

AMERISTOCK

SEMI-ANNUAL REPORT

December 31, 2009 | AMERISTOCK MUTUAL FUND, INC.

TABLE OF CONTENTS

| | |
|-------------------------------------|----|
| MANAGER'S COMMENTARY* | 4 |
| FUND EXPENSES | 9 |
| SCHEDULE OF INVESTMENTS | 10 |
| STATEMENT OF ASSETS AND LIABILITIES | 12 |
| STATEMENT OF OPERATIONS | 13 |
| STATEMENTS OF CHANGES IN NET ASSETS | 14 |
| FINANCIAL HIGHLIGHTS | 15 |
| NOTES TO FINANCIAL STATEMENTS | 16 |

*The Manager's Commentary included in this shareholder report may contain forward-looking statements about factors that may affect the performance of the Fund in the future and about anticipated events relating to the Fund specifically. These statements are based on Fund management's predictions, expectations and current plans relating to future events. Management believes these forward-looking statements to be reasonable, although they are inherently uncertain and difficult to predict. Actual events may cause Fund management to change its strategies and plans from those currently anticipated.

MANAGER'S COMMENTARY

| | 6 Months | 1 Year | 3 Years | 5 Years | 10 Years | Since Inception |
|--------------------------------|----------|--------|---------|---------|----------|-----------------|
| Ameristock Mutual Fund | 22.96% | 29.71% | -4.97% | -0.34% | 2.59% | 8.89% |
| S&P 500 | 22.59% | 26.46% | -5.61% | 0.42% | -0.95% | 6.89% |
| Dow Industrials | 25.20% | 22.68% | -3.12% | 1.95% | 1.30% | 8.15% |
| S&P 500/ Citigroup Value Index | 22.91% | 21.18% | -9.07% | -0.81% | 0.82% | 6.53% |

Returns are for periods ending December 31, 2009 and reflect reinvestment of all dividends and capital gains distributions. The six-month returns have not been annualized, while the other figures are average annual returns. Fund inception date is 8/31/95. The performance data quoted represents past performance. Past performance is not indicative of future results and current performance may be lower or higher than the performance quoted. Investment return and principal value of an investment will fluctuate and the Fund's shares, when redeemed, may be worth more or less than their original cost. The total returns shown do not reflect the deduction of taxes that a shareholder would pay on fund distributions or the redemption of fund shares. To obtain performance as of the most recent month-end, contact Ameristock at 1-800-394-5064 or visit www.ameristock.com. For the year ended June 30, 2009, the expense ratio of the Fund was 0.91%.

SCORECARD

Ameristock Mutual Fund outperformed the S&P 500 and S&P Citi Value indices over the past 6 months albeit by a fractional amount. For the entire calendar year, Ameristock handily beat all the indices in the chart above. And, when measuring over longer periods of time, Ameristock has done well, especially if you focus on the 10 year time period.

Over the last 6 months, the overweighting in the Technology sector relative to the S&P 500 had the largest positive contribution to the Fund's performance. Additionally, the underweighting in the Healthcare sector relative to the S&P 500 and stock selection in the Financial sector such as Franklin Resources and PNC were positive contributors.

Over the full calendar year, the overweighting in the Technology sector relative to the S&P 500 was the largest positive contributor to the Fund's outperformance. Both the old line technology companies, such as Microsoft and Texas Instruments, as well as the "nouveau" technology companies like eBay, Google, and Cisco performed very well this year. Underweighting in the Healthcare sector relative to the S&P 500 played a positive role in the overall performance as well. It was not too long ago that the portfolio's allocation in the Healthcare sector was one of the largest.

WHAT'S AHEAD

This time last year, we wrote about the changes that were made to the portfolio in the second half of 2008. We sold weak balance sheet companies for stronger ones and increased the portfolio's allocation to technology stocks to the highest level ever. For example, we unloaded shaky financial companies like Fannie Mae, Citigroup, and Wachovia and added what we believe were steady financial companies like Franklin Resources and Berkshire Hathaway, as well as technology companies like eBay, Cisco, and Google.

From 2006 to 2009, Ameristock beat the S&P 500 for 3 of the 4 years. This matches the time period when we first started to have trepidations about the macro global economic factors that we outlined

in the 2006 annual report commentary. Back in 2006 we started to reduce our exposure by selling at least a third of our position in companies like Fannie Mae, Bank of America, and Wachovia. When the fallout in sub-prime loans became a major problem in 2007, we had already significantly reduced our position in companies that ended up taking the brunt of the meltdown. Though we didn't escape totally unscathed by the financial meltdown, it could have been much worse.

Those decisions we made back then were not made in a vacuum. We understood there would be potential consequences of increasing the allocation to the Technology sector and reducing exposure to the Financial sector. We realized adding "nouveau" technology stocks such as Google and eBay would raise some eyebrows. But the market was presenting opportunities too attractive to ignore. These stocks had experienced their own "perfect storm" during the dot-com bubble, after which they not only survived but continued to thrive. Yet the stock market was throwing the baby out along with the bath water in that all stocks, whether directly affected by the credit crisis or not or whether the company's balance sheet was solid or not, were being sold off. We decided to do what we thought was in the best interest of our investors, even though we recognized it could mean a lower income stream, higher volatility, higher portfolio turnover, and more potential for short term gains. Even though our core investment strategy and philosophy had not changed the various rating agencies might reclassify us as core/blend rather than value. We believe that as a smart investor, sometimes you have to look beyond the statistics to gain an understanding of the full picture.

Going forward into 2010, many of the companies that did well in 2009 are no longer as attractive as they once were. Those companies are still solid companies but are not at the bargain prices they had been. With the S&P 500 running up over 50% from its low in March of this year until the end of the year, 2010 may require our being a bit more cautious.

We are starting to see investment potential once again in the more "traditional" Ameristock type stocks: those with solid fundamentals and a history of strong dividends. This especially includes opportunities in the Industrial sector. Dividend paying stocks may be a theme we look for in 2010.

LOST DECADE?

Some have labeled these past ten years, the "lost decade." This decade has been volatile, maybe the most volatile in recent history. There have been two recessions. Two wars. Two bubbles popping (technology and housing). Double digit unemployment. We have seen some of the pillars of Wall Street, such as Lehman Brothers, Merrill Lynch, and Citigroup going bankrupt, taken over, or bailed out. Countless numbers of scams and scandals permeated this decade, capped with the biggest swindle ever by Bernard Madoff. Terrorist attacks and viral epidemics have occurred as well. We are just now coming out from under a crisis that started as a sub-prime lending mess, that quickly morphed into toxic derivatives, which disintegrated into a liquidity and credit crisis. No wonder this period in our history is the "uh oh" decade. Coming off the decade of the 90's, the expectations for this decade was "exuberant." The decade of the 90's just finished an unprecedented 10 year annualized return of around 18%. The talk was about the new investing paradigm. The buy and hold investment strategy was a thing of the past. Active portfolio management could not beat passive index investing.

At the end of 1999, we ran a 10 year forward looking analysis for the "00" decade (i.e., 2000-2009). We did this for our own edification as well as to see what could lie ahead. It told us the "00" decade would experience a much lower return. The lofty expectations that were felt in the 90's needed to be tamed.

MANAGER'S COMMENTARY (continued)

The results are in. An investment in the S&P 500 at the start of this decade, including dividends, would have lost you money. A \$10,000 investment would be worth about \$9,090 today. That is negative annualized return of 0.95%. A lost decade indeed. The results were much lower than even we expected.

Over this same period, an investment of \$10,000 in Ameristock would be worth about \$12,913 including dividends. Thus, an investment in Ameristock would have put you ahead of the same investment amount in the S&P 500 by about \$3,800. Investors cannot invest directly in an index. We believe our low turnover, and buy and hold value investment strategy were important factors in avoiding a lost decade for our investors.

We recently re-ran the same 10 year forward looking analysis for the "10" decade. The results lead us to believe that stock market returns for this decade should look better than the last one. Potential returns do not appear like they will be lofty like in the decade of the 90's, but also will not result in a lost decade like the one we just went through. We believe the upcoming decade will present opportunities for Ameristock and our investors.

As always, thank you for investing in the Ameristock Mutual Fund and please tell your friends about us. Our number is (800) 394-5064 or locally (303) 623-2577.

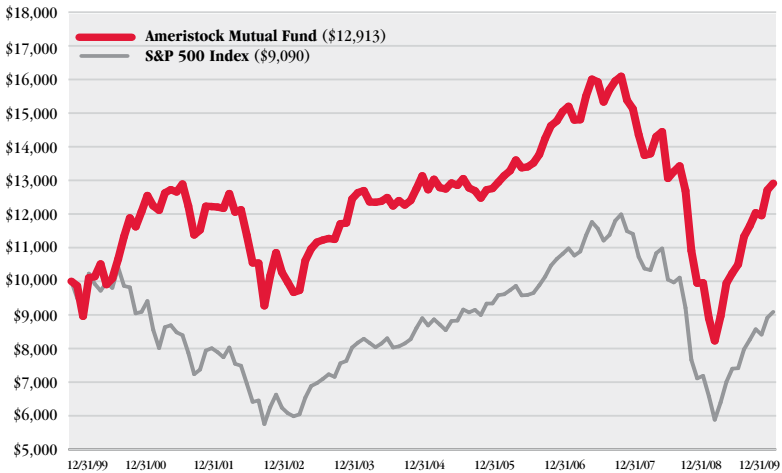
Andrew Ngim
(January 8, 2010)

Nicholas Gerber

The statements and opinions expressed in the report are those of the author. Any discussion of investments and investment strategies represents the Fund's investments and portfolio managers' views as of the date of this writing, and are subject to change without notice. The Fund's investment objective is total return through capital appreciation and current income by investing primarily in equity securities.

The S&P 500 Index is a broad-based measurement of changes in stock market conditions based on the average performance of 500 widely held common stocks. The Dow Jones Industrial Average is a stock market indicator consisting of the average of 30 of the largest and most widely held public companies in the United States. The S&P 500/Citigroup Value Index is a market value weighted index of stocks in the S&P 500 which score highest based on an average of book-to-price ratio, sales-to-price ratio and dividend yield, representing 50% of the total market value of the S&P 500. The Index performance above reflects the reinvestment of dividends but does not reflect any management fees or transaction costs.

**COMPARISON OF CHANGE IN VALUE OF \$10,000 INVESTMENT
IN THE AMERISTOCK MUTUAL FUND (AMSTX)
AND THE S&P 500 INDEX**



**AVERAGE ANNUAL TOTAL RETURNS
AS OF DECEMBER 31, 2009**

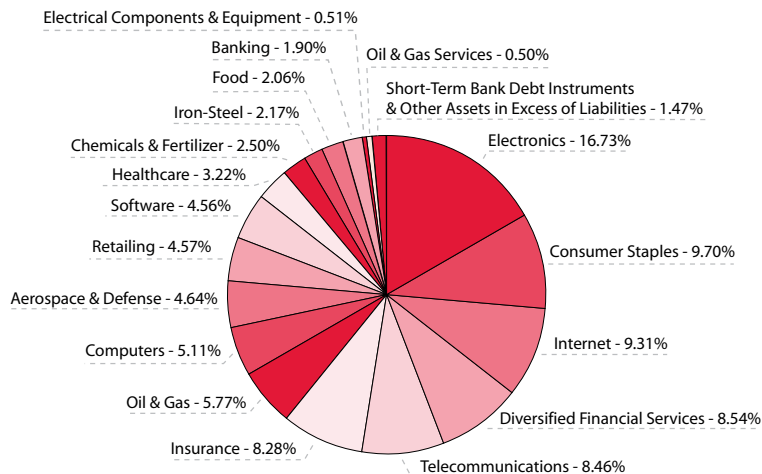
CALENDAR YEAR RETURNS

| <u>Ameristock Mutual Fund, Inc.</u> | <u>Return</u> | <u>Calendar Year Returns</u> | <u>AMSTX</u> | <u>S&P 500 Index</u> |
|---|---------------|----------------------------------|--------------|--------------------------|
| 1 Year | 29.71% | 2009 | 29.71% | 26.46% |
| 5 Years | -0.34% | 2008 | -34.19% | -37.00% |
| 10 Years | 2.59% | 2007 | 0.54% | 5.49% |
| Since Inception - 8/31/1995 | | 2006 | 17.94% | 15.79% |
| | | 2005 | -2.88% | 4.91% |
| | | 2004 | 5.52% | 10.88% |
| | | 2003 | 21.27% | 28.67% |
| | | 2002 | -16.00% | -22.09% |
| | | 2001 | 1.25% | -11.89% |
| | | 2000 | 20.70% | -9.10% |
| | | 1999 | 2.73% | 21.04% |

The returns shown in the graph and table above reflect reinvestment of all dividends and capital gains distributions. The performance data quoted represents past performance. Past performance is not indicative of future results and current performance may be lower or higher than the performance quoted. Investment return and principal value of an investment will fluctuate and the Fund's shares, when redeemed, may be worth more or less than their original cost. The total returns shown do not reflect the deduction of taxes that a shareholder would pay on fund distributions or the redemption of fund shares. To obtain performance as of the most recent month-end, contact Ameristock at 1-800-394-5064 or visit www.ameristock.com. For the six months ended December 31, 2009, the expense ratio of the Fund was 0.91%.

The S&P 500 Index is a broad-based measurement of changes in stock market conditions based on the average performance of 500 widely held common stocks. The Index performance set forth above reflects the reinvestment of dividends. It is an unmanaged index and therefore does not reflect any management fees or transaction costs.

INDUSTRY PROFILE AS A PERCENT OF NET ASSETS AS OF DECEMBER 31, 2009



TOP 10 EQUITY HOLDINGS* AS OF DECEMBER 31, 2009

| Company | % of Net Assets |
|---------------------------|-----------------|
| Google Inc., Class A | 5.18% |
| Accenture Ltd., Class A | 5.11% |
| Texas Instruments Inc. | 5.04% |
| Cisco Systems Inc. | 4.69% |
| The Progressive Corp. | 4.66% |
| Microsoft Corp. | 4.56% |
| Franklin Resources Inc. | 4.42% |
| United Technologies Corp. | 4.15% |
| Intel Corp. | 4.14% |
| eBay Inc. | 4.13% |

* Top ten holdings are subject to change, and there are no guarantees that the Fund will remain invested in any particular company or holding.

DISCLOSURE OF FUND EXPENSES (Unaudited)

As a shareholder of a mutual fund, you may incur two potential types of costs, transaction costs and ongoing costs. In the case of the Fund, you generally will not incur transaction costs such as sales charges (loads) and redemption fees, although financial intermediaries such as broker-dealers and banks through which Fund shares may be purchased may charge transaction-related fees. You do incur ongoing costs as a Fund shareholder, including management fees and other Fund expenses. The following examples are intended to help you understand your ongoing costs (in dollars) of investing in a Fund and to compare these costs with the ongoing costs of investing in other mutual funds. The examples are based on an investment of \$1,000 invested on July 1, 2009 and held until December 31, 2009.

Actual Return. The first line of the table below provides information about actual account values and actual expenses. You may use the information in this line, together with the amount you invested, to estimate the expenses that you paid over the period. Simply divide your account value by \$1,000 (for example, an \$8,600 account value divided by \$1,000 = 8.6), then multiply the result by the number in the first line under the heading "Expense Paid During Period" to estimate the expenses you paid on your account during this period.

Hypothetical 5% Return. The second line of the table below provides information about hypothetical account values and hypothetical expenses based on the Fund's actual expense ratio and an assumed rate of return of 5% per year before expenses, which is not the Fund's actual return. The hypothetical account values and expenses may not be used to estimate the actual ending account balance or expenses you paid for the period. You may use this information to compare the ongoing costs of investing in the Fund and other mutual funds. To do so, compare this 5% hypothetical example with the 5% hypothetical examples that appear in the shareholder reports of the other funds.

The expenses shown in the table are meant to highlight ongoing Fund costs only and do not reflect any transaction fees, such as sales charges (loads) and redemption fees that may be charged. Therefore, the second line of the table is useful in comparing ongoing costs only, and may not help you determine the relative total costs of owning different funds.

| | Beginning Account Value at 07/01/09 | Ending Account Value at 12/31/09 | Expense Paid During Period* 07/01/09-12/31/09 |
|--------------------------|--|---|--|
| Actual Fund Return | \$1,000.00 | \$1,229.60 | \$5.11 |
| Hypothetical Fund Return | \$1,000.00 | \$1,029.79 | \$4.66 |

* Expenses are equal to the Ameristock Mutual Fund's annualized expense ratio of 0.91% multiplied by the average account value over the period, multiplied by the number of days in the fiscal half-year (184) divided by 365 days in the current year (to reflect the half year period).

SCHEDULE OF INVESTMENTS
DECEMBER 31, 2009 (Unaudited)

| Industry | Company | Symbol | Shares | Market Value | |
|--|---------|---|------------|-------------------|------------------------|
| Common Stocks | 98.53% | | | | |
| Aerospace & Defense | 4.64% | Raytheon Co. | RTN | 21,000 | \$1,081,920 |
| | | United Technologies Corp. | UTX | 131,000 | 9,092,710 |
| Banking | 1.90% | PNC Financial Services Group Inc. | PNC | 78,686 | 4,153,834 |
| Chemicals & Fertilizer | 2.50% | Du Pont de Nemours & Co. | DD | 162,600 | 5,474,742 |
| Computers | 5.11% | Accenture Ltd., Class A | ACN | 270,000 | 11,205,000 |
| Consumer Staples | 9.70% | Coca-Cola Co. | KO | 105,380 | 6,006,660 |
| | | Colgate-Palmolive Co. | CL | 69,500 | 5,709,425 |
| | | Pepsico Inc. | PEP | 79,960 | 4,861,568 |
| | | Procter & Gamble Co. | PG | 77,200 | 4,680,636 |
| Diversified Financial Services | 8.54% | The Charles Schwab Corp. | SCHW | 480,000 | 9,033,600 |
| | | Franklin Resources Inc. | BEN | 92,000 | 9,692,200 |
| Electrical Components & Equipment | 0.51% | Emerson Electric Co. | EMR | 26,000 | 1,107,600 |
| Electronics | 16.73% | Dell Inc. ^(a) | DELL | 526,700 | 7,563,412 |
| | | Intel Corp. | INTC | 445,160 | 9,081,264 |
| | | International Business Machines Corp. | IBM | 68,600 | 8,979,740 |
| | | Texas Instruments Inc. | TXN | 424,000 | 11,049,440 |
| Food | 2.06% | Kellogg Co. | K | 85,000 | 4,522,000 |
| Healthcare | 3.22% | Johnson & Johnson Merck & Co. Inc. | JNJ MRK | 17,000 162,940 | 1,094,970 5,953,828 |
| Insurance | 8.28% | Berkshire Hathaway Inc., Class A ^(a) | BRK/A | 80 | 7,936,000 |
| | | The Progressive Corp. ^(a) | PGR | 568,000 | 10,218,320 |
| Internet | 9.31% | eBay Inc. ^(a) | EBAY | 385,000 | 9,062,900 |
| | | Google Inc., Class A ^(a) | GOOG | 18,300 | 11,345,634 |
| Iron-Steel | 2.17% | Nucor Corp. | NUE | 102,000 | 4,758,300 |

The accompanying notes are an integral part of the financial statements

SCHEDULE OF INVESTMENTS (Continued)
DECEMBER 31, 2009 (Unaudited)

| Industry | Company | Symbol | Shares | Market Value | |
|---|-----------------------------------|--|-----------|------------------------------------|----------------------|
| Oil & Gas | 5.77% BP PLC (ADR) ^(b) | BP | 81,308 | \$4,713,425 | |
| | Exxon Mobil Corp. | XOM | 116,200 | 7,923,678 | |
| Oil & Gas Services | 0.50% Schlumberger Ltd. | SLB | 17,000 | 1,106,530 | |
| Retailing | 4.57% Home Depot Inc. | HD | 188,595 | 5,456,053 | |
| | Lowe's Cos. Inc. | LOW | 195,000 | 4,561,050 | |
| Software | 4.56% Microsoft Corp. | MSFT | 327,560 | 9,987,304 | |
| Telecommunications | | | | | |
| | 8.46% AT&T Inc. | T | 147,343 | 4,130,024 | |
| | Cisco Systems Inc. ^(a) | CSCO | 429,000 | 10,270,260 | |
| | Verizon Communications Inc. | VZ | 124,809 | 4,134,922 | |
| Total Common Stocks | | | | 98.53% (Cost \$209,981,138) | \$215,948,949 |
| Short-Term Bank Debt Instruments | | | | | |
| | 1.22% | Wells Fargo-Grand Cayman | | | |
| | | 0.03%, due 01/04/10 | 2,680,692 | 2,680,692 | |
| Total Short-Term Bank Debt Instruments | | | | 1.22% (Cost \$2,680,692) | \$2,680,692 |
| Total Investments | | | | 99.75% (Cost \$212,661,830) | \$218,629,641 |
| Other Assets in Excess of Liabilities | | | | 0.25% | 542,461 |
| Net Assets | 100.00% | Equivalent to \$32.55 per share on 6,734,318 shares of Capital Stock Outstanding | | \$219,172,102 | |

^(a) Non-Income Producing Security

^(b) ADR - American Depositary Receipt

The accompanying notes are an integral part of the financial statements

STATEMENT OF ASSETS AND LIABILITIES
DECEMBER 31, 2009 (Unaudited)

Assets:

| | |
|--|--------------------|
| Investment Securities at Market Value (cost - see below) | \$218,629,641 |
| Accounts Receivable | |
| Investment Securities Sold | 994,817 |
| Fund Shares Sold | 124,121 |
| Dividends | 161,369 |
| Interest | 2 |
| Total Assets | 219,909,950 |

Liabilities:

| | |
|--------------------------|----------------------|
| Accounts Payable | |
| Fund Shares Redeemed | 568,828 |
| Accrued Management Fee | 160,727 |
| Accrued Directors' Fees | 8,293 |
| Total Liabilities | 737,848 |
| Net Assets | \$219,172,102 |

Net Assets Consist of:

| | |
|---|----------------------|
| Capital Paid In | \$266,004,072 |
| Accumulated Undistributed Net Investment Income | 302,255 |
| Accumulated Net Realized Loss on Investments | (53,102,036) |
| Net Unrealized Appreciation on Investments Based on Identified Cost | 5,967,811 |
| Net Assets | \$219,172,102 |

Net Asset Value Per Share

| | |
|---|----------------------|
| Net Assets | \$219,172,102 |
| Shares of Capital Stock Outstanding | 6,734,318 |
| (100 Million shares, \$.005 par value authorized) | |
| Net Asset Value | \$32.55 |
| Redemption Price per Share | \$32.55 |
| Cost of Investments | \$212,661,830 |

The accompanying notes are an integral part of the financial statements

STATEMENT OF OPERATIONS
FOR THE SIX MONTHS ENDED DECEMBER 31, 2009 (Unaudited)

Investment Income:

| | |
|--------------------------------|------------------|
| Dividends | \$2,338,121 |
| Interest | 616 |
| Total Investment Income | 2,338,737 |

Expenses:

| | |
|------------------------------|------------------|
| Management Fee (Note 2) | 906,282 |
| Directors Fees (Note 3) | 42,320 |
| Total Expenses | 948,602 |
| Net Investment Income | 1,390,135 |

Realized and Unrealized Gain on Investments

| | |
|---|---------------------|
| Net Realized Gain on Investments | 1,406,737 |
| Net Change in Unrealized Appreciation / Depreciation on Investments | 39,004,067 |
| Net Realized and Unrealized Gain on Investments | 40,410,804 |
| Net Increase in Net Assets Resulting from Operations | \$41,800,939 |

The accompanying notes are an integral part of the financial statements

STATEMENTS OF CHANGES IN NET ASSETS

| | For the Six Months Ended December 31, 2009 (Unaudited) | For the Year Ended June 30, 2009 |
|--|--|-------------------------------------|
| From Operations: | | |
| Net Investment Income | \$1,390,135 | \$3,742,194 |
| Net Realized Gain/(Loss) on Investments | 1,406,737 | (53,415,101) |
| Net Change in Unrealized Appreciation / Depreciation on Investments | 39,004,067 | (10,512,462) |
| | 41,800,939 | (60,185,369) |
| Distributions to Shareholders: | | |
| Net Investment Income | (2,115,832) | (12,776,883) |
| Capital Gains | 0 | (3,448,698) |
| | (2,115,832) | (16,225,581) |
| Share Transactions: | | |
| Shares Sold | 12,068,078 | 31,038,948 |
| Shares Issued as Reinvestment of Dividends and Distributions | 2,086,358 | 16,010,216 |
| Cost of Shares Redeemed | (19,909,312) | (88,729,394) |
| | (5,754,876) | (41,680,230) |
| Net Increase / (Decrease) in Net Assets | 33,930,231 | (118,091,180) |
| Net Assets: | | |
| Beginning of Year | 185,241,871 | 303,333,051 |
| End of Year* | \$219,172,102 | \$185,241,871 |
| *Includes Accumulated Undistributed Net Investment Income of | \$302,255 | \$1,027,952 |

The accompanying notes are an integral part of the financial statements

FINANCIAL HIGHLIGHTS

Selected Data for a Share of Common Stock Outstanding Throughout the Periods Indicated:

| | For the Six Months Ended December 31, | For the Year Ended June 30, | | | | |
|--|---|-----------------------------|----------|----------|----------|------------|
| | 2009* | 2009 | 2008 | 2007 | 2006 | 2005 |
| Net Asset Value at Beginning of Year | \$26.73 | \$36.28 | \$46.36 | \$40.45 | \$39.66 | \$39.54 |
| Net Investment Income ^(a) | 0.20 | 0.50 | 1.03 | 0.81 | 0.87 | 0.83 |
| Net Gains/(Losses) on Securities-Realized and Unrealized | 5.93 | (7.74) | (9.10) | 6.74 | 0.79 | 0.33 |
| Total From Investment Operations | 6.13 | (7.24) | (8.07) | 7.55 | 1.66 | 1.16 |
| Dividend Distribution | | | | | | |
| Net Investment Income | (0.31) | (1.82) | (0.50) | (1.64) | (0.87) | (1.04) |
| Capital Gains | 0.00 | (0.49) | (1.51) | 0.00 | 0.00 | 0.00 |
| Total Distributions | (0.31) | (2.31) | (2.01) | (1.64) | (0.87) | (1.04) |
| Net Asset Value at End of Period | \$32.55 | \$26.73 | \$36.28 | \$46.36 | \$40.45 | \$39.66 |
| Total Return | 22.96% ^(b) | (19.59)% | (18.03)% | 18.88% | 4.27% | 2.89% |
| Ratios/Supplemental Data | | | | | | |
| Net Assets End of Period (millions) | \$219.17 | \$185.24 | \$303.33 | \$523.23 | \$611.60 | \$1,208.54 |
| Ratio of Expenses to Average Net Assets | 0.91% ^(c) | 0.91% | 0.83% | 0.80% | 0.79% | 0.77% |
| Ratio of Net Investment Income to Average Net Assets | 1.34% ^(c) | 1.75% | 2.42% | 1.85% | 2.21% | 2.10% |
| Portfolio Turnover Rate ^(d) | 10% | 30% | 14% | 16% | 10% | 0% |

* Unaudited

^(a) Based on Average Shares Outstanding.

^(b) Total returns for periods less than one year are not annualized.

^(c) Annualized.

^(d) A portfolio turnover rate is, in general, the percentage computed by taking the lesser of purchases or sales of portfolio securities (excluding securities with a maturity date of one year or less at the time of acquisition) for a period and dividing it by the monthly average of the market value of such securities during the period. Purchases and sales of investment securities (excluding short-term securities) for the six months ended December 31, 2009 were \$20,282,320 and \$25,359,208, respectively.

The accompanying notes are an integral part of the financial statements

NOTES TO FINANCIAL STATEMENTS (Unaudited)

1. SIGNIFICANT ACCOUNTING POLICIES

The Ameristock Mutual Fund, Inc. (the "Fund") is registered under the Investment Company Act of 1940, as amended ("40 Act"), as a diversified, open-end management investment company, organized as a corporation under the laws of the State of Maryland on June 15, 1995. The Fund's investment objective is to seek total return through capital appreciation and current income by investing primarily in equity securities. The Fund pursues its investment objective principally in common stocks, focusing on large capitalization companies headquartered in the United States. The authorized capital stock of the Fund consists of 100 million shares of common stock, par value \$0.005 per share.

SECURITY VALUATION

Investments in securities are carried at market value. All equity securities that are traded on a national securities exchange are valued at the last sale price at the time of the close of the New York Stock Exchange (NYSE). If on a particular day an exchange-listed security does not trade, then the mean between the closing bid and asked prices will be used. In the case of securities listed on more than one national securities exchange the last quoted sale, up to the time of valuation, on the exchange on which the security is principally traded should be used. If there were no sales on that exchange, the last quoted sale on the other exchange will be used.

For securities that are traded on NASDAQ, the NASDAQ Official Closing Price (e.g., the NASDAQ Closing Cross price, if available) is used. All non-NASDAQ equity securities that are not traded on a listed exchange are valued at the last sale price at the close of the NYSE. If a nonexchange listed security does not trade on a particular day, or if a last sales price or Official Closing Price is not available, then the mean between the closing bid and asked price will be used.

Debt securities are valued by using market quotations or a matrix method provided by the Fund's pricing service. If prices are not available from the pricing service, then quotations will be obtained from broker/dealers and the securities will be valued at the mean between the bid and the offer.

Securities having a remaining maturity of 60 days or less are valued at amortized cost, which approximates market value.

The cost of securities sold is determined on the identified cost basis. When market quotations are not readily available or when events occur that make established valuation methods unreliable, securities of the Fund may be valued at fair value determined in good faith by or under the direction of the Board of Directors.

Security transactions are recorded on the dates transactions are entered into, which is the trade date.

INCOME

Dividend income is recorded on the ex-dividend date. Distributions to shareholders, which are determined in accordance with income tax regulations, are also recorded on the ex-dividend date. Interest income is recorded as earned. Discounts and premiums on securities purchased are amortized over the life of the respective securities.

INCOME TAXES

The Fund's policy is to comply with the requirements of the Internal Revenue Code that are applicable to regulated investment companies and to distribute all its taxable income to its shareholders. The company also intends to distribute sufficient net investment income and net capital gains, if any, annually so that it will not be subject to excise tax on undistributed income and gains. Therefore no federal income tax provision is required.

The Fund follows ASC 740 "Income Taxes", which requires that the financial statement effects of a tax position taken or expected to be taken in a tax return be recognized in the financial statements when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. Management has concluded that the Fund has taken no uncertain tax positions that require adjustment to the financial statements. The Fund files income tax returns in the U.S. federal jurisdiction and Colorado. The statute of limitations on the Fund's federal and state tax filings remains open for the fiscal years ended June 30, 2009, June 30, 2008, June 30, 2007, and June 30, 2006.

ESTIMATES

The accompanying financial statements were prepared in accordance with accounting principles generally accepted in the United States of America, which require the use of estimates and assumptions made by management. These may affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

OTHER

Accounting principles generally accepted in the United States of America require that permanent financial reporting tax differences relating to shareholders distributions be reclassified to paid-in-capital or gains/losses.

REPURCHASE AGREEMENTS

The Fund, through its custodian, receives delivery of underlying securities, whose market value, including interest, is required to be at least 102% of the resale price. The Fund's adviser is responsible for determining that the value of these underlying securities remains at least equal to 102% of the resale price. If the seller defaults, the Fund would suffer a loss to the extent that the proceeds from the sale of the underlying securities were less than the resale price.

NEW ACCOUNTING PRONOUNCEMENTS

In June 2009, FASB issued FASB ASC105 (formerly FASB Statement 168), Generally Accepted Accounting Principles, establishing FASB Accounting Standards Codification™ (ASC) as the source of authoritative generally accepted accounting principles (GAAP) to be applied by nongovernmental entities. FASB ASC 105 is effective for annual and interim periods ending after September 15, 2009, and the Fund has updated references to GAAP in this report in accordance with the provisions of this pronouncement. The implementation of FASB ASC 105 did not have a material effect on the Fund's financial position or results of operation.

In April 2009, FASB issued FASB ASC 820-10-65 (formerly FASB Staff Position No. FAS 157-4), Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly. This standard applies to all assets and liabilities within the scope of accounting pronouncements that require or permit fair value measurements, with certain defined exceptions, and provides additional guidance for estimating fair value when the volume and level of activity for the asset or liability have significantly decreased. ASC 820-10-65 is effective for reporting periods ending after June 15, 2009. The implementation of ASC 820-10-65 did not have a material effect on the Fund's financial position or results of operation.

SUBSEQUENT EVENTS

Management has evaluated the need for disclosures and/or adjustments resulting from subsequent events through February 22, 2010 (the date the financial statements were available to be issued). Based on this evaluation, no adjustments were required to the financial statements as of December 31, 2009.

2. INVESTMENT ADVISORY AGREEMENTS

The Fund has entered into an investment advisory agreement with Ameristock Corporation (the "Adviser"). The Adviser receives from the Fund as compensation for its services to the Fund an annual fee of 1% of the Fund's average daily net assets for the first \$100 million in net assets and 0.75% of average daily net assets in excess of \$100 million. The Adviser pays all operating expenses of the Fund except for taxes, interest, brokerage commissions, noninterested directors fees and extraordinary expenses. The Adviser earned management fees of \$906,282 from the Fund for the six months ended December 31, 2009.

3. RELATED PARTY TRANSACTIONS

Certain owners of the Adviser are also owners and or directors of the Fund. These individuals may receive benefits from any management fees paid to the Adviser.

Shareholders holding more than 5% of the Fund's outstanding shares as of December 31, 2009 constituted 84.41% of the Ameristock Mutual Fund, Inc. The beneficial ownership, either directly or indirectly, of more than 25% of the voting securities of a fund creates a presumption of control of a fund under section 2(a)(9) of the Investment Company Act of 1940. As of December 31, 2009, Charles Schwab & Co. for the benefit of its customers owned of record in aggregate more than 62.77% of the Ameristock Mutual Fund, Inc.

The officers of the Fund and the directors of the Fund who are employees or directors of the Investment Adviser receive no compensation from the Fund. Each of the directors who is not an "interested person" of the Fund as defined by the 40 Act is paid \$28,000 per year, payable quarterly, and is reimbursed for the expenses of attending meetings.

4. CAPITAL STOCK AND DISTRIBUTION

At December 31, 2009, 100 million shares of capital (\$.005 par value) were authorized, and paid in capital amounted to \$266,004,072 for the Ameristock Mutual Fund, Inc.

| | For the Six Months Ended December 31, 2009 | For the Year Ended June 30, 2009 |
|---|---|---|
| Shares sold | 391,377 | 1,008,323 |
| Shares issued in Reinvestment of Dividends and Distributions | 64,774 | 633,065 |
| Total | 456,151 | 1,641,388 |
| Shares redeemed | (651,545) | (3,072,227) |
| Net Decrease in Shares | (195,394) | (1,430,839) |
| Shares Outstanding - Beginning of Year | 6,929,712 | 8,360,551 |
| Shares Outstanding - End of Year | 6,734,318 | 6,929,712 |

5. FAIR VALUE MEASUREMENT

The Fund utilizes various methods to measure the fair value of most of its investments on a recurring basis. Accounting principles generally accepted in the United States establish a hierarchy that prioritizes inputs to valuation methods. The three levels of inputs are:

Level 1 – Unadjusted quoted prices in active markets for identical assets or liabilities that the Fund has the ability to access.

Level 2 – Observable inputs other than quoted prices included in level 1 that are observable for the asset or liability, either directly or indirectly. These inputs may include quoted prices for the identical instrument on an inactive market, prices for similar instruments, interest rates, prepayment speeds, credit risk, yield curves, default rates and similar data.

Level 3 – Unobservable inputs for the asset or liability, to the extent relevant observable inputs are not available, representing the Fund's own assumptions about the assumptions a market participant would use in valuing the asset or liability, and would be based on the best information available.

The availability of observable inputs can vary from security to security and is affected by a wide variety of factors, including, for example, the type of security, whether the security is new and not yet established in the marketplace, the liquidity of markets, and other characteristics particular to the security. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in level 3.

The inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases for the disclosure purposes, the level in the fair value hierarchy within which the fair value measurement falls in its entirety, is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

The following is a summary of the inputs used as of December 31, 2009 in valuing the Fund's assets:

| Investments in Securities at Value | Level 1 - Quoted Prices | Level 2 - Other | Level 3 - | Total |
|--|----------------------------|-------------------------------------|---------------------------------------|----------------------|
| | | Significant Observable Inputs | Significant Unobservable Inputs | |
| Common Stocks | \$215,948,949 | — | — | \$215,948,949 |
| Short-Term Bank Debt Instruments | — | \$2,680,692 | — | 2,680,692 |
| Total | \$215,948,949 | \$2,680,692 | — | \$218,629,641 |

6. UNREALIZED APPRECIATION AND DEPRECIATION ON INVESTMENTS (TAX BASIS) As of December 31, 2009

| | |
|--|---------------|
| Gross Appreciation (excess of value over tax cost) | \$30,563,399 |
| Gross Depreciation (excess of tax cost over value) | (24,595,588) |
| Net Unrealized Appreciation | \$5,967,811 |
| Cost of investments for Income Tax Purposes | \$212,661,830 |

7. CLASSIFICATION OF DISTRIBUTIONS

Net investment income (loss) and net realized gain (loss) may differ for financial statement and tax purposes. The character of distributions made during the year from net investment income or net realized gains may differ from its ultimate characterization for federal income tax purposes.

The tax character of the distributions paid during the year ended June 30, 2009 and the year ended June 30, 2008 was as follows:

| | For the Year Ended June 30, | |
|--------------------------|-----------------------------|---------------------|
| | 2009 | 2008 |
| Distributions paid from: | | |
| Ordinary Income | \$14,747,887 | \$5,414,532 |
| Long-Term Capital Gain | 1,477,694 | 14,136,809 |
| Total | \$16,225,581 | \$19,551,341 |

Tax components of distributable earnings are determined in accordance with income tax regulations which may differ from the composition of net assets reported under accounting principles generally accepted in the United States. Accordingly, for the period ended June 30, 2009, certain differences were reclassified. The Fund increased undistributed net investment income by \$270 and increased accumulated net realized loss by \$270. The reclassifications were primarily the result of differing book/tax treatment of distributions and net assets were unaffected by the reclassifications.

As of June 30, 2009, the components of distributable earnings on a tax basis were as follows:

| | |
|---|-----------------------|
| Accumulated Undistributed Net Investment Income | \$1,027,952 |
| Accumulated Net Realized Loss on Investments | (54,508,773) |
| Net Unrealized Depreciation | (33,036,256) |
| Other Cumulative Effect of Timing Differences | — |
| Total | \$(86,517,077) |

The Fund intends to elect to defer to its fiscal year ending June 30, 2010, approximately \$40,201,822 of losses recognized during the period from November 1, 2008 to June 30, 2009.

At June 30, 2009, the Fund has available for tax purposes unused capital loss carryovers of \$14,306,951 which will expire in 2017.

8. CASH MANAGEMENT TRANSACTIONS

The Fund subscribes to the Brown Brothers Harriman & Co. (“BBH”) Cash Management Service (“CMS”). The BBH CMS is an investment product that automatically sweeps the Fund’s cash balances into overnight offshore time deposits with either BBH Grand Cayman branch or branches of pre-approved world class commercial banks. This fully automated program allows the Fund to earn interest on cash balances while remaining diversified. Excess cash invested with deposit institutions domiciled outside of the United States, as with any offshore deposit, may be subject to sovereign actions in the jurisdiction of the deposit institution including, but not limited to, freeze, seizure, or diminution. The Fund bears the risk associated with the repayment of principal and payment of interest on such instruments by the institution with which the deposit is ultimately placed. Balances in the CMS are accounted for on a cost basis, which approximates market value.

9. SECURITIES LENDING

The Fund receives compensation in the form of fees, or it retains a portion of interest on the investment of any cash received as collateral. The Fund also continues to receive interest or dividends on the securities loaned. The loans are secured by collateral at least equal, at all times, to the market value of the securities loaned plus accrued interest. Gain or loss in the market value of the securities loaned that may occur during the term of the loan will be for the account of the Fund. At December 31, 2009, the Fund had no securities on loan.

10. INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

On August 17, 2009, the Fund’s Board of Directors approved Cohen Fund Audit Services, Ltd. (“Cohen”) as the independent registered public accounting firm to audit the Fund’s financial statements for fiscal year ending June 30, 2010, replacing Tait, Weller and Baker LLP (“TWB”), the Fund’s previous independent registered public accounting firm. The decision to change accountants was recommended by the Audit Committee of the Board of Directors.

TWB’s reports on the Fund’s financial statements for the fiscal years ended June 30, 2008 and June 30, 2009 did not contain adverse opinions or disclaimers of opinion, nor were such reports qualified or modified as to uncertainty, audit scope, or accounting principles. At no time from July 1, 2007 through August 17, 2009 were there any disagreements with TWB on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of TWB, would have caused it to make reference to the subject matter of the disagreements in connection with its reports on the financial statements for such periods.

At no time preceding the engagement of Cohen did the Fund consult Cohen regarding the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Fund’s financial statements.

PORTFOLIO HOLDINGS (Unaudited)

The Fund files its complete schedule of portfolio holdings with the Commission for the first and third quarters of each fiscal year on Form N-Q within 60 days after the end of the period. Copies of the Fund's Forms N-Q are available without a charge, upon request, by contacting the Fund at 1-800-394-5064 and on the Commission's website at <http://www.sec.gov>. You may also review and copy Form N-Q at the Commission's Public Reference Room in Washington, D.C. For more information about the operation of the Public Reference Room, please call the Commission at 1-800-SEC-0330.

Investment Adviser

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ALPS Fund Services, Inc.
1290 Broadway, Suite 1100
Denver, Colorado 80203

Distributor

ALPS Distributors, Inc.
1290 Broadway, Suite 1100
Denver, Colorado 80203

Custodian

Brown Brothers Harriman & Co.
40 Water Street
Boston, Massachusetts 02109

Independent Registered Public Accounting Firm

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Directors

Alev M. Efendioglu
Nicholas D. Gerber
Stephen J. Marsh
Andrew F. Ngim
Steven A. Wood

A description of the policies and procedures that the Adviser uses to determine how to vote proxies relating to portfolio securities of the Fund is available (i) without a charge by calling 1(800)394-5064; and (ii) on the Securities and Exchange Commission website at www.sec.gov. Information regarding how the Fund voted such proxies during the 12 month period ended June 30, 2009 is also available (i) without a charge through the Fund's website at www.ameristock.com; and (ii) on the Securities and Exchange Commission website at www.sec.gov.

ALPS Distributors, Inc., distributor

Must be accompanied or preceded by a current prospectus which contains more information on fees, risks, and expenses. Please read it carefully before investing or sending money. For more information, please call 1(800)394-5064 or visit www.ameristock.com.

AMERISTOCK

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