

Bond Funds: Treadmill to Oblivion?

**Remarks by
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The rise and decline of the bond fund empire is one of the most captivating, yet untold, chapters in the annals of the mutual fund industry. I tell it today simply because it presents a picture of complacency and overreaching by so many operators and managers of fixed income funds, but a picture that might well serve as a lesson that the mutual fund principles of diversification and management—as valid today as they have ever been—simply cannot provide adequate returns to investors when they are offset by more-than-compensating cost encumbrances.

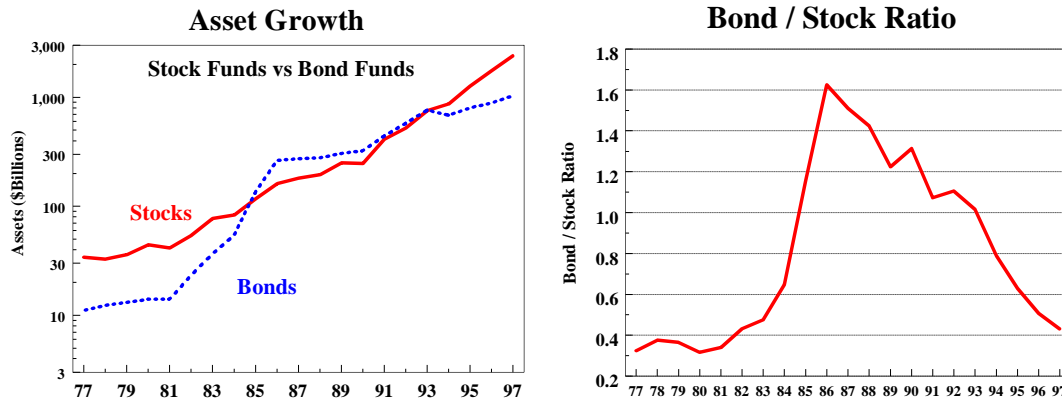
Your memories do not have to be particularly long to recall that, as recently as 1993, bond funds—then with assets of \$760 billion—were the largest component of the mutual fund industry. Indeed, at their peak of importance, reached in 1986, bond fund assets of \$260 billion were 60 percent *larger* than the \$160 billion invested in equity funds.

Since then, of course, we have seen a powerful resumption of the long post-1982 bull markets. In the booming stock market, equity fund investors have enjoyed record returns (16 percent per year). While a very good bond market also brought generous returns to bond fund investors (8.5 percent), they paled by comparison with stocks. Partly—but only partly—as a result, bond fund assets of \$800 billion today are an equally pale reflection of the \$2.4 trillion in equity funds—some 60 percent *smaller*. Turnabout, I suppose, is fair play.

But I would submit to you that the relative performance of the stock and bond markets was only one of two major causal factors in the huge decline in the relative importance of the once-dominant bond fund component of the industry. The other factor is equally basic: as a group, bond funds have failed to meet the legitimate needs of investors in terms of providing adequate relative returns. And if this still-important component of the burgeoning mutual fund industry doesn't make important structural changes to serve investors, the third chapter of its history, following the rise and decline, will be the complete fall of the bond fund empire.

The chart at left below shows the relative growth of these two components of this burgeoning industry, while the chart at right illustrates the remarkable rise and equally remarkable decline in the importance of bond funds relative to equity funds. Unless we change our ways and give bond fund shareholders a fair shake, the final outcome will surely echo Gibbon's landmark history, "The Decline and Fall of the Roman Empire." Bond funds will be on a treadmill to oblivion.

Bond Fund vs. Equity Fund Assets and Relative Assets



“Misery Loves Company”

I am not *quite* alone in my concern about the dubious investment utility of today’s bond funds. For I am joined by no less a proven investment professional than Peter Lynch, heretofore best known, as it were, for sharing my conviction about the merit of stock index funds (“most investors would be better off in an index fund,” he said). In the case of bond funds, he says,¹ “their purpose in life eludes me.” And well it should. For, as he adds:

“Bond funds (have been) consistently outperformed by individual bonds, sometimes by as much as 2 percent a year . . . (doing) worse relative to the bonds the longer the funds were held. The benefits of expert management were exceeded by the expenses that were extracted from the funds to support the experts.”

He added that, “since one U.S. Treasury bond or Ginnie Mae certificate is the same as the next, there is little a manager of one of these funds can do to distinguish himself from competitors.” This reasoning led to what Mr. Lynch described as “Peter’s Principle #5: There’s no point in paying Yo-Yo Ma to Play the Radio.”

Bless Peter Lynch for the simple investment truism that he has revealed: in highly-efficient market segments comprised of commodity-like securities (long term treasury bonds, for example), it is extremely difficult for even the most brilliant and successful money manager to garner a significant margin of advantage—*before* the deduction of costs. It follows, then, that it is virtually impossible for him to avoid providing returns to the shareholders of the funds he manages—*after* the deduction of costs—that fall well short of market returns.

The record is clear on this point. Over the past five years, for example, the return of an average corporate bond *fund* has lagged the return of the corporate bond *market* by an average of 1.5 percent per year—a 1.3 percentage point shortfall for the no-load funds, and a 1.8 percentage point shortfall for the much larger group charging sales loads, either through front-end loads or the noxious annual hidden loads known as 12-b(1) fees that are incorporated into fund expense ratios to help the funds’ managers to sell more shares. The same pattern is equally apparent in the government bond and municipal bond arenas, as this table shows:

¹ In his 1993 book, “Beating the Street.”

Bond Funds vs. Bond Indexes
1992-1997

	<u>Average Return</u>			<u>Shortfall to Index</u>	
	<u>Market</u>	<u>Funds</u>		<u>Funds</u>	
	<u>Index</u>	<u>No Load</u>	<u>Load</u>	<u>No Load</u>	<u>Load</u>
Corporate	8.18%	6.90%	6.41%	-1.28%	-1.77%
Government	7.89	7.10	5.35	-0.79	-2.54
Municipal	6.43	5.99	5.33	-0.44	-1.10

*For each market index group—corporate, government, and municipal—the return is an average of the appropriate Lehman Bros. short, intermediate, and long-term indexes. The returns of corporate, government, and municipal funds reflect a similarly-weighted average of short, intermediate, and long-term funds.

Facing the situation that this differential cost structure exemplifies, Mr. Lynch presents the sales charge issue in this way: “another mystifying aspect of bond fund mania (and, I would emphasize, mania it was when he wrote his book in 1993) is why so many people are willing to pay a . . . sales charge, a.k.a. load, to get into [bond] funds.” He is not *really* mystified, however, for that question quickly leads him to the “Yo-Yo Ma principle” he has articulated. Once again, he and I agree. Yet fully three of every five bond funds get away—apparently without challenge—with charging a load. Indeed, anomalous as it may seem, three-quarters of the assets of all bond funds are owned by shareholders who have paid a sales load as the ticket of admission to a game that, as a general rule, is not worth playing.

A Flagrant Example

Let me single out just one flagrant example of the impact of costs on returns in the most efficient of all bond markets: short-term government bonds. The funds in this category carry an annual cost handicap of 1.01 percent—as, well, low as 0.68 percent for the *average* no-load fund and 1.73 percent for the *average* load fund. Just imagine it. Just to make the point clear: in the case of the average no-load fund, costs would consume 13% of the current yield on the U.S. Treasury 2 ½ year note; in the case of the average load fund, 32%. That penalty could fairly be described as confiscatory.

You are all bond market professionals, and so I ask you, what are the chances that you or one of your fellow professional investors could select a portfolio that would add fully 50% to the return of a short-term Treasury portfolio in order to earn his keep? That is the truly awesome challenge of raising a net fund return of 3.6 percent (5.3 - 1.7) by 1.8 percentage points to the 5.4 percent return required to add just 10 basis points of value? If you were to argue that there was an 1 in 1000 chance (which I doubt), my next question would be: what chance would an investor have of identifying that manager in *advance*? It just doesn’t seem like a bet worth making. Yet investors have placed \$25 billion in short-term government bond funds.

And it gets worse. Some funds, anxious to provide market yields, make a practice of purchasing Treasury notes at a premium, and publish a yield—and actually pay a dividend—that fails to amortize that premium. (In fairness, they are required to also report an “SEC yield” that is net of amortized premiums.) Result: higher income now, a guaranteed capital loss later. This horrible example resulted in shareholders of one fund—once with more than \$1 billion in assets—to experience a decline in net asset value from \$10.19 per share in 1991 to \$8.62 as 1998 began, a capital loss of 15% for a “safe” investment in U.S. government-guaranteed short-term paper.

Now, I've given you these negative examples of what is happening in the bond fund arena simply to set the stage for a comprehensive examination of the role of costs—expense ratios and sales charges—in shaping returns. All bond funds are not created equal. Bond index funds differ from actively-managed funds. Low cost funds differ from high cost funds. Managers have different skill levels. In all, some bond funds give investors the inalienable right to overpay; some (admittedly a much smaller number) give investors the equally inalienable right to a fair shake. The principal conclusion of my research may be obvious: *costs matter*.

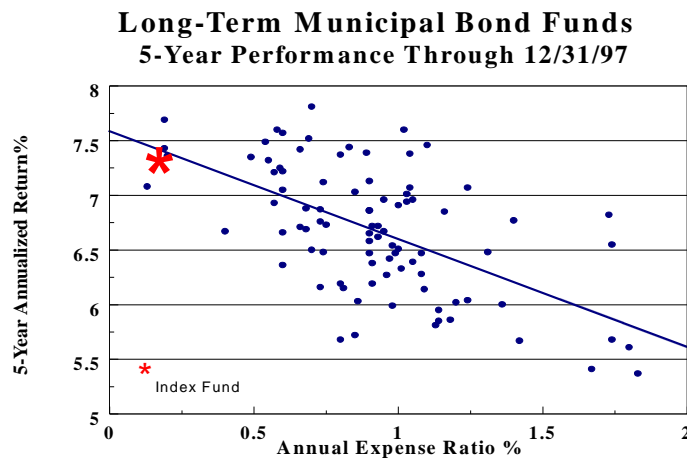
How Much Do Costs Matter?

But it's worth determining just *how much* costs matter. So let's examine the extent to which costs are the determinant of returns in the fixed income fund arena. I'm going to try to present my case in an orderly, lawyer-like manner, using four large and diverse segments of the industry, in which bond fund policies are based on clearly defined maturities, and bond fund portfolios are oriented to high-quality issues. As it happens, these are the largest four segments of the bond fund industry: long-term municipal bonds, short-term U.S. government bonds, intermediate-term government bonds (including GNMA's), and intermediate-term general (largely investment-grade corporate) bonds. In all, 448 funds—about 70 percent of all bond funds in the Morningstar list—comprise these four segments, so we surely have a representative sample.

The results were consistent and uniform. In three of these four segments, the low cost quartile outpaced the high cost quartile, by an amount very closely equivalent to the difference in expense ratios. (That is, each quartile had about the same gross return, and costs accounted for substantially all of the difference among funds.) In the fourth case, returns in the low cost quartile ran only slightly above returns in the high-cost quartile, but the high cost funds held portfolios that were significantly riskier in every respect.

Long-Term Municipal Bonds

First, I'll consider high quality long-term municipal bonds. Let's begin with a look at the entire set of funds in the group, using five-year returns as reported by Morningstar Mutual Funds. There are 92 funds in this group, and this scatter diagram presents for each the annual rates of return on the vertical axis and the annual expense ratio on the horizontal axis. I've also shown the assumed results of an index fund (though it would be difficult to replicate the municipal bond index) for purposes of illustration.



The obvious conclusion: returns go down as costs go up. It is as simple as that. In fact, as the trend line on the chart shows, each percentage point in costs, on average, reduced returns by 1.05 percentage points. That may be because the managers of the high cost funds aren't quite as smart as the managers of the low-cost funds, but it may be due to other factors. We can't be sure. But we can be sure that cost is a prime determinant of the returns of long-term municipal bond funds.

To simplify the analysis, let's divide the funds into four quartiles, ranging from the highest cost to the lowest cost funds, and see what conclusions emerge. This table shows the results:

High Quality Long-Term Municipal Bond Funds

	<u>Five Year Net Return</u>	<u>Expense Ratio</u>	<u>Five Year Gross Return</u>	<u>Return Consumed by Cost</u>
First Quartile (Highest Cost)	6.30%	1.35%	7.65%	18%
Second Quartile	6.70	0.98	7.68	15
Third Quartile	6.98	0.81	7.68	12
Fourth Quartile (Lowest Cost)	7.21	0.55	7.76	7
Index Fund	7.36%	0.20%*	7.56%	3%

* Lehman 10-Year Muni Index, less assumed expense ratio.

The direct relationship between low cost and high returns shown in the first two columns could hardly be more obvious. Expenses in the high cost quartile were 0.80 percent more than in the low quartile, and returns 0.91 percent less. Equally obvious is the fact that, high cost or low cost fund, the *gross* returns earned by the funds are remarkably similar—about 7.70 percent. While the gross returns of the lowest cost managers were just a touch better, the lion's share of their advantage lay in the fact that their managers consumed the smallest percentage of the returns available in the long-term tax-exempt bond market—just 7 percent, versus 18 percent for the high cost managers. Clearly the expenses of the low-cost hypothetical index fund consumed but a tiny (3%) fraction of return, and its performance can hardly be considered wanting.

How about the possibility that differences in volatility, in quality, or in duration played a role. Alas, there is very little difference in risk. This table presents the facts:

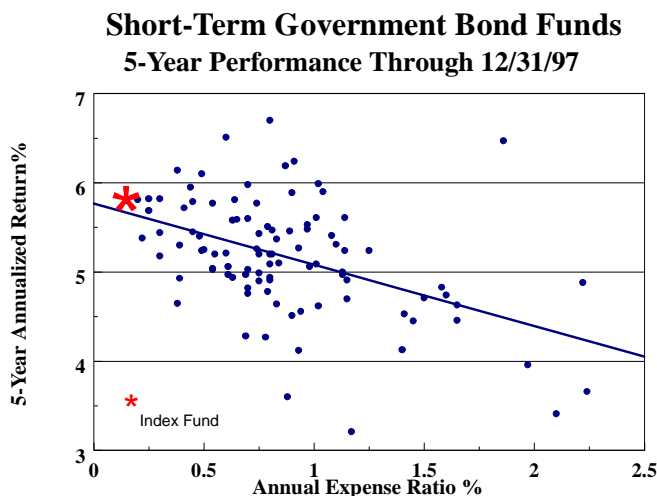
	<u>Duration</u>	<u>Volatility Risk*</u>	<u>Quality</u>			
			<u>AAA</u>	<u>AA</u>	<u>A</u>	<u>Other</u>
First Quartile (Highest Cost)	8.5 years	1.20	66%	15%	7%	12%
Second Quartile	8.0	1.10	58	16	12	14
Third Quartile	8.1	1.13	56	20	9	15
Fourth Quartile (Lowest Cost)	8.0	1.11	60	20	10	10
Index Fund	6.9 years	NA	100%	0	0	0

*Relative to municipal bond funds of all maturities. Source: Morningstar

As you can see, the slight differences in duration and volatility that exist *favor* the actively-managed low cost funds, with each group having about the same portfolio quality. But the index fund achieved its competitive pre-cost return with a significantly lower duration (and thus less risk) and substantially higher quality (100% AAA versus 60% for the managers). These differences reinforce the clear conclusion: the winning group of long-term municipal bond funds are those with the lowest costs.

Short-Term Government Bond Funds

For our second example, we'll move all the way down the maturity spectrum to short-term funds, using U.S. government bond funds as the example. There are 100 funds in this category, and our opening diagram presents returns and costs for the entire group:



The same conclusion is clear: returns go up as costs go down. The trend line shows that each percentage point reduction in costs increased returns by just a bit less—9/10 of one percent. There are some good reasons that it turns out to be a little less than a full point, and I'll get to that after we sort out the funds by cost quartile. Note that an index fund—which would be easy to create in this market segment—would again be a powerful competitor.

Short-Term Government Bond Funds				
	Five Year Net Return	Expense Ratio	Five Year Gross Return	Return Consumed by Cost
First Quartile (Highest Cost)	4.53%	1.62%	6.15%	27%
Second Quartile	5.13	0.91	6.04	15
Third Quartile	5.20	0.72	5.92	12
Fourth Quartile (Lowest Cost)	5.51	0.42	5.93	7
Index Fund	5.81%	0.20%*	6.01%	3

* Lehman Short (1-5) U.S. Government Index, less assumed expense ratio.

Note that the lowest cost funds provided a gross return of 5.93 percent, or, after a 0.42 percent expense ratio, a net yield of 5.51 percent. The high cost funds earned a bit more (6.15 percent) but, after a heavy 1.62 percent expense hit, delivered but 4.53 percent to investors—almost a full percentage point less. Here again, we see a direct relationship between low cost and high return. The question comes down to a simple one: which would you rather have, a manager who picks short-term government bonds for you and takes 27 percent of what he earns, or one who picks the same bonds and takes 7% of the return for his efforts? Or, looked at from your own vantage point as an investor, would you rather earn 93% of the market return or 73 percent? That should not be a hard question to answer.

As it turns out, return is not the only issue here. For while we might expect that “other things are equal” in such a generic asset class as short-term government bonds, let’s at least examine the possibility of inequalities:

	Duration	Volatility Risk*	Quality	
			Government	Corporate
First Quartile (Highest Cost)	2.3 years	0.69	92%	8%
Second Quartile	2.4	0.70	95	5
Third Quartile	2.4	0.58	99	1
Fourth Quartile (Lowest Cost)	1.9	0.53	97	3
Index Fund	2.3 years	NA	100%	-0-

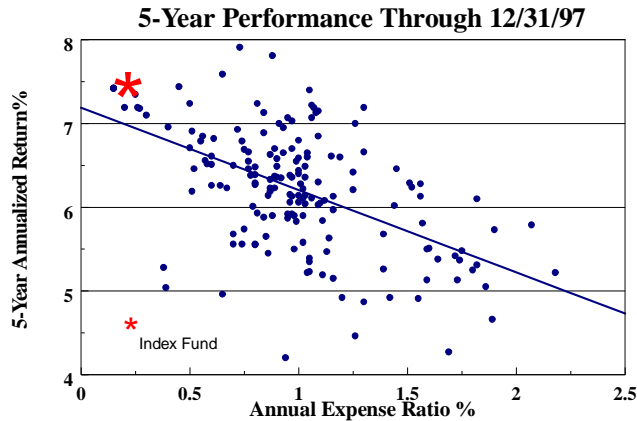
*Relative to government bond funds of all maturities.

Well, we’ve learned something worth knowing: the low cost fund group not only delivers the highest returns, but it assumes the lowest risks, measured both by duration and price volatility. The index fund is about average for the full list. (Credit quality is similar throughout, as you would expect.) The slight lowering of risk as cost declines helps to explain why each point of reduction in cost accounts for slightly less than a full point of higher return. In any event, to state the obvious, the low-cost short-term corporate bond funds let you eat your cake and have it too. They provided the highest returns, hand-in-hand with the lowest risks. It is truly a winning combination.

Intermediate-Term Government and GNMA Funds

Now let’s move from long and short maturities to intermediates. Perhaps the best test of our thesis is the relationship between costs and returns among intermediate-term and GNMA funds. (Both have demonstrated very similar returns over time, and Morningstar—properly, I think—includes them in a single 169-fund category). You must be getting used to this pattern of cost and return by now, but I’ll show it again anyway. Here’s the chart:

Intermediate-Term Government Bond Funds



In this case, with each percentage point reduction in cost, return rises by 1.01 percent, virtually the same pattern we've seen in long-term bond funds and short-term bond funds all over again. But it hammers home the validity of the central thesis that in bond funds of *all* maturities, cost and return are inextricably interlinked. Again, our customary table reflects our now seemingly routine thesis. The low cost quartile earns about the same gross return (7.1 percent) as the other three, but delivers a net return (6.59 percent) that is 10 percent higher. And the index fund again distinguishes itself.

Intermediate-Term Government and GNMA Funds

	Five Year Net Return	Expense Ratio	Five Year Gross Return	Return Consumed by Cost
First Quartile (Highest Cost)	5.45%	1.56%	7.01%	22%
Second Quartile	6.21	1.05	7.26	14
Third Quartile	6.30	0.89	7.19	12
Fourth Quartile (Lowest Cost)	6.59	0.58	7.17	8
Index Fund	7.19%	0.20%*	7.39%	3%

* Weighted average of Lehman GNMA/(5-10 year) U.S. Treasury Indexes, less assumed expense ratio.

We seem to be in a bit of a rut here. Quartile by quartile, we see substantially similar gross returns, but a large gap in net returns caused, substantially all of which is engendered by cost. If there are differences in risk, they are quickly resolved *in favor of* the lowest cost funds once again, as this now-familiar chart shows:

	Duration	Volatility Risk*	Quality	
			Government	Corporate
First Quartile (Highest Cost)	4.5 years	1.18	95%	5%
Second Quartile	4.7	1.06	90	10
Third Quartile	4.2	1.04	97	3
Fourth Quartile (Lowest Cost)	4.5	0.98	90**	10
Index Fund	3.4 years	NA	100%	-0-

*Relative to all government bond funds.

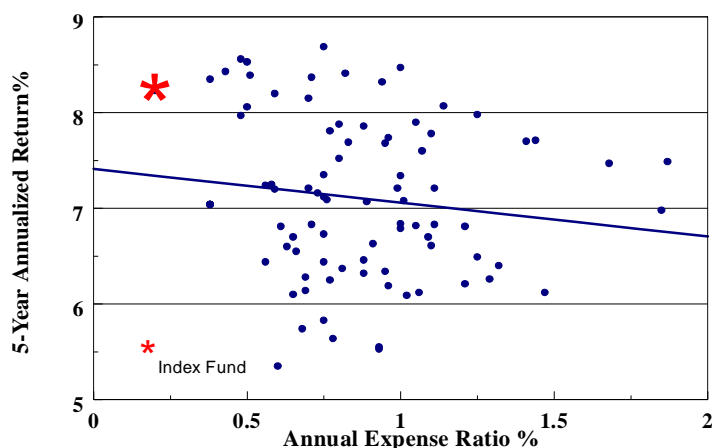
**25 of the 35 funds in the quartile are 100% in governments;
the 10 outliers bring the average to 90%.

While durations of the managed funds are about the same, the low-cost intermediate-term government fund group, as it turns out, carries volatility risk about 20% *less* than its higher cost peers. The index fund duration is some 20% lower. Portfolio composition is fairly uniform. So, with duration, volatility, and portfolio quality all in the same ballpark, cost carries the day, dollar for dollar.

Intermediate-Term Corporate Bond Funds

I'll burden you with one more example only because, while it sends the same message, it sends it in a different language. But it illuminates the point I am hammering home. In the intermediate-term corporate bond fund category, net returns are fairly constant irrespective of costs, though the lower cost funds still tend to deliver slightly higher returns to investors. The index fund proves to be a singularly excellent performer, in part because of its low costs, but also because it is one of the fabled shoemakers who sticks to his last, faithful to its definition by holding 100% investment-grade corporate bonds.

Intermediate-Term Corporate Bond Funds 5-Year Performance Through 12/31/97



Thus, as you can see, the slope of the return/cost line runs downward, but not as steeply as in our other examples. In fact, the slope shows that each percentage point reduction in cost adds only 3/10 of one percent to return.

This same pattern becomes especially clear when we examine the four cost quartiles. The low cost group provided a market return advantage of 0.16 percent (7.31 percent versus 7.15 percent) over the high cost group, although its cost advantage was a much more substantial 0.74 percent (0.55 percent versus 1.29 percent).

<u>Intermediate-Term Corporate Bond Funds</u>				
	<u>Five Year</u>	<u>Expense</u>	<u>Five Year</u>	<u>Return Consumed</u>
	<u>Net Return</u>	<u>Ratio</u>	<u>Gross Return</u>	<u>by Cost</u>
First Quartile (Highest Cost)	7.15%	1.29%	8.44%	15%
Second Quartile	7.16	0.96	8.12	12
Third Quartile	7.27	0.76	8.03	10
Fourth Quartile (Lowest Cost)	7.31	0.55	7.87	7
Index Fund	8.23%	0.20%*	8.43%	2%

* Lehman (5-10) Investment Grade Index, less assumed expenses.

How have these high cost managers been able to offset most of their large cost handicap? Did they do so because their high fees somehow endowed them with greater management skills? Or did they simply assume larger risks? This next table gives that question a clear and unequivocal answer:

	<u>Duration</u>	<u>Volatility</u>	<u>Quality</u>			
			<u>Government</u>	<u>AAA-A</u>	<u>BBB</u>	<u><BBB</u>
First Quartile (Highest Cost)	5.2 years	1.14	21%	36%	24%	19%
Second Quartile	5.1	1.08	34	36	18	12
Third Quartile	4.8	1.04	42	33	15	10
Fourth Quartile (Lowest Cost)	4.6	0.99	49	34	8	8
Index Fund	5.4%	NA	-0-	70%	30%	-0-

As the table makes clear, with each higher level of cost—without a single exception—higher risk was assumed by the managers. It seems as though they were determined to provide competitive returns, but, given their higher costs, they had no recourse but to assume higher risks. This apparent relationship, as far as I know, has remained undisclosed. But it is there. There in the form of higher duration. There in the form of higher price volatility. And there in the form of lower portfolio quality. (The difference between the low cost portfolios—83 percent in governments and A-rated corporates and 8 percent in below-BBB bonds—and the high cost portfolios—less than half as much in governments and investment grades and more than twice as much in below-BBBs—is material.) So the same direct dollar-for-dollar trade-off we've seen earlier between return and cost has been supplanted in part by a reverse trade-off between risk and cost. In the corporate bond fund segment of the mutual fund industry, that eternal trade-off is at its most obvious.

What the data reveal about the corporate bond index fund is rather striking. Of course, as you would expect, part of its value-added is low cost, but it also gains from a moderately long duration (5.4

years vs. 4.9 years for the managed funds), and a higher (if that's the right word) credit risk. In fact, the corporate bond group as defined includes hybrid corporate-government funds, and the index fund wins by living up to its "corporate" definitional purity

What About Management Skill?

The analysis of the relationship of bond fund cost to returns, it seems to me, it is pretty conclusive; cost matters. But cost is not the *only* ingredient that shapes returns. If it were, the first three scatter diagrams that I presented would not be so, well, scattered. In fact, the dispersion around the trend line can be measured at an average R-squared of less than 0.33. (1.00 would place every fund right on the line, meaning that cost explained, not 33%, but 100% of return.) Of course, even a bond index fund for a given market segment wouldn't be exactly on the line. In fact, it will likely fall slightly *above* it, given the fact that its costs (say, 0.20 percent) provide with it a substantial advantage over actively managed funds, as my earlier figures clearly demonstrated.

Although duration risk is a partial contributor, the largest remaining element in shaping return is management. And there are indeed skilled professional managers at work in bond funds. They are competent, experienced, and wise in the ways that the fixed income markets work. Their funds may—or may not—be operated under disciplined portfolio guidelines relating to quality and maturity, and only the investor can decide which type of strategy he or she prefers. (But the fund should clearly describe its strategy for all to see.) Beyond strategy, some portion of their records—as in all aspects of investing—will be based on skill and some on luck. And the two are not easy to separate, nor to identify in advance.

In any event, as you can imagine, I'd simply recommend that investors make their bond fund selections primarily from among the low cost quartile, the better to maximize their chances of enjoying returns above segment norms—and avoid at least the high cost quartile. While bond index funds would clearly be exceptional options, few exist, and there ought to be lots more available. Nonetheless, it will always be possible—if always challenging—to garner an advantage by owning a fund with both skilled management *and* low cost. "Accentuate the positive; eliminate the negative," would be a good rule for investors to follow.

Do Investors Care About Return-Risk-Cost Trade-Offs?

Before I examine the issue of investment awareness about the trade-off between return and cost (and to some limited degree, risk), I should note that the comparisons I've shown give the very large benefit of a very large doubt to funds that charge the traditional front-end and the newer back-end sales charges. For while hidden 12-b(1) sales charges, where applicable, are included in the expense ratios I've shown, these outright sales charges—payable when investors purchase shares or if they redeem within five years of purchase—are not.

Ironic as it may seem, the high cost funds normally carry these sales charges, while the low cost funds rarely do. For example, among the 21 intermediate-term corporate bond funds in the high cost quartile, 17 carry these charges and none are pure no-load. Among the 22 funds in the low cost quartile, on the other hand, only four carry these charges and 18 are pure no-load. The impact of these charges is ignored in industry data, but investors ignore them at their peril.

But ignore them they do. The fact is that, of the bond funds in the industry's two principal distribution channels, no-load fund assets of \$165 billion are dwarfed by the \$482 billion in assets of broker-distributed high-cost funds carrying sales charges—including \$122 billion of assets managed by

the brokerage firms themselves. Two things are apparent about the brokerage firms that manage bond funds: they charge high management fees, and, despite what would seem an insurmountable hardship, they sell funds that carry these high fees. From the point of view of the investor—the consumer, as it were—that has proven to be a very expensive combination.

Indeed, a dispassionate observer of the passing parade of contradictions within these giant national brokerage firms would be mystified. On the third floor of their buildings (let’s call that the institutional trading floor), their bond traders are bickering over a “tick” (1/32nd or 0.031 of one percent), prepared to commit mayhem for two ticks, and to take out swords and pistols, prepared to commit murder, for four ticks. Yet on the first floor of their buildings (we’ll call that the retail sales floor), they utterly ignore the baneful impact of the full 32 ticks (one percent)—or even 64 ticks—that they lay on their customers. It really doesn’t make a lot of sense.

But the broker-managed funds are not alone in charging high prices. Fees have run amok—without regard to their profound impact on returns—throughout the fixed-income fund arena. And even some large funds with fee *rates* below industry norms are charging fee *dollars* that are truly remarkable. The largest GNMA fund (\$8 billion) paid its investment manager \$44 million last year, although the fund has achieved returns that don’t even match the returns of the unmanaged index of GNMA securities. (The fund also pays 12b-1 fees of \$9 million and administrative expenses of \$10 million.) How much of that \$44 million fee could the manager be spending on, say, four portfolio managers, one or two credit researchers (after all, the credit quality of GNMA’s is guaranteed by the U.S. Treasury), traders, occupancy, and overhead? Perhaps, say, \$5 million, and even that may be too high a number. But even that expenditure would consume but one-tenth of the fee paid by the investor for presumed expert management. Shouldn’t fund shareholders enjoy the staggering economies of scale that fund management involves?

So, one can only wonder where the defenses are against over-reaching in an industry whose advisers are consuming—on average—more than 15 percent of the returns earned in the bond market, leaving less than 85 percent of the return to the shareholders. And an industry where the advisers in the high cost quartile—on average—take some 25 percent, leaving only 75 percent of the return for the investors. After all, it is the investors who pony up 100 percent of the capital. And they are failing abjectly to earn a fair return.

And, as times go on, these benefit ratios get even *worse*. Yet those who buy funds and those who sell them ignore the cumulative impact of high costs in commodity-like market segments that provide relatively modest returns. Today, bonds yield about 6 percent on average; even a 1 percent cost reduces that return to a 5% yield for fund shareholders. Consider the impact of the difference on a \$10,000 initial investment over time:

How Costs Consume Bond Fund Returns Over Time

	<u>6% Return</u>	<u>5% Return</u>	Capital Lost	
			<u>\$</u>	<u>%*</u>
10 Years	\$17,900	16,300	1,600	20
20 Years	32,100	26,500	5,600	25
30 Years	57,400	43,200	14,200	30
40 Years	102,800	70,400	32,400	35

***% of added value.**

This chart makes it obvious that the reduction in final value engendered by cost rises from “only” 20 percent after one decade to a truly confiscatory 35 percent after four decades. Ignorance of this cumulative cost may be intellectual bliss, but it is financial devastation.

The fact is that lots of defenses exist to avoid the fee overreaching that is suggested by the return-risk-cost trade off. But none of them seem to be working.

- The NASD imposes a requirement of suitability for brokers in their choice of investments for their clients. But when low cost options exist in the bond fund arena, how can a fund that consumes 20 percent or more of the market return be suitable?
- The SEC requires full disclosure. But does anyone seriously believe that the clear financial fact that higher returns (or lower risks) go hand-in-hand with lower costs is disclosed, to say nothing of *fully* disclosed to clients?
- The fund directors owe a solemn duty of trusteeship to the shareholders of the fund, a duty that is buttressed by a Federal statute that requires directors to place the interest of shareholders ahead of the interest of fund advisers. But since fund directors have done nothing to reduce the fees that bond funds pay—despite the fact that their assets have risen 60-fold in two decades—how can they possibly be measuring up either to their duty or to the statute?

I want to be clear that low cost bond fund options do exist today. *But there are not very many.* Only 36 of the 716 bond funds in the Morningstar 5-year data base have expense ratios below 0.50%, which I think of as the upper limit of a fair cost. Universally, these 36 funds rank in the high range of returns among the top quartile performers. Why aren't there more low cost options, and when will investors demand them and advisers supply them? Why aren't there more bond index funds? The grand total, as far as I can tell, is nine—astonishing in the light of the data I've presented earlier. That paucity is appalling in commodity-type market segments where fund cost is a critical determinant of returns to shareholders, and where an index fund can be run for 20 basis points or less. Why, in short, are the fees and loads of most bond funds so exorbitant?

There had better be either positive responses to that question, or substantial reductions in fees and loads, and soon. Bond fund investors are entitled to a fair shake, for if they don't get one, bond funds will indeed be on a treadmill that now leads to continued inadequate returns. That, in turn, will lead to the final fall of this near \$1 trillion empire, now in relative decline. Unless we as an industry get our act together, it is only a matter of time until absolute decline will follow, and the bond fund will indeed be on a treadmill to oblivion.

Note: The opinions expressed in this speech do not necessarily represent the views of Vanguard's present management.
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