the same period, the yield on the thirty-year Treasury bond rose from 6.85 percent to 7.43 percent, an increase of 58 basis points. On April 4 alone, the yield jumped 43 basis points. The sell-off in securities markets ended on April 5, and by month-end, the Dow Jones Industrial Average was up 2.4 percent from its low on April 4, while the yield on the thirty-year bond stood at 7.31 percent.

Long-term mutual fund shareholders as a group responded to the weakness in stock and bond markets, not surprisingly, by redeeming more shares than they purchased. However, the volume of net redemptions was relatively small and the burst of redemption activity was short-lived. During the two weeks ended April 6, net flow at equity funds turned negative after being positive in the preceding weeks (Figure 6). The outflow from equity funds during the two-week period averaged \$1.3 billion per week in contrast to an average weekly inflow of \$2.4 billion over the previous four weeks. Similarly, the outflow from domestic bond funds jumped from a weekly average of \$1.8 billion in the four weeks ended March 23 to \$3.2 billion in the two weeks ended April 6.

Relative to the outstanding level of stocks and bonds, outflows of these magnitudes certainly would not be large enough by themselves to disrupt stock and bond markets. Indeed, the outflows were not especially large for either equity funds or domestic bond funds. Relative to net assets, the cumulative outflow for equity funds amounted to 0.4 percent and that for domestic bond funds in March and April, 3.2 percent. In the aggregate, liquid assets at both groups of funds would have been sufficient to meet the outflows without requiring liquidation of long-term securities.

FIGURE 6
**Net New Cash Flow at
Long-term Mutual Funds**
(billions of dollars)

Week Ending 1994	Equity Funds	Domestic Bond Funds
Feb. 2	4.9	1.6
9	3.1	-1.2
16	4.0	0.1
23	3.1	-0.4
Mar. 2	1.2	-2.0
9	2.6	-2.9
16	2.8	-1.8
23	2.9	-0.6
30	-0.4	-2.4
Apr. 6	-2.2	-4.0
13	2.9	-0.7
20	2.1	-2.8
26	2.8	0.3
May 4	2.5	-0.4
11	1.9	2.1
18	2.2	1.3

Note: Net new cash flow is sales other than those from reinvested distributions less redemptions plus sales from exchanges less redemptions from exchanges.

FIGURE 7
Total Net Assets of Taxable Money Market Funds
 (billions of dollars)

Date (1994)	Adviser-supported		Other	
	Institutional	Retail	Institutional	Retail
Apr. 26	11.0	9.6	162.4	413.6
May 25	10.5	9.7	159.0	412.0
Jun. 29	9.2	9.5	161.1	405.8
Jul. 27	8.6	9.4	163.9	412.7
Aug. 31	8.2	9.2	157.4	410.8
Sep. 28	7.8	9.4	162.0	418.9
Oct. 26	7.9	9.5	172.3	424.0
Nov. 30	8.0	8.3	169.4	435.9
Dec. 28	8.1	8.3	176.8	435.0
Percent Change				
Apr. 26, 1994- Dec. 28, 1994	-26.4	-13.5	8.9	5.2

Besides being relatively light, the spurt in redemption activity ended with the rebound in the stock and bond markets in the second week of April. Inflows returned to equity funds, averaging \$2.6 billion per week between April 7 and May 4, and the outflow from domestic bond funds slowed appreciably, averaging \$0.9 billion per week over the four weeks ended May 4. Domestic bond fund inflows averaging \$0.8 billion per week were recorded over the four weeks ended May 18.

Derivatives Losses at Taxable Money Funds

The increases in interest rates during the first half of 1994 produced capital losses at a number of taxable money market mutual funds that, in turn, threatened to cause their share price to fall below \$1.00. The losses generally were on derivative instruments known as structured notes. These notes were floating-rate securities whose rates lagged the upward adjustments in market interest rates. As a result, prices of the structured notes declined rather than remained stable, as is the case with conventional floating-rate securities.

Faced with the prospect of derivatives-related losses causing the share price to fall below \$1.00, fund sponsors provided capital support to approximately twenty-five taxable money funds between May and December. Another sponsor was unable to do so and

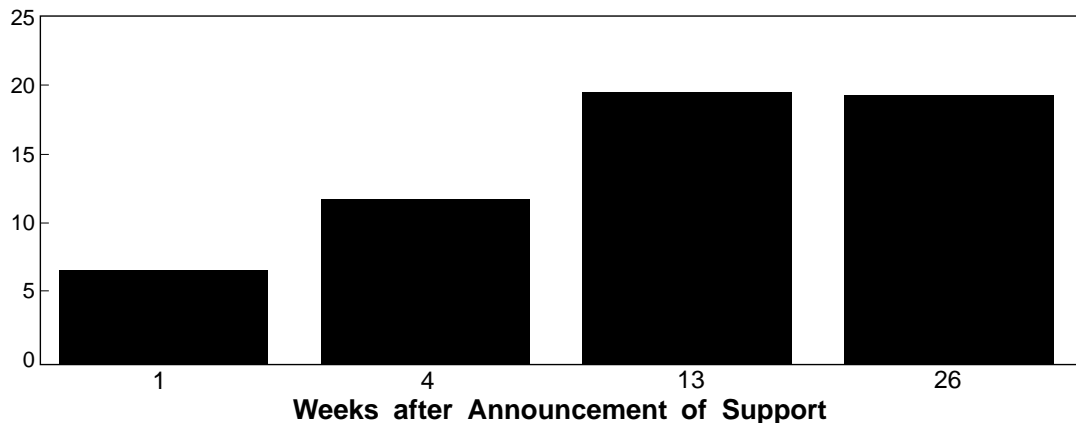
liquidated its fund in September with shareholders suffering a 6 percent loss. This marked the first time investors in a money fund with a policy of maintaining a stable share price had incurred a loss.

An event such as this is troubling because, although a stable share price is not guaranteed, all money fund managers attempt to manage their investments to maintain, and shareholders have come to expect, a constant price. In addition, shareholders have the alternative of insured bank and thrift deposits if the stability of share prices seems in doubt.

Despite their potential to do so, the capital support provided by fund sponsors and the fund liquidation did not spark a general run on money market funds. The main consequence seems to be that shareholders initially shifted away from those funds receiving support to other money funds. For example, between April 26, 1994 and December 28, 1994, net assets of institutional money funds that had received support declined \$2.9 billion or 26.4 percent, while those of other institutional funds rose \$14.4 billion or 8.9 percent (Figure 7). Over the same period, assets of sponsor-supported, retail funds decreased \$1.3 billion or 13.5 percent, while those of other retail funds increased \$21.4 billion or 5.2 percent.

Although the reaction of shareholders to the capital support provided by fund sponsors was severe, it generally ran its course after about three months from the time of the announcement of support from the sponsor. Starting from an average decrease in assets of

FIGURE 8
**Average Percentage Decrease* in Assets of Sponsor-supported,
Taxable Money Market Funds from the Week before Support Announcement
to Various Weeks Thereafter**



Note: Net new cash flow is sales other than those from reinvested distributions less redemptions plus sales from exchanges less redemptions from exchanges.

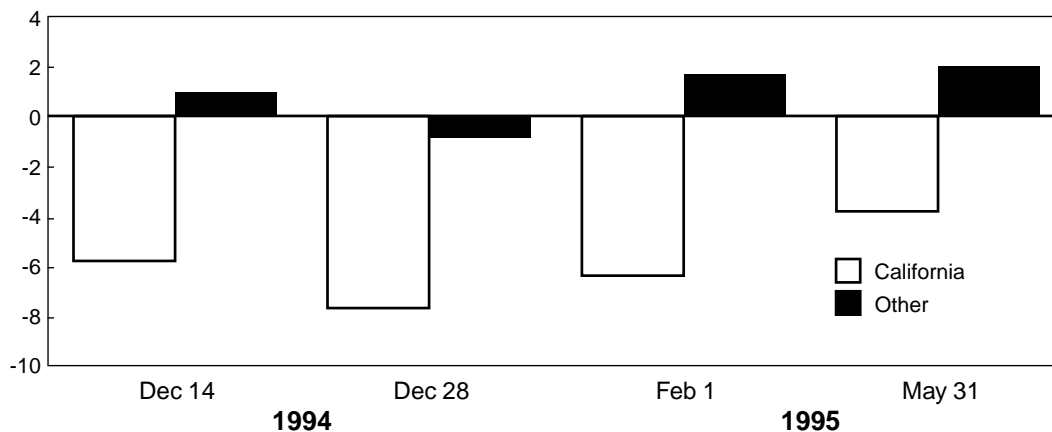
6.8 percent at all sponsor-supported funds in the first week after the announcement, the outflow built to almost 20 percent by the end of three months; thereafter, assets remained roughly unchanged (Figure 8).

Orange County Bankruptcy

On December 6, 1994, Orange County, California filed for bankruptcy as a result of losses incurred in an investment pool managed by the county for other California municipalities. The bankruptcy filing raised concerns among investors not only about the value of Orange County obligations but also about those of participants in the investment pool and those of other California counties with similar investment pools. Given the uncertainties caused by the filing, many tax-exempt money market funds (as well as several taxable money market funds) holding Orange County securities entered into support arrangements with their sponsors in order to avoid potential losses by shareholders of these funds.

The reaction of shareholders in tax-exempt money funds was similar to that of shareholders in taxable money funds receiving such sponsor support. No general run on tax-exempt funds occurred, but some shareholders redeemed holdings in California tax-exempt money funds. Assets in these funds declined 5.8 percent between November 30 and December 14, and by December 28 the decline in assets had reached 7.7 percent (Figure 9). In contrast, assets of other tax-exempt money funds declined only 0.9 percent between November 30 and December 28. The outflow from California funds came to a halt near the end

FIGURE 9
Percent Change in Assets of Tax-exempt Money Market Funds
 From November 30, 1994 to Selected Dates



of December, and since then asset growth of these funds has exceeded that of other tax-exempt funds (Figure 10).

Tax-exempt bond funds were also potentially affected by the Orange County bankruptcy. California funds may have experienced some outflows in response to the bankruptcy, but other developments may have been at play as well. The outflows in December from California funds, measured as a percentage of assets, was only slightly larger than those at other municipal bond funds. Bond fund owners had suffered sizable losses during the year, and consequently the outflows from California funds could have been partly tax related. The outflow from California funds, however, continued in January—though at a reduced pace—while other municipal bond funds experienced a small inflow for the month of January. This raises the possibility that some of the redemption activity in California funds during December and January may have been in response to the bankruptcy but, in any event, the magnitude was not substantial. Since January, the pattern of weekly net flow to California funds has been in line with that of other tax-exempt bond funds (Figure 11).

Devaluation of the Mexican Peso

The devaluation of the Mexican peso on December 20, 1994 and the subsequent sharp drop in the prices of Mexican securities

FIGURE 10
**Net Assets of Tax-exempt
 Money Market Funds**

(billions of dollars)

Week Ending	California	Other
1994		
Nov. 30	15.6	101.8
Dec. 7	15.7	104.4
14	14.7	102.8
21	14.4	101.7
28	14.4	100.9
1995		
Jan. 4	14.7	103.1
11	15.0	107.4
18	14.9	106.6
25	14.7	104.5
Feb. 1	14.6	103.5
8	14.9	104.7
15	14.9	103.4
22	14.9	104.0
Mar. 1	14.8	103.2
8	15.1	105.8
15	15.2	104.8
22	15.1	105.2
29	15.1	103.5
Apr. 5	15.4	105.6
12	15.5	105.9
19	15.2	103.3
26	14.8	101.1
May 3	14.8	101.8
10	14.9	101.4
17	14.9	103.2
24	15.1	103.9
31	15.0	103.9
Percent Change		
Nov. 30 - Dec. 28, 1994	-7.7	-0.9
Dec. 28, 1994 - May 31, 1995	4.2	3.0

inflicted substantial losses on shareholders in Latin American and emerging market mutual funds. For example, over the last two weeks of December, the average total return on Latin American equity funds was minus 15.2 percent, and these funds lost 30.4 percent over the first quarter of 1995. Other emerging market funds with sizable holdings of Mexican securities similarly posted sizable losses in net asset values.

Under these circumstances, shareholders in Latin American and other emerging market funds displayed remarkable restraint. Outflows from Latin American equity funds in the last week of December were \$71 million, or less than 2 percent of net assets outstanding on December 14. After a small inflow in January, outflows occurred again in February but amounted to only \$50 million (Figure 12). In March, the direction of the flows reversed, and through April had exceeded the cumulative outflow since the devaluation. Other emerging market equity funds experienced a small outflow in March and sharp increases in inflows in April and May.⁴

The outflow from emerging market bond funds followed a pattern similar to that of equity funds.⁵ In the week ended December 28, the outflow was \$90 million,

FIGURE 11
**Net New Cash Flow
of Municipal Bond Funds**
(millions of dollars)

Week Ending	California	Other
1994		
Dec. 7	-31	424
14	-348	-1,200
21	-155	-522
28	-90	-606
1995		
Jan. 4	-107	-541
11	-85	117
18	4	379
22	-95	-860
Feb. 1	72	896
8	-4	172
15	4	628
29	13	-63
Mar. 1	53	877
8	-160	-1,254
15	15	667
22	-21	-289
29	-38	-227
Apr. 5	21	656
12	-8	-2
19	-29	-236
26	-1	-427
May 3	-35	-426
10	91	844
17	-49	-59
24	7	-243
31	68	238

Note: Net new cash flow is sales other than those from reinvested distributions less redemptions plus sales from exchanges less redemptions from exchanges.

⁴ Emerging market equity funds exclude Asian and Pacific Rim funds.

⁵ There is only one Latin American bond fund in the group; emerging market funds exclude Asian and Pacific Rim funds.

FIGURE 12
Net New Cash Flow of Emerging Market Funds
(millions of dollars)

	Equity		Bond
	Latin American	Other*	
Monthly Average			
1994			
Q1	383	240	-22
Q2	27	104	65
Q3	16	298	65
Monthly			
Oct.	53	212	-93
Nov.	-25	-82	-55
Dec.	-39	-39	-26
1995			
Jan.	5	-54	-15
Feb.	-50	61	-26
Mar.	17	24	-1
Apr.	176	159	44
May	-4	143	39
Net Assets			
Dec. 14, 1994	3,878	5,328	934
May 31, 1995	2,725	5,147	788

**excludes Asian and Pacific Rim funds*

Note: Net new cash flow is sales other than those from reinvested distributions less redemptions plus sales from exchanges less redemptions from exchanges.

representing 9.6 percent of emerging market bond fund assets on December 14. The outflow slowed considerably over the first quarter and, on a monthly basis, was actually smaller than that in October and November when net redemptions from these funds first started. Emerging market bond funds experienced inflows in April and May.

Reasons for Shareholder Response

The failure of events last year to produce a run on mutual funds—and the apparent rational response of shareholders to these events—likely reflects two factors. First, the growth in industry assets over the past several years has not been fueled by individuals buying mutual funds for the first time but instead is due to institutional and seasoned individual shareholders.

Second, the typical seasoned individual shareholder has a long-term investment horizon and may not be prone to react to short-run market movements.

Composition of Asset Growth

ICI data and shareholder surveys indicate that the vast majority of asset growth since 1988 reflects increased investments by institutional investors and seasoned individual shareholders. Between 1988 and 1994, mutual fund assets grew at a compound annual rate of 17.8 percent, of which 45 percent was accounted for by institutional shareholders. The remainder represented increased holdings of individuals.

Institutional investors consist primarily of bank and individual fiduciary accounts, retirement plans, insurance companies, and other financial institutions.⁶ It is reasonable to assume that institutional shareholders generally are long-term investors having at least a basic understanding of investments. In addition, survey data suggest that the vast majority of individual shareholders are not new to investing in mutual funds. As of mid 1994, 86 percent of the owners of mutual fund shares had made their first purchase before 1992, and they accounted for over 80 percent of total mutual fund sales in 1993. Moreover, even among those who first purchased mutual funds since 1992, over half had previous experience investing in stocks, bonds, and annuities.⁷

Characteristics of Individual Fund Owners

A variety of survey evidence suggests that the typical individual or household owning shares in mutual funds is a long-term investor unlikely to react hastily to short-run declines in stock and bond prices.⁸ For example, the majority of shareholders in a 1994 ICI survey indicated specifically that their saving was for retirement or some other long-range goal.⁹ Moreover, 95 percent of those interviewed considered their investments in mutual funds to be long term.¹⁰ A survey of shareholder redemption activity in 1991 provides further confirmation of fund

⁶ The retirement plans include assets in 401(k) and 403(b) plans, but at the end of 1993, they represented only 16 percent of all institutional assets.

⁷ *Profiles of First-time Mutual Fund Buyers*, Investment Company Institute, Fall 1994, p. 21.

⁸ Donald P. Morgan concludes that the growth in mutual fund assets held by individuals reflects saving for retirement. See Morgan, pp. 33-34.

⁹ *Profiles of First-time Mutual Fund Buyers*, p. 3.

¹⁰ *Profiles of First-time Mutual Fund Buyers*, p. 50.

owners' long-term outlook on investing. In this study, the typical shareholder redeeming shares had held those shares five years¹¹ and the vast majority of those making full redemptions cited reasons related to investment strategy for doing so, not to market conditions. In fact, most of those closing accounts reinvested all of the proceeds in another mutual fund.¹² Those making a partial redemption also rarely mentioned market conditions as a reason for their action.

The long-term investment horizon is also seen in shareholder reactions to actual and anticipated major movements in securities prices. For example, at most, one fifth of mutual fund shareholders indicated in a survey conducted last year that they would transfer shares to bank deposits if the stock market declined 15 percent during a three-month period and, at most, one third said they would transfer shares to bank deposits if deposit rates rose to 8 percent. In both scenarios, approximately two thirds indicated that they would not alter their level of investments in mutual funds.¹³ In another survey taken in the spring of 1994 after the sharp drop in stock and bond prices in late March and early April, only 10 percent of the responding shareholders had either bought or sold shares in reaction to market developments. Moreover, the most frequent action taken by these few shareholders was to purchase mutual fund shares.¹⁴

Shareholder Understanding of Risk

There is considerable evidence indicating that most shareholders have a basic understanding of elements of the investment risk of mutual funds. However, it is also clear that mutual fund

¹¹ The average holding period for the long-term funds, implied by the redemption rate, has ranged between 2.8 and 3.6 years in the 1990s. These figures are not necessarily inconsistent with the survey evidence partly because they reflect both institutional and individual holding periods. Nor do the figures necessarily suggest that individuals have shorter investment horizons; individuals may be moving investments to different funds while maintaining a long-term investment horizon.

¹² *Understanding Shareholder Redemption Decisions*, Investment Company Institute, Winter 1993, pp. 6 and 8.

¹³ *Profiles of First-time Mutual Fund Buyers*, p. 52.

¹⁴ These findings are from an unpublished survey of shareholders conducted by the Investment Company Institute in April 1994. The description of shareholder behavior indicated in the 1994 survey is consistent with shareholder behavior exhibited during the stock market break of October 19, 1987. Despite the dramatic declines in market values on that and subsequent days, only 5 percent of fund owners redeemed or exchanged their stock mutual funds in the month after the market break. Moreover, purchases of shares in stock funds totaled \$4.8 billion in October 1987, up from \$4.1 billion the previous October. Equity growth and income stock fund categories remained popular with investors in October, with purchases of these funds totaling \$1.9 billion. By May 1988, only 15 percent of fund owners reported having taken any actions to redeem or exchange any type of mutual fund. See *Report of the Presidential Task Force on Market Mechanisms*, submitted to the President of the United States, the Secretary of the Treasury and the Chairman of the Federal Reserve Board, January 1988, Chapter V.

shareholders are not a homogeneous group and that some have investor characteristics that could lead to short-term outflows from mutual funds. About one quarter of the first-time buyers in the 1994 survey indicated having only a limited knowledge of mutual funds, and the 1993 analysis of shareholders' perceptions of risk found many investors view investment risk as simply the chance for a capital loss and have little awareness of specific types of risk, such as interest rate risk.¹⁵ Other findings from the 1993 survey indicate that some shareholders hold investment portfolios that are inconsistent with their stated risk tolerance.¹⁶

Nonetheless, the 1993 survey found that shareholders' perceptions of the expected risk and return of four different types of bond and equity funds was fairly accurate.¹⁷ Shareholders participating in the study also understood that a diversified portfolio reduces market risk. Furthermore, over half of those surveyed who had purchased mutual funds for the first time in the 1990s were classified as high-risk tolerant whereas only 10 percent were classified as low-risk tolerant.¹⁸ Similar responses also were seen in a 1994 survey of new and seasoned shareholders.¹⁹ These findings tend to undermine Kaufman's contention that the risk posed to the stability of financial markets arises from shareholders' lack of understanding of investment risk.

¹⁵ *Piecing Together Shareholder Perceptions of Investment Risk*, Investment Company Institute, Spring 1993, pp. 18-19.

¹⁶ *Piecing Together Shareholder Perceptions of Investment Risk*, p. 5.

¹⁷ *Piecing Together Shareholder Perceptions of Investment Risk*, p. 3.

¹⁸ Shareholders in the survey were classified as low, moderate, or high-risk tolerant according to their responses to five survey questions.

¹⁹ *Profiles of First-Time Mutual Fund Buyers*, p. 6.