Clones of Canadian Hedge Funds

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Abstract

Although Hedge fund is a very appealing investment tool, its drawbacks start to draw investors' attention, the need of getting the similar return under the similar risk exposure without facing the high fee and less transparency issues becomes a study subject in the financial industry.

In this study, we hand selecte the historical price of 118 Canadian Hedge funds and 6 market indexes with the time span from 2005 to 2010, and calculate the returns of these funds and indexes to study, we employ the linear regression model and construct the linear clones of 51 hedge funds with higher R square values under the portfolio weight obtained from the regression of the individual hedge fund on the same market risk factors.

The outcome from this cloning process is somewhat in our favour in that the clones can represent some, but not 100% , of the returns of the respective hedge funds under the similar risk exposure.

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1. Introduction:

1.1 Introduction of Hedge Fund:

Hedge fund idea was first created in 1949 by financial journalist Alfred W. Jones when he balanced his portfolio by longing assets whose performance was expected to be stronger than the market and shorting the assets whose performance was expected to be weaker than the market. Until the mid 1990s hedge funds were mainly an investment tool for limited range of investors who basically have high net worth and aim to take excess profit as well as high risks.

Hedge fund is an unregulated, opaque pool of investment funds opens to a limited range of investors and undertakes both long and short positions, uses arbitrage, buys and sells undervalued securities, takes advantages of trading derivatives like options and futures. Each hedge fund employs its own investment strategy including Equity hedge, Relative value, Event driven, Global macro, Diversified.

While investing in a broad range of investments and trading rather than traditional- long only investment, the primary goal of hedge funds is to reduce volatility and risks while attempting to preserve capital and gain as much as possible positive returns under all market conditions.

1.2 Drawbacks of Hedge Fund

Hedge fund industry has more than 2 trillion in AUM (assets under management) according to recent study done by www.barclayhedge.com . Although hedge fund appeals many investors for its diversified investment directions and high returns as well as the distinctive risk profile, its following drawbacks raise the question whether it is possible to clone the Canadian hedge fund and obtain the similar hedge fund return under the similar risk exposure yet without facing the problems like illiquidity, less transparency, high cost from hedge fund.

1. *Lack of transparency:*

   Hedge funds are private entities facing less public disclosures than regular investments, this makes it difficult for investors to get the whole picture of what they are investing into.

2. *Lack of regulation :*

   Hedge fund managers are not restricted by and subject to as many rules from the regulators as regular funds, so investors are facing more default risks and undisclosed structure risks.

3. *Lack of liquidity*

   Hedge fund managers routinely impose lock-ups of certain years, this makes the hedge fund a less liquidity investment for the investors.

4. *High cost :*

   Hedge fund basically has a double fee structure including management fee and performance fee, which reflects the fee charged by the net worth and the profit of the fund respectively.

5. *Style Drift:*

   Hedge fund managers chasing performance have been known to resort to using different strategies, which are often counter productive and can chang the ris-return profile of the fund.

1.3 Can Canadian Hedge Fund be cloned?

While several papers[1] have discussed about the hedge fund replications, not much research has been done specifically on replicating Canadian hedge funds mainly because Canada has less hedge funds than United States does.

Although the Canadian institution investors are interested in alternative investment, the expectation of these investors is not met by the culture or profile of the hedge funds.

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[1] Dr.Andrew W. Lo : 1.Attack of the Clones
2.Can hedge fund returns be replicated?:The Linear Case
 Man Investments: Thomas Della Case,Mark Rechsteiner, Ayako Lehmann :
Attack of the "hedge fund' Clones

The pension fund sponsors need to know how the funds are invested, which requires the transparency of the hedge funds, as well as they need a warrant degree of liquidity in the assets to meet their pension obligations. in addition, the pension plan sponsors are sensitive to the cost of the funds, while the hedge fund charges much more than the regular investment by the double charging fee structure. Lastly, most of the pension plan sponsors need the fund daily value whereas Canadian hedge fund can only provide monthly unit value.

In this study we ask: Can Canadian hedge fund return be cloned with the similar risk exposure yet not to invest in the hedge fund? In recent papers, Harry Kat and Helder Palaro of the Cass Business School at City University in London show that the sophisticated dynamic trading strategies can replicate many of the statistical properties of hedge fund returns. In our study, we take a different less complex approach to clone the Canadian hedge funds, which is discussed in the following methodology part.

2. Methodology

In this paper, we construct "linear clones" of 118 sample individual Canadian hedge funds. The linear clone is a portfolio of risk factors like MSCI world index and Goldman Sachs Commodity indexes, with portfolio weights estimated by a linear regression of a fund's historical monthly returns on market risk factors. We then compare the characteristics of the clones to those of the corresponding Canadian hedge funds from which the clones are derived.

- The regression model we used to obtainthe statistical result for the hedge fund is as follows:

$$Ri = \alpha + \beta1 * Y1i + \beta2 * Y2i + \beta3 * Y3i + \beta4 * Y4i + \beta5 * Y5i + \beta6 * Y6i \quad (1)$$

(R: the expected return of the hedge fund, or in our case is the historical return; Y1 : FRX equity Hedge Index's historical return; Y2:MSCI world Index's historical return; Y3:Canadian Government Bond historical return; Y4: GSCI Commodity Index

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's historical return ; Y5:S&P 500 Index's historical return; Y6: US Dollar Index's historical return, i: time)

- The portfolio weight we get from the regression to clone the hedge fund is calculated by the equation below:

$$Wi = \frac{\beta i}{\Sigma \beta} \qquad (2)$$

By identifying common risk factors from which the Canadian hedge fund earn partly of their expected returns, we can design a portfolio that takes similar risk exposures, so that part of the hedge fund 's expected returns can be obtained yet not to expose to high cost and less transparency as hedge fund does.

We first hand select the Canadian Hedge funds and major market indexes from Bloomberg Terminal, www.globefund.com and www.canadianhedgewatch.com , then download the historical prices of the Canadian hedge funds from Bloomberg terminal , and select 118 Canadian hedge funds from 2005 to 2010, and 6 indexes from the same time period to study.

We then find the strategy each hedge fund uses from Bloomberg terminal and sort the hedge funds into 13 groups by strategy shown on table 2. From the historical prices, we use

$$Ri = \ln\left(\frac{Pi}{P(i-1)}\right) \qquad (3)$$

obtain the historical return of all the hedges funds. Using the obtained returns, we run the regression model using the OLS(Ordinary Least Squares) approach to get the statistical results including t-stats , R square, Alpha , Beta for each fund for the further process of replicating the fund.

The R square value varies from 0 to 1 and the higher the R square value the higher the correlation coefficient relationship between the expected hedge fund return and the market risk factors. Thus, we make the clones for 51 Canadian hedge funds with a higher

R square value (R square is higher than 0.6), as it is more possible for us to clone the funds.

Based on the historical returns of the hedge funds and returns of the clones we get, we calculate the mean returns and standard deviations for the comparison of the hedge funds and clones.

3. Sample Description

3.1 Risk Factors-Index Choose

To investigate the performance of a clone for a sample of each hedge fund, we decide on the sample period from January 2005 through June 2010 because January 2005 is the earliest month that we can take all factors into consideration. Of these funds, we drop those with a time period too short to have enough observations for us to analyze and keep the hedge funds that are run or sold in Canada. These filters come up a final sample of 118 hedge funds with 13 categories of Long/Short Equity (37), Macro Strategy(4), CTA/Managed Futures (4), Emerging Market Equity(1), Equity Fundamental Macro(4), Long Biased, Short Biased, Event Driven, Fund of Funds-Multi Strategy , Convertible Arbitrage (1) , Equity Statistical Arbitrage (2) ,Multi Strategy (10) and other strategies(51).

For each hedge fund, we establish the linear regression of its monthly historical return on the benchmark of six factors: HFRX equity hedge index return, MSCI world index return, the return on the 10 years Canadian government bond, Goldman Sachs Commodity Index, the S&P 500 total return, the U.S dollar index return.

There are two reasons that we choose these six factors from 14 indexes. In order to analyze the reasonably broad range of risk exposures on the hedge fund, these six factors are regarded as liquid instruments so that the linear clones can be achieved. In addition, we drop the indexes that have a high correlation with others.

Table 1:

	Table 1 Correlation of Indices					
	HFRX	MSCI WORLD	GOV BONDS	GSCI	S&P 500	US DOLLAR
HFRX	1					
MSCI WORLD	-0.50546	1				
GOV BONDS	-0.26536	0.291688171	1			
GSCI	-0.0714	-0.509999168	-0.721388946	1		
S&P 500	-0.46848	-0.439791239	0.221311065	0.3391	1	
US DOLLAR	-0.37014	0.582277751	0.844103605	-0.84513	-0.0969	1

Strategy by strategy, for example, we see that equity statistical arbitrage funds have four main exposures (long equity, long SP 500, short stocks, short bond); whereas, convertible arbitrage strategy funds have somewhat different exposures (long equity, long commodity, long SP 500, short stocks).

3.2 What fund can be cloned?

In regression, R^2-the square of sample correlation coefficient between outcomes and values being predicted measures how well the linear regression approximates the real data and its value ranges 0 to 1 which indicates that an R^2 of 1 means the linear regression perfectly fits the data and an R^2 of 0 means there is linear no relationship at all.

In this case, we choose the hedge fund that R^2 value is higher than 0.6 to clone its return which suggests a very strong linear relationship between hedge fund return and index factors.

We report 51 out of 118 hedge funds with R square values higher than 0.6 from our sample to be cloned, and calculate their average R^2 value and find 8 strategies remain, as shown on Table 2.

Table 2:

	No.of Funds	All Funds- R Square	No.of Funds	Clone-R Square	No.of Funds	Not Clone-R Square
		Table 2. R Square Result of Each Strategy				
Long/Short Strategy	37	0.560725421	16	0.721010726	21	0.438603284
Macro	4	0.363369325	1	0.619352396	3	0.278041635
CTA/Managed Futures	4	0.222071031	0	N.A	4	0.222071031
Emerging Market Equity	1	0.791743691	1	0.791743691	0	N.A
Equity Fundamental Macro	4	0.257754984	0	N.A	4	0.257754984
Long Biased Equity	1	0.732512082	1	0.732512082	0	N.A
Event Driven	1	0.819640839	1	0.819640839	0	N.A
Fund of Funds-Multi Strategy	1	0.809190058	1	0.809190058	0	N.A
Equity Statistical Arbitragy	2	0.072568334	0	N.A	2	0.072568334
Short Biased Equity	1	0.210295916	0	N.A	1	0.210295916
Multi-Strategy	10	0.521436002	4	0.690111343	6	0.365685673
Convertible Arbitragy	1	0.372672238	0	N.A	1	0.372672238
Other Strategies	51	0.589149641	26	0.757362789	25	0.414207966

3.3 Linear Regression Analysis

The hedge fund's expected returns are considered to stem from two components—beta coefficient multiplied by the risk premiums associated with specific risk factors and manager-specific alpha. The conception of beta is to analyze the systematic risk of an investment like market and credit risk and its coefficient of linear regression model links the return on specific risk to return on all risky factors. Manager-specific alpha is one risk factor that relates to the investment style of the manger which is separated from the other six factors we have proposed.

We use the linear regression model to compose a hedge fund's expected return. But can the hedge fund strategy be cloned? If the portion of hedge fund's alpha to risk premiums from specific risk factors is significant, then a passive portfolio composed with such liquid instruments as index, bond and other contracts may be a plausible alternative of hedge fund.

We group these hedge funds by strategy style categories and summarize the result of the expected return composition of each strategy as Table 3 shows.

Each row contains the average expected return of hedge funds in each strategy category and the averages of the contributions of each of the six indexes, as well as the manager-specific alpha to the respective average expected return.

The average total mean return is as low as around zero except the Macro strategy which has an average expected return of 1.18%, and this indicates that almost all hedge funds in the time period 2005-2010 perform unsatisfactory.

The fact that the average contribution of managed-specific alpha is almost close to zero implies that the effect of managers is limited and valueless, and in some specific strategies, outweighed by the negative alpha of the unsuccessful ones.

Table 3:

Table 3.Average of Percentage Contribution of Factors to Total Expected Return(%)										
Category Description	No. of Funds	Average Expected Return(%)	HFRX Equity Hedge Index	MSCI WORLD INDEX	CANADIAN GOVT BOND 10 YR	GOLDMAN SACHS COMMODITY INDEX	S&P 500 Index	US dollar index	Alpha	T-stats Alpha	Std Error
Long/Short Strategy	37	0.48%	64.16%	38.22%	3.00%	14.63%	-37.23%	16.77%	0.45%	93.65%	1.00%
Macro	4	1.18%	-26.67%	22.19%	2.68%	-7.23%	28.44%	81.39%	-0.81%	143.73%	2.86%
CTA/Managed Futures	4	0.47%	20.54%	-33.27%	19.98%	7.94%	49.36%	36.16%	-0.70%	99.96%	2.31%
Emerging Market Equity	1	-0.16%	66.81%	47.82%	-6.63%	8.97%	-42.40%	25.41%	-0.70%	10.46%	10.64%
Equity Fundamental Macro	4	-0.08%	95.86%	-86.33%	6.15%	32.92%	21.99%	29.59%	-0.18%	19.53%	1.77%
Long Biased Equity	1	1.11%	57.25%	63.30%	-5.25%	13.26%	-61.56%	32.17%	0.83%	219.30%	13.79%
Event Driven	1	0.85%	67.29%	69.60%	-4.02%	5.95%	-61.63%	22.43%	0.38%	229.63%	5.98%
Fund of Funds-Multi Strategy	1	0.13%	110.20%	47.01%	-1.00%	9.39%	-60.08%	-6.20%	0.68%	205.72%	2.57%
Equity Statistical Arbitragy	2	0.30%	228.29%	-369.46%	-124.42%	80.77%	294.01%	-3.19%	-6.00%	135.51%	1.61%
Short Biased Equity	1	0.03%	103.12%	-265.98%	-32.55%	11.27%	317.55%	-32.92%	-0.48%	130.96%	3.37%
Multi-Strategy	10	0.56%	104.99%	34.06%	4.38%	-0.34%	-35.25%	-8.89%	1.05%	140.51%	1.61%
Convertible Arbitragy	1	0.51%	55.53%	-42.56%	12.42%	21.48%	34.33%	17.39%	1.42%	255.86%	1.95%
Other Strategies	51	-0.74%	90.48%	29.10%	-5.42%	18.38%	-31.02%	-1.03%	-0.49%	6.61%	1.24%
All Funds	118	-0.04%	83.32%	36.91%	-1.44%	16.12%	-40.56%	5.52%	0.14%	130.11%	3.90%

For example, the most significant contributors to the investment return of Convertible Arbitrage strategy funds are the HFRX Equity Hedge index (55.53%), the MSCI World Index (-42.56%), the U.S Dollar Index (17.39%), the Goldman Sachs Commodity index (21.48%), the 10 years Canadian Government Bond (-12.42%), the S&P 500 index (34.33%), with the average contribution of manager-specific alpha being 1.42%.

Compared to other strategies, the results from the convertible arbitrage strategy demonstrate 2 facts: that their hedge funds earn slightly less than the expected mean returns from the risk premiums (which are associated with the six factors), and that the average contribution of manager-specific alpha is positive.

The two hedge funds under the Equity Statistical Arbitrage have a manager-specific alpha of -6%, which is the lowest in all strategie and implies that the performance of mangers in this strategy is unsuccessful. In addition, the contribution of the HFRX Equity Hedge Index and S&P 500 are 228.29 and 294.01 percent respectively to the total mean return, and MSCI World Index and 10 year Canadian Government Bond account for -369.46 and -124.42 percent of the total expected mean return.

The unsatisfactory performance of Canadian Hedge funds is mainly affected by the financial crisis triggered by a liquidity shortfall in the U.S banking system, the collapse of large financial institution and the deterioration in stock markets.

The collapse of a U.S housing bubble caused the values of securities associated with real estate pricing to decrease heavily and damaged the global financial institutions, which then lead to bank insolvency, credit availability decline and had an intensive impact on the stock market where securities suffered large amounts of losses.

For all hedge funds in our example, the variation of manager-specific alpha for all the strategy categories is meaningless because for the entire sample of 118 hedge funds, the manager-specific alphas attribute only 0.14% percent to the total average mean return, which thereby implies that almost all returns are based on the risk premiums associated from our six factors. These results indicate that for a certain hedge fund strategy, a linear regression clone may achieve the same benefits as its respective hedge fund (with a higher R square value) but in a transparent and low-cost approach.

3.4 Linear Clones Analysis

To construct a linear regression model for a clone, we start with the regression of the hedge fund's return on six factors where we omit the intercept of beta.

$$Ri = \beta1 * Y1i + \beta2 * Y2i + \beta3 * Y3i + \beta4 * Y4i + \beta5 * Y5i + \beta6 * Y6i \qquad (4)$$

Subject to1 =$\beta1$ +···+$\beta6$,

(R and Y represent the historical returns of the hedge fund and index, same as shown in equation (1))

Table 4 compares the performance of linear clones and the original hedge funds from which clones are derived.

Table 4:

Table 4 Comparison of Hedge Funds and Their Clones													
		Average Mean Return				Standard Deviation Return				Sharp Ratio			
Category Description	No.of Funds	Mean	Annualized Mean	Standard Deviation	Annualized Stdev	Mean	Annualized Mean	Standard Deviation	Annualize Stdev	Mean	Annualiz Mean	Standard Deviation	Annualize Stdev
Linear Clones													
Long/Short Strategy	16	-0.25%	-3.00%	0.68%	8.15%	4.16%	49.92%	3.38%	40.59%	0.97	11.70	0.54	6.49
Macro	1	0.86%	10.27%	0.00%	0.00%	2.20%	26.39%	0.00%	0.00%	1.24	14.86	0.02	0.26
Emerging Market Equity	1	0.73%	8.81%	0.00%	0.00%	2.56%	30.66%	0.00%	0.00%	0.97	11.59	0.03	0.31
Long Biased Equity	1	-0.02%	-0.29%	0.00%	0.00%	3.02%	36.23%	0.00%	0.00%	2.08	24.98	0.03	0.36
Event Driven	1	-0.73%	-8.77%	0.00%	0.00%	2.65%	31.80%	0.00%	0.00%	0.63	7.59	0.03	0.32
Fund of Funds-Multi Strategy	1	-0.45%	-5.45%	0.00%	0.00%	3.88%	46.52%	0.00%	0.00%	1.20	14.46	0.04	0.47
Multi-Strategy	4	-0.37%	-4.43%	0.37%	4.45%	4.64%	55.72%	2.06%	24.77%	0.84	10.07	0.39	4.65
Other Strategies	26	-0.32%	-3.90%	1.32%	15.82%	6.36%	76.29%	7.52%	90.25%	0.77	9.22	0.66	7.87
Actual Funds													
Long/Short Strategy	16	0.34%	4.09%	0.69%	8.34%	7.09%	85.05%	2.80%	33.59%	0.61	7.29	0.34	4.09
Macro	1	1.67%	20.07%	0.00%	0.00%	5.28%	63.42%	0.00%	0.00%	0.84	10.07	0.05	0.63
Emerging Market Equity	1	-0.16%	-1.94%	0.00%	0.00%	10.64%	127.73%	0.00%	0.00%	0.24	2.93	0.11	1.28
Long Biased Equity	1	1.11%	13.34%	0.00%	0.00%	13.79%	165.54%	0.00%	0.00%	0.55	6.55	0.14	1.66
Event Driven	1	0.85%	10.25%	0.00%	0.00%	5.98%	71.72%	0.00%	0.00%	0.55	6.55	0.06	0.73
Fund of Funds-Multi Strategy	1	0.13%	1.61%	0.00%	0.00%	2.57%	30.85%	0.00%	0.00%	2.05	24.55	0.03	0.31
Multi-Strategy	4	0.43%	5.21%	0.67%	8.06%	4.83%	57.98%	0.91%	10.86%	0.95	11.43	0.40	4.83
Other Strategies	26	-0.42%	-4.99%	2.16%	25.94%	8.89%	106.72%	8.29%	99.51%	0.90	10.81	0.99	11.91

The graph shows that the average mean returns of the clones of Emerging Market Equity and Other Strategies outperform that of hedge fund counterparts. The mean returns of the clones of the rest of the strategies are slightly lower than that of their original hedge funds.

For instance, the average mean return of the Emerging Market Equity strategy clones is 0.73%, and the corresponding value for the original hedge fund is -0.16%. For the long short strategy hedge funds, the average mean return for clones and hedge funds is -0.25% and 0.34% respectively.

In two cases, the average mean returns of the clones are higher than that of their original funds: Emerging Market Equity (0.73 percent versus -0.16 percent) and Other Strategies (-0.32 percent versus -0.42 percent). However, the difference between the return of clones and that of hedge funds is not significant because the trend of change on mean returns over hedge funds in each strategy is not so statistically large.

Because of the slight difference between the average mean return of clones and their corresponding hedge funds, each category of hedge funds seems easy to replicate.

Another comparison is the average sharp ratio, which is adjusted for volatility of each strategy.

$$S = \frac{R - R_f}{\sigma} = \frac{E[R - R_f]}{\sqrt{\text{var}[R - R_f]}}$$

(5)

Where R is the hedge fund return, R_f is the return on Canada 3 month T-bill as a benchmark. $E[R - Rf]$ is the expected value of the excess of the hedge fund return over the benchmark return, and σ is the standard deviation of the hedge fund.

For the hedge funds and strategies by category, our sharp ratio results indicate that the linear regression clone portfolio outperforms the hedge fund portfolio by long/short strategy, macro strategy, emerging market equity, long biased equity, event driven strategy and underperforms the fund portfolio by fund of funds-multi strategy, multi strategy and other strategies.

For example, long/short strategy (0.97 clones versus 0.61 funds), macro strategy (1.24 clones versus 0.84 funds), emerging market equity (0.97 clones versus 0.24 funds), and multi-strategy (0.84 clones versus 0.95 funds). The average sharp ratio of the funds in the Fund of Funds-multi strategy is 2.05 which is almost twice the average sharp ratio for the clones (1.2), a significant performance difference between the funds and their clones.

4. Conclusion

In this study, a total of 118 Canadian hedge funds with a time span from 2005 to 2010 have been investigated and a total of 51 funds with R square values higher than 0.6 have been cloned. A better result would be obtained if only 15 funds with R square values higher than 0.8 were cloned. However, the sample size would be small, so 51 hedge funds have been cloned and studied instead.

The linear regression model has been used to construct an investable portfolio of the major risk factors – the indices. This replicating process makes the index investable and the cloned portfolio can be a representative for the Canadian hedge fund from which it has been constructed.

Our empirical findings reveal that the cloning of some of the Canadian hedge fund returns is real and the outcome is reasonably good. While the performance of linear clones is often inferior to their respective hedge funds, they perform well enough to warrant serious consideration as passive, transparent, and lower cost alternatives to Canadian Hedge funds.

Appendix:

The following is a list of strategy descriptions.

Convertible Arbitrage

This strategy is identified by hedge investing in the convertible securities of a company. A typical investment is to be long the convertible bond and short the common stock of the same company. Positions are designed to generate profits from the fixed income security as well as the short sale of stock, while protecting principal from market moves.

Short Bias Strategy

Dedicated short sellers were once a robust category of hedge funds before the long bull market rendered the strategy difficult to implement. A new category, short biased, has emerged. The strategy is to maintain net short as opposed to pure short exposure. Short biased managers take short positions in mostly equities and derivatives. The short bias of a manager's portfolio must be constantly greater than zero to be classified in this category.

Emerging Markets

This strategy involves equity or fixed income investing in emerging markets around the world. Because many emerging markets do not allow short selling, nor offer viable futures or other derivative products with which to hedge, emerging market investing often employs a long-only strategy.

Event Driven

This strategy is defined as "special situations" investing designed to capture price movement generated by a significant pending corporate event such as a merger, corporate restructuring, liquidation, bankruptcy, or reorganization. There are three popular sub-categories in event-driven strategies: risk (merger) arbitrage, distressed/high yield securities, and Regulation D.

Macro

Global macro managers carry long and short positions in any of the world's major capital or derivative markets. These positions reflect their views on overall market direction as influenced by major economic trends and/or events. The portfolios of these funds can include stocks, bonds, currencies, and commodities in the form of cash or derivatives instruments. Most funds invest globally in both developed and emerging markets.

Long/Short Equity Hedge

This directional strategy involves equity-oriented investing on both the long and short sides of the market. The objective is not to be market neutral. Managers have the ability to shift from value to growth, from small to medium to large capitalization stocks, and from a net long position to a net short position. Managers may use futures and options to hedge. The focus may be regional, such as long/short US or European equity, or sector specific, such as long and short technology or healthcare stocks. Long/Short equity funds tend to build and hold portfolios that are substantially more concentrated than those of traditional stock funds.

Managed Futures

This strategy invests in listed financial and commodity futures markets and currency markets around the world. The managers are usually referred to as Commodity Trading Advisors, or CTAs. Trading disciplines are generally systematic or discretionary. Systematic traders tend to use price and market specific information (often technical) to make trading decisions, while discretionary managers use a judgmental approach.

Multi-Strategy

The funds in this category are characterized by their ability to dynamically allocate capital among strategies falling within several traditional hedge-fund disciplines. The use of many strategies, and the ability to reallocate capital between them in response to market opportunities, means that such funds are not easily assigned to any traditional

category. The Multi-Strategy category also includes funds employing unique strategies that do not fall under any of the other descriptions.

Fund of Funds

A "Multi Manager" fund will employ the services of two or more trading advisors or Hedge Funds who will be allocated cash by the Trading Manager to trade on behalf of the fund.

Equity Statistical Arbitrage

In academic literature, "statistical arbitrage" is opposed to (deterministic) arbitrage. In deterministic arbitrage a sure profit can be obtained from being long some securities and short others. In statistical arbitrage there is a statistical mispricing of one or more assets based on the expected value of these assets. In other words, statistical arbitrage conjectures statistical mispricing or price relationships that are true in expectation, in the long run when repeating a trading strategy.

Reference:

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