

Pioneer Investments on Closed-End Investing

February 21, 2008

Topic: Leverage and Auction Rate Preferred Securities

In the following summary, Pioneer Investments provides a primer on the use of leverage in conjunction with Auction Rate Preferred Securities in closed-end products, as well as a look at how leverage is used in Pioneer's own closed-end mutual funds.

1. How does leverage work in a closed-end fund?

Closed-end funds often issue preferred shares with the goal of paying higher dividends on the fund's common shares. A fund, in essence, borrows money at short-term rates by issuing preferred shares (or by utilizing other techniques) and invests the proceeds in longer-term securities. This technique, known as leverage, allows the fund to capture the "spread," if any, between short- and long-term rates. More importantly, it allows the fund to invest in assets that have a higher yield than the cost of the leverage. This spread is then passed along to owners of common shares as incremental dividends.

2. How much do closed-end funds typically leverage their common shares?

Closed-end funds typically have leverage ratios of between 33% to 50% of total assets. For example, if a closed-end fund with \$100 million in assets were to borrow \$50 million, it would have a ratio of $\$50/(\$100+\$50)$ or 33%. Expressed another way, that fund would have "3 to 1" asset coverage, meaning that there were \$150 million in total assets divided by \$50 million in borrowings. Conversely, a fund that had a leverage ratio of 50% would have an asset coverage ratio of 2 to 1.

3. What is the minimum asset coverage ratio for leveraged closed-end funds?

The asset coverage ratio is the amount of collateral closed-end funds must have in order to issue preferred shares. The Investment Company Act of 1940 requires that closed-end funds have at least \$2 of collateral for every \$1 of leveraged security issued (a ratio of 2 to 1). Pioneer Municipal High Income Trust (MHI), for example, has approximately \$475 million in total assets, with \$150 million represented by preferred shares, or a 317% asset coverage ratio (greater than 3 to 1).

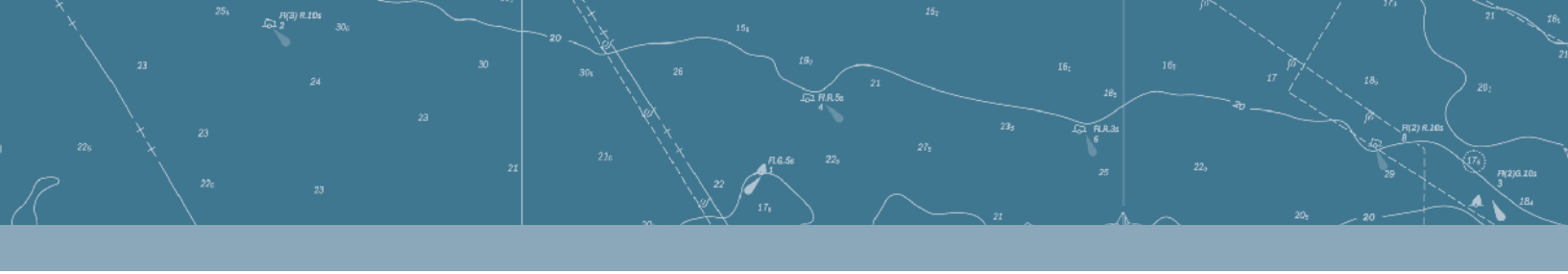
4. How do auction rate preferred shares issued by closed-end funds work?

Auction rate preferred shares are securities issued by a closed-end fund, the proceeds from which are utilized primarily to purchase additional assets for a fund. The securities are sold through an 'auction' that is held at predetermined intervals (usually every 7 or 28 days with respect to the Pioneer closed-end funds) to reset the dividend rate.

A fund obtains cash proceeds from the sale of the preferred shares at current auction rates and invests the proceeds into its primary asset class — for example, municipal bonds. These periodic auctions provide the opportunity for the rates on the securities to be adjusted to reflect current market conditions. The flexible structure of these securities helps provide investors with a combination of benefits that may include competitive yields, frequent dividend payments, tax exempt (where applicable) income and a high degree of principal protection.

Dividends paid to the preferred shareholders are a pass-through of the character of the income earned on the fund's underlying portfolio. For example, a substantial portion of the dividends paid by Pioneer Municipal High Income Advantage Trust (MAV) to its common and preferred shareholders may be deemed exempt from regular federal income tax because the income is derived primarily from investments in municipal bonds. Pioneer High Income Trust (PHT), in contrast, generally would pass taxable income through to its shareholders because the income is derived primarily from investments in taxable corporate bonds. Individual investors are able to purchase preferred shares of the Pioneer closed-end funds for their own accounts with a minimum investment of \$25,000 per share. During an auction, buyers and sellers — starting with the lowest bidders — are matched, and all the bidders receive the highest rate required to clear, or complete, the auction.





5. Are closed-end funds the only issuers of auction rate securities?

No. Auction rate securities also are issued by municipalities, utilities, and student loan authorities to name a few.

6. What are the risks for an investor in auction rate preferred shares issued by a closed-end fund?

There are two main types of risk associated with closed-end fund-issued auction rate preferred shares — credit risk and liquidity risk. Credit risk means that shareholders could get back less than the par value of the preferred shares due to changes in the value of a fund’s portfolio holdings. This is not likely, since closed-end funds issuing leverage must adhere to minimum asset coverage ratios as prescribed by the Investment Company Act of 1940 (See response to Question 3 above). For example, if a fund has a 33% leverage ratio at the beginning of the period, the value of its total assets could decline by a third and still be within the required 2 to 1 coverage ratio required by law.

Liquidity risk is the possibility that preferred shareholders might be unable to redeem their shares at an auction; i.e., liquidate their preferred shares for cash every 7 or 28 days. (See response to Question 7 below.) Additional risks are described in the offering documents provided to investors when the preferred shares originally were issued.

7. “Failed” auctions have been making the news recently. Can you explain?

Failed auctions are a result of liquidity risk. A failed auction means that some portion of the preferred shares that were offered for sale at a particular auction were not matched with buyers — i.e., the auction did not clear. Technically, an auction is deemed to have ‘failed’ if only one share has not been matched. In the event that an auction does fail, the dividend rate paid on the preferred shares resets to a higher maximum rate described in the initial offering prospectus for the preferred shares. (The rates for each of Pioneer’s closed-end funds are provided in a table at the end of this document.) Those preferred shareholders who sought to sell their shares must continue to hold them at least until the next auction.

Over the past several weeks, many issuers of auction rate securities, other than closed-end funds, have experienced failed auctions due to the continued uncertainty of the auction rate market caused by the current credit crisis. These failures now have spilled over into the closed-end fund auction market.

8. So is this not a credit issue?

No, it is not a credit issue for Pioneer’s closed-end funds. The preferred shares of each of Pioneer’s closed-end funds currently hold an AAA rating, and the results of these auctions are unrelated to the quality of the underlying assets in the Pioneer closed-end funds. These results suggest a broad-based liquidity issue that is not specific to closed-end funds.

9. If there are not enough buyers to match sellers and the auction does not clear, what happens next?

In this event, as explained in the response to Question 7, interest rates at auctions that do not clear are reset to a maximum applicable rate (also known as a penalty rate) described in the initial offering prospectus for the relevant fund’s preferred shares. The maximum applicable rate is a rate above a reference rate — typically AA commercial paper or 1 month LIBOR or a like equivalent. Existing preferred shareholders must continue to hold their shares, and will receive the maximum applicable rate, until there is a successful auction or the shares are withdrawn.

10. Are all of Pioneer’s closed end funds leveraged, and if so, do they use the auction rate preferred method?

Yes, all of Pioneer’s closed-end funds are leveraged and five of the six do use auction rate securities. The exception is Pioneer Diversified High Income Trust (HNW), which is leveraged through the proceeds of a bank loan.



11. Have there been any auctions related to Pioneer's closed-end funds that have not cleared?

Yes, Pioneer Municipal High Income Trust (MHI), Pioneer Municipal High Income Advantage Trust (MAV), Pioneer Municipal and Equity Income Trust (PBF), Pioneer High Income Trust (PHT) and Pioneer Floating Rate Trust (PHD) have had auctions over the last week that have not cleared.

12. What are the maximum applicable rates for the Pioneer closed-end fund auctions that have not cleared?

Examples of the maximum applicable rates for each Pioneer closed-end fund auction that did not clear are provided in the tables on pages 4-5.

13. How many recent auctions have not cleared, industry-wide?

Since Thursday, February 14, nearly 100% of all auctions (including closed-end fund auctions) did not clear. In all of these instances, the broker/dealer community, in a departure from past practices, did not provide "backstop" liquidity.

14. What is the potential impact to an investor in the common shares of a closed-end fund that is leveraged via auction rate preferred shares?

Whenever the cost of borrowing increases significantly and a fund's income stream remains unchanged, the dividend level a closed-end fund is able to pay or maintain may be negatively impacted. Since the immediate impact of a failed auction is that the cost of borrowing increases to a maximum rate, closed-end funds that continuously are involved in failed auctions may experience pressure to lower dividends to common shareholders over time. For the moment, however, because short-term rates have been coming down and yields have been steady or rising, Pioneer's closed-end funds have been able to maintain positive spreads on their leverage despite the increased costs of borrowing, i.e., the funds still are borrowing at lower rates and investing at higher rates.

In fact, the current maximum rates are lower than the 2007 rates on the Pioneer funds' preferred shares due to the lowering of rates by the Fed. This situation, of course, is subject to change.

15. Are there other sources of financing available for closed-end funds other than the auction rate market?

Closed-end funds could shift their leveraging sources from the auction rate market to a credit facility market (as in the case with Pioneer Diversified High Income Trust). However, the credit facility market is less attractive for municipal bond funds than it is for taxable bond funds. This is because municipal bond funds naturally generate a lower nominal yield than taxable fixed-income investments (due to their tax-free status) but would still have to pay taxable market rates for the cost of credit. There may or may not be additional options available to closed-end funds.



Pioneer Investments Closed-End Funds

As of 12/31/07

	MHI	MAV	PBF	PHT	PHD
Common Share Assets (\$m)	331.9	324.5	413.6	393.2	423.5
Total Preferred (leverage \$m)	101.0	150.0	176.3	151.0	234.5
Total Net Assets (\$m)	432.9	474.5	589.9	544.2	658.0
Leverage Ratio (%)	23.3	31.6	29.9	27.7	35.6
Minimum Asset Coverage Ratio (%)	429	316	335	361	281

Auction Rate Preferred Shares Summary

	Cusip	Auction Amount	Benchmark	Current Max Rate (as of 2/20/08)	Max Rate Calc (over bmk)
Pioneer High Income Trust (PHT)					
7-Day Series M (Monday)	72369H205	50,500,000	7 Day Commercial Paper	4.368%	150%
28-Day Series W	72369H304	50,500,000	30 Day Commercial Paper or Adjusted Kenny Rate	4.587%	150%
7-Day Series TH (Thursday)	72369H403	50,000,000	7 Day Commercial Paper	4.368%	150%
Total		151,000,000			
Pioneer Municipal High Income Trust (MHI)					
7-Day Series A (Tuesday)	723763207	50,000,000	30 Day Commercial Paper or Adjusted Kenny Rate	3.408%	110%
7-Day Series B (Wednesday)	723763306	51,000,000	30 Day Commercial Paper or Adjusted Kenny Rate	3.381%	110%
Total		101,000,000			
Pioneer Municipal High Income Advantage Trust (MAV)					
7-Day Series A (Monday)	723762209	75,000,000	30 Day Commercial Paper or Adjusted Kenny Rate	3.773%	125%
7-Day Series B (Friday)	723762308	75,000,000	30 Day Commercial Paper or Adjusted Kenny Rate	3.773%	125%
Total		150,000,000			



Auction Rate Preferred Shares Summary

	Cusip	Auction Amount	Benchmark	Current Max Rate (as of 2/20/08)	Max Rate Calc (over bmk)
Pioneer Municipal & Equity Trust (PBF)					
7-Day Series T (Tuesday)	723761201	58,750,000	1 WEEK LIBOR	4.389%	1.25% spread over, or 125% of (the greater of)
7-Day Series F (Friday)	723761300	58,750,000	1 WEEK LIBOR	4.386%	1.25% spread over, or 125% of (the greater of)
28-Day Series H	723761409	58,750,000	1 MONTH LIBOR	4.366%	1.25% spread over, or 125% of (the greater of)
Total		176,250,000			
Pioneer Floating Rate Trust (PHD)					
7-Day M7 (Monday)	72369J201	78,250,000	1 WEEK LIBOR	4.386	1.25% spread over, or 125% of (the greater of)
7-Day W7 (Wednesday)	72369J300	78,125,000	1 WEEK LIBOR	4.395	1.25% spread over, or 125% of (the greater of)
7-Day H7 (Thursday)	72369J409	78,125,000	1 WEEK LIBOR	4.376	1.25% spread over, or 125% of (the greater of)
Total		234,500,000			

Investment return and market price will fluctuate, and shares may trade below net asset value, due to such factors as interest rate changes, and the perceived credit quality of borrowers.

Closed-end funds, unlike open-end funds, are not continuously offered. Once issued, shares of closed-end funds are sold in the open market through a stock exchange and frequently trade at prices lower than their net asset values. Net Asset Value (NAV) is total assets less total liabilities, which includes preferred shares, divided by the number of common shares outstanding.