

**Quantitative Investment Management, LLC**  
**Part 2A of Form ADV**  
**The Brochure**

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This brochure provides information about the qualifications and business practices of Quantitative Investment Management, LLC. If you have any questions about the contents of this brochure, please contact us at (434) 817-4800. The information in this brochure has not been approved or verified by the United States Securities and Exchange Commission or by any state securities authority.

Additional information about Quantitative Investment Management, LLC also is available on the SEC's website at [www.adviserinfo.sec.gov](http://www.adviserinfo.sec.gov).

## Material Changes

This Item of the brochure is intended to discuss material changes that are made to the brochure and provide clients with a summary of such changes. We do not believe that any changes are material as compared to our most recent brochure filed in March 2016.

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### 1. Advisory Business

Quantitative Investment Management, LLC is a Virginia-based global investment management firm specializing in alternative investment strategies for institutional and private investors. QIM was founded in 2003 by Jaffray Woodruff, Michael Geismar and Greyson Williams. Messrs. Woodruff, Geismar and Williams are the principal owners of QIM.

Our firm develops proprietary frameworks for predicting short-, medium-, and long-term price movements for a wide variety of markets. We currently employ numerous quantitative trading models that utilize pattern recognition to predict the global equity and futures markets.

We serve as the investment adviser to two investment advisory clients, the Quantitative Tactical Aggressive Fund Master Ltd. and the Quantitative Tactical Aggressive Fund II, LLC, referred to in this brochure collectively as the Tactical Funds. The Quantitative Tactical Aggressive Fund Master Ltd. acts as the master fund to three feeder funds that we also control. The Tactical Aggressive Fund II, LLC is a proprietary and current and former employee fund which trades pro rata with the Quantitative Tactical Aggressive Fund Master Ltd. We also provide commodity trading advice to commodity pools that we operate and investor managed accounts pursuant to the Quantitative Global Program, and a fund-only managed futures product, the Quantitative Opportunities Fund. Our firm adheres to the investment strategy set forth in each of Quantitative Tactical Aggressive Fund II, LLC's, and with respect to the Quantitative Tactical Aggressive

Fund Master Ltd., its feeder funds', offering documents. We do not modify our securities recommendations to our clients according to the particular interests of the underlying investors in our client funds, nor do we allow these investors to place restrictions on the trading we conduct for our clients.

As of December 31, 2016, we manage client assets in the Tactical Funds in the amount of \$669.2 million based on net asset value and \$4.3 billion in regulatory (i.e., gross) assets under management. We do not manage any client assets on a non-discretionary basis.

## **2. Fees and Compensation**

Since our firm's inception, we have sought to align our interests with our clients, and in doing so have established a totally performance-based fee structure. We do not charge our clients any management fee and receive up to 30% performance-based compensation. We receive our performance-based compensation from our client funds as an allocation. We deduct our performance-based compensation from each of our client funds at the end of each calendar quarter or when investors in a fund make a withdrawal or redemption. We do not currently negotiate our fees for the Tactical Funds either directly or through side letters.

We take our performance based-compensation on the net profits attributable to each investor's capital account or shares, as applicable, subject to a "high water mark" limitation. This means that we only receive our performance-based compensation when an investor's capital account or net profits attributable to an investor's shares for the quarter have recovered any losses from prior quarters.

We do not receive any performance-based compensation in advance. Investors in our client funds pay their pro rata share of the performance allocations at the time they are charged or taken. If an investor withdraws or redeems from a fund before the end of a payment period, the applicable performance allocation is charged or taken at the time of withdrawal or redemption on the withdrawn or redeemed amount.

In connection with our advisory services, our client funds bear all of their own expenses (operational and administrative related expenses are subject to a cap of 0.10% of the funds' net asset value on a monthly basis), which includes their pro rata share of our clients' expenses. The following describes the types of expenses our clients' funds will incur.

### Organizational Expenses

Our client funds pay for expenses related to their organization, including:

- legal expenses,
- accounting expenses,
- filing expenses and fees incurred in connection with organizing and establishing the funds, and expenses and fees incurred in connection with marketing and offering of interests in the applicable funds.

### Operational Expenses

Our client funds also pay for expenses related to their operation, such as:

- expenses of any administrators, custodians, legal counsel and accountants (including the audit and certification fees and costs of distributing reports to investors),
- costs, fees and expenses paid by us on behalf of the feeder funds or our clients for third-party service providers providing operational, technological, risk monitoring, and other legal and advisory services,
- ongoing regulatory expenses,
- bank service fees,
- fees and expenses of any independent directors,
- litigation, indemnification and other extraordinary expenses,
- fees and taxes imposed by any Federal, state, local or foreign government, governmental agency or regulatory body or self-regulatory organization, including licensing, filing, registration and exemption fees, and withholding and transfer taxes.

We allocate the expenses to the fund that incurs them, and if funds and other clients incur expenses in the same transaction, we allocate the expenses among the relevant investments, funds and clients in a fair and reasonable manner. Operational and administrative related expenses are subject to a cap of 0.10% of the funds' net asset value on a monthly basis.

### Investment-Related Expenses

Our client funds pay for all investment expenses, including all transaction costs, brokerage commissions relating to our transactions in securities or futures, algorithmic trading expenses, interest, borrowing and leverage and foreign exchange expenses, related clearing and settlement charges, and any issue, transfer or other taxes for any investment transactions. Investment-related expenses are not subject to the cap of 0.10% of the funds' net asset value on a monthly basis. Please see "Brokerage Practices" below for further information.

## **3. Performance-Based Fees and Side-by-Side Management**

Our firm receives performance-based compensation in the form of a performance allocation from our clients' funds as discussed in Section 2 "Fees and Compensation." The existence of the performance-based compensation may create an incentive for our firm to make riskier or more speculative investments on behalf of our clients. Our firm's significant proprietary investment in our clients through their funds aids in aligning our interests with the interests of our clients. While our proprietary fund, Quantitative Tactical Aggressive Fund II, LLC, is subject to a lower performance allocation, we generally allocate all trades pro rata. See "Brokerage Practices" below for a description of the factors that may cause a trade not to be allocated pro rata.

## **4. Types of Clients**

Our firm provides investment advice to two clients, the Quantitative Tactical Aggressive Fund Master Ltd. and the Quantitative Tactical Aggressive Fund II, LLC, both pooled investment vehicles.

This firm brochure is not an offer to invest in our client funds or in any feeder funds into a client.

## **5. Methods of Analysis, Investment Strategies and Risk of Loss**

Our firm trades domestic and foreign equities and global stock index futures contracts on behalf of our clients on a long or a short basis according to a machine-learning method developed by Jaffray Woodruff, our firm's Chairman and Chief Executive Officer. Mr. Woodruff has spent the past 25 plus years creating a machine-learning technique for the prediction of financial markets. His predictive research has served as the basis for all of our investment strategies in both the futures and equity markets.

Our objective is to realize consistently positive absolute returns through trading across a broad range of domestic and foreign exchange-traded equity securities, exchange-traded funds and global stock index futures contracts, which program of trading we refer to as the "Quantitative Tactical Program." The program currently tracks approximately 1,700 U.S. equity issues and approximately 20 global stock index futures contracts. The program expects to have over 1,500 active positions at any point in time and expects to make over 1,500 trades per day. The average trade length for the program will range between two to six weeks. Gross exposure is expected to range from approximately 50% to 2,000%, depending on market conditions, and more specifically, the volatilities of the underlying issues. We use significant leverage on a regular basis on behalf of our clients, as we seek to achieve up to a 36% annualized volatility target. No assurance can be given that we will achieve these investment objectives on behalf of our clients or that our clients will not sustain losses, nor can assurances be given that the clients will not exceed the volatility target from time to time.

### ***Investment Strategy***

#### **Predictive Modeling**

Financial markets are not entirely efficient. We believe that numerous small inefficiencies exist and can be exploited through the prudent use of robust analysis and predictive technologies.

The Quantitative Tactical Program currently employs numerous quantitative trading models that utilize pattern recognition to predict short-, medium- and long-term price movements. All models are tested across massive data sets that expose them to a gamut of market, economic and political environments over the last 20 to 30 years. Only those models that we believe to be the most robust, statistically significant and quantitatively diverse are used in actual trading. The resultant system of models offers what we believe are reliable signals that guide trade selection and timing.

Our trading strategies and models may be revised from time to time as a result of ongoing research and development that seeks to devise new strategies and systems, as well as to improve current methods. The strategies and systems used by us in the future may differ significantly from those presently used, due to changes resulting from this research. Our clients and their underlying investors generally will not be informed of these changes as they occur.

#### **Risk Management**

Risk management is embedded in the Quantitative Tactical Program's use of a diversified universe of liquid securities. In addition, the program's models place inherent limits on positions

traded by taking into account the price, size, volatility, volume and inter-relationships of those positions.

On the portfolio level, account risk is systematically monitored daily to target a specific standard deviation of daily returns. This risk measure will change over time depending on current research, market conditions, clearing firm requirements and other factors. We target up to the equivalent of 36% annualized volatility, but no assurances can be given that the program will not exceed this volatility target from time to time. This volatility measure is approximately three times the long-term volatility of the S&P 500 Stock Index, but we do not expect our clients' returns to significantly correlate to any of the various stock market indices.

#### Investment Process

We execute our strategy in a systematic manner. All facets of the predictive models, risk management and trade allocation are fully automated. However, discretion plays a role in the evolution of the trading system, as we seek improvements to the strategy, and limited-purpose manual adjustment and intervention occurs as described below.

Trading activity is directed by outputs from our predictive models that are developed and maintained by Mr. Woodruff. On a daily basis, outputs from our predictive models are exported into proprietary software developed in-house. Once the outputs are uploaded in the software, current market prices are then uploaded into the software to determine the trade necessary to achieve the desired ending position for the day. Traders are only authorized to send to the market trades indicated by the predictive models and to perform limited manual adjustments to address corporate actions, merger activity, seemingly erroneous trades and other events that we believe to require manual intervention. Each of the three principals has the authority to override our predictive models' recommendations but generally only exercises this authority in a time of extreme market duress or other unusual circumstance that a trader or the principal himself flags as requiring such an override.

Traders monitor trading activity throughout the day to ensure trading is occurring as intended. The proprietary software routes the trades to the trader covering the relevant market to facilitate this monitoring. The monitoring trader will also modify, cancel or resend orders as needed to address broker or algorithmic trading system events that require trader intervention in order to achieve the desired ending positions identified by the firm's systems.

Our staff reviews every market in which our clients invest on a daily basis, tracking numerous factors, including, but not limited to, volume, news, correlation pairings, slippage and volatility. Our investment strategies are speculative and entail substantial risk of loss. There can be no assurance that the investment objectives of our clients will be achieved. Accordingly, our strategies could result in substantial losses to our clients, the feeder funds and any investors in these funds.

Apart from the Quantitative Tactical Program's systematic investment strategy, to the extent the portfolio holds foreign currency balances as a result of trading in markets/products denominated in currencies other than U.S. dollars, we execute limited (approximately monthly) spot foreign exchange transactions to convert those balances into U.S. dollars.

## ***Risk Factors***

Our clients (and their direct and indirect investors) should be aware of certain special considerations and risk factors relating to our investment strategies, which include, but are not limited to, the following:

- ***General Investment Risk***;
- ***Strategy Risk***, *i.e.*, the risk that our investment strategies and/or investment techniques may not work as intended;
- ***Institutional Risk***, *i.e.*, the risk that our clients could incur losses due to: (i) the failure of counterparties to perform their contractual commitments to our clients or (ii) the financial difficulty of brokerage firms, banks or other financial institutions that hold the assets of our clients;
- ***Fund Structure Risk***, *i.e.*, the special considerations and risks arising from the operation of certain provisions of certain agreements and the organizing documents of our clients and their funds; and
- ***Operational Risk***, *i.e.*, the special considerations and risks arising from the day-to-day management of a pooled investment vehicles using a systems-based investment and trading approach.

### ***General Investment Risk***

Investments in securities and other financial instruments involve substantial risk of volatility, potentially resulting in rapid declines in market prices and significant losses, arising from any number of factors that are beyond our control, such as:

- changing market sentiment;
- changes in industrial conditions, competition and technology;
- changes in inflation, exchange or interest rates;
- changing domestic or international economic or political conditions or events;
- changes in tax laws and governmental regulation; and
- changes in trade, fiscal, monetary or exchange control programs or policies of governments or their agencies (including their central banks).

Changes such as these are often unpredictable and unforeseeable, rendering it difficult or impossible to predict or foresee future market movements. Unexpected volatility or illiquidity in the markets in which we hold positions on behalf of our clients could impair our ability to achieve our clients' investment objectives and cause our clients to incur losses.

Although we believe our investment program should mitigate the risk of loss through careful selection and monitoring of investments, an investment in our client funds is nevertheless subject to loss, including possible loss of the entire amount invested. No guarantee or representation is made that the investments made on behalf of our clients will be successful, and investment results may vary substantially over time.

### ***Strategy Risk***

#### **Equity Securities Generally**

Market prices of equity securities generally, and of certain companies' equity securities more particularly, frequently are subject to greater volatility than prices of fixed-income securities. Market prices of equity securities as a group have dropped dramatically and risen in a short period of time on several occasions in the past, and they may do so again in the future. In addition, actual and perceived accounting irregularities may cause dramatic price declines in the equity securities of companies reporting such irregularities or which are the subject of rumors of accounting irregularities.

#### **Common Stock**

Common stock and similar equity securities generally represent the most junior position in an issuer's capital structure and, as such, generally entitle holders to an interest in the assets of the issuer, if any, remaining after all more senior claims to such assets have been satisfied. Holders of common stock generally are entitled to dividends only if and to the extent declared by the governing body of the issuer out of income or other assets available after making interest, dividend and any other required payments on more senior securities of the issuer.

#### **Exchange Traded Funds and Other Similar Instruments**

The Quantitative Tactical Program invests in shares of ETFs and other similar instruments. Such ETF shares may be purchased long or sold short by the program. An ETF is an investment company that is registered under the Investment Company Act, which places certain restrictions on the percentage of ownership that a private investment fund may have in a registered investment company.

Investments in ETFs and other similar instruments are subject to a number of risks associated with the management and market conditions of the ETF. These include, but are not limited to:

- (i) *Delisting* - An ETF may be delisted and liquidated at the discretion of its issuer. Should a client fund hold a position in an ETF when it is delisted, such fund may be subject to costs associated with the ETF's liquidation, counterparty risk against the issuer, and additional taxes due to cash distributions from the liquidation.
- (ii) *Market Maker Instability* - The supply and demand of ETF shares are kept in balance by its authorized participants. The authorized participants of an ETF may, purposefully or by mistake, destabilize the supply-demand balance of an ETF, causing tracking error of the ETF to its constituent instruments that may negatively affect the value of an entity's position in the ETF.
- (iii) *Hidden Illiquidity* - The liquidity of an ETF is determined not only by the ETF's own market liquidity but how easy or difficult it is to transact in the ETF's constituent instruments. If one or more of an ETF's constituent instruments



becomes difficult to buy or sell, the ETF may become difficult to transact or experience tracking error that negatively affects the value of positions held in the ETF.

- (iv) *Borrow Availability* - The ability to take short positions in an ETF is subject to borrow availability. The ability to take optimal positions in ETFs may be adversely affected by one or more ETFs becoming hard to borrow.
- (v) *Constituent Fluctuation* - ETFs on equity indices attempt to track their underlying indices closely. However, the issuer may in its discretion temporarily introduce ex-index constituents to the ETF, including ex-index equities and foreign currencies. This may introduce risks and tracking error that are difficult to model to the ETF and that may negatively affect the value of positions in the ETF. Depending on the ETF's structure, investors may be subject to additional taxation on distributions from ETFs.

#### Substantial Fees and Expenses

Due to our frequent trading of securities on a short-term basis, the Tactical Funds are subject to substantial fees, transaction costs, taxes and other costs and expenses, regardless of whether they realize any profits. Accordingly, the funds must earn substantial trading profits to avoid depletion of its assets due to those costs and expenses.

#### Short Selling

We sell securities short on behalf of the funds in the normal course of our trading activities. Selling short involves the sale of borrowed securities. In order to sell a security short, the client funds must borrow the security from a securities lender and deliver it to the buyer. Our client funds are then obligated to return the security to the lender at its request (although the funds remain free to return the security to the lender at any time prior to the lender's request). We ordinarily fulfill the funds' obligation to return a security previously sold short by acquiring the security in the open market.

The principal risk in selling a particular security short is that, contrary to our expectation, the price of the security may rise, resulting in a loss equal to the difference between the cost of acquiring the security (for return to the lender) and the net proceeds of the short sale. This risk of loss is theoretically unlimited, since there is theoretically no limit on the price to which the security sold short may rise.

Another risk is that our funds may be forced to unwind a short sale at a disadvantageous time for any number of reasons.

In certain cases, we may find it difficult or impossible to establish a desired short position due to a limited supply of the security available for borrowing. In these cases, we may be compelled to forego a potentially profitable investment opportunity.

#### Non-U.S. Instruments and Markets

We invest and trade the Tactical Funds' assets in financial instruments on exchanges or other markets located outside the United States.

Trading in non-U.S. markets involves certain considerations not usually associated with trading in the U.S., including political and economic considerations. These considerations include greater risk, such as:

- expropriation and nationalization;
- confiscatory taxation;
- the potential difficulty of repatriating funds;
- general social, political and economic instability and adverse diplomatic developments;
- the possibility of imposition of withholding or other taxes on dividends, interest, capital gains or other income;
- the small size of the some markets in foreign countries and the low volume of trading, resulting in potential lack of liquidity and price volatility;
- fluctuations in the rate of exchange between currencies and costs associated with currency conversion; and
- certain government policies that may restrict investment opportunities.

In addition, accounting and financial reporting standards that prevail in foreign countries generally are not equivalent to United States standards. Therefore, less information may be available to investors in foreign countries than is available to investors in the United States.

We invest in American Depositary Receipts on behalf of our clients, which are U.S. dollar-denominated equity and debt securities of foreign issuers. Interest or dividend payments on these securities may be subject to foreign withholding taxes. Our investments in foreign securities on behalf of our client funds will involve considerations and risks not typically associated with investments in securities of domestic companies, including possible unfavorable changes in currency exchange rates, reduced and less reliable information about issuers and markets, different accounting standards, illiquidity of securities and markets, local economic or political instability and greater market risk in general.

#### Exchange Rate Risk

We invest in securities denominated in a wide range of currencies on behalf of the Tactical Funds. The funds' net asset values will fluctuate in accordance with the changes in the foreign exchange rate between the currency of the security traded and the U.S. dollar, the currency in which our client funds are denominated. Our funds will therefore be exposed to a foreign exchange/currency risk.

### Use of Leverage

We will use significant leverage on behalf of our funds in our investment and trading program, generally through borrowing to purchase financial instruments (*e.g.*, traditional margin purchases) and purchasing inherently leveraged instruments such as financial futures contracts.

The level of interest rates generally, and the rates at which we can borrow for our funds, are likely to have a substantial effect on our funds' performance to the extent we borrow on their behalf. If the interest expense on borrowings – which ordinarily will fluctuate from time to time depending on market conditions – were to exceed the net return on the portfolio securities purchased with the borrowed funds, the use of leverage would result in a lower rate of return than if leverage were not used.

Moreover, to the extent we purchase securities on behalf of our clients with borrowed funds, our clients' net asset value will tend to increase or decrease at a greater rate than if borrowed funds were not used. Also, a relatively small price movement in a position could result in immediate and substantial losses. In a given market setting, securities that we sell short on our clients' behalf (see "Short Selling" above) may rise in value while the value of our clients' long positions may decline, resulting in a situation in which leverage compounds losses.

To the extent the client funds borrow, its borrowings typically will be secured by a pledge of its securities and other assets to the brokers who have extended the credit. Under certain circumstances, a lender might demand an increase in the collateral that secures the funds' obligation and, if we were unable to provide additional collateral, the lender could liquidate assets held in the account to satisfy those obligations. For example, if assets pledged to a broker to secure the funds' margin trading activities should decline in value, the funds could be subject to a margin call, pursuant to which it must either deposit additional funds with the broker or suffer mandatory liquidation of the pledged assets to compensate for the decline in value. In the event of a sudden precipitous drop in the value of its assets, the funds might not be able to liquidate sufficient assets quickly enough to meet a margin call. A forced liquidation of assets under these circumstances, or a failure to meet a margin call under any circumstances could have extremely adverse consequences for the funds. Because, when circumstances warrant, we maximize position size and use of leverage, and because we hold client assets across multiple clearing firms, there is a higher risk of insufficient assets being available at a given clearing firm to meet a margin call.

### Futures Contracts

In the futures markets, margin deposits typically range between 2% and 15% of the value of the futures contract purchased or sold. Because of these low margin deposits, futures trading is inherently highly leveraged. As a result, a relatively small price movement in a futures contract may result in immediate and substantial losses to our client funds.

Substantial risks are involved in trading futures contracts. The prices of futures contracts are volatile and market movements are difficult to predict. One or more markets in which we trade on our clients' behalf may move against the positions held by our clients, thereby causing substantial losses. Government policies, especially those of the U.S. Federal Reserve Board and central banks, have profound effects on interest rates and exchange rates, which, in turn, affect prices in the global bond, stock and futures markets. Many other unforeseeable events, including

actions by various government agencies, as well as domestic and international political events, may cause sharp market fluctuations in interest rates, currencies, stock markets and futures prices. These changes could have substantial adverse effects on our client funds.

#### Portfolio Concentration

A portfolio concentrated in a single financial instrument, industry or market sector may present greater risk than a portfolio that is diversified across many industries or market sectors. Although we are cognizant of the risks associated with portfolio concentration, we also believe that adherence to strict guidelines or standards governing portfolio diversification may preclude us from taking advantage of promising investment opportunities on behalf of our client funds. Accordingly, we have not established any strict rules relating to the diversification of our clients' portfolios.

#### Predictive Modeling

We use quantitative computer models to identify apparently overpriced or underpriced securities in relationship to an assumed norm. Trading based on these models is subject to the risks that the securities will not increase or decrease as predicted by these models, or that trades dictated by the models may not be executed in time to take advantage of the price disparities. Any factor which would make it more difficult to execute trades in accordance with the models' signals, such as a significant lessening of liquidity in a particular market, could also be detrimental to profitability. Most quantitative computer models cannot fully match the complexity of the financial markets and therefore sudden unanticipated changes in underlying market conditions can significantly impact the performance of the client funds.

Our firm's trading strategies and models may be revised from time to time as a result of ongoing research and development that seeks to devise new strategies and systems, as well as to improve current methods. The strategies and systems used by us in the future may differ significantly from those presently used, due to changes resulting from this research. Investors generally will not be informed of these changes as they occur.

#### Programming Complexity and Errors

The investment strategy of the Quantitative Tactical Program that we deploy on behalf of our client funds is highly complex. The successful deployment of the program requires sophisticated mathematical calculations and complex computer programs. Although we intend to use good faith efforts to carry out such calculations and programs correctly and to use them effectively, there can be no assurance that we will successfully do so. Errors may occur in designing, writing, testing, monitoring, and/or implementing such calculations and programs, including errors in the manner in which such calculations and programs function together. Any such error may be difficult to detect, may not be detected for a significant period of time, and could have a material adverse effect on the client funds. This risk may be exacerbated by the fact that the investment strategy deployed by us is expected to include executing a significant number of trades over a particular time period, which may result in many trades being affected by any such error before it can be detected and corrected. In addition, such calculations and programs are dependent upon accurate market and other data, and inaccuracies in or any corruption of such data (or errors in incorporating such data) may have a material adverse effect on the results of such calculations and programs. Moreover, the effectiveness of such calculations and programs

may diminish over time, including as a result of market changes and changes in the behavior of other market participants. We may respond to such diminishing effectiveness by making certain changes to the program and/or the manner in which it is implemented. Any such changes also could increase the likelihood of the errors described above.

The complexity of the components of the Quantitative Tactical Program that apply such calculations and programs, and the interactions among such components, may make it difficult or impossible to detect the source of any weakness or failure in such components and/or such calculations and programs before material losses are incurred. For example, it may be difficult or impossible to distinguish unexpected trading results caused by market activity from unexpected trading results caused by an error in the applicable calculations or programs. The mathematical calculations and computer programs utilized by us are subject to inherent limitations and may be improved upon as experience is gained, strategies are refined, and markets change. However, there can be no assurances that we would be able to or will make any such improvements, and our inability or failure to do so could have a material adverse effect on the client funds.

#### Proprietary Trading Methods

We carry out our investment process and risk control procedures, in part, by applying various trading models developed by Mr. Woodruff. The accuracy and effectiveness of these models cannot be guaranteed. Because our trading methods are proprietary, an investor will not be able to determine any details of our methods or whether they are being followed.

#### Use of Discretion and Manual Adjustments

While our trading systems are predominantly algorithmic and mechanical, we reserve the right to use discretion and make manual adjustments. No assurance can be given that such use of discretion and adjustments will enable our client funds to avoid losses and in fact such use may cause the client funds to forego profits which they may have otherwise earned had such discretion not been used.

#### ***Institutional Risk***

##### Suspensions of Trading

Securities and futures exchanges typically can suspend or limit trading in any instrument traded on the exchange. A suspension could render it impossible for us to liquidate positions and thereby expose our client funds to substantial losses.

##### Failure of Exchanges and Clearinghouses

Our client funds are subject to the risk of the failure of any of the exchanges on which their positions trade or of their clearinghouses.

##### Failure of Custodians

Financial institutions such as futures commission merchants, prime brokers and banks will have custody of our client funds' assets, including the funds' margin deposits. Financial difficulty, fraud or misrepresentation at one of these institutions could impair the operational capabilities or capital position of our client funds. We will attempt to limit our client funds' custodians to well-capitalized and established institutions in an effort to mitigate those risks.

## ***Fund Structure Risk***

### **Broad Investment Discretion**

The governing documents related to the Tactical Funds do not impose significant restrictions on our ability to invest and trade on behalf of these funds. These governing documents permit us to invest and trade on behalf of our funds in a broad range of securities and other financial instruments.

## ***Operational Risk***

### **Systems Failure**

Our strategies are highly dependent on the proper functioning of our internal computer systems. Accordingly, systems failure, whether due to third party failures upon which those systems are dependent or the failure of our hardware or software, could disrupt trading or make trading impossible until the systems failure is remedied. Any systems failure, and consequential inability to trade (even for a short period of time), could, in certain market conditions, cause our funds to experience significant trading losses or to miss opportunities for profitable trading. We attempt to guard against any systems disruptions through the use of redundant connections, redundant providers, live back-up facilities and alternate modes of operation.

### **Disruptions or Inability to Trade Due to a Failure to Receive Timely and Accurate Market Data from Third Party Vendors**

Our strategies depend to a significant degree on the receipt of timely and accurate market data from third party vendors. Any failure to receive market data in a timely manner or the receipt of inaccurate data for any reason could disrupt and adversely affect our trading until the failure or inaccuracy is corrected. We attempt to guard against any data feed disruptions through the use of redundant connections, redundant providers and alternate modes of operation.

### **Cybersecurity Risk**

The information and technology systems of our firm and of key service providers to the client funds may be vulnerable to potential damage or interruption from computer viruses, network failures, computer and telecommunication failures, infiltration by unauthorized persons and security breaches, usage errors by their respective professionals, power outages and catastrophic events such as fires, tornadoes, floods, hurricanes and earthquakes. Although we have implemented various measures designed to seek to manage risks relating to these types of events, if these systems are compromised, become inoperable for extended periods of time or cease to function properly, it may be necessary for us or a service provider to make a significant investment to fix or replace them and to seek to remedy the effect of such issues. The failure of these systems and/or of disaster recovery plans for any reason could cause significant interruptions in the operations of the client funds and result in a failure to maintain the security, confidentiality or privacy of sensitive data, including personal information. While many investment advisers and funds are subject to the same or similar risks in respect of their operations, these risks are particularly acute with respect to an investment in the client funds due to our fundamental dependence on technology.

#### Dependence on our Firm and its Principals

Our firm makes all investment and trading decisions for the Tactical Funds. The investors in the feeder funds may not take part in the management or conduct of the business or affairs of our funds or transact any business in the name of or otherwise for or on behalf of our funds, in their capacity as investors. As a result, the success of our funds depends to a great extent on the management, investment and trading skills of our firm's principals. Our funds could be adversely affected if, because of illness or other factors, the services of our firm's principals were not available for any significant period of time.

In the event that Mr. Woodruff were to be unable to fulfill his responsibilities as the portfolio manager of the Quantitative Tactical Program for an extended period of time, we will notify clients and investors. While we believe that the impact of such an event to the day-to-day operations of our models and systems would not be significant, we would lose the ongoing research and enhancements to the models and systems provided by Mr. Woodruff. In this case, there are currently four staff members with varying degrees of knowledge of the models, their framework, parameters and how they are implemented, that would pursue ongoing research and enhancements to the models and systems. The research and enhancements implemented in the absence of Mr. Woodruff may not be successful.

#### Incentive Allocations

Our performance-based compensation depends on continuing increases in our client funds' profitability. This creates an incentive for us to allocate our client funds' assets in a manner that is riskier or more speculative than would otherwise be the case.

The performance-based compensation paid and allocated to us is determined on the basis of the value of our client funds' assets, including value attributable to unrealized appreciation. Thus, we may receive performance-based compensation based on positions that were profitable at the time those allocations were assessed but unprofitable when eventually liquidated.

### **6. Disciplinary Information**

Neither our firm nor any management person has been involved in any criminal or civil action in a domestic, foreign or military court.

Neither our firm nor any management person has been subject to an administrative proceeding before the Securities and Exchange Commission, any other federal regulatory agency, any state regulatory agency or any foreign financial regulatory authority.

Neither our firm nor any management person has been subject to a proceeding before any self-regulatory organization.

### **7. Other Financial Industry Activities and Affiliations**

The following management persons of our firm are registered with the National Futures Association:

<b>Name</b>	<b>Title</b>	<b>Registration</b>	<b>Registration Number</b>
Jaffray Woodruff	Chairman & CEO	Principal and Associated Person	0256267
Michael Geismar	President	Principal and Associated Person	0338220
Greyson Williams	Member	Principal and Associated Person	0338752
Jason Cockerill	Chief Operating Officer	Principal and Associated Person	0460172
Molly Dunnington	Chief Compliance Officer	Principal and Associated Person	0427828
Paul McKee	Chief Technology Officer	Principal and Associated Person	0404977
P. Ryan Vaughan	Chief Financial Officer	Principal and Associated Person	0371396

Quantitative Investment Management, LLC is registered with the NFA as a commodity pool operator and a commodity trading advisor. We act as commodity pool operator and commodity trading advisor to several commodity pools that we sponsor. We have claimed exemptions from certain specific requirements of Part 4 of the Commodity Futures Trading Commission's regulations in connection with acting as a commodity pool operator and commodity trading advisor.

#### Affiliations with Pooled Investment Vehicles and Other Activities

Our firm serves as the managing member to the Quantitative Tactical Aggressive Fund Master Ltd.'s domestic feeder fund, Quantitative Tactical Aggressive Fund LLC and the Quantitative Tactical Aggressive Fund II, LLC. We also select the directors for the master fund and its offshore feeder funds, Quantitative Tactical Aggressive Fund, Ltd. and Quantitative Tactical GBP Fund, Ltd. Although these arrangements may give us heightened control and discretion over our clients and their feeder funds, we manage any potential conflicts of interest by fully disclosing these relationships and adhering to the investment strategy in their offering documents. In addition, we entered into an investment management arrangement with our clients. While this may be an interested party agreement, the material terms of the investment management arrangement are fully disclosed to all investors in our client's feeder funds prior to their investment.

Our firm has invested in, and is currently identifying opportunities to provide seed capital to, start-up commodity trading advisors and investment managers. These investments, along with certain other firm, partner and employee investment activity is conducted using only proprietary and partner/employee capital and not on behalf of clients. While not part of our advisory business or a primary business line for us, these activities do require time and effort of our firm's personnel to research, fund and monitor the other managers and investments.

We do not have arrangements with any other related persons that are service providers to our clients that are material to us.



## **8. Code of Ethics, Participation or Interest in Client Transactions and Personal Trading**

Our firm has established a Code of Ethics and Personal Trading Policy that sets forth standards of ethical conduct for our professionals based on the principle that our firm owes a fiduciary duty to our clients. Our firm's principals and employees must avoid activities, interests and relationships that run contrary (or appear to run contrary) to the best interests of our clients.

Our Code of Ethics mandates that all of our firm's principals and employees will:

- place our clients' interests ahead of the interests of the firm,
- only engage in personal investing that is in full compliance with our Code of Ethics and Personal Trading Policy, and
- avoid taking advantage of their position of employment by accepting investment opportunities, gifts or other gratuities from individuals seeking to conduct business with our firm, other than in accordance with our gifts and entertainment policy.

The list above only represents a summary of key provisions in our Code of Ethics and Personal Trading Policy. We will provide a copy of our entire Code of Ethics and Personal Trading Policy to our client, prospective client, or any investor or prospective investor in Quantitative Tactical Aggressive Fund II LLC or, or in the case of Quantitative Tactical Aggressive Fund Master Ltd., any investor or prospective investor in its feeder funds upon request.

Our firm's principals and employees may buy and sell securities for themselves that we also buy and sell for our clients. This could create a conflict of interest if our principals or employees receive more favorable execution prices than our clients because their trades might have driven up or down the market prices of target securities. However, we contain this conflict through the Personal Trading Policy for all of our employees summarized below.

### Pre-Clearance

Our firm's principals and employees are expected to manage their accounts prudently for their long-term investment goals. They are required to obtain pre-clearance approval from the Chief Compliance Officer before any transaction is executed in a covered account (which generally includes any account in which they possess trading authority or in which they have a direct or indirect beneficial ownership interest). To avoid even the appearance of front-running, the CCO will authorize execution of trades or placement of limit orders for the *following* business day as no principal or employee has knowledge of our firm's position trades 24 hours in advance.

### Holding Period

We strongly discourage short-term trading activity in covered accounts (as described above) and therefore require a minimum 30-day holding period with respect to a security from the date of the most recent transaction in that security. In addition, our principals and employees are prohibited from disposing of a security within 30 calendar days of the last acquisition or re-acquisition of that security (i.e. a "last-in first-out" basis).

### Inside Information

If any principal or employee of our firm receives material non-public information regarding any issuer of securities, that person is required to immediately notify the CCO and will refrain from trading the relevant issuer's securities or disclosing the information unless and until the CCO informs that person in writing that he or she may continue trading those securities.

Information regarding our investment decisions, research, related diligence and other information will be kept in a secure manner and access to files (including electronic files) will be limited to those who need to know. Confidential information from any source relating to our firm that is obtained by any of our firm's principals or employees must be kept strictly confidential.

### Futures Trading

Except for our firm's principals, our employees are not permitted to trade futures or any futures related security in a covered account (as described above). It is a violation of the firm's trading policy for any of our firm's employees to open or maintain a personal futures account. Under certain conditions and limitations, our employees are permitted to participate in our firm's proprietary trading account(s).

### Prohibited Conduct

No principal or employee of our firm shall, directly or indirectly:

- discuss with or otherwise inform others of any actual or contemplated security transaction by our firm on behalf of our clients except in the performance of their employment duties or in an official capacity, and then only for the benefit of the clients, and not for personal benefit or for the benefit of others;
- use knowledge of portfolio transactions made or contemplated for our firm to profit by the market effect of these transactions or otherwise engage in fraudulent conduct in connection with the purchase or sale of a security sold or acquired by our firm on behalf of our clients; or
- knowingly take advantage of a corporate opportunity of our firm for personal benefit, or take action in conflict with their obligations to our firm.

All personal securities transactions must be consistent with our firm's Personal Trading Policy. Our principals and employees must avoid any actual or potential conflict of interest or any abuse of their position of trust.

### Account Reporting

Our firm's principals and employees are required to disclose all covered accounts (as described above) to the CCO and provide duplicate trade confirmations and statements for these accounts to the CCO.

On an ongoing basis, our firm's principals and employees are required to promptly notify the CCO if any additional covered accounts (as described above) are opened or if any existing covered accounts are closed. Furthermore, employees are required to attest annually that all covered accounts have been disclosed to the CCO.

### Policy Affirmation

Within 30 calendar days of the beginning of each year (i.e. on or before January 30<sup>th</sup>), each principal and employee of our firm must provide certification of his or her adherence to our firm's Code of Ethics and Personal Trading Policy and verify the account(s) for which duplicate reporting has been arranged.

## **9. Brokerage Practices**

In determining which brokers, dealers and counterparties we use, and when we place portfolio transactions and negotiate commission rates, our firm generally tries to obtain the best execution for our client portfolios. To accomplish this, we take into account the following factors:

- the size of order and difficulty of execution,
- the financial strength, integrity and stability of the broker,
- creditworthiness of the broker, and
- the competitiveness of commission rates in comparison with other brokers satisfying our firm's other selection criteria.

We do not use research-related soft dollar benefits that broker-dealers provide, and we do not “pay up” for research-related soft dollar benefits. We only use soft dollar benefits for execution-related purposes. Specifically, among our trade execution algorithms, we use algorithms provided by brokers and futures commission merchants, and those algorithms may be accompanied by data. These broker algorithms are used for the benefit of all clients and directly benefit client trade execution.

We do not receive client referrals from our broker-dealers, but those broker-dealers may refer investors in our client to us. We attempt to limit the effect of any potential conflict of interest that these referrals present by regularly reviewing our brokers to ensure that they satisfy our best execution requirements and are generally in line with other broker-dealers that we use. We do not pay up for capital introduction services.

Our firm may (but is not obligated to) combine or “bunch” orders to obtain best execution, to negotiate more favorable commission rates, or to allocate equitably among our funds differences in prices and commissions or other transaction costs that might have been obtained had such orders been placed independently. Under this procedure, transactions will generally be averaged as to price and allocated among our funds pro rata, based on original allocation to the purchase and sale orders placed for each fund on any given day. To the extent that our firm determines to aggregate fund orders for the purchase or sale of securities, we shall do so in a fair and equitable manner. Our firm shall not receive any additional compensation or remuneration as a result of the aggregation.

In the event that we determine that a pro rata allocation is not appropriate under the particular circumstances, the allocation will be made based upon other relevant factors, which may include: (i) when only a small percentage of the order is executed, shares may be allocated to the account with the smallest order or the smallest position or to an account that is out of line with respect to security or sector weightings relative to other portfolios, with the same mandate; (ii) in cases when a pro rata allocation of a potential execution would result in a de minimis allocation in one

or more accounts, we may exclude the account(s) from the allocation and the transactions may be executed on a pro rata basis among the remaining accounts; or (iii) in cases where a small proportion of an order is executed in all accounts, shares may be allocated to one or more accounts on a random basis.

## **10. Review of Accounts**

Due to the frequent trading that characterizes our trading strategy, our back office team and our clients' administrator review all trading related to our clients on a daily basis. Our accounting team reviews our clients and all related transactions on a monthly basis. See the description of our trade and account review process in more detail in "Methods of Analysis, Investment Strategies and Risk of Loss."

Investors in our client funds receive the following written reports regarding the applicable fund in which they have invested:

- Weekly net asset value estimates (upon request),
- Monthly final net asset value reports directly from the fund's administrator, and
- Annual audited financial statements.

## **11. Client Referrals and Other Compensation**

We do not pay third parties to solicit clients. We may, however, pay third parties cash compensation from our own funds for investor referrals. Any amounts paid will be based upon a portion of the performance-based compensation earned with respect to investors introduced by the third party. Our clients, its feeder funds and the investors in the feeder funds are not responsible for any of the costs associated with these payments to these third parties. We will also not charge our clients, its feeder funds or any of the investors in the feeder funds any other amount for the purpose of offsetting the cost of obtaining an account through a third-party referral.

## **12. Custody**

While it is our firm's practice not to accept or maintain physical possession of our clients' assets, we are deemed to have custody of its assets under Rule 206(4)-2 of the Investment Advisers Act of 1940, as amended, because we have the authority to access our client's funds and deduct fees and expenses from its accounts.

In order to comply with Rule 206(4)-2, we utilize the services of a qualified custodian (as defined under Rule 206(4)-2) to hold all of our clients' assets. We also ensure that the qualified custodian maintains these funds in an account that contains only our clients' funds and securities, under our clients' name. In accordance with Rule 206(4)-2, we also (1) engage an outside auditor to audit our clients at the end of each fiscal year and (2) distribute the results of the audit in audited financial statements that are prepared in accordance with generally accepted accounting principles to all investors in our client funds within 120 days after the end of the fiscal year.

### **13. Investment Discretion**

#### Scope of Authority

Our firm accepts discretionary authority to manage our clients' securities accounts. Essentially, this means that we have the authority to determine, without obtaining specific consent from our clients or its investors, which securities to buy or sell and the amount of securities to buy or sell. Despite this broad authority, we are committed to adhering to the investment strategy and program set forth in offering memoranda of our client funds.

#### Procedures for Assuming Authority

Before accepting their subscriptions for interests or shares, we provide all potential investors in our clients' funds with an offering memorandum that sets forth, in detail, our investment strategy and program. By completing our subscription documents to acquire an interest or shares in one of our clients' funds, investors give us complete authority to manage their investments in accordance with the offering memorandum they received.

### **14. Voting Client Securities**

Due to the short-term nature of the holding period (generally less than two weeks) for securities held by our clients, it is our policy not to vote proxies on behalf of our clients.

### **15. Financial Information**

Inapplicable.