

EXHIBIT S

J.P. Morgan's Analysis of Bernard L. Madoff's Investment Management
for
Saul B. Katz (Account KW024) for 1992

*J.P. Morgan's
Discussion*

July 1993

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**J.P. Morgan's Analysis of Bernard L. Madoff's Investment Management for
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DISCLAIMER: Analysis of Madoff's investment management results are based on in-depth analysis for one account (Katz #1KW024) for 1992, and a cursory analysis of this account for 1991. As a result, conclusions should be tempered by this short time frame.

Overview

Very good historical performance with Madoff

- ✓ - Over 8 years
- ✓ - In excess of 20 percent

Specific purpose for this analysis

- Better understand Madoff's results
- Determine if this portfolio is "risk free"
- Determine how Morgan can add value

Morgan's analysis involved several steps

- In depth analysis based on one account for 1992 (see disclaimer)
- Determine what drives return
- Determine the risk, or volatility, inherent in this portfolio
- Determine how investment strategy changes over two years (1991-1992)

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Conclusions

Good return in 1992 of 20.8%

- Attributed to stock selection and options trading
- What is the investment process?(e.g., stock selection, option valuation)

Portfolio is not "risk-free"

- Many months unhedged
- Small number of securities in portfolio
- Expected volatility changes over time

Morgan can compliment this strategy

- Diversification benefits

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Investment Strategy/Style

Strategy changes several times in 1991

- 1) Jan - June: approximately 10 stocks with each stock individually collared
- 2) July - Oct: approximately 18 stocks with some individual collars and partial S&P collars
- 3) Nov: liquidates portfolio and holds cash
- 4) Dec: approximately 6 stocks with no collars
(Details in Appendix A)

Strategy changes several times in 1992

- 1) Jan - June: approximately 6 stocks and only one stock collared
- 2) July - Nov: approximately 15 stocks and partial to full S&P collars
- 3) Dec: approximately 9 stocks and S&P collar
(Details in Appendix B)

Hedge strategy changes throughout 1991 and 1992

(Figure 1 and 2)

Figure 1

A changing hedge strategy is evident in 1991

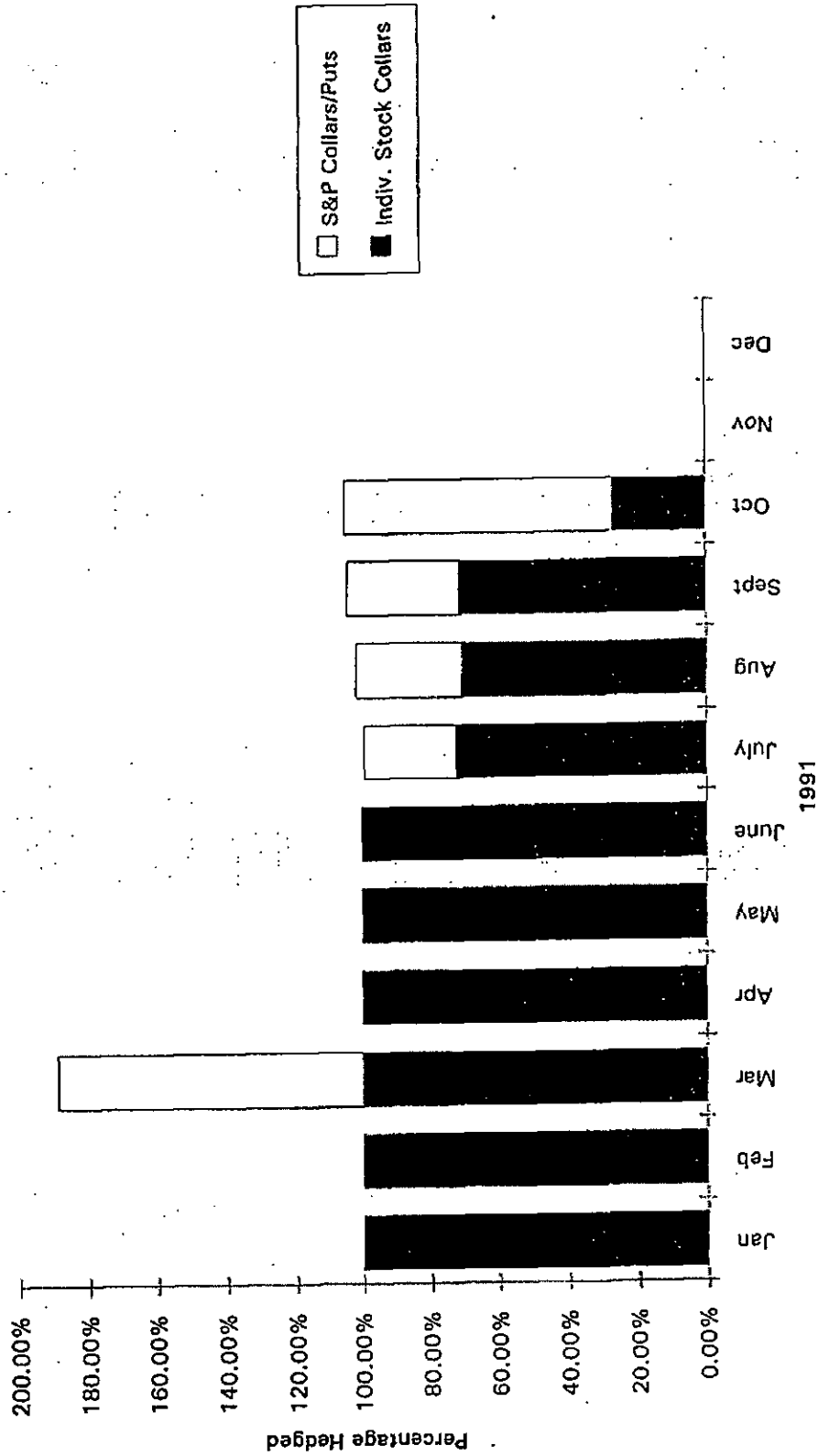
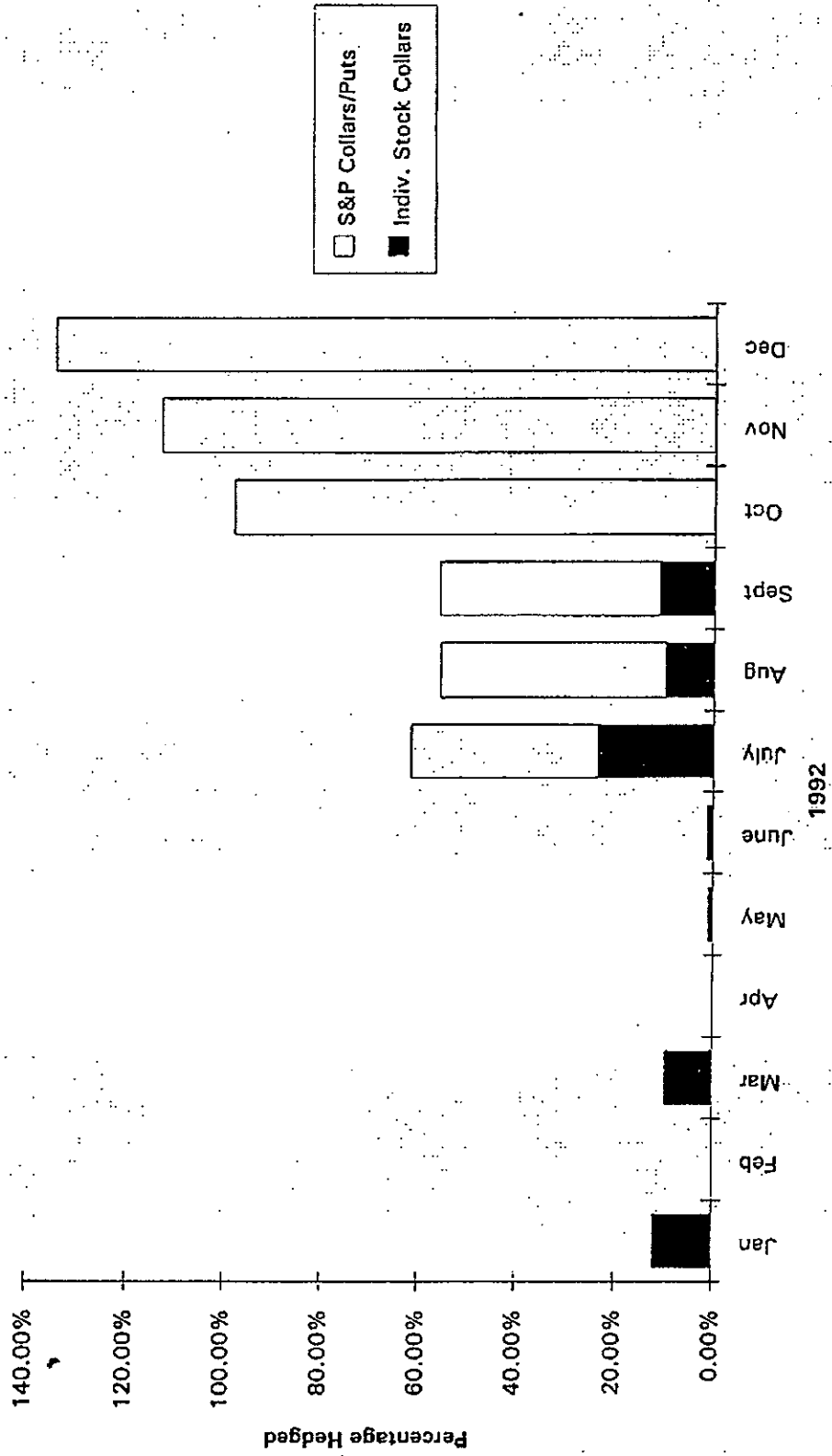


Figure 2

A changing hedge strategy in even more evident in 1992



Return

1992 return of 20.8%

- 74% from stock selection (Figure 3)
- 25% from options trading (Figure 3)
- Two stocks provide 60% of equity return (Intel & P&G)
- Half return is earned in July (Figure 4)
- Three options trades produce July options returns (Figure 5)

Leverage may play a role

- Margin appears to run approximately 10% of account
- Only interest cost considered in our analysis

Figure 3

1992 return of 20.8% was driven by stock selection and options trading

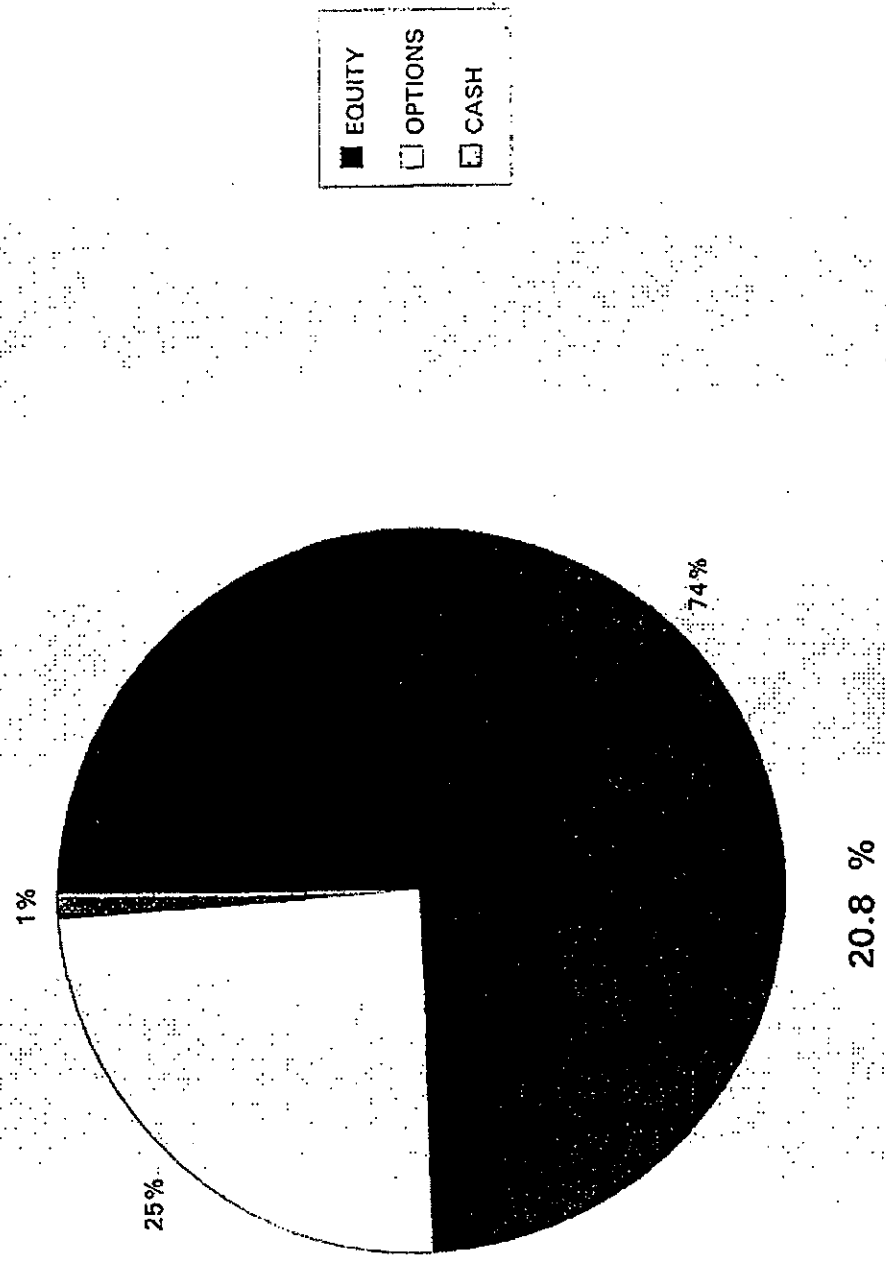


Figure 4

Approximately half of the 1992 return is earned in July

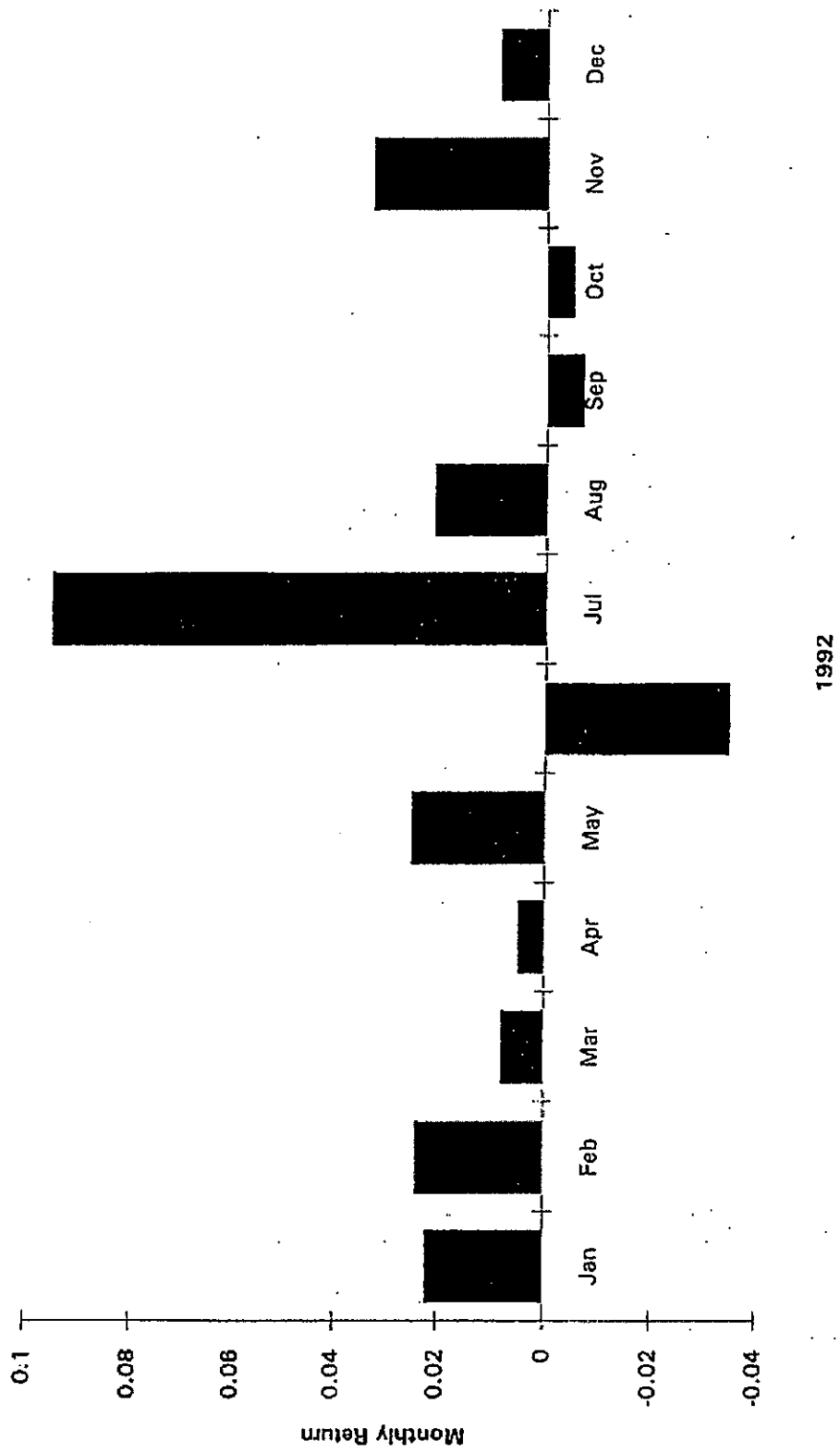
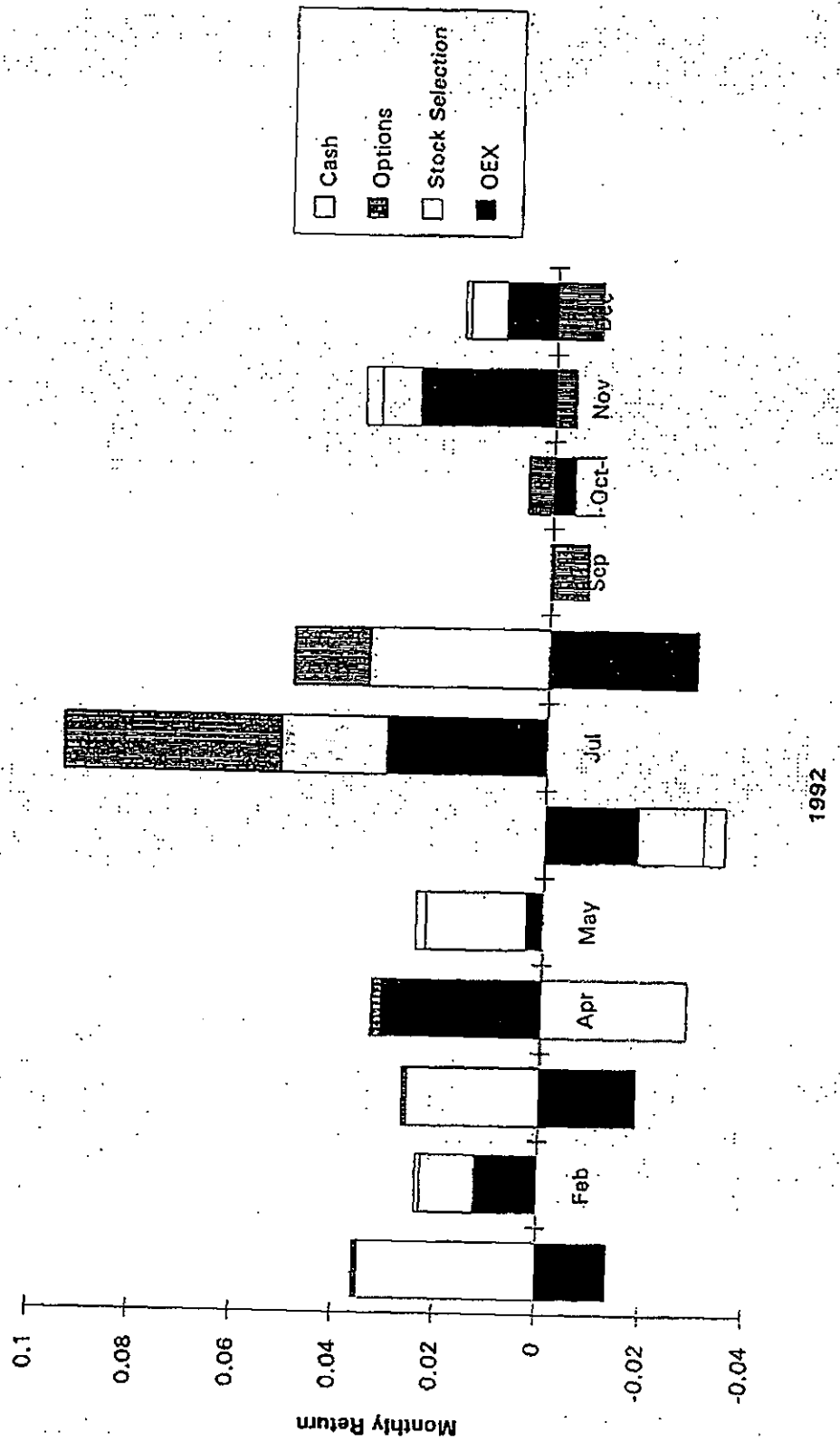


Figure 5

Significant options trading profits are evident in July



Risk

"Expected variance" changes significantly during 1992 (Figure 6)

- Variance is a measure of volatility that can be broken into additive components
- Expected variance is calculated monthly based on month end portfolio holdings
- High expected variance first 6 months of the year
(limited number of large stock holdings with one stock collared)
- Lower expected variance during last 6 months of the year
(additional stocks purchased and S&P hedges put in place)

"Expected variance" can be broken into components (Figure 7)

- OEX (S&P100) expected variance is constant
- Expected variance from stock selection goes down as number of stocks goes up
- Expected variance is reduced with options that collar equities
- Cash also reduces expected variance of overall portfolio

Figure 6

"Expected variance" changes significantly during 1992

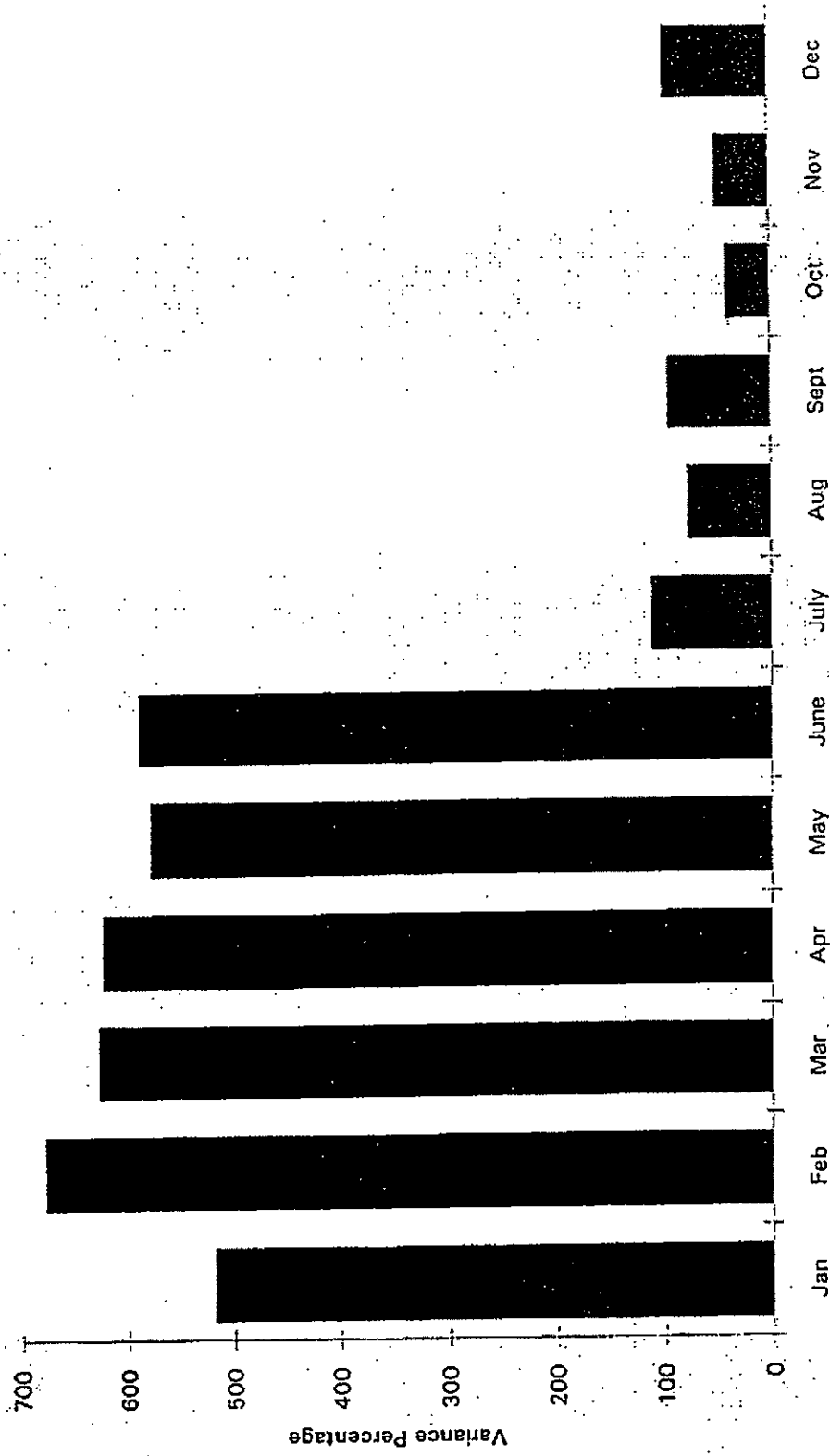
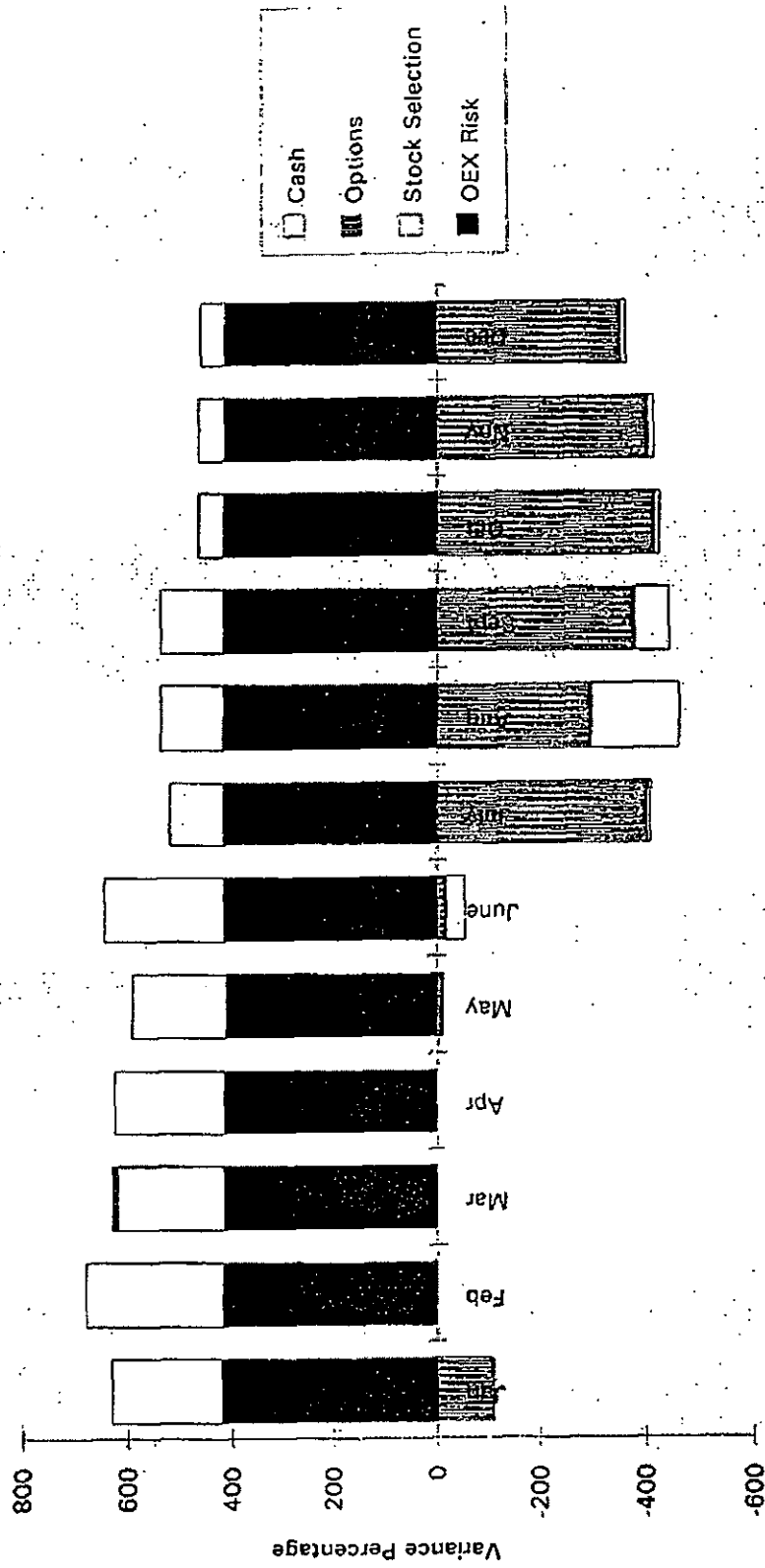


Figure 7

The collars significantly reduce "expected variance" when they are put in place.



1992

Risk

"Expected standard deviation" changes significantly during 1992 (Figure 8)

- Standard deviation is another measure of volatility
- High expected standard deviation first 6 months of the year
- Lower expected standard deviation during last 6 months of the year

Portfolio is not "risk-free"

- Standard deviation of Treasury Bills (Cash) is bench mark for risk free level of volatility
- Expected standard deviation ranges from 23-26% during first 6 months of 1992
- Expected standard deviation ranges from 6-11% during last 6 months of 1992

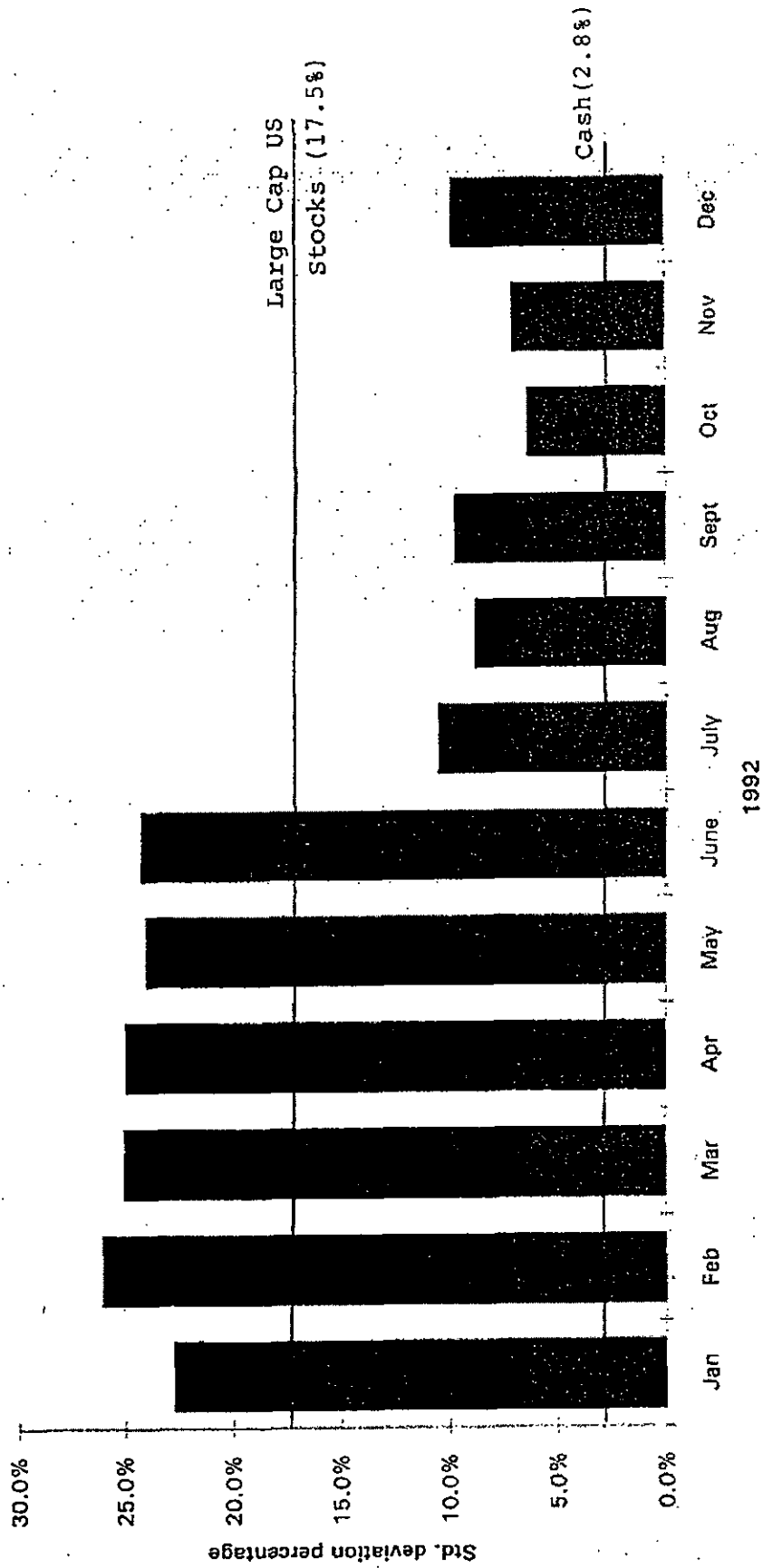
Frame of reference from risk/return tradeoff is helpful

	Expected average annual nominal return*	Expected Standard Deviations of returns
CASH(bills)	5.5%	2.8%
BONDS (treasuries)	7.3%	6.0%
US Lg cap STOCKS	11.4%	17.5%
US Sm cap STOCKS	14.5%	24.6%
INTERNATIONAL STOCKS	13.0%	22.4%
EMERGING MKTS	14.8%	25.0%

*assumes inflation at 4%

Figure 8

"Expected standard deviation" also changes significantly during 1992



Risk

Tracking error of the OEX hedges range from 5 - 8 % (Figure 9)

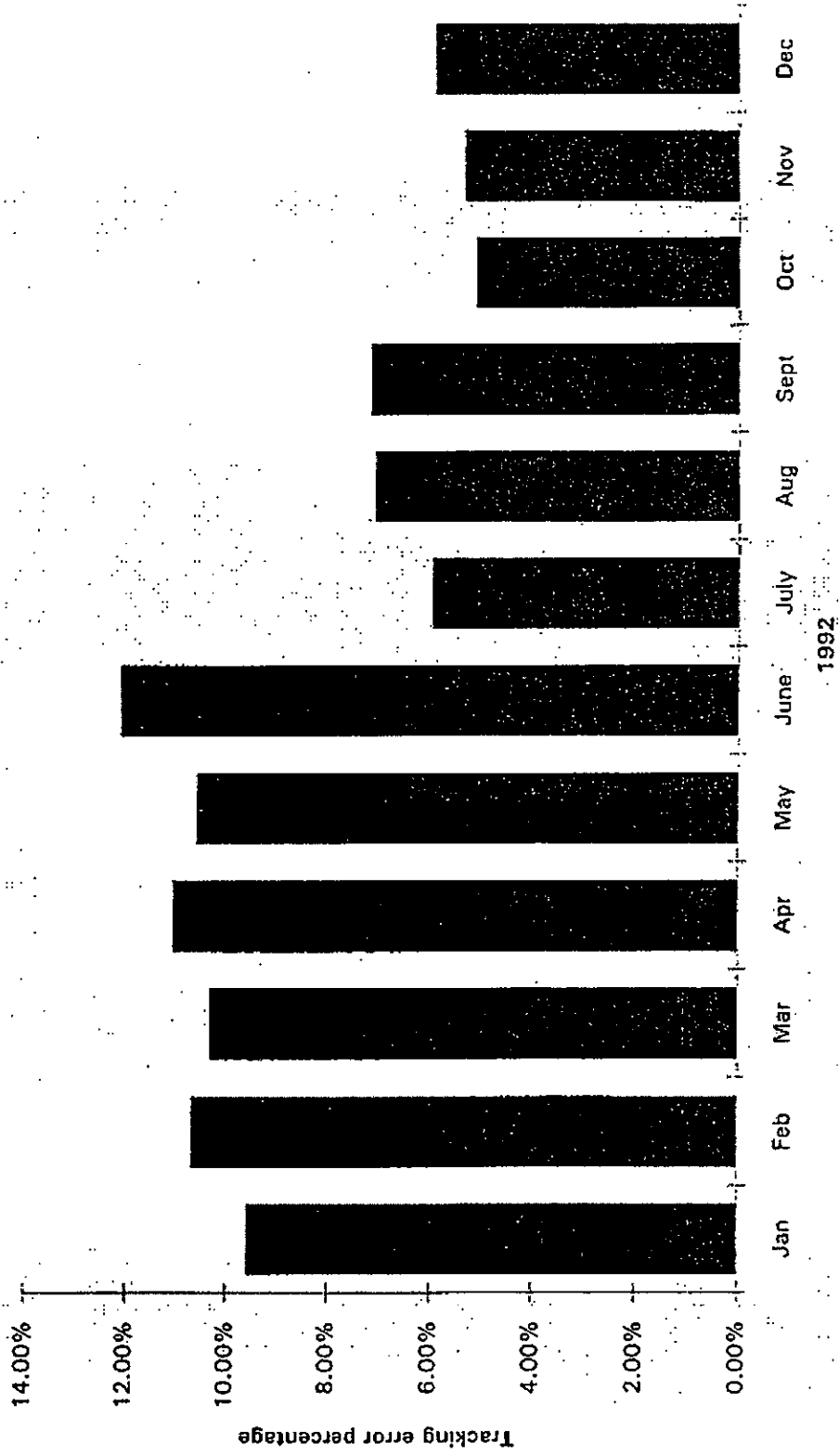
- Tracking error can be used to measure how well two streams of returns track each other
- Tracking error here looks at how OEX options really hedge this portfolio
- Concept relevant during last 6 months of 1992 when OEX hedges put in place
- Tracking error of 5-8% is relatively high for hedging purposes

Illustration of tracking error can be helpful

- OEX returned approximately 3% during 1992
- Assume this portfolio had tracking error of approximately 7%
- Reasonable to assume this portfolio would have returned between -4% and 10%
- Hedges on OEX would not totally parallel portfolio performance
- Concept only relevant during last 6 months of 1992 when OEX hedges put in place

Figure 9

Tracking error of the OEX hedges range from 5 to 8 percent



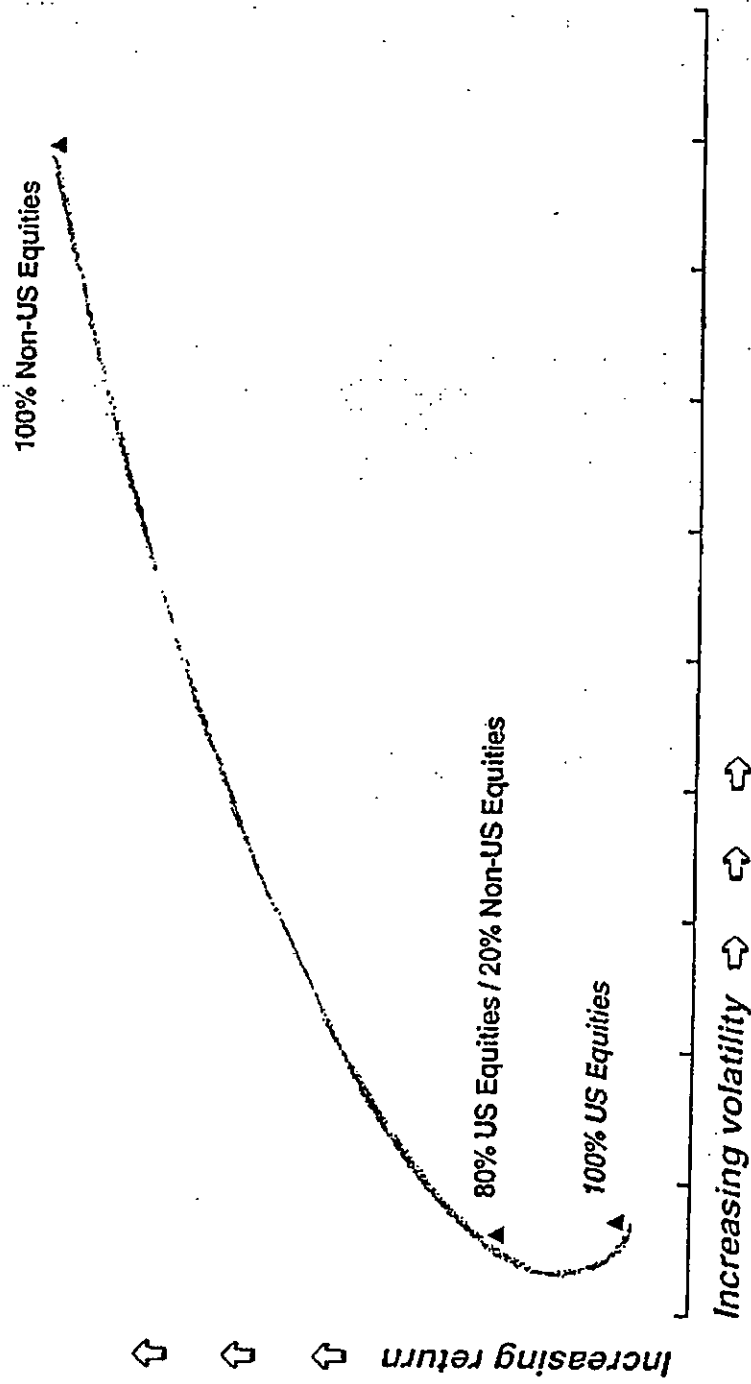
How Morgan Can Complement this Investment Strategy

Diversification Benefits

- All or most of liquidity is invested with one manager
- Madoff uses large capitalization US stocks
- International equities can offer diversification benefits (Figure 10)
- Low correlation of US equity and International equity returns
- Morgan offers several international investment alternatives

Combining US and Non-US Equities can create a more efficient portfolio

Figure 10



Appendices

A - Summary of Investment Account 1991

B - Summary of Investment Account 1992

C - How do we measure risk?

Appendix A - Summary of Account 1991

Summary of one of Spas & P's Investment Account Managed by Bernie Madoff, 1991

Month End Portfolio Holdings

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
STOCK HOLDINGS:	AMR 15% Alza 7.5% Boeing 5% Boeing SO 19% DEC 20% Fed Ex 5% IBM 1% P&G 22% Quaker Oats 7% Relston Purina 7%	AMR 15% Alza 8% Boeing 5% Boeing SO 20% DEC 19% Fed Ex 5% IBM 1% P&G 22% Quaker Oats 7% Relston Purina 7%	AMR 15% Alza 8% Boeing 5% Boeing SO 21% DEC 18% Fed Ex 5% IBM 1% P&G 22% Quaker Oats 7% Relston Purina 7%	Alza 0.5% Boeing 5% Boeing SO 22.5% DEC 20% Fed Ex 5% IBM 1% P&G 25% Quaker Oats 8% Relston Purina 8%	Alza 9.5% Boeing 5% Boeing SO 25% DEC 21% Fed Ex 5% IBM 1% P&G 26% Quaker Oats 8.3% Relston Purina 8%	Alza 10% Boeing 5% Boeing SO 28% DEC 21% Fed Ex 5% IBM 1% P&G 28% Quaker Oats 11% Relston Purina 8%	Boeing + more 1% Boeing SO + more 27 DEC 20% Fed Ex 5% IBM + more 4% P&G 24% AT&T 2% Boeing Atlantic 1% Coca Cola 2% DuPont 2% Exxon 4% GE 3% GM 1% J&J 1% March 2.5% Mobil 1% Pepsico 1% Wal-Mart 3%	Boeing + more 1% Boeing SO + more 28 DEC 19% Fed Ex 5% IBM + more 4% P&G 25% AT&T + more 2% Boeing Atlantic + more 1 DuPont + more 2% Exxon + more 4% GE + more 3% GM + more 1% J&J + more 1.5% March + more 3% Pepsico + more 1.5% Wal-Mart + more 3%	Boeing + more 1.5% Boeing SO + more 32% DEC 18% IBM + more 4.5% P&G 28.5% AT&T 2% Boeing Atlantic 1% Coca Cola 3% DuPont 2% Exxon + more 5% GE + more 6.5% GM 1% J&J + more 4% March 2% Mobil 2% Pepsico + more 3% Wal-Mart + more 7%	Boeing + more 1.5% Boeing SO + more 32% DEC 18% IBM + more 4.5% P&G 28.5% AT&T + more 3% Boeing Atlantic + more 2% Coca Cola 3% DuPont + more 5% Exxon + more 6.5% GE + more 6.5% GM + more 4% J&J + more 4% March 2% Mobil 2% Pepsico + more 3% Wal-Mart + more 7%	Boeing + more 1.5% Boeing SO + more 32% DEC 18% IBM + more 4.5% P&G 28.5% AT&T + more 3% Boeing Atlantic + more 2% Coca Cola 3% DuPont + more 5% Exxon + more 6.5% GE + more 6.5% GM + more 4% J&J + more 4% March 2% Mobil 2% Pepsico + more 3% Wal-Mart + more 7%	Boeing + more 1.5% Boeing SO + more 32% DEC 18% IBM + more 4.5% P&G 28.5% AT&T + more 3% Boeing Atlantic + more 2% Coca Cola 3% DuPont + more 5% Exxon + more 6.5% GE + more 6.5% GM + more 4% J&J + more 4% March 2% Mobil 2% Pepsico + more 3% Wal-Mart + more 7%	
OPTIONS/COLLARS:	AMR collar Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	AMR collar Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	AMR collar Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar	Alza collar Boeing collar Boeing SO collar DEC collar Fed Ex collar IBM collar P&G collar Quaker Oats collar Relston Purina collar
CASH/CASH EQUIVALENTS:	Cash 5%	Cash 0%	Cash 0%	Cash 5%	Cash 0%	Cash 0%	Cash 0%	Cash 0%	Cash 0%	Cash 1.5%	Cash 1.5%	Cash 0%	
TOTAL	\$3.3mm	\$3.3mm	\$3.3mm	\$3.3mm	\$3.3mm	\$2.5mm	\$3.2mm	\$3.2mm	\$2.9mm	\$2.9	\$3.2mm	\$3.2mm	

NOTE: This total does not include the market value of the options held at the end of the month

Appendix B - Summary of Account 1992

Summary of one of Seaf Katz's Investment Account Managed by Bernie Madoff, 1992

Beg. Holding	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
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STOCK HOLDINGS:	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Blumenthal 22%	sell											
Coke 20%	Coke 18%	Coke + more 25%	Coke 23%	Coke 31%	Coke/Aptel 26%	Coke 38%	Coke + more 30%	Coke 32%	Coke 31%	sell		
DEC 14%	sell	GE 10%	GE 11%	GE 12%	GE 13%	sell						
GE 9%	GE 9%											
J&J 14%	Walmart 20%	Walmart 21%	Walmart 24%	Walmart 35%	Walmart + more 15%	Walmart 18%	Walmart + more 15%	Walmart 10%	Walmart 18%	Walmart + more 20%	Walmart 31%	Walmart 35%
Walmart 22%	Intl 15%	Intl 17%	Intl 16%	P&G 31%	P&G 35%	P&G 41%	sell					
	Pharmia 13%	Intl 10%	Intl 10%	AMR 1%	AMR 1%	AMR 1%	Intl 15%					

DIVERSIFIED "BASKET" STOCK HOLDINGS

14 stocks* 39%	13 stocks* 37%	13 stocks* 43%	13 stocks* 74%	11 stocks* 69%	8 stocks* 84%
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OPTIONS/COLLARS:

OPTIONS/COLLARS:	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Pharmia collar	collar unwound											
Intl Collar	collar unwound											
Compac Collar	collar unwound											
IBM Collar	collar unwound											

CASH/CASH EQUIVALENTS:	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cash 0%	Cash 0%	Cash 0%	Cash 2%	Cash 0%	Cash 1%	Cash 1.7%	Cash .5%	Cash 13.3%	Cash 5.3%	Cash 1%	Cash 1.2%	Cash 1%
TOTAL:	\$3.0mm	\$2.8mm	\$2.4mm	\$2.3mm	\$2.1mm	\$1.8mm	\$2.7mm	\$2.6mm	\$2.4mm	\$2.1mm	\$1.8mm	\$1.7mm.

DIVERSIFIED "BASKET" STOCK HOLDINGS (Detail):

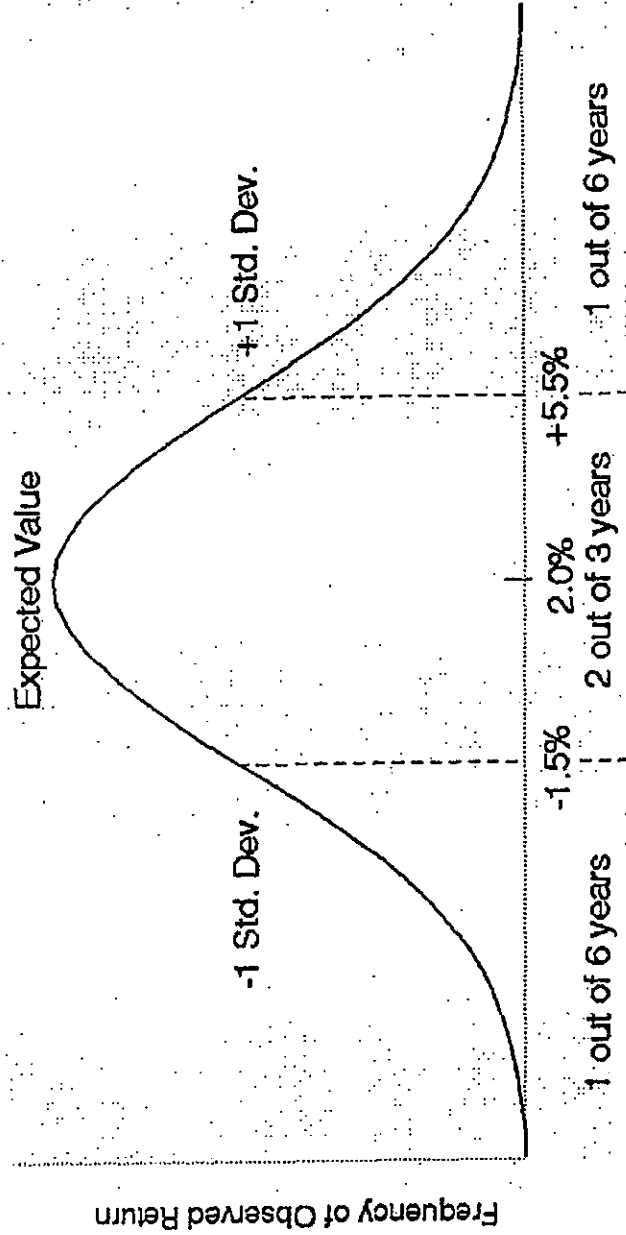
Am Express 7%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
AIG 2.8%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
AT&T 2.5%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Boring 3%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Blumenthal 2.7%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Compac 1.6%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
DuPont 2.1%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Ekodak 2.9%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Exxon 4.3%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
GE 4.4%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
GM 2.0%	sell	sell	sell	sell	sell	sell	sell	sell	sell	sell	sell	sell
Intl 6.7%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
J&J 4.3%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Kodak 1.3%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 1.6%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 8.3%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 1.8%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 1.7%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 7.3%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 10.8%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 5.3%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 11.3%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 1.0%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 3.6%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
Intl 4.2%	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold

How do we measure risk?

Tracking Error Is the standard deviation of excess annual returns over a benchmark

Standard Deviation is a statistical measure of dispersion around an expected average value

One standard deviation is the range on either side of an expected average value in which outcomes are likely to fall with about a two-thirds probability.



Example illustrates a portfolio with an expected excess annual return of 2.0% and an expected tracking error of 3.5%

Risk profile of cashless collar

