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The mutual find scandal: A day trading simulation

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Introduction

The 6.9 trillion dollar mutual fund industry has come under fire due to questionable practices conducted by mutual fund companies. Individual investors trying to diversify with a small amount of money have historically turned to mutual funds. Mutual funds were used as a safe vehicle for investors rather than buying thirty different stocks in order to diversify away unsystematic risk. The perception that mutual fund companies were acting in the best interests of individual investors has been challenged in the past year. Elliot Spitzer, the New York Attorney General, brought to light some illegal and highly questionable activities of mutual fund companies. These two activities are late trading, which is illegal, and day trading, which is not illegal but is discouraged in the mutual fund industry. This thesis will start out by focusing on the mutual fund scandal in general. Then it will focus on the day trading of international mutual funds followed by a hypothetical simulation to see how much money could have been made by day trading these funds. Finally, possible solutions to stem the practice of day trading will be explored.

History

On September 3rd, Elliot Spitzer charged Edward J. Stern, managing principal of Canary Investment Management LLC, with violating New York State's business law against using fraud, false statements, deception, and concealment in trading securities. Arrangements by Stern were made with several mutual fund companies to improperly trade their shares. In the opening charge no mutual fund companies were named as defendants, but Bank of America Corp., Bank One Corp., Janus Capital Corp., and Strong Capital Management Inc. were cited in the allegations (Thomas, 2003). Later, Putnam

was also found to have allowed both market timing and late trading of their mutual funds. Steven B. Markovitz, a senior trader at the $1 billion hedge fund Millennium Partners LP, also pleaded guilty to improper trading of mutual funds (Williamson, 2003). These allegations against the mutual fund industry threaten the widely held belief that individual investors are treated fairly by mutual fund companies in which 95 million investors in 54.2 million households invest $6.9 trillion dollars to save money for retirement or college (Milstead, 2003). The illegal activities showed mutual fund companies were willing to bend the rules for large institutional investors at the expense of the individual investor.

Spitzer claimed Stern received favorable treatment from one financial institution because of his father, and other mutual fund companies gave him special access because he promised he would keep other institutional money invested in their money market and mutual funds. The first allegation against Stern dealt with frequent in-and-out "timing trades" of mutual funds. This took advantage of the difference between closing prices of international stocks and the mutual fund's later closing price. Although not illegal, Spitzer said fund companies misled investors by stating they prohibited the practice while allowing people like Mr. Stern to do it. Market timers look for mutual funds that do not reflect the fair value of the stocks they contain. For example, when a mutual fund is made up of Japanese stocks the mutual fund price would be formed by using fourteen-hour-old Japanese stock values for its price. Then if the United States stock market goes up, it is likely the Japanese stock market will rise allowing investors to make a quick profit because they buy the mutual fund using the fourteen-hour-old stock values. The problem is when market timers buy and sell funds in a one day time period, the fund

managers may have to sell holdings to raise the cash to pay back the investors. Janus told its fund owners "frequent trades in your account… can disrupt portfolio investment strategies and increase fund expenses for all fund shareholders." Janus went on to say they might suspend or terminate trading privileges of investors engaging in day trading. Spitzer claims, however, that Janus gave permission to Canary to market time starting in April 2002. This shows a discrepancy in the way Janus deals with large institutional investors and individual investors (Milstead, 2003).

The other charge dealt with late trading. Orders placed after 4 PM Eastern Time, are supposed to be filled at the next day's closing price under the rule of "forward pricing," which was established in 1968 (Smith, 2003). Stern, along with Canary, was allowed to conduct late trading, which is prohibited by New York's antifraud Martin Act and Securities and Exchange Commission regulations. Canary paid a $10 million dollar fine and $30 million in restitution. Stern also agreed not to trade in mutual funds or manage public investment funds for 10 years.

In a statement, Spitzer said "the full extent of this complicated fraud is not yet known," but he asserted, "The mutual-fund industry operates on a double standard" in which certain institutions and traders "have been given the opportunity to manipulate the system. They make illegal after-hours trades and improperly exploit market swings in ways that harm ordinary long-term investors." A study by Eric Zitzewitz, assistant professor of economics at Stanford University, concluded that market timing and day trading might cost long-term investors up to $5 billion dollars a year (Damato, 2003). Late trading also dilutes long-term investor's gains (Economist, 2003). The mutual fund companies participated because they made some extra money, and they did not believe it

had a huge effect on long-term investors. The mutual fund companies profited by obtaining interest and other fees from the day trading, as well as management fees from funds Canary promised to keep in money market or other funds on a long-term basis. Janus decided to allow day trading because of the extra money it could make. One Janus e-mail said, "Our stated policy is that we do not tolerate market timers however, when we believe allowing a limited/controlled amount of timing will be in JCG's best interests we will make exceptions." Another email from Richard Garland, CEO of Janus International Ltd. said, "I have no interest in building a business around market timers, but at the same time I do not want to turn away $10-20m!" These statements show Janus did not believe it was harming long-term investors through this practice (Smith, 2003).

Market timing investors have many different methods to get around market timing policies. Mutual fund companies' watch for timers by looking for round trip trades, which involve multiple purchases and sales of shares in a single fund. Usually mutual fund companies limit how many round trip trades an investor can make. Investors get around this by breaking their trades into smaller amounts under $1 million dollars because fund companies often only monitor trades above a certain size. As long as investors do not cross this threshold the mutual fund company would not pay attention to the number of trades they make. Another method is when an investor gets shut down from trading in a fund; they open up a new account and get their maximum number of trades again from the new account (Oster, 2003). As will be shown in the simulation, even being allowed to market time twelve to fifteen times a year could lead to very large profits.

The mutual fund company's response is to have market-timing police to try and identify people who are timing the market. One of the tougher jobs they have is monitoring trades coming from intermediaries like employee retirement plans and financial advisors who can package together orders from smaller accounts into big buy and sell transactions. Timers try to sneak their trades through these larger institutions. The timing police have to continue to update their techniques in order to catch these market timers (Oster, 2003).

Putnam was responsible for allowing a few individual investors to make substantial profits over the past three years. Ten members of a New York trade union made more than $2 million in profits from market timing Putnam's International Capital Opportunities Fund. The trading was perfectly legal for the union members, but it was the responsibility of Putnam to stop the excessive trading if it was against the rules laid out in the prospectus. At the time it seems Putnam allowed one transaction per day, which these union members took advantage of to achieve extraordinary profits (Hechinger, 2003).

Janus was named in the first allegations made by Elliot Spitzer, but Putnam came under scrutiny a month later when the fund managers themselves were discovered to be profiting from day trading of international funds. This day trading of mutual funds was being conducted in 2000, and Putnam put a stop to it right then, but did not reprimand the managers until late 2003. The six managers who engaged in market timing made profits of $700,000 before they were stopped. These violations are worse than individual investor's market timing because fund managers are supposed to be looking out for the interests of its long-term shareholders (Hechinger, 2003).

At least one person believes market timing is relatively unimportant if it is dealt with correctly. Henry Manne of the Wall Street Journal proposed the idea of charging a high front end fee so while market timers would have to decide if timing the market is worth the big fee, for long term investors this fee would be spread out over a long period of time. The large fee could cover the costs of managing short-term trades. In 1983 the SEC put a cap on these redemption fees of 2%. This price cap on fees mutual fund companies could charge the market timers opened the door for the practice of market timing. If mutual fund companies were allowed to raise this fee once again, the fee would compensate long-term investors for the profits lost to market timers. Even though this opinion declares market timing is not a big deal, it does say under the current system, market timing does hurt long-term investors.

These allegations against mutual fund companies discuss how excess gains could be made using market timing. None of the reports tell how much money could be made, or what type of strategy would have to be employed to make these excess returns. This thesis will explore this issue by creating a market timing simulation using mutual funds that trade in international stocks.

Mutual Funds

The mutual funds chosen for this project were in the Janus and Putnam family of mutual funds, and they included foreign companies in their portfolio. Janus and Putnam were chosen because they were the two largest companies facing scrutiny for the day trading and late trading scandal. This section will quickly outline the different mutual funds, their goals, and their holdings. All of the prospectuses for the mutual funds were

found at www.janus.com and www.putnam.com on the individual investor's page, under fund details.

Two of the Janus funds do not invest as heavily in foreign firms. The Janus Global Life Sciences Fund (JAGLX) and the Janus Global Technology Fund (JAGTX) have at least fifty percent of their assets invested in U.S. companies. This makes a big different in the results of the simulation. The rest of the Janus funds invest most of their assets in countries located in Europe and the Pacific Rim. The Putnam funds all heavily invest in foreign companies, focusing in Europe and the Pacific Rim. The mutual funds represent a wide variety of value to growth oriented mutual funds. They also range from twenty-five percent of their assets in foreign firms to almost one-hundred percent. This variation is a good sample from which to infer results, and their differences lead to different results when employing a day trading strategy.

Simulation

This simulations goal was to see if a day trading strategy would work in achieving excess returns in the international mutual fund market. This research was performed by comparing daily returns of the Dow Jones Industrial average as a market proxy with the next day's returns of each international mutual fund. The first step was to obtain the daily stock prices for the market proxy and all of the individual funds, which was done by downloading the data from finance.yahoo.com. The entire history of daily prices was downloaded for each mutual fund from its inception until October 31st of 2003.

The daily holding period returns were computed for the market proxy and the mutual funds. The holding period return is found by taking today's price divided by yesterday's price minus 1. A filter rule was constructed in order to determine which days

it would be beneficial to purchase the mutual fund. If the Dow Jones Industrial average holding period return was over a certain amount the mutual fund should be bought at the end of the day, held for exactly one day and than sold in order to capture the daily return of the mutual fund. For this project when there was no purchase of the mutual fund, it was assumed the money was just held in cash. The filter rule placed on the market proxy allowed for sensitivity analysis by simply switching the interest rate threshold the market had to achieve in order to purchase the mutual fund.

A hypothetical ten thousand dollars was placed in each mutual fund at its inception. The ten thousand dollars was increased by the daily holding period return for each day a buy recommendation was made from the filter rule on the market proxy. Days when there was no buy recommendation the value in the mutual fund was simply carried forward at its current value. This day trading amount was compared over a simple buy and hold strategy of the mutual fund, which was simulated by simply putting a hypothetical ten thousand dollars in at the inception of the mutual fund and letting it grow at the daily return of the mutual fund.

The returns of the day trading strategy, the buy and hold strategy, and the Dow Jones Industrial Average were compared on an annual basis return. Yearly returns were computed for the past ten years for those mutual funds that have been in existence for that long. For years two through ten, the returns were computed as both an average yearly return over the time period and the individual return for that particular year. This allows for comparison both over time and year-by-year between the day trading and the buy and hold strategies.

In order to see how significant the relationship between the Dow Jones Industrial Average daily returns and the mutual fund daily returns was, the number of days the mutual fund returns went down or up after a buy recommendation was made, and the average positive and negative returns on these days was found. This shows the days a market timing strategy could be employed, the most important factor in a market timing strategy. All of these calculations lead to a very clear conclusion on the effectiveness of a day trading strategy dealing with international mutual funds.

Assumptions were made when conducting the simulation. First, when a mutual fund was not being employed using market timing the assumption was the money would just be held in cash. No interest was earned on days the mutual fund was not traded. This would be an unrealistic assumption in the real world because the mutual fund could be held in a money market fund, or a fund that at least earned the risk free rate. This provides a downward bias to returns in order to strengthen the results. Another assumption is the yearly returns were computed by taking the amount of money the account would have at the beginning of the year and then looking at how much the mutual fund would have at the end of the year. The trading rules led to some instances where the mutual fund would only be traded for 12 times in a year. Another method of computing returns would have been to take this 12-day return and turn it into an annual return. This was assumed to be unrealistic because of the fact that the market timing strategy would only work those twelve days. You could not earn those excess returns on a consistent basis throughout the year. Transaction costs are assumed to be zero because people employing market timing strategies were able to move money from one fund to another without incurring transaction fees.

Results

The results of the simulation show that in most cases a market timing strategy can be highly effective in creating excess returns. The simulation shows this type of strategy may be more effective during a bear market than the bull market experienced in the past year. Three different simulations will be used to test the significance of the market timing strategy. Conducting sensitivity analysis using the filter gives the three different results.

The first simulation employed a filter rule of trading the mutual fund only if the Dow Jones Industrial Average went up by more than 2% during the day. This is the most extreme of the three situations, as the Dow does not go up or down by more than 2% very often. Employing a day trading strategy using either a ten-year investment period or the lifetime of the mutual fund would never have yielded a negative return on a collective basis (Appendix 1). Out of eighty-two possible yearly returns only three would have produced year-to-year negative return. These negative returns were contained in two of the Janus funds. JAGLX and JAGTX do not show as significant of gains from market timing as the other 11 funds (Appendix 2). The reason for this is quite clear. When looking at their prospectus, the two mutual funds do not have as much of an international presence as the rest of the mutual funds in the simulation. This explains why these funds do not see the significant gains. The 2% filter rule led to the most conservative results, due to the fact it did not produce as many trades as a lower Dow threshold. Over the long haul employing 2% as the filter rule led to a 10% return on average, which was very good during the bear market, but as soon as the bull market came back last year the filter rule performed badly. It earned single digit returns for most of the mutual funds, while the

mutual funds were earning from 20 to 30%. It seems as though this trading rule is more appropriate when the market is down.

When looking at the simple year-to-year return of each mutual fund, it seems as though a 2% filter rule is not as volatile as the stock market. The returns over the past ten years range from about 6 to 20% for most of the mutual funds with the best year being in 2002 as the market was beginning to slow down its losses, and the worst year was 2003 when the market made its big recovery. The biggest problem with a 2% filter rule is the number of days the market goes up by more than 2%. From October of 2002 to October of 2003 there were only 12 days the market exceeded a 2% gain (Appendix 5). Therefore, there are fewer opportunities to make excess returns.

The number of days a day trading strategy could be employed was found. This was computed by simply counting the total number of days the stock market was above 2% and than counting how many following days the mutual fund went up or down. With the 2% threshold, the mutual funds had a positive following day at least 57% of the time and one of the mutual funds was positive 85% of the time. If you throw out the two funds that are not as heavily concentrated in the international markets, the other eleven mutual funds had a following positive day at least 70% of the time. The other point about the market timing strategy is that the average positive return was greater than the average negative return on twelve of the thirteen funds (Appendix 5). This shows that even if the mutual fund declined after a good day by the Dow, it was less on average than the positive response. With a 2% strategy there were sixty-nine days in the past five years to conduct market timing. This is the largest factor in leading to lower returns than the next two filter rule simulations.

Another possible strategy for market timers would be to buy when the Dow crossed a certain threshold and than sell if the Dow went down by that same threshold. This strategy is definitely not as effective as a market timing strategy. Over the long haul this strategy on average leads to positive returns. This method does not lead to the same amount of excess returns as a day trading strategy. In 2001 the buy and hold strategy took a big hit with most of the mutual funds experiencing significant double digit declines. It does lead to a consistent positive cumulative return for most of the mutual funds, which is better than the negative average returns these same funds have had over the past 6 years (Appendices 3-4).

The filter rule was lowered to trade when the Dow was higher than 1%. On a one-year basis it is apparent that in the bull market of 2003, the timing philosophy is not as effective as the four years prior. It still keeps up with the fund return based on a buy and hold strategy, but there is not much difference between the two. Once the time is lengthened out, however, it becomes quite apparent this strategy could lead an investor to large returns in excess of 20%. Over the past six years these mutual funds have taken a big hit, most of them have not even returned to the price they were at six years ago. At the same time a day-trading strategy could have netted returns in excess of 30%. As an example, if an investor had bought $10,000 dollars worth of PINOX at its inception and held on to it until October 31st they would have $7,750 dollars now. Over the same time period a market timing strategy would have about $73,000 in their account. Even examining the year-to-year returns of the mutual funds is staggering. Five of the funds earned 30% a year through 5 of the last 6 years, with a couple of the mutual funds hitting 50% gains using the market timing strategy (Appendices 6-9).

As the filter rule drops the days market timing would take place significantly increases. The Dow exceeded a 1% threshold 240 days over the past 5 years. Once again all of the mutual funds that have a significant portion of their holdings in international stocks traded positively after a good Dow day anywhere from 70 to 80% of the time. The average gain on the mutual funds after a positive Dow day was around 1%, while the average loss was about 0.6%. When you consider that 70% of the time these mutual funds are having positive days, it becomes apparent where the excess returns come from. When examining the buy and hold strategies with the 1% threshold, returns in the 30% range are achieved for most of the mutual funds over the past 5 years. The only exception would be in 2000 when this strategy would have also led to negative returns due to the significant drop of the markets in general (Appendix 10).

Finally, a market timing strategy of simply buying when the Dow Jones Industrial Average is positive gives the highest returns. On a year-to-year basis the market timing strategy was more successful than simply buying and holding the mutual fund on every occasion. The reasoning behind this is the market timing philosophy could be employed on 609 days in the past five years. The average positive return was 0.86% with the average negative return at 0.75%. With the mutual funds being higher the following day at least 60% of the time, extreme returns were realized over this trading time (Appendices 11-13).

In conclusion, this simulation showed some pretty obvious trends. The first is the lower the threshold the higher the excess returns which is due to the greater number of trading days available. With investors being able to trade freely between different mutual funds through pension plans or through special arrangements, large profits could be

made. It also shows that even if trades were restricted to twelve a year, excess returns could be made by simply employing a larger threshold.

Possible Solutions

Many solutions to the mutual fund day trading scandal have been made to stop this type of activity. Technically, the day trading of mutual funds is not illegal; it was just strongly discouraged because it hurts long-term investors. The prospectuses from both Janus and Putnam now contain sections to discourage day trading.

The prospectus for Janus's mutual funds gives a clear-cut indication they do not allow day trading of mutual funds. On page 63 of the online shareholder manual they discuss their exchange policies. An exchange involves moving money from one mutual fund in the Janus family to another fund in the same family. In the prospectus it says the exchange privileges will not be used for short term or excessive trading. They discourage this by allowing only four roundtrip exchanges in one twelve month period. By a roundtrip exchange they mean selling a mutual fund only to buy back into it recently after the sale. They also reserve the right to not allow an exchange to happen for no reason at all. The prospectus also says an exchange made dealing with any of their foreign mutual funds could be subject to a redemption fee. This fee is currently placed at one percent, but it was raised to two percent on March 1, 2004. This is obviously another step in order to discourage short term trading as this redemption fee is placed on any exchange made within three months of a previous exchange. On page 65 of the prospectus there is a whole section on how Janus deals with excessive trading. In this section they claim mutual funds are intended to me long term investment vehicles only, and excessive trading is discouraged. It is discouraged because excessive short term trading can disrupt

the management of the fund and cause long-term investors to incur costs they should not. Janus also says, however, they may have trouble detecting excessive trading when conducted by a financial intermediary. All of these statements make it very clear that Janus does not condone day trading of its international funds. Putnam's prospectuses were set up the same way.

The SEC has a few new guidelines for mutual fund companies. The SEC will require mutual funds to impose a minimum two percent redemption fee for sales of mutual funds within five days of purchase. Janus has taken this one step further by imposing this fee when a sale is made within ninety days of purchase. This would be imposed on all funds except money market funds and any other mutual funds that are designed to handle market timing. The Investment Company Institute president Matt Fink said, "One hundred percent of redemption-fee proceeds would go to the fund and would thus benefit the fund's long-term shareholders" (Svaldi, 2003). This increased fee would theoretically be enough to cover the cost of fulfilling the mutual fund sell orders, and would not cut into the profits of long-long term shareholders. The important point is mutual fund companies must apply this fee to everyone equally. A lot of mutual fund companies had these fees in place earlier, but were allowing certain market timers to not pay this fee in order to secure their business.

Other proposed rules to stem market timing include requiring mutual fund companies to explicitly disclose the fund's policy on market timing in fund offering documents. This would allow investors to know whether the fund is serious about discouraging market timing from happening. They also want mutual funds to clarify to their employees that they are barred from misusing material, non-public information

when trading portfolio holdings. The final proposal by the SEC would require mutual fund companies, along with their investment advisors, to have a compliance officer to answer to the fund's board, and to put compliance procedures in place to make sure violations of federal securities law are not being broken (Anderson, 2003). All of these proposed changes would help protect long-term investors from day trading and late trading.

Due to the problem with mutual funds, other investment vehicles are becoming more prominent for investors. Exchange traded funds are set up the same way as mutual funds except they trade like stocks. The prices are adjusted throughout the day to reflect what the stock's managers feel is the value of the stocks in the fund. This solves the problem of sticky prices when dealing with mutual funds. There is talk of mutual funds being priced the same way, but at this time the process of converting to a market value price is still in its early stages (Solomon, 2003).

Conclusion

This paper shows the importance of regulating the mutual fund industry. Without regulation, long-term investors will be hurt through increased expenses and loss of long-term gains due to market timing by certain individuals. The simulation showed how excess returns can be earned using a market timing system trading as few as twelve times a year. If the mutual fund companies do not get their problems straightened out, investors will continue to turn to new investment vehicles like exchange traded funds. The SEC and mutual fund companies are imposing new regulations to stem the illegal and unethical practice of mutual fund companies in order to try and reinstall confidence of safety to the average investor.

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Cumulative Returns based on a 2% filter rule

	2003		2002-03		2001-03		2000-03		1999-03	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX	2.63%	13.87%	5.17%	-6.81%	1.16%	-13.03%	4.37%	1.82%		
JAGTX	5.44%	41.08%	1.92%	0.91%	0.86%	-25.85%	6.42%	-14.53%		
JGVAX	2.85%	34.95%	7.71%	10.24%						
JAOSX	7.33%	27.62%	13.12%	3.97%	10.76%	-15.15%	10.85%	-7.29%	10.62%	1.04%
JAWWX	4.25%	14.65%	9.84%	-2.15%	7.77%	-18.08%	9.43%	-11.65%	8.95%	-2.88%
PINOX	7.54%	23.91%	13.26%	5.49%	11.26%	-18.02%	11.18%	-16.94%	11.03%	-5.53%
PINWX	7.34%	23.07%	13.20%	4.68%	11.18%	-18.85%	11.12%	-17.75%	10.97%	-6.42%
PIOCX	7.40%	23.21%	13.23%	4.84%	11.21%	-18.63%				
PINMX	7.88%	23.35%	13.41%	5.05%	11.33%	-18.51%	11.27%	-17.43%	11.10%	-6.06%
PEUGX	5.82%	18.48%	13.55%	-1.06%	10.68%	-12.21%	11.17%	-8.36%	10.48%	-5.11%
PEQUX	2.92%	20.32%	7.57%	1.56%	5.21%	-21.39%	8.18%	-16.57%	7.78%	-7.84%
POVSX	8.23%	18.47%	14.12%	1.37%	11.22%	-9.74%	11.56%	-5.62%	11.09%	1.42%
PNGAX	8.54%	24.80%	13.33%	5.35%	10.10%	-7.28%	10.21%	-8.06%	9.84%	-2.49%
Dow		16.72%		3.92%		-3.69%		-2.05%		2.67%
Average	6.01%	23.67%	10.72%	2.57%	8.56%	-16.40%	9.62%	-11.12%	10.21%	-3.76%
Number of Days in the Market	12	365	25	365	11	365	12	365	9	365

	1998-03		1997-03		1996-03		1995-03		1994-03	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX										
JAGTX										
JGVAX										
JAOSX	10.94%	1.59%	10.85%	4.21%	9.52%	7.09%				
JAWWX	9.01%	-1.26%	9.05%	1.08%	7.96%	3.93%	7.04%	4.00%	6.42%	5.01%
PINOX	11.45%	-5.24%	11.22%	-3.55%						
PINWX	11.41%	-6.13%	11.17%	-4.42%						
PIOCX										
PINMX	11.53%	-5.79%	11.32%	-4.10%						
PEUGX	10.83%	-2.37%	10.58%	0.43%						
PEQUX	7.89%	-7.58%	7.86%	-5.15%	6.87%	-3.21%	6.08%	-2.64%	5.57%	-1.74%
POVSX	11.27%	2.33%	11.09%	4.96%						
PNGAX	10.22%	-1.23%								
Dow		4.70%		7.19%		9.46%		10.76%		10.29%
Average	10.51%	-2.85%	10.39%	-0.82%	8.12%	2.60%	6.56%	0.68%	5.99%	1.63%

Year-to-Year Returns based on a 2% filter rule

	2003		2002		2001		2000		1999	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX	2.63%	13.87%	7.77%	-23.74%	-6.41%	-24.25%	14.63%	63.42%		
JAGTX	5.44%	41.08%	-1.47%	-27.83%	-1.24%	-59.96%	25.01%	30.93%		
JGVAX	2.85%	34.95%	12.79%	-9.94%						
JAOSX	7.33%	27.62%	19.21%	-15.30%	6.20%	-43.49%	11.12%	20.97%	9.68%	42.51%
JAWWX	4.25%	14.65%	15.72%	-16.48%	3.77%	-42.59%	14.54%	10.84%	7.04%	41.79%
PINOX	7.54%	23.91%	19.28%	-10.19%	7.35%	-50.49%	10.97%	-13.61%	10.39%	58.05%
PINWX	7.34%	23.07%	19.39%	-10.97%	7.25%	-51.22%	10.93%	-14.37%	10.36%	56.84%
PIOCX	7.40%	23.21%	19.37%	-10.79%	7.30%	-50.99%				
PINMX	7.88%	23.35%	19.23%	-10.53%	7.29%	-50.97%	11.08%	-14.07%	10.42%	57.36%
PEUGX	5.82%	18.48%	21.84%	-17.37%	5.14%	-30.88%	12.68%	4.22%	7.77%	9.08%
PEQUX	2.92%	20.32%	12.42%	-14.28%	0.65%	-52.91%	17.61%	-0.27%	6.21%	37.20%
POVSX	8.23%	18.47%	20.33%	-13.25%	5.64%	-28.43%	12.59%	7.89%	9.19%	35.23%
PNGAX	8.54%	24.80%	18.33%	-11.07%	3.92%	-28.19%	10.55%	-10.36%	8.37%	23.39%
Dow		16.72%		-7.47%		-17.28%		3.03%		23.93%
Average	6.01%	23.67%	15.71%	-14.75%	3.91%	-42.86%	13.79%	7.78%	8.83%	40.16%
Number of Days in the Market	12	365	25	365	11	365	12	365	9	365

	1998		1997		1996		1995		1994	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX										
JAGTX										
JGVAX										
JAOSX	12.57%	4.38%	10.34%	21.45%	0.61%	29.59%				
JAWWX	9.33%	7.26%	9.32%	16.33%	0.61%	26.26%	0.00%	4.56%	0.98%	14.59%
PINOX	13.57%	-3.77%	9.91%	7.24%						
PINWX	13.63%	-4.72%	9.73%	6.57%						
PIOCX										
PINMX	13.72%	-4.45%	10.04%	6.72%						
PEUGX	12.59%	12.57%	9.09%	18.99%						
PEQUX	8.42%	-6.26%	7.66%	10.83%	0.21%	11.55%	0.00%	2.05%	1.04%	6.69%
POVSX	12.19%	7.02%	10.00%	22.17%						
PNGAX	12.15%	5.31%								
Dow		15.45%		23.43%		26.79%		21.68%		6.18%
Average	12.02%	1.93%	9.51%	13.79%	0.48%	22.47%	0.00%	3.31%	1.01%	10.64%

Year-to-Year Returns for a Buy and Hold Strategy based on a 2% filter rule

	2003		2002		2001		2000		1999	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX	11.01%	13.87%	-10.73%	-23.74%	1.56%	-24.25%	36.26%	63.42%		
JAGTX	21.42%	41.08%	-10.73%	-27.83%	-45.78%	-59.96%	46.70%	30.93%		
JGVAX	27.10%	34.95%	27.25%	-9.94%						
JAOSX	26.82%	27.62%	21.99%	-15.30%	-16.34%	-43.49%	41.03%	20.97%	2.35%	42.51%
JAWWX	11.76%	14.65%	14.17%	-16.48%	-19.32%	-42.59%	31.10%	10.84%	1.81%	41.79%
PINOX	18.27%	23.91%	28.49%	-10.19%	-30.97%	-50.49%	33.11%	-13.61%	0.75%	58.05%
PINWX	17.76%	23.07%	28.11%	-10.97%	-31.86%	-51.22%	32.50%	-14.37%	0.52%	56.84%
PIOCX	18.04%	23.21%	28.46%	-10.79%	-31.55%	-50.99%				
PINMX	18.15%	23.35%	28.19%	-10.53%	-31.49%	-50.97%	32.78%	-14.07%	0.65%	57.36%
PEUGX	10.38%	18.48%	28.15%	-17.37%	-13.68%	-30.88%	20.41%	4.22%	-8.74%	9.08%
PEQUX	14.30%	20.32%	12.38%	-14.28%	-38.27%	-52.91%	24.68%	-0.27%	-3.31%	37.20%
POVSX	14.55%	18.47%	26.36%	-13.25%	-11.11%	-28.43%	34.69%	7.89%	0.09%	35.23%
PNGAX	21.60%	24.80%	30.59%	-11.07%	-13.48%	-28.19%	3.45%	-10.76%	1.23%	23.39%
Dow		16.72%		-7.47%		-17.28%		3.03%		23.93%
Average	17.78%	23.67%	19.44%	-14.75%	-23.53%	-42.86%	30.61%	7.74%	-0.52%	40.16%

	1998		1997		1996		1995		1994	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX										
JAGTX										
JGVAX										
JAOSX	25.53%	4.38%	23.82%	21.45%	16.39%	29.59%				
JAWWX	14.63%	7.26%	24.45%	16.33%	14.08%	26.26%	-3.30%	4.56%	9.98%	14.59%
PINOX	9.52%	-3.77%	16.82%	7.24%						
PINWX	8.86%	-4.72%	16.33%	6.57%						
PIOCX										
PINMX	8.84%	-4.45%	16.72%	6.72%						
PEUGX	23.95%	12.57%	22.41%	18.99%						
PEQUX	-3.63%	-6.26%	20.95%	10.83%	6.28%	11.55%	-4.86%	2.05%	7.06%	6.69%
POVSX	14.23%	7.02%	24.42%	22.17%						
PNGAX	13.69%	5.31%								
Dow		15.45%		23.43%		26.79%		21.68%		6.18%
Average	12.84%	1.93%	20.74%	13.79%	12.25%	22.47%	-4.08%	3.31%	8.52%	10.64%

Cumulative Returns for a Buy and Hold Strategy based on a 2% filter rule

	2003		2002-03		2001-03		2000-03		1999-03	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX	11.01%	13.87%	-0.45%	-6.81%	0.21%	-13.03%	8.22%	1.82%		
JAGTX	21.42%	41.08%	4.11%	0.91%	-16.24%	-25.85%	-3.64%	-14.53%		
JGVAX	27.10%	34.95%	27.18%	10.24%						
JAOSX	26.82%	27.62%	24.38%	3.97%	8.98%	-15.15%	16.24%	-7.29%	13.32%	1.04%
JAWWX	11.76%	14.65%	12.96%	-2.15%	0.98%	-18.08%	7.79%	-11.65%	6.56%	-2.88%
PINOX	18.27%	23.91%	23.28%	5.49%	1.61%	-18.02%	8.71%	-16.94%	7.07%	-5.53%
PINWX	17.76%	23.07%	22.83%	4.68%	0.92%	-18.85%	8.03%	-17.75%	6.48%	-6.42%
PIOCX	18.04%	23.21%	23.14%	4.84%	1.25%	-18.63%				
PINMX	18.15%	23.35%	23.07%	5.05%	1.24%	-18.51%	8.34%	-17.43%	6.76%	-6.06%
PEUGX	10.38%	18.48%	18.94%	-1.06%	6.88%	-12.21%	10.12%	-8.36%	6.06%	-5.11%
PEQUX	14.30%	20.32%	13.34%	1.56%	-7.44%	-21.39%	-0.29%	-16.57%	-0.90%	-7.84%
POVSX	14.55%	18.47%	20.31%	1.37%	8.76%	-9.74%	14.74%	-5.62%	11.64%	1.42%
PNGAX	21.60%	24.80%	26.01%	5.35%	11.17%	-7.28%	9.19%	-8.17%	7.55%	-2.58%
Dow		16.72%		3.92%		-3.69%		-2.05%		2.67%
Average	17.78%	23.67%	18.39%	2.57%	1.53%	-16.40%	7.95%	-11.13%	7.17%	-3.77%

	1998-03		1997-03		1996-03		1995-03		1994-03	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX										
JAGTX										
JGVAX										
JAOSX	15.27%	1.59%	16.45%	4.21%	16.44%	7.09%				
JAWWX	7.87%	-1.26%	10.09%	1.08%	10.58%	3.93%	8.95%	4.00%	9.05%	5.01%
PINOX	7.47%	-5.24%	8.76%	-3.55%						
PINWX	6.88%	-6.13%	8.18%	-4.42%						
PIOCX										
PINMX	7.10%	-5.79%	8.42%	-4.10%						
PEUGX	8.85%	-2.37%	10.69%	0.43%						
PEQUX	-1.36%	-7.58%	1.56%	-5.15%	2.14%	-3.21%	1.33%	-2.64%	1.89%	-1.74%
POVSX	12.07%	2.33%	13.76%	4.96%						
PNGAX	8.55%	-1.31%								
Dow		4.70%		7.19%		9.46%		10.76%		10.29%
Average	8.08%	-2.86%	9.74%	-0.82%	9.72%	2.60%	5.14%	0.68%	5.47%	1.63%

Appendix 5

Total Number of Days Market Timing would have been employed over the last ten years Using a 2% filter rule

	# of Neg	Total Days Pos	Positive %	Avg Neg Return	Avg Pos Return	Average Dow Neg Return	Dow Pos Return
JAGLX	29	37	56.06%	-0.95%	1.36%	2.85%	2.85%
JAGTX	23	41	64.06%	-2.17%	2.13%	3.02%	2.78%
JGVAX	11	26	70.27%	-0.81%	1.05%	3.15%	2.89%
JAOSX	19	67	77.91%	-0.86%	1.35%	2.93%	2.82%
JAWWX	23	65	73.86%	-0.79%	1.25%	2.91%	2.81%
PINOX	19	65	77.38%	-0.74%	1.38%	2.94%	2.85%
PINWX	18	65	78.31%	-0.79%	1.38%	2.93%	2.85%
PIOCX	12	38	76.00%	-0.96%	1.22%	2.87%	2.95%
PINMX	17	66	79.52%	-0.81%	1.36%	2.95%	2.84%
PEUGX	23	63	73.26%	-0.66%	1.38%	2.92%	2.84%
PEQUX	36	105	74.47%	-0.94%	1.22%	2.94%	2.76%
POVSX	13	72	84.71%	-0.81%	1.18%	3.17%	2.81%
PNGAX	12	69	85.19%	-0.85%	1.15%	3.11%	2.80%
		Average Returns		-0.82%	1.26%		

Number of Total Market Timing Days

2003	2002	2001	2000	1999
12	25	11	12	9

Cumulative Returns based on a 1% filter rule

	2003		2002-03		2001-03		2000-03		1999-03	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX	5.39%	13.87%	4.46%	-6.81%	4.57%	-13.03%	14.98%	1.82%		
JAGTX	18.14%	41.08%	8.40%	0.91%	8.75%	-25.85%	14.75%	-14.53%		
JGVAX	22.28%	34.95%	21.29%	10.24%						
JAOSX	25.55%	27.62%	28.70%	3.97%	27.44%	-15.15%	27.46%	-7.29%	29.31%	1.04%
JAWWX	13.34%	14.65%	18.11%	-2.15%	18.34%	-18.08%	19.15%	-11.65%	20.08%	-2.88%
PINOX	22.95%	23.91%	28.84%	5.49%	29.60%	-18.02%	29.74%	-16.94%	33.57%	-5.53%
PINWX	23.33%	23.07%	28.77%	4.68%	29.40%	-18.85%	29.52%	-17.75%	33.35%	-6.42%
PIOCX	23.22%	23.21%	29.11%	4.84%	29.67%	-18.63%				
PINMX	23.68%	23.35%	29.02%	5.05%	29.53%	-18.51%	29.67%	-17.43%	33.54%	-6.06%
PEUGX	21.11%	18.48%	27.82%	-1.06%	29.34%	-12.21%	29.88%	-8.36%	27.67%	-5.11%
PEQUX	11.03%	20.32%	13.93%	1.56%	13.52%	-21.39%	17.33%	-16.57%	18.64%	-7.84%
POVSX	25.92%	18.47%	31.52%	1.37%	31.24%	-9.74%	31.69%	-5.62%	32.19%	1.42%
PNGAX	26.40%	24.80%	29.86%	5.35%	29.18%	-7.28%	27.86%	-8.06%	27.25%	-2.49%
Dow		16.72%		3.92%		-3.69%		-2.05%		2.67%
Average	20.18%	23.67%	23.06%	2.57%	23.38%	-16.40%	24.73%	-11.12%	28.40%	-3.76%
Number of Days in the Market	41	365	54	365	48	365	45	365	52	365

	1998-03		1997-03		1996-03		1995-03		1994-03	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX										
JAGTX										
JGVAX										
JAOSX	30.32%	1.59%	30.08%	4.21%	27.56%	7.09%				
JAWWX	21.24%	-1.26%	22.01%	1.08%	20.77%	3.93%	19.02%	4.00%	17.68%	5.01%
PINOX	34.91%	-5.24%	32.77%	-3.55%						
PINWX	34.67%	-6.13%	32.62%	-4.42%						
PIOCX										
PINMX	34.85%	-5.79%	32.81%	-4.10%						
PEUGX	30.16%	-2.37%	29.03%	0.43%						
PEQUX	20.14%	-7.58%	19.16%	-5.15%	17.89%	-3.21%	16.51%	-2.64%	15.48%	-1.74%
POVSX	34.23%	2.33%	33.14%	4.96%						
PNGAX	30.14%	-1.23%								
Dow		4.70%		7.19%		9.46%		10.76%		10.29%
Average	30.07%	-2.85%	28.95%	-0.82%	22.07%	2.60%	17.77%	0.68%	16.58%	1.63%

Year-to-Year Returns based on using a 1% filter rule

	2003		2002		2001		2000		1999	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX	5.39%	13.87%	3.55%	-23.74%	4.77%	-24.25%	52.87%	63.42%		
JAGTX	18.14%	41.08%	-0.53%	-27.83%	9.45%	-59.96%	34.78%	30.93%		
JGVAX	22.28%	34.95%	20.31%	-9.94%						
JAOSX	25.55%	27.62%	31.94%	-15.30%	24.97%	-43.49%	27.51%	20.97%	37.00%	42.51%
JAWWX	13.34%	14.65%	23.08%	-16.48%	18.80%	-42.59%	21.63%	10.84%	23.86%	41.79%
PINOX	22.95%	23.91%	35.01%	-10.19%	31.13%	-50.49%	30.15%	-13.61%	50.05%	58.05%
PINWX	23.33%	23.07%	34.45%	-10.97%	30.66%	-51.22%	29.89%	-14.37%	49.83%	56.84%
PIOCX	23.22%	23.21%	35.28%	-10.79%	30.80%	-50.99%				
PINMX	23.68%	23.35%	34.59%	-10.53%	30.56%	-50.97%	30.07%	-14.07%	50.24%	57.36%
PEUGX	21.11%	18.48%	34.91%	-17.37%	32.45%	-30.88%	31.49%	4.22%	19.19%	9.08%
PEQUX	11.03%	20.32%	16.91%	-14.28%	12.70%	-52.91%	29.55%	-0.27%	24.01%	37.20%
POVSX	25.92%	18.47%	37.38%	-13.25%	30.67%	-28.43%	33.04%	7.89%	34.24%	35.23%
PNGAX	26.40%	24.80%	33.41%	-11.07%	27.84%	-28.19%	23.97%	-10.36%	24.83%	23.39%
Dow		16.72%		-7.47%		-17.28%		3.03%		23.93%
Average	20.18%	23.67%	26.18%	-14.75%	23.73%	-42.86%	31.36%	7.78%	34.81%	40.16%
Number of Days in the Market	41	365	54	365	48	365	45	365	52	365

	1998		1997		1996		1995		1994	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX										
JAGTX										
JGVAX										
JAOSX	35.45%	4.38%	28.66%	21.45%	11.21%	29.59%				
JAWWX	27.23%	7.26%	26.73%	16.33%	12.43%	26.26%	5.93%	4.56%	6.22%	14.59%
PINOX	41.83%	-3.77%	20.64%	7.24%						
PINWX	41.46%	-4.72%	20.99%	6.57%						
PIOCX										
PINMX	41.60%	-4.45%	21.22%	6.72%						
PEUGX	43.35%	12.57%	22.51%	18.99%						
PEQUX	27.93%	-6.26%	13.44%	10.83%	9.42%	11.55%	6.04%	2.05%	6.61%	6.69%
POVSX	44.89%	7.02%	26.79%	22.17%						
PNGAX	45.60%	5.31%								
Dow		15.45%		23.43%		26.79%		21.68%		6.18%
Average	38.81%	1.93%	22.62%	13.79%	11.02%	22.47%	5.98%	3.31%	6.41%	10.64%

Cumulative Returns for a Buy and Hold Strategy based on a 1% filter rule

	2003		2002-03		2001-03		2000-03		1999-03	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX	-0.55%	13.87%	-1.79%	-6.81%	-6.33%	-13.03%	6.07%	1.82%		
JAGTX	33.21%	41.08%	9.12%	0.91%	-10.14%	-25.85%	3.46%	-14.53%		
JGVAX	41.36%	34.95%	34.90%	10.24%						
JAOSX	45.35%	27.62%	42.82%	3.97%	27.66%	-15.15%	36.98%	-7.29%	41.07%	1.04%
JAWWX	16.36%	14.65%	20.65%	-2.15%	9.99%	-18.08%	19.14%	-11.65%	23.47%	-2.88%
PINOX	39.13%	23.91%	38.30%	5.49%	18.24%	-18.02%	28.17%	-16.94%	37.93%	-5.53%
PINWX	38.46%	23.07%	37.75%	4.68%	17.35%	-18.85%	27.29%	-17.75%	37.01%	-6.42%
PIOCX	38.50%	23.21%	38.18%	4.84%	17.91%	-18.63%				
PINMX	39.09%	23.35%	37.72%	5.05%	17.62%	-18.51%	27.53%	-17.43%	37.32%	-6.06%
PEUGX	30.97%	18.48%	34.65%	-1.06%	27.18%	-12.21%	30.28%	-8.36%	28.63%	-5.11%
PEQUX	14.82%	20.32%	15.59%	1.56%	-3.35%	-21.39%	8.46%	-16.57%	14.44%	-7.84%
POVSX	39.06%	18.47%	38.68%	1.37%	29.44%	-9.74%	35.43%	-5.62%	39.31%	1.42%
PNGAX	40.32%	24.80%	39.19%	5.35%	28.89%	-7.28%	28.68%	-8.17%	30.92%	-2.58%
Dow		16.72%		3.92%		-3.69%		-2.05%		2.67%
Average	32.01%	23.67%	29.67%	2.57%	14.54%	-16.40%	22.86%	-11.13%	32.23%	-3.77%

	1998-03		1997-03		1996-03		1995-03		1994-03	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX										
JAGTX										
JGVAX										
JAOSX	39.13%	1.59%	40.45%	4.21%	38.80%	7.09%				
JAWWX	23.60%	-1.26%	25.56%	1.08%	25.69%	3.93%	23.67%	4.00%	21.94%	5.01%
PINOX	36.88%	-5.24%	37.98%	-3.55%						
PINWX	36.01%	-6.13%	37.20%	-4.42%						
PIOCX										
PINMX	36.30%	-5.79%	37.50%	-4.10%						
PEUGX	30.82%	-2.37%	33.04%	0.43%						
PEQUX	15.74%	-7.58%	18.14%	-5.15%	17.63%	-3.21%	16.57%	-2.64%	15.56%	-1.74%
POVSX	38.72%	2.33%	41.07%	4.96%						
PNGAX	31.51%	-1.31%								
Dow		4.70%		7.19%		9.46%		10.76%		10.29%
Average	32.08%	-2.86%	33.87%	-0.82%	27.38%	2.60%	20.12%	0.68%	18.75%	1.63%

Year-to-Year Returns for a Buy and Hold Strategy based on a 1% filter rule

	2003		2002		2001		2000		1999	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX	-0.55%	13.87%	-3.01%	-23.74%	-14.79%	-24.25%	54.03%	63.42%		
JAGTX	33.21%	41.08%	-10.61%	-27.83%	-39.07%	-59.96%	57.91%	30.93%		
JGVAX	41.36%	34.95%	28.75%	-9.94%						
JAOSX	45.35%	27.62%	40.33%	-15.30%	1.99%	-43.49%	69.23%	20.97%	58.70%	42.51%
JAWWX	16.36%	14.65%	25.10%	-16.48%	-8.58%	-42.59%	51.40%	10.84%	42.45%	41.79%
PINOX	39.13%	23.91%	37.48%	-10.19%	-13.57%	-50.49%	63.24%	-13.61%	85.02%	58.05%
PINWX	38.46%	23.07%	37.04%	-10.97%	-14.84%	-51.22%	62.49%	-14.37%	83.90%	56.84%
PIOCX	38.50%	23.21%	37.86%	-10.79%	-14.14%	-50.99%				
PINMX	39.09%	23.35%	36.35%	-10.53%	-14.21%	-50.97%	62.59%	-14.07%	84.57%	57.36%
PEUGX	30.97%	18.48%	38.43%	-17.37%	13.47%	-30.88%	40.02%	4.22%	22.23%	9.08%
PEQUX	14.82%	20.32%	16.36%	-14.28%	-32.41%	-52.91%	53.23%	-0.27%	41.88%	37.20%
POVSX	39.06%	18.47%	38.30%	-13.25%	12.77%	-28.43%	55.13%	7.89%	55.95%	35.23%
PNGAX	40.32%	24.80%	38.07%	-11.07%	10.52%	-28.19%	28.05%	-10.76%	40.30%	23.39%
Dow		16.72%		-7.47%		-17.28%		3.03%		23.93%
Average	32.01%	23.67%	27.73%	-14.75%	-9.40%	-42.86%	54.30%	7.74%	57.22%	40.16%

	1998		1997		1996		1995		1994	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX										
JAGTX										
JGVAX										
JAOSX	29.80%	4.38%	48.63%	21.45%	27.84%	29.59%				
JAWWX	24.25%	7.26%	37.96%	16.33%	26.64%	26.26%	8.59%	4.56%	7.48%	14.59%
PINOX	31.71%	-3.77%	44.79%	7.24%						
PINWX	31.10%	-4.72%	44.59%	6.57%						
PIOCX										
PINMX	31.30%	-4.45%	44.97%	6.72%						
PEUGX	42.34%	12.57%	47.18%	18.99%						
PEQUX	22.44%	-6.26%	33.66%	10.83%	14.13%	11.55%	8.40%	2.05%	6.80%	6.69%
POVSX	35.84%	7.02%	55.98%	22.17%						
PNGAX	34.46%	5.31%								
Dow		15.45%		23.43%		26.79%		21.68%		6.18%
Average	31.47%	1.93%	44.72%	13.79%	22.87%	22.47%	8.49%	3.31%	7.14%	10.64%

Total Number of Days Market Timing would have been employed over the last ten years Using a 1% filter rule

	# of Total Days					Average	
	Neg	Pos	Positive %	Avg Neg Return	Avg Pos Return	Dow Neg Return	Dow Pos Return
JAGLX	94	130	58.04%	-0.91%	1.23%	1.85%	1.85%
JAGTX	90	132	59.46%	-1.69%	1.86%	1.80%	1.88%
JGVAX	27	74	73.27%	-0.71%	0.93%	2.14%	1.96%
JAOSX	87	260	74.93%	-0.69%	0.99%	1.71%	1.76%
JAWWX	101	272	72.92%	-0.72%	0.87%	1.73%	1.73%
PINOX	90	238	72.56%	-0.63%	1.09%	1.70%	1.81%
PINWX	86	239	73.54%	-0.67%	1.09%	1.70%	1.81%
PIOCX	45	119	72.56%	-0.81%	1.13%	1.77%	1.93%
PINMX	86	239	73.54%	-0.67%	1.09%	1.68%	1.81%
PEUGX	99	236	70.45%	-0.72%	1.08%	1.75%	1.79%
PEQUX	169	427	71.64%	-0.80%	0.88%	1.70%	1.72%
POVSX	69	261	79.09%	-0.67%	0.96%	1.67%	1.80%
PNGAX	75	236	75.88%	-0.57%	0.94%	1.67%	1.82%
		Average Returns		**-0.70%**	**1.00%**		

Number of Total Market Timing Days

2003	2002	2001	2000	1999
41	54	48	45	52

Cumulative Returns based on a 0% filter rule

	2003		2002-03		2001-03		2000-03		1999-03	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX	7.45%	13.87%	0.83%	-6.81%	-0.76%	-13.03%	13.44%	1.82%		
JAGTX	50.14%	41.08%	12.66%	0.91%	0.83%	-25.85%	11.75%	-14.53%		
JGVAX	64.66%	34.95%	49.27%	10.24%						
JAOSX	66.91%	27.62%	56.75%	3.97%	41.86%	-15.15%	46.65%	-7.29%	50.14%	1.04%
JAWWX	27.32%	14.65%	26.69%	-2.15%	19.78%	-18.08%	24.00%	-11.65%	28.24%	-2.88%
PINOX	58.58%	23.91%	52.99%	5.49%	42.30%	-18.02%	41.98%	-16.94%	52.59%	-5.53%
PINWX	59.43%	23.07%	53.36%	4.68%	42.09%	-18.85%	41.68%	-17.75%	52.24%	-6.42%
PIOCX	59.42%	23.21%	53.93%	4.84%	42.85%	-18.63%				
PINMX	59.55%	23.35%	53.17%	5.05%	42.27%	-18.51%	41.90%	-17.43%	52.47%	-6.06%
PEUGX	52.67%	18.48%	53.94%	-1.06%	45.56%	-12.21%	45.25%	-8.36%	42.48%	-5.11%
PEQUX	19.45%	20.32%	16.70%	1.56%	9.62%	-21.39%	15.32%	-16.57%	21.50%	-7.84%
POVSX	55.56%	18.47%	55.70%	1.37%	45.34%	-9.74%	47.17%	-5.62%	51.23%	1.42%
PNGAX	57.65%	24.80%	55.51%	5.35%	44.92%	-7.28%	38.15%	-8.06%	40.42%	-2.49%
Dow		16.72%		3.92%		-3.69%		-2.05%		2.67%
Average	49.14%	23.67%	41.65%	2.57%	31.39%	-16.40%	33.39%	-11.12%	43.48%	-3.76%
Number of Days in the Market	130	365	117	365	117	365	122	365	123	365

	1998-03		1997-03		1996-03		1995-03		1994-03	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX										
JAGTX										
JGVAX										
JAOSX	50.98%	1.59%	50.75%	4.21%	49.91%	7.09%				
JAWWX	30.65%	-1.26%	31.79%	1.08%	33.00%	3.93%	32.29%	4.00%	31.96%	5.01%
PINOX	55.52%	-5.24%	53.05%	-3.55%						
PINWX	55.08%	-6.13%	52.79%	-4.42%						
PIOCX										
PINMX	55.44%	-5.79%	52.97%	-4.10%						
PEUGX	47.48%	-2.37%	47.13%	0.43%						
PEQUX	27.46%	-7.58%	28.63%	-5.15%	27.95%	-3.21%	27.69%	-2.64%	27.40%	-1.74%
POVSX	53.68%	2.33%	53.36%	4.96%						
PNGAX	44.40%	-1.23%								
Dow		4.70%		7.19%		9.46%		10.76%		10.29%
Average	46.74%	-2.85%	46.31%	-0.82%	36.95%	2.60%	29.99%	0.68%	29.68%	1.63%

Year-to-Year Returns based on a 0% filter rule

	2003		2002		2001		2000		1999	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX	7.45%	13.87%	-5.39%	-23.74%	-3.87%	-24.25%	69.47%	63.42%		
JAGTX	50.14%	41.08%	-15.47%	-27.83%	-19.22%	-59.96%	52.11%	30.93%		
JGVAX	64.66%	34.95%	35.32%	-9.94%						
JAOSX	66.91%	27.62%	47.21%	-15.30%	16.17%	-43.49%	62.05%	20.97%	64.92%	42.51%
JAWWX	27.32%	14.65%	26.06%	-16.48%	7.07%	-42.59%	37.60%	10.84%	46.70%	41.79%
PINOX	58.58%	23.91%	47.59%	-10.19%	23.12%	-50.49%	41.01%	-13.61%	103.58%	58.05%
PINWX	59.43%	23.07%	47.51%	-10.97%	21.97%	-51.22%	40.46%	-14.37%	102.97%	56.84%
PIOCX	59.42%	23.21%	48.62%	-10.79%	23.04%	-50.99%				
PINMX	59.55%	23.35%	47.05%	-10.53%	22.73%	-50.97%	40.80%	-14.07%	103.24%	57.36%
PEUGX	52.67%	18.48%	55.22%	-17.37%	30.15%	-30.88%	44.32%	4.22%	31.94%	9.08%
PEQUX	19.45%	20.32%	14.02%	-14.28%	-3.28%	-52.91%	34.25%	-0.27%	49.74%	37.20%
POVSX	55.56%	18.47%	55.83%	-13.25%	26.65%	-28.43%	52.81%	7.89%	68.59%	35.23%
PNGAX	57.65%	24.80%	53.39%	-11.07%	25.87%	-28.19%	19.67%	-10.36%	49.87%	23.39%
Dow		16.72%		-7.47%		-17.28%		3.03%		23.93%
Average	49.14%	23.67%	35.15%	-14.75%	14.20%	-42.86%	44.96%	7.78%	69.06%	40.16%
Number of Days in the Market	130	365	117	365	117	365	122	365	123	365

	1998		1997		1996		1995		1994	
	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund	Day Trade	Fund
JAGLX										
JAGTX										
JGVAX										
JAOSX	55.24%	4.38%	49.38%	21.45%	44.17%	29.59%				
JAWWX	43.38%	7.26%	38.80%	16.33%	41.81%	26.26%	26.72%	4.56%	29.07%	14.59%
PINOX	71.02%	-3.77%	39.03%	7.24%						
PINWX	70.09%	-4.72%	39.76%	6.57%						
PIOCX										
PINMX	71.19%	-4.45%	38.96%	6.72%						
PEUGX	75.24%	12.57%	45.03%	18.99%						
PEQUX	61.92%	-6.26%	35.91%	10.83%	23.23%	11.55%	25.68%	2.05%	24.80%	6.69%
POVSX	66.56%	7.02%	51.47%	22.17%						
PNGAX	66.07%	5.31%								
Dow		15.45%		23.43%		26.79%		21.68%		6.18%
Average	64.52%	1.93%	42.29%	13.79%	36.40%	22.47%	26.20%	3.31%	26.93%	10.64%

Total Number of Days Market Timing would have been employed over the last ten years Using a 0% filter rule

	# of Neg	Total Days Pos	Positive %	Avg Neg Return	Avg Pos Return	Average Dow Neg Return	Dow Pos Return
JAGLX	264	307	53.77%	-1.12%	1.21%	0.95%	1.05%
JAGTX	256	311	54.85%	-1.70%	1.74%	0.92%	1.07%
JGVAX	89	168	65.37%	-0.67%	0.90%	0.97%	1.13%
JAOSX	328	700	68.09%	-0.74%	0.83%	0.78%	0.95%
JAWWX	466	860	64.86%	-0.68%	0.71%	0.70%	0.86%
PINOX	304	597	66.26%	-0.80%	0.93%	0.81%	1.01%
PINWX	301	597	66.48%	-0.82%	0.93%	0.80%	1.00%
PIOCX	165	261	61.27%	-0.92%	1.00%	0.81%	1.13%
PINMX	304	599	66.33%	-0.81%	0.93%	0.79%	1.00%
PEUGX	332	581	63.64%	-0.80%	0.95%	0.83%	1.01%
PEQUX	798	1387	63.48%	-0.66%	0.69%	0.68%	0.84%
POVSX	286	625	68.61%	-0.74%	0.84%	0.73%	1.03%
PNGAX	276	536	66.01%	-0.70%	0.84%	0.78%	1.07%
		Average Returns		**-0.76%**	**0.87%**		

Number of Total Market Timing Days

2003	2002	2001	2000	1999
130	117	117	122	123