



PanAgora

This brochure provides information about the qualifications and business practices of PanAgora Asset Management, Inc. ("PanAgora"). If you have any questions about the contents of this brochure, please contact us at 1-617-439-6300 or complianceofficer@panagora.com. The information in this brochure has not been approved or verified by the United States Securities and Exchange Commission ("SEC") or by any state securities authority.

Additional information about PanAgora also is available on the SEC's website at www.adviserinfo.sec.gov.

The status of registered investment adviser does not imply a level of skill or training.

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Item 2 -- Material Changes

This Item 2 includes only material changes from the date of the last brochure of PanAgora Asset Management, Inc. (“PanAgora”), which was filed on December 24, 2018. Since the date of that brochure, PanAgora has updated the brochure to incorporate the following material changes:

- Item 14; Additional disclosures added to describe new arrangements entered into with third parties for client referrals.

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Item 4 -- Advisory Business

PanAgora is a Delaware corporation that maintains its headquarters and investment advisory operations in Boston, Massachusetts. Organized in 1985 and incorporated in 1989, PanAgora is registered with the SEC as an investment adviser under the Investment Advisers Act of 1940, as amended (the “Advisers Act”). PanAgora also is registered as a Commodity Pool Operator (“CPO”) and Commodity Trading Advisor (“CTA”) and Swap Firm with the Commodity Futures Trading Commission (the “CFTC”) and is a member of the National Futures Association (“NFA”). A majority of voting interests in PanAgora are indirectly owned by Power Financial Corporation (through a series of subsidiaries, including Great West Lifeco Inc. and Putnam Investments, LLC (“Putnam”)). In addition, certain PanAgora employees own non-voting interests in PanAgora. Assuming all employee stock and options are issued and exercised, up to 20% of the economic interest in PanAgora would be owned by PanAgora employees.

PanAgora is the sponsor and investment manager for certain private unregistered investment pools including funds organized under U.S. tax-qualified group trusts (the “Group Trusts”), domestic private funds organized as limited liability companies, and offshore private funds organized as Cayman Islands exempted companies. PanAgora also provides investment advisory services to institutional separate account clients.

PanAgora utilizes broad investment capabilities across global regions, risk levels, and asset classes including risk efficient, multi alpha, absolute return and active equity strategies. PanAgora’s investment philosophy is based on the belief that significant inefficiencies exist in the global capital markets, and that a structured investment process offers the best way to exploit these inefficiencies.

PanAgora’s investment process merges traditional investment theory with quantitative techniques — investment theory and portfolio manager experience serve as a foundation for all investment strategies, while quantitative techniques verify, refine, and apply those ideas to the portfolio management process.

PanAgora works directly with its clients to help them determine the most appropriate investment program for them using PanAgora’s various investment tools. To the extent a client retains PanAgora to provide investment advisory services for a separately managed account; the client may impose specific investment restrictions on that account with respect to investing in securities or certain types of securities.

Please see Item 8 for further information about PanAgora’s investment strategies.

PanAgora’s assets under management are approximately \$43.2 billion as of December 31, 2018. As of that date, approximately \$42.8 billion is managed on a discretionary basis and approximately \$0.4 billion is managed on a non-discretionary basis.

Item 5 -- Fees and Compensation

PanAgora will be delivering this brochure only to clients that are “qualified purchasers” as defined in section 2(a)(51)(A) of the Investment Company Act of 1940, as amended (the “1940 Act”).

PanAgora’s compensation for its investment advisory services is negotiable and is generally based on the market value (or notional value, when applicable) of a client’s account at specified month/quarter ends. Most of PanAgora’s clients are billed by PanAgora for fees incurred; although clients may direct PanAgora to deduct fees from the client’s account. PanAgora works with its clients to determine the most appropriate method of payment.

Client accounts and funds also incur custody, brokerage and other transactions fees. Additionally, participants in funds managed by PanAgora may incur their own transaction costs, as described in each such fund’s offering materials. Please see Item 12 for more information about PanAgora’s brokerage practices.

Whenever possible, vendor and professional service provider expense invoices are issued specifically to the applicable fund. If a vendor or professional service provider expense invoice is issued to more than one fund, or to PanAgora, expenses related to multiple funds shall be allocated among the funds equally. Investment-related expenses among a fund and one or more other funds or separate accounts shall be allocated among such funds and separate accounts pro rata based on investment participation. Other expense allocations, including any deviation from the principles above or the allocation of expenses to PanAgora and to one or more funds, shall be approved by PanAgora’s Private Fund Oversight Committee.

For billing purposes, the market values of clients’ accounts generally will be determined using an independent third party service provider, unless PanAgora and the client agree on an alternative source. Unless otherwise agreed upon between PanAgora and a client, PanAgora calculates the market values of client accounts using the average monthly net assets of such accounts.

If any advisory relationship terminates at a time other than the end of the specified period (*e.g.*, monthly/quarterly) used to determine the market value of the account for the purposes of calculating compensation, fees will be prorated and an adjustment made by PanAgora, unless otherwise agreed with the client.

Certain of the private funds may, from time to time, enter into so-called “side letters” with certain investors that provide for terms of investment that are more favorable to the terms described in the applicable fund’s offering materials. Such terms may include differing fee rates and/or the waiver of fees. PanAgora will not enter into any side letter arrangement that is inconsistent with its fiduciary duties to other investors in a private fund.

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Item 6 -- Performance Fees and Side by Side Management

Special fee arrangements may be negotiated with some clients and private fund investors. PanAgora may from time to time enter into performance based fee arrangements with certain clients in accordance with the conditions and requirements of Rule 205-3 under the Advisers Act. While such performance fee arrangements will be negotiated with each client and thus the terms vary, they typically provide for a management fee comprised of a base fee plus a performance fee. Base fees are billed periodically (monthly or quarterly) and are typically calculated by determining the average market value of the portfolio over the defined period and multiplying that by the effective fee stipulated in the investment advisory agreement. Performance fees are based on the portfolio return for the relevant period (*e.g.*, annual) relative to a designated market or customized index return. If a portfolio outperforms the designated benchmark, a portion of that outperformance, as stipulated in the investment advisory agreement, will be paid to PanAgora as a performance fee. The performance fee generally will be equal to the outperformance of the portfolio multiplied by the stipulated performance participation rate multiplied by the average market value of the portfolio (over the measurement period).

PanAgora may face conflicts of interest in advising accounts that are charged an asset based fee and accounts that are charged a performance fee, including having an incentive to favor accounts charged a performance fee when allocating investment opportunities. Similarly, PanAgora may have an incentive to favor private investment vehicles in which its personnel have invested or accounts owned by related parties. PanAgora has implemented a policy, as described below, to address this conflict. Please see Item 12 for more information about PanAgora's trade allocation practices.

Certain investments may be appropriate for more than one client advised by PanAgora. Investment decisions for each client are made with a view to achieving each client's investment objectives and after consideration of such factors as current holdings, availability of cash for investment and the size of the client's investments generally. A particular security may be bought or sold by PanAgora for only one client or in different amounts and at different times for more than one but less than all clients.

In order to help ensure that all clients are treated equitably, regardless of the fee being paid to PanAgora, PanAgora has instituted an allocation policy and procedures designed to ensure that all clients are treated fairly and equitably, and to prevent this conflict from influencing the allocation of investment opportunities among clients.

Potential conflicts of interest may also arise where PanAgora takes opposing investment positions in the same security for different clients. For example, a particular investment may be bought by PanAgora for one or more clients while at the same time PanAgora is selling the investment for one or more other clients. PanAgora may also cause certain clients to engage in short sales of an investment owned or being purchased by certain other clients. Such conflicts of interest are mitigated by the fact that, as a quantitative asset manager, clients' assets are managed pursuant to a model-driven strategy developed by PanAgora in advance. In addition, PanAgora conducts a periodic review of a random selection of trades in order to assess whether such trades were fair and equitable.

Further to the above, PanAgora has a trading schedule in which each trading group may make trades (ranging from daily to quarterly) and because of PanAgora's trading techniques, a short equity position could be established by the model or the trading technique before an active long position in a 'long-only' account is closed. PanAgora believes that this practice should not have a materially adverse effect on the performance of any client's account as there is no systematic bias as to which accounts (long only or long/short) trades at any particular time. With respect to any account, the relative attractiveness of securities is determined daily by the model and the trading group of which such account is a part. PanAgora's investment personnel determine the timing and amount of purchases and sales. Trades for each trading group are made based upon rebalance schedules created by the investment team. The account's assignment to a trading group is subject to change only if approved by the Compliance Officer. PanAgora reviews all purchase and sale decisions so that, as of the date of the decision, the transaction is in compliance with its Short Sales Policy for Equity Short Sales.

Item 7 -- Types of Clients

PanAgora provides investment advice to investment companies, domestic and offshore private funds, Group Trusts, other trusts, estates, or other charitable organizations, pension and profit sharing plans, state or municipal government entities, and corporations or other business entities not previously listed. Each of PanAgora's U.S. clients is a "qualified purchaser" as defined in section 2(a)(51)(A) of the 1940 Act.

Although PanAgora does not have an absolute minimum investment size for clients, based on its fee schedules, PanAgora generally requires an advisory account at or shortly after commencement to have, depending on the product, minimum assets of \$20 million, and typically assumes discretionary investment authority over the account. Exceptions to these policies may be made in certain cases in the discretion of PanAgora.

Item 8 -- Methods of Analysis, Investment Strategies and Risk of Loss

While PanAgora seeks to achieve each client's stated investment objective, there is no guarantee that it will succeed. Investing in securities and other financial instruments involves risk of loss that clients should be prepared to bear. This section gives more information on the material risks that may apply to a client portfolio depending on its investment strategy. Investors in Group Trusts, private funds, and other pooled investment vehicles managed by PanAgora should review the offering materials of such funds for additional information regarding the risks associated with their investment.

Quantitative Model Risk

PanAgora employs a quantitative analysis method in the management of its client portfolios. PanAgora uses quantitative research which applies concepts of fundamental valuation and security selection via computer models. All of PanAgora's investment strategies share a quantitative foundation and disciplined implementation. In turn, each strategy has unique characteristics which reflect PanAgora's understanding of the varied nature of different investment markets and asset classes. A risk in using quantitative analysis is that the models used may be based on assumptions that prove to be incorrect. Investments made based on these quantitative methods may perform differently from the market as a whole or from their expected performance for many reasons, including factors used in creating the quantitative model, the relative weights placed on each factor, and changing sources of market returns, among others. Any errors or imperfections in PanAgora's quantitative analyses or models, or in the data on which they are based, could adversely affect the ability of PanAgora to implement such analyses or models effectively, which in turn could adversely affect PanAgora's performance. In addition, to the extent that the models require judgment or discretion by an investment professional, the models are subject to the additional risk that any decisions taken pursuant to such judgment or discretion could adversely affect a client account's performance. There can be no assurance that these methodologies will help PanAgora to achieve a client portfolio's investment objective.

Models also rely on the proper functioning of hardware and technology, which are subject to disruption risk. There is no guarantee that the hardware and technology on which the models rely will be uninterrupted or error free, or that any defects in such hardware or technology will be able to be corrected in a short time period. Disruption risk includes natural or man-made occurrences such as extreme weather, fires, power loss, telecommunications failures, terrorist attacks, hacking, or similar events or misconduct. Any failure, interruption, or destruction of any hardware and technology used by PanAgora's could have a material adverse impact on PanAgora's operations and client accounts.

Fundamental and Technical Analysis

PanAgora also employs fundamental and technical analysis. Fundamental analysis attempts to measure the intrinsic value of a security by looking at economic and financial factors (including the overall economy, industry conditions, and the financial condition and management of the company itself) in order to determine if the company is underpriced or overpriced. However, fundamental analysis does not attempt to anticipate market movements. A risk in using fundamental analysis is that the price of a security can move up or down along with the overall market regardless of the economic and financial factors considered in evaluating the security.

Conversely, technical analysis evaluates past market movements and applies that analysis to the present in an attempt to recognize recurring patterns of investor behavior and potentially predict future price movements. Technical analysis does not consider the underlying financial condition of a company. This presents the risk in that a poorly-managed or financially unsound company may underperform regardless of market movement.

Equity Risk

Equity risk is the risk that the value of securities will fall due to general market or economic conditions, perceptions regarding the industries in which the issuers of securities participate, and the particular circumstances and performance of particular companies. Equity securities and derivatives linked to equity markets ("equity securities") have historically experienced volatility in returns. The prices of equity securities fluctuate for many reasons, including changes in investors' perceptions of the financial condition of an issuer or the general condition of the relevant stock.

market, or when political or economic events affecting the issuers occur. However, actual or perceived adverse developments in one or more of these areas could cause a substantial decline in the value of equity securities.

Small- and Mid-Capitalization Issuers

Investing in the securities of companies with small- or mid-capitalization can involve greater risk and the possibility of greater portfolio price volatility than is typically associated with equity investments in larger, more established companies. These securities may have limited marketability and may be subject to more abrupt or erratic movements in price than securities of companies with larger market capitalization or market averages in general.

Fixed-Income Securities

Fixed-income securities are subject to interest rate risk, market risk, and credit risk. Interest rate risk relates to changes in a security's value as a result of changes in market interest rates. Even though such instruments may promise a stable stream of income, the prices of such securities are inversely affected by changes in interest rates and therefore are subject to the risk of market price fluctuations. Market risk relates to the changes in the risk or perceived risk of an issuer, country, or region. Credit risk relates to the ability of the issuer to make payments of principal and interest. The values of fixed-income securities may be affected by changes in the credit rating or financial condition of the issuing entities.

The debt securities a client portfolio may hold are not necessarily required to satisfy any minimum credit rating standard and may include instruments that are considered to be of relatively poor standing and have predominantly speculative characteristics with respect to capacity to pay interest and repay principal, or be below investment grade, including high-risk instruments that are low rated or unrated.

Exchange-Traded Funds

The risks of owning an exchange-traded fund ("ETF") generally reflect the risks of owning the underlying securities they are designed to track, although lack of liquidity in an ETF could result in its share price being more volatile. ETFs can trade at discounts or premiums to the NAV of their underlying investments, which could cause a portfolio to experience an unanticipated loss. As a shareholder of an ETF, a portfolio would bear its pro rata portion of the ETF's expenses, including advisory fees. These expenses would be in addition to the fees and other expenses that a portfolio bears directly in connection with its own operations. PanAgora may also invest in exchange-traded notes ("ETNs"), ETFs traded in foreign markets, and other instruments with similar characteristics and risks.

Derivatives

PanAgora may obtain exposure to asset classes by investing in derivatives. Derivatives may be exchange or OTC traded and include, but are not limited to, futures, options, swaps, and forwards. The use of derivatives is a highly specialized activity that involves skills different from conducting ordinary portfolio securities transactions. PanAgora may use derivatives to seek to hedge market risks (such as broad or specific equity market or stock movements, interest rate movements, or currency exchange rate movements) or to enhance potential gain. There can be no assurance that PanAgora's use of derivative instruments will be advantageous to a client portfolio.

In the course of pursuing a portfolio's investment objective, PanAgora may purchase and sell (write) exchange-listed and over-the-counter covered and uncovered put and call options on securities, indices and other financial instruments; enter into swap transactions; and purchase or sell instruments that incorporate the characteristics of the foregoing instruments and other esoteric and non-esoteric instruments that may be developed in the future (collectively, all the above referred to herein as "Derivatives").

Derivatives involve a number of risks, including possible default by the other party to the transaction, illiquidity and, to the extent PanAgora's view of certain market, interest rate or currency exchange rate movements is incorrect, the risk that the use of such Derivatives could result in losses greater than if they had not been used.

Derivatives involve a risk of loss or depreciation due to a variety of factors, including but not limited to i) unanticipated adverse changes in securities prices, interest rates, indices, the prices of other financial instruments referenced by Derivatives, or currency exchange rates; ii) the inability to close out a position; iii) default by the counterparty; iv) imperfect correlation between a derivative position and the desired investment exposure represented by the

position; (v) tax constraints on closing out positions; and (vi) portfolio management constraints on securities subject to such transactions.

The loss on derivative instruments (other than purchased options) may substantially exceed the size of an investment in these instruments. In addition, the entire premium paid for purchased options may be lost before they can be profitably exercised. Transaction costs are incurred in opening and closing positions. Derivative instruments may sometimes increase or leverage exposure to a particular market risk, thereby increasing price volatility of derivative instruments. PanAgora's success in using derivative instruments to hedge portfolio assets depends on the degree of price correlation between the derivative instruments and the hedged asset. Imperfect correlation may be caused by several factors, including temporary price disparities among the trading markets for the derivative instrument, the assets underlying the derivative instrument and assets of PanAgora's portfolios.

The CFTC and certain futures exchanges impose limitations governing the maximum number of futures contract positions and "economically equivalent" swaps that may be held by a single investor or group of related investors, whether acting alone or in concert with others. Because PanAgora trades for multiple accounts and funds, commodity interest positions of all such accounts and funds will generally be required to be aggregated for purposes of determining compliance with these position limits. These trading and position limits, and similar limits in non-U.S. jurisdictions, could limit PanAgora's ability to enter into and maintain certain derivatives for client accounts.

In addition, the regulation of derivatives in the U.S. and in foreign jurisdictions continues to evolve. For example, global financial regulators recently adopted new rules and regulations which require certain accounts to meet minimum margin requirements when entering into uncleared swap agreements and require for central clearing of derivatives that in the past were traded exclusively OTC. While the ultimate impact of these regulatory actions is not clear, it is possible that these and future regulatory measures taken in the U.S. and in foreign jurisdictions could limit or completely restrict the ability of an account to use these instruments as a part of its investment strategy, increase the costs of using these instruments, or make them less effective.

Short Selling

PanAgora may obtain short exposure through derivative positions or through selling securities in a client portfolio short. When engaging in a short sale of securities, PanAgora may sell borrowed securities with the intent of repurchasing them at a lower price before returning them to the lender. A client portfolio that sells securities short may incur losses if the securities appreciate in value prior to repurchase. Also, a client portfolio with short exposure may experience greater volatility due to potential leverage. The potential for loss when a client portfolio has short exposure is theoretically unlimited.

Non-U.S. Securities

PanAgora may invest a portion of a client portfolio's assets in equity and equity-related securities of non-U.S. issuers, depository receipts and other securities or instruments that represent an indirect interest in securities of non-U.S. issuers, collective vehicles that invest in non-U.S. securities and other securities, derivatives or instruments whose performance is linked to the performance of non-U.S. securities or baskets of non-U.S. securities. Investments in non-U.S. securities are affected by risk factors that include, but are not limited to, the following: varying custody, brokerage and settlement practices; difficulty in valuation and pricing; insufficient public information about issuers; limited governmental regulation and supervision over the issuance and trading of securities; the unavailability of financial information regarding the issuer or the difficulty of interpreting financial information prepared under non-U.S. accounting standards; low liquidity and high volatility in non-U.S. markets; the possibility of expropriation or nationalization; the imposition of withholding and other taxes; adverse political, social, or diplomatic developments; limitations on the movement of funds or other assets between different countries; difficulties in invoking the legal process and enforcing contractual obligations; and the difficulty of assessing economic trends. Moreover, governmental issuers of non-U.S. securities may be unwilling to repay principal and interest due, and may require that the conditions for payment be renegotiated. Investment in non-U.S. countries also involves higher brokerage and custodian expenses than does investment in U.S. securities traded on a U.S. securities exchange or market.

Emerging Market Economies

Emerging market economies are smaller in size, less liquid, and frequently experience high levels of inflation and greater volatility than in more developed securities markets, such as U.S. securities markets. A client portfolio's securities may be denominated in a variety of currencies that are subject to changes in currency exchange rates and to exchange control regulations. Disclosure and regulatory standards are in many respects less stringent than U.S. standards. Issuers in emerging markets are subject to accounting, auditing, and financial standards and requirements that differ, in some cases significantly, from those applicable to U.S. issuers. There is substantially less publicly available information about emerging market issuers than there is about U.S. issuers. In addition, emerging market issuers are not subject to regulations similar to the U.S. Sarbanes-Oxley Act of 2002 that imposes many restrictions and mandates on the activities of companies.

Foreign Currency Exposure and Currency Hedging Risks

While PanAgora client portfolios are denominated in U.S. Dollars, some of the underlying investments of a client portfolio may be denominated in other currencies. In such circumstances, the portfolio is subject to the risk that the value of a particular currency in which an investment is denominated will change in relation to the U.S. Dollar. The weakening of such a currency relative to the U.S. Dollar will negatively affect the dollar value of a portfolio's assets. A portfolio may even realize a net loss on an investment, even if there were a gain on the underlying instrument before currency losses were taken into account.

PanAgora may try to hedge these risks by entering into foreign exchange swaps, foreign exchange forwards or other similar currency hedging transactions. There can be no assurance that such transactions will be implemented or that financial instruments suitable for such hedging will be available at the time when PanAgora wishes to use them. In addition, there can be no assurance that such hedging strategies will be effective.

Leverage

PanAgora may use borrowed money, derivatives, including futures and forward contracts, and borrowed equity securities to generate a significant degree of leverage. While leveraging creates an opportunity for increased net income or capital appreciation, it also creates special risk considerations, including, for example, significantly exaggerated changes in the value of a portfolio's investments. If an investment is highly leveraged, a relatively modest adverse movement in the investments value may result in a portfolio incurring significant losses. Leveraged portfolios can experience total losses of their capital, and investors may lose their entire investments over a short period of time.

Investment Concentration

At times, a substantial portion of a portfolio's assets may be concentrated in the securities of a limited number of issuers. Investing a significant portion of a portfolio's assets in a limited number of issuers or industries makes the portfolio significantly more susceptible to risks affecting investments in such issuers or industries. Such concentration of investments may increase the volatility of the portfolio's investments.

Portfolio Turnover

PanAgora will actively manage its client portfolios. Accordingly, a client's portfolio turnover rate and its brokerage commissions, fees, and other transaction costs may be higher than that of many other funds.

Active strategies are based on models which combine fundamental analysis and quantitative techniques. Buy and sell decisions are based on the rigorous implementation of the models' recommended allocations. Individual portfolios are adjusted for the client's return objective, risk tolerance and investment guidelines. Active strategies may involve frequent trading, which may affect investment performance, through increased brokerage and other transaction costs and taxes.

Market Disruptions

A client account may incur major losses in the event of disrupted markets and other extraordinary events which may affect markets in a way that is not consistent with historical pricing relationships. The risk of loss from a disconnect with historical prices is compounded by the fact that in disrupted markets many positions become illiquid, making it difficult or impossible to close out positions against which the markets are moving. The financing available to a portfolio from banks, dealers, and other counterparties will typically be reduced in disrupted markets. Such a reduction may result in substantial losses to a portfolio. In addition, market disruptions caused by unexpected political, military, and terrorist events may from time to time cause dramatic losses and such events can result in otherwise historically low-risk strategies performing with unprecedented volatility and risk.

Cybersecurity

Intentional cybersecurity breaches include: unauthorized access to systems, networks, or devices (such as through “hacking” activity); infection from computer viruses or other malicious software code; and attacks that shut down, disable, slow, or otherwise disrupt operations, business processes, or website access or functionality. In addition, unintentional incidents can occur, such as the inadvertent release of confidential information (possibly resulting in the violation of applicable privacy laws). A cybersecurity breach could result in the loss or theft of customer data or funds, the inability to access electronic systems (“denial of services”), loss or theft of proprietary information or corporate data, physical damage to a computer or network system, or costs associated with system repairs. Such incidents could cause PanAgora or a service provider to incur regulatory penalties, reputational damage, additional compliance costs, or financial loss. In addition, such incidents could affect issuers in which PanAgora invests a portfolio, and thereby cause the portfolio’s investments to lose value. PanAgora has adopted information security, incident response, backup, and disaster recovery procedures intended to prevent or mitigate damage if an intentional or unintentional breach occurs. However, such procedures could fail or be insufficient to avoid, mitigate, or successfully address the breach.

Dark Pools and Other Private Trading Venues

PanAgora, on behalf of its Clients, may utilize so-called “dark pools” and other private trading venues to execute trades of securities. In a dark pool, buyers and sellers do not reveal their identities and often reveal very little, if anything, about their order sizes, as opposed to a traditional exchange, where orders are transparent. There are a number of different types of non-displayed liquidity providers, including electronic communications networks (“ECNs”), broker-sponsored dark pools, crossing networks and broker-led consortium dark pools. Dark pools and other anonymous venues may provide price improvement and the ability to protect trade orders from others in the market that would take advantage of information revealed during a trade. Dark pools and other private trading venues generally look to traditional exchanges to get their pricing information. However, if more and more trades are conducted through dark pools and other private trading venues, the prices used in dark pool trades might not be as reliable and up-to-date as they should be. Moreover, the use of dark pools means that firms cannot take advantage of changes in prices because the market cannot react immediately to transactions occurring in dark pools. Furthermore, different entities in a dark pool cannot see each other and therefore do not have a sense of what each other's strategies and motives are. In addition, the prices charged by dark pools may be higher than those charged by traditional exchanges. The prices charged by dark pools and independently operated crossing networks also may cover execution only and not investment research and other services and may also be used to fund contributions to commission-sharing arrangements.

Item 9 -- Disciplinary Information

None.

Item 10 -- Other Financial Industry Activities and Affiliations

PanAgora is registered with the SEC as an investment adviser under the Advisers Act. PanAgora also is registered as a CPO and CTA and Swap Firm with the CFTC and is a member of the NFA. Power Financial, through its subsidiaries Great West Life and Putnam maintains, indirectly through one or more subsidiaries, a majority of the voting interest in PanAgora. PanAgora has established an equity ownership plan for its senior executives that allows for an up to 20% economic interest in the firm to be awarded to such executives. PanAgora has also established a strategic relationship with a Chinese financial services firm in which Power Financial owns an indirect minority stake, pursuant to which PanAgora provides nondiscretionary investment advice.

In addition, PanAgora's indirect parent company, Power Financial, owns insurance, investment management, brokerage and other financial businesses (including registered broker-dealers) with which PanAgora may engage in business activities, such as by providing subadvisory services to Power Financial affiliates' portfolios, seeking to include PanAgora fund products on affiliates' distribution platforms, or partnering in the design and promotion of packaged retirement solutions. PanAgora may have an incentive to allocate more profitable trades to, or otherwise favor, affiliated accounts over other accounts. PanAgora manages these potential conflicts by treating affiliated accounts in a manner consistent with all other client accounts with respect to trade rotation and allocation. Please see Item 12 for more information about PanAgora's allocation practices.

The investment management and trading functions at other investment firms in the Power Family group and PanAgora are autonomous and operate separately from each other. These functions include all decision-making on what, how and when to buy, sell or hold in client portfolios and the trading related to implementation of these decisions. This policy is intended to permit the investment management and trading functions of each firm to operate without regard to or interference from the other. In addition, although a Power Financial affiliate may hire PanAgora to act as subadviser to certain products or clients of such affiliate, PanAgora does not rely on any Power Financial affiliate to solicit or refer potential clients to PanAgora. PanAgora believes this separation is in the best interest of clients of the firms as operating independently permits each firm to pursue the investment objectives of its respective clients without regard to limitations resulting from investment activities of the other. To support this policy PanAgora has adopted certain procedures, including a portfolio information barrier between PanAgora and the other affiliated investment firms.

Item 11 -- Code of Ethics, Participation or Interest in Client Transactions and Personal Trading

PanAgora maintains a Code of Ethics, which applies to all employees of PanAgora, that regulates the personal securities trading activities of these employees and the trading activity of certain family members and entities (such as corporations, trusts, or partnerships) that employees may be deemed to control or influence. A copy of PanAgora's Code of Ethics will be provided to any of its advisory clients or prospective clients on request by contacting PanAgora at 617-439-6300 or via email to complianceofficer@panagora.com.

The Code of Ethics imposes limits on activities of employees of PanAgora and, in certain circumstances, affiliates and/or other third parties ("Access Persons"), where the activity may conflict with the interests of clients of PanAgora. These include certain personal trading restrictions and prohibitions against the buying and selling of any security while either PanAgora or the employee is in possession of material, non-public information (inside information) concerning the security or the issuer. As a condition of employment, every employee accepts the absolute obligation to comply with the letter and the spirit of the Code of Ethics. An Independent PanAgora Director will not be considered an Access Person so long as the Director is not involved in making securities recommendations for PanAgora clients; does not have access to nonpublic information regarding the purchase or sale of securities for any PanAgora client; does not have access to nonpublic information regarding the portfolio holdings of any fund sponsored or advised by PanAgora; and does not have access to securities recommendations to PanAgora clients that are nonpublic. Each Independent PanAgora Director will certify in writing annually that he or she satisfies all aforementioned conditions.

Employees are required to provide confirmations and statements of personal securities transactions, including transactions of immediate family members and accounts over which the employee has investment discretion, to the Code of Ethics Officer. Employees may not buy or sell any security for their own account without clearing the proposed transaction in advance (certain securities are exempted from this pre-clearance requirement). In general, the Code of Ethics prohibits excessive personal trading by employees as well as the short selling of any security, whether or not it is held in a client portfolio (short selling against broad market indices and "against the box" are permitted). All employees of PanAgora (including Portfolio Managers) are deemed to be Access Persons.

Access Persons are subject to additional restrictions with respect to most personal trades, including but not limited to the following: Access Persons may not sell a security at a profit within 60 calendar days of purchasing it or buy a security at a price below which he or she sold it within 60 calendar days. No investment professional may sell any security or related derivative security for his or her personal account until seven calendar days have passed since the most recent purchase of that security or related derivative security by any portfolio he or she manages. No investment professional may buy any security or related derivative security for his or her personal account until seven calendar days have passed since the most recent sale of that security or related derivative security by any portfolio he or she manages. No investment professional may sell out of his or her personal account any security or related derivative security that is held in any portfolio he or she manages unless he or she has received the written approval of the Code of Ethics Officer. No investment professional may cause a client to take action for the investment professional's own personal benefit. These restrictions do not apply to "de minimis" transactions in fixed income securities and certain listed equity securities. PanAgora has established standards to determine whether a transaction is a "de minimis" transaction based on PanAgora's assessment that Access Persons are likely to experience any benefit or detriment from engaging in such a transaction before, after, or concurrently with a transaction in a client portfolio. These standards are stated in our Code of Ethics and may be adjusted from time to time.

PanAgora may impose sanctions for violations of the Code of Ethics. Sanctions may include monetary fines, bans on personal trading, reductions in salary increases or bonuses, disgorgement of trading profits, suspension of employment, and termination of employment.

Where appropriate, PanAgora may recommend to its clients that they invest in the Group Trusts or in other private investment vehicles exempt from registration under the 1940 Act pursuant to Sections 3(c)(1) or 3(c)(7) thereof, for

which PanAgora acts as an investment adviser and/or managing member. Employees, officers, and directors of PanAgora may also invest in private investment vehicles.

PanAgora or a related person may recommend to clients to buy or sell securities that it or a related person buys or sells for itself at or about the same time, or in which PanAgora or a related person has a material financial interest. On occasion, PanAgora or its employees, directors and officers may buy or sell securities or investment products which are recommended to its clients. However, no employee, officer or director is permitted to do so (a) where such purchase or sale is expected to affect the market price of such securities or investment products or (b) in anticipation of the effect of such recommendation on the market price. All employees of PanAgora are subject to its Code of Ethics, which addresses conflicts of interest which may arise in respect to the recommendation of securities. With respect to related persons of PanAgora other than its employees, officers and directors, see “*Participation or Interest of Certain Related Persons in Client Transactions*” below.

Participation or Interest of Certain Related Persons in Client Transactions

The direct and indirect owners of PanAgora are large diversified financial organizations. As a result, it is possible that related persons of PanAgora other than its officers and directors (as used under this heading “related persons”) may from time to time invest in the same securities that PanAgora recommends to clients. In addition, from time to time, our related persons may have business relationships with the issuers of securities that PanAgora recommends to our clients.

While PanAgora generally does not engage in such transactions, it may do so from time to time at the request of a client or as permitted by applicable law, consistent with PanAgora’s duties of loyalty and fair dealing. In such cases, PanAgora will engage in such transactions to the extent permitted by, and in accordance with the requirements (including disclosure, client consent and reporting requirements) of, the laws and regulations applicable (*e.g.*, the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), the Advisers Act, the 1940 Act, the Securities Exchange Act of 1934, as amended (the “Exchange Act”) state law as applied to trusts and government funds) in the particular situation in light of (a) the type of transaction (*e.g.*, principal transactions, agency brokerage transactions, purchases in underwritings, open market purchases of securities issued by related persons), and (b) the nature of the client account (*e.g.*, ERISA, non-ERISA, investment company). PanAgora does not exercise its discretion on behalf of its clients to engage in principal transactions nor place brokerage transactions with such related persons except as outlined above. Portfolio transaction decisions for its clients are made independently by PanAgora and are not based upon the interests of a related person. No client is required by PanAgora to enter into a relationship with a related person as a condition to the establishment or continuation of an advisory relationship.

In addition, it is possible from time to time that such participations or interests may be established independently by a related person without the knowledge of PanAgora pursuant to recommendations and arrangements independent of the services provided by Adviser and/or in situations where PanAgora is not exercising investment management discretion of a type that would give rise to the application of the policies and procedures described in the preceding paragraphs.

Item 12 -- Brokerage Practices

Selection of Broker Dealers

As a fiduciary, PanAgora has a duty to seek to achieve best execution for its clients' brokerage transactions. PanAgora seeks to execute securities transactions for its clients in a manner such that the net economic results to the client are the most favorable under the circumstances. PanAgora's policy is to select brokers or counterparties to execute client transactions in a manner that is consistent with the best interests of its clients and to employ a trading process that attempts to maximize the value of a client's portfolio within the client's stated investment objectives and constraints. In carrying out this duty, PanAgora considers the full range and quality of a broker's services in placing brokerage, including, among other factors, commission rates, financial responsibility, and responsiveness. In seeking to achieve best execution, PanAgora may not always obtain the lowest possible commission cost.

Consistent with section 28(e) of the Exchange Act and subject at all times to its duty to seek to achieve best execution; PanAgora may obtain brokerage or research products and services from broker-dealers in connection with placing securities transactions on behalf of clients through "soft dollar arrangements". This is a benefit to PanAgora since PanAgora would otherwise have to produce or pay for these services or products. Such products and services may include, but are not limited to, fundamental research reports (both third party and proprietary), technical and portfolio analyses, pricing services, economic forecasting and interest rate projections, historical and statistical securities information and computer software that assist PanAgora's investment management process. During the past fiscal year PanAgora obtained the following with client brokerage commissions: market and securities data, access to analytical tools and proprietary research. Certain of the brokerage or research products or services received with respect to commissions paid by certain accounts may benefit other accounts under the management of PanAgora. Broker-dealers who provide such services may receive a commission which is in excess of the amount of the commission another broker-dealer may have charged if in the judgment of PanAgora the higher commission is reasonable in relation to the value of the brokerage or research products or services rendered. PanAgora may have an incentive to select or recommend broker-dealers based on PanAgora's interest in receiving the research or other products or services which could differ from a client's interest in receiving most favorable execution. Soft dollar arrangements are internally reviewed, and will be reviewed periodically, to determine if the products or services are needed, whether such products or services provide legitimate assistance in the investment decision making process, and the reasonableness of the commissions paid in relation to the value of the products or services. In addition, in certain instances, PanAgora receives access to certain proprietary research tools from executing broker-dealers. However commissions paid to such broker-dealers are not in excess of the amounts other broker-dealer would charge for the same transaction. These benefits are used in the servicing of all client accounts, not just those that paid for the benefit.

Certain clients may be subject to non-US regulations that are inconsistent with PanAgora's standard trading practices. For example, recent revisions to the EU Markets in Financial Instruments Directive ("MiFID") and related regulations limit a MiFID-licensed manager's ability to receive products and services from executing brokers. While PanAgora is not directly subject to these regulations, PanAgora may adjust its standard trading practices to accommodate compliance with MiFID and other non-US regulations by PanAgora's clients, which may include certain affiliates. These accommodations may include, but are not limited to: expanded use of client commission arrangements, commission sharing arrangements and similar arrangements; enhanced reporting on client commissions and the products and services obtained; and non-participation in the generation of soft dollar credits. PanAgora expects the effective commission rates in these circumstances to be substantially similar to those paid by similarly situated clients. However, as result of these accommodations, clients from certain jurisdictions may account for a lower percentage of soft dollar credits than otherwise similar clients from other jurisdictions.

PanAgora may recommend futures commission merchants ("FCMs") to clients for financial futures trading. In doing so, the primary consideration in making recommendations is to seek to obtain best execution at the most favorable and reasonable commission rates. PanAgora attempts to achieve these results by choosing FCMs based on (1) their professional capabilities (including use of capital, clearance and settlement procedures), (2) the value and quality of their services, and (3) the comparative brokerage commission rates which they offer.

Clients may occasionally direct PanAgora to place brokerage with certain broker-dealers. Clients' directed brokerage arrangements may affect the manner in which PanAgora handles a client's account with respect to negotiating commissions, the inclusion of the client in aggregated transactions with other clients, seeking to obtain best execution and generating soft dollar credits. A client who designates use of a particular broker-dealer should consider whether commission expenses, execution, and clearance and settlement capabilities, will be comparable to those otherwise obtainable by the client if it did not make such a designation. PanAgora will make an effort to obtain prices for a client's trades with directed brokerage comparable to those obtained for clients without directed brokerage arrangements. However trades for these directed brokerage accounts will generally occur after trades for accounts without directed brokerage. In those cases, trades will be prioritized among client accounts with directed brokerage in a fair and equitable manner. A client who designates use of a particular broker-dealer should understand that it may lose the possible advantage which non-designating clients derive from aggregation of orders for several clients as a single transaction for the purchase or sale of a particular security.

If a client limits PanAgora to directed brokerage arrangements and/or prohibits use of the client's brokerage to purchase legitimate research products or services, PanAgora's clients who do not impose such prohibition or limitation may potentially pay higher commissions on their brokerage due to PanAgora's soft dollar arrangements compared to the commissions paid by clients who do have such prohibition or limitation; in these instances, clients without such prohibition or limitation may pay a commission which may be in excess of the amount of the commission paid by clients with such prohibition or limitation if in the judgment of PanAgora the higher commission is reasonable in relation to the value of the legitimate brokerage or research products or services rendered. The research paid for by commissions of client accounts that permit use of client brokerage to purchase legitimate research products and services may nevertheless benefit clients who impose such prohibitions or direct the brokerage on their accounts.

Trade Aggregation and Trade Allocation Policy

PanAgora has implemented a Trade Aggregation and Trade Allocation Policy (the "Policy") designed to ensure the fair and equitable treatment of clients with respect to aggregation and allocation of investment opportunities among different clients and different products and in order to ensure that proprietary trading by, and the financial interests of, PanAgora, its affiliates, and its personnel are not favored over clients and client accounts.

PanAgora's policy is to aggregate trades for different client accounts if, in PanAgora's judgment, such aggregation is in the best interest of each participating client and the allocation of completed trades is made among participating accounts in a fair and equitable manner. A client trade may be aggregated with a trade by another account managed by PanAgora only if certain conditions are met. These conditions include: (i) aggregation is consistent with PanAgora's duty to obtain best execution; (ii) aggregation is not in conflict with the terms of the investment advisory contract of each participating client; and (iii) no advisory clients will be favored over any other client as a result of such aggregation. Subject to the Policy and to the extent consistent with applicable law, the execution costs of an account that prohibits the use of brokerage to purchase legitimate research products and services may be lower than the execution costs of other accounts that participate in an aggregated trade.

Partial executions of aggregated equity trades are allocated pro rata to the participating accounts based on order size (*i.e.*, each client shall be allocated that percentage of the executed order that its order size bears to the total size of the order). Allocated amounts may be rounded to reflect market practices for lot sizes. All accounts generally receive the average price obtained. Execution costs for aggregated equity trades will be allocated pro rata to the participating accounts based, in part, on order size, and trades for client accounts of less than a certain number of shares may receive varying allocations intended to reduce the administrative cost on PanAgora and the client's custodian bank. PanAgora may make investments in equity initial public offerings within certain of its Equity mandates.

Trades in fixed income securities may also be aggregated into a single order if, in the appropriate investment professional's opinion, there are benefits to the client accounts with respect to liquidity, timing and other factors. For fixed-income aggregated transactions, all accounts generally receive the same purchase price and any transaction costs are shared pro rata among participating accounts.

When PanAgora believes that the circumstances of a trade would cause inequitable allocations or otherwise may be unfair to the participating accounts, the Compliance Officer may authorize the use of alternative allocation

methodologies. Such allocation methodology may be employed only when the Compliance Officer determines that it will result in a fair and equitable allocation for all participating accounts and is based upon objective criteria.

Trade Errors

PanAgora has adopted written policies and procedures to address trade errors, including (but not limited to) the failure to properly execute an intended transaction for a client account (“Trade Errors”). Not all mistakes are considered Trade Errors under the policy. For example, investment decisions made by a PanAgora investment professional acting in good faith that produce a loss in a client account are not considered Trade Errors under the policy. The consequences of any Trade Errors and the corrective measures required to rectify these Trade Errors may differ depending upon the nature of the error or the account affected. PanAgora’s policy is to resolve Trade Errors in a manner that is fair and equitable to the client under the particular circumstances. PanAgora’s goals with respect to errors include, among others, to: (i) identify Trade Errors in a timely manner; (ii) to seek to correct Trade Errors promptly in a way that mitigates losses; and (iii) to place any affected account in the same or no worse a position than it would have been in had the Trade Error not occurred.

Item 13 -- Review of Accounts

Client portfolios are reviewed by investment personnel on a regular basis. The specific interval is a function of the particular investment strategy used for the portfolio, activity within the account (*i.e.*, additions and withdrawals of funds) as well as economic or market events affecting the portfolio. PanAgora instructs its investment personnel to review the performance of the client portfolios and their conformity with the clients' respective investment objectives and policies. PanAgora employs approximately seventeen investment personnel who, acting together, conduct reviews of client portfolios. Such reviews are conducted by the chief investment officer, directors in investment teams (including portfolio managers), as well as the compliance officer, compliance manager and compliance associates. The Trading and Investment Practices Committee also reviews the performance of all client portfolios on a monthly basis.

Client portfolios are also reviewed at least monthly by operations associates for the purpose of reconciling PanAgora's account records with those of the clients' respective accounting agent/administrator. Where data is available the operations associate will reconcile custody cash and security share positions on a daily basis to the custodian, prime broker, counterparties and FCMs.

With respect to discretionary separate accounts, clients are provided with monthly and quarterly written reports which contain (1) a portfolio appraisal, (2) performance information, and (3) upon request, a summary of transactions.

Participants in the private funds and the Group Trusts receive monthly written account statements and annual audited financial statements.

Item 14 -- Client Referrals and Other Compensation

PanAgora has entered into an agreement with a financial intermediary pursuant to which PanAgora compensates the intermediary for distribution of pooled investment vehicles and for referrals to PanAgora of advisory clients in certain non-U.S. jurisdictions.

PanAgora has also entered into a service level agreement with another financial intermediary whereby PanAgora has appointed and compensates such financial intermediary as a local service team to provide certain services to facilitate the bidding process for, and servicing of, overseas investment mandates for one or more non-U.S. government pension funds.

Furthermore, PanAgora has engaged a U.S. private banking institution as placement agent in connection with the offering and sale of private fund interests to its U.S. private banking and wealth management clients pursuant to offering documentation offered only to such private investors. The applicable private fund pays a portion of the management fee to the U.S. private banking institution as compensation for, among other things, servicing its client who are invested in such private

Item 15 -- Custody

PanAgora separate account clients and funds typically maintain custody arrangements through independent qualified custodians. However, PanAgora may in some circumstances be deemed to have “custody” (as defined in Rule 206(4)-2 under the Advisers Act (the “Rule”)) of client securities and funds, even though it does not actually maintain possession of client assets.

Advisory clients with respect to which PanAgora has been deemed to have “custody” will receive account statements, at least quarterly, from PanAgora. Such clients will also receive account statements from broker-dealers, banks or other qualified custodians with respect to the assets managed by PanAgora. PanAgora also will receive account statements from qualified custodians to determine that account transactions are proper. PanAgora urges advisory clients to compare account statements prepared by PanAgora with the custodian statements on at least a quarterly basis.

With regard to pooled investment vehicles for which PanAgora is deemed to have custody, PanAgora will ensure that annual audited financial statements are provided to the pool participants in accordance with the Rule.

Item 16 -- Investment Discretion

PanAgora has discretionary authority as a sponsor and investment manager for certain private unregistered investment pools and as investment manager for the Group Trusts. PanAgora also receives discretionary authority from separate account and subadvisory clients at the outset of an advisory relationship to select the identity and amount of securities to be bought or sold. PanAgora typically receives discretionary authority, including a power of attorney, through an investment management or similar agreement between PanAgora and the applicable client. In all cases, such discretion is to be exercised in a manner consistent with the stated investment objectives for the particular client account.

Item 17 -- Voting Client Securities

At the inception of each client account, each client must elect to either retain all voting rights in respect of all client securities or grant PanAgora all such voting rights in respect of all client securities.

PanAgora has adopted written policies and procedures, pursuant to Rule 206(4)-6 under the Advisers Act, reasonably designed to ensure that it votes client securities in the best interest of clients. While retaining final authority to determine how each proxy is voted, PanAgora has reviewed and determined to follow in most instances the proxy voting policies and recommendations (the “Guidelines”) of Institutional Shareholder Services Inc. (“ISS”). ISS will track each proxy that PanAgora is authorized to vote on behalf of its clients and will make a recommendation to management of PanAgora as to how it would vote such proxy in accordance with the Guidelines. Unless otherwise directed by PanAgora, ISS will vote on such matters on PanAgora’s behalf in accordance with its recommendations. PanAgora has adopted procedures to oversee and monitor the services provided by any third-party proxy voting agents, such as ISS. Among other things, PanAgora reviews the agent’s policies and procedures, with a particular focus on those relating to identifying and addressing conflicts of interest and ensuring that current and accurate information is used in creating recommendations.

PanAgora may override specific recommendations or may modify the Guidelines in the future. PanAgora believes that the Guidelines will result in it voting proxies with a view to enhance the value of the securities held in a client’s account. The best interest of its clients is the primary consideration in determining how proxies should be voted. Certain proxy voting proposals may raise conflicts between the interests of PanAgora’s clients and the interests of PanAgora and its employees. PanAgora’s Investment Committee and Compliance Officer are responsible for seeking to identify proxy voting proposals that present a conflict of interest. If they identify such a proposal, they will decide whether it presents a material conflict of interest and review to ensure that the proxy is voted in the best interest of the client.

Clients may obtain a copy of PanAgora’s proxy voting policies and procedures upon request. To obtain a copy of PanAgora’s proxy voting policy or proxy voting results for your account, please contact PanAgora at 617-439-6300 or by e-mail at complianceofficer@panagora.com.

Item 18 – Financial Information

Not applicable.