PanAgora Asset Management
Investment Manager Review
December 8, 2009

EXECUTIVE SUMMARY

- On December 8, 2009 Martin Bélanger and Louise Koza (by phone) met with the following PanAgora professionals from 9:00 a.m. to 12:00 p.m. at their Boston office:
  - Sanjoy Ghosh, Portfolio Manager
  - Louis X. Iglesias, Chief Compliance Officer
  - Kevin Dowie, Director, Client Service
  - Robert Job, Head of Business Development
  - Jane Zhao, Portfolio Manager
  - Joel Greenberg Feinberg, Director, Equity
- Ranked "Retain" by Russell
- PanAgora manages 2.5% of the Diversified Equity Fund with a U.S. small cap equity mandate. The firm has $15.2 billion of assets under management and 34 investment professionals.
- There haven't been any major developments at PanAgora since our last review; no change in personnel involved with our account and no significant change to the structure of the organization but they have made a recent significant staff cut though no investment personnel were terminated.
- Performance for our strategy has been extremely poor since inception in October 2006, although it has stabilized in recent months. They have underperformed the Russell 2000 Index by 589 bps annualized since inception. They have achieved marginal value added over the past six and twelve month periods ending November 30, 2009.
- Their investment process has not materially changed since the last review, although they continuously conduct research to find new alpha generating factors, to improve portfolio construction and trading. There's some preliminary evidence that their recent changes have positively impacted performance.
- They have adequate risk controls in place
- Their model doesn't include environmental, social or governance factors, although they do flag companies that have exposure to clean energy; depending on the environment, they might integrate it to their model
- No issue with capacity on our strategy at this point; the strategy is currently closed for new business. They closed the strategy in mid-2007 when assets under management were $1.5 billion. Currently there's about $600 million in assets in the strategy.
- PanAgora is not facing any significant compliance issues; their fund is in compliance with the investment manager mandate: no deficiencies were reported following their last regulatory review, they have an adequate code of ethics and there are no conflicts of interest to disclose. They disclosed two ongoing litigation matters one involving an arbitration relating to product distribution and another matter involving the non-payment of a settlement with an insurance company.

RECOMMENDATION

- PanAgora produces proprietary and cutting edge research that makes intuitive sense. The firm is relatively stable from an organization point of view, although the recent staff cuts are significant, but there have been no changes in investment personnel. The firm is fully dedicated to investment management and several of their strategies are posting strong performance. Although performance has been disappointing since we have hired them, the firm offers several elements that are associated with superior value added.
- Given Russell's "Retain" recommendation and the positive factors listed above, I don't recommend making any changes to our relationship with PanAgora Asset Management.

ORGANIZATION

- $15.2 billion in assets under management as of September 30, 2009
- UWO had $10.9 million with PanAgora as of October 31, 2009
- On March 25, 2008, the PanAgora Management Equity Plan was implemented. Senior investment professionals and management were offered participation in up to 20% ownership in the firm through restricted stock and options. The key investment professionals on our portfolio, Ron Hua and Sanjoy Ghosh, have a significant portion of the ownership. The duration of the plan is 5 years.
- PanAgora employees own approximately 16-17% of the firm; the rest is owned by Nippon Life and Great-West Life
- 34 investment professionals in total, up from 33 last year
- The day after we met with PanAgora, the firm announced that it eliminated 15 positions; 12 positions were eliminated in operations, administrative support, marketing and technical support and 3 positions were eliminated in investment support (including two positions in the portfolio construction group, which impacts our portfolio). Although no investment related position was eliminated, the reduction represents more than 20% of their non-investment staff, which is significant. Although they claim to operate independently, PanAgora is a subsidiary of a publicly traded company which is under pressure to meet earnings estimates. As such PanAgora most likely has to meet lofty earnings targets. A significant reduction in support staff could potentially reduce the quality of servicing we receive.
- The firm has lost 2 clients in their dynamic small cap products due to reorganization recently.

U.S. SMALL CAP EQUITY MANDATE

Performance Analysis

	Periods Ended November 30, 2009					
	3-Month	6-Month	YTD	1-Year	2-Year	Since Inception (October 16, 2009)
PanAgora U.S. Equity Small Cap	-3.12%	11.97%	0.04%	5.81%	-11.65%	-15.08%
Russell 2000	-2.40%	11.94%	0.51%	5.76%	-9.38%	-9.19%
Value Added	-0.72%	0.03%	-0.47%	0.05%	-2.27%	-5.89%

- The fund had 348 names as of November 30, 2009, which is in line with recent months, but a significant increase since they have been added
- They feel that the exposure to the alpha factors is more important than having a concentrated portfolio; a greater number of stocks allows them to have a larger percentage of the portfolio exposed to the top ranking alphas
- Portfolio turnover was 112% for the twelve-month period ending November 30, 2009, for an average holding period of 9 to 12 months
- The fund has significantly underperformed over various time horizons since we hired them on October 16, 2006; their only value added came during the six and twelve month periods ending November 30, 2009
  - Good stock selection in financials and industrials has added value over the past six and twelve months
  - Stock selection in energy, information technology and healthcare has detracted value in the past six and twelve months; healthcare and energy are the focus of their recent research
  - According to Sanjoy Ghosh, 2008 was a good year for the model, but a bad year for portfolio; they should have been more aggressive in implementing the model
  - Valuation factors have worked well in 2009, but momentum factors have not
  - Their new financial model has added significant value; stock selection in the financial sector has 121 bps of value over the 12-month period ending October 31, 2009 and 51 bps over the six-month period ending November 30, 2009. PanAgora will provide additional information on how the individual factors have performed in the financial model.
  - Their mutual fund alpha factor has also done well. The factor is based on holdings published by mutual funds in regulatory filings. The factor has exhibited very low correlation with their contextual alpha.

Investment Personnel

- No changes to the management of our portfolio
  - Ronald Hua, Chief Investment Officer and Sanjoy Ghosh, Director, Equity are still leading the product
  - Joel Greenberg Feinberg is in charge of portfolio construction
  - They are assisted by Jane Zhao and Francis Smith in research

Investment Process

- Process hasn't changed: bottom-up core
- PanAgora uses a quantitative model to apply contextual modeling, non-linear conditioning, an integrated modeling framework and fundamental analysis to valuation, quality and market sentiment (momentum) factors.
- Although their core investment process hasn't changed since our last review, they regularly make enhancements to their model. They make improvements from 2 angles: by finding new uncorrelated factors and by integrating them into their model.
  - In 2007 they have improved their trading by increasing the size of their trade list, which allows them to increase their exposure to the alpha generating factors in their model, they use dark pools to remain anonymous and they have proprietary algorithm to ratio trade
  - In 2008 they introduced a factor that focuses on the credit default swap market and the options market and has also proven to be a good short-term indicator
  - In 2009 they have enhanced their portfolio construction by adding a solvency factor related to the credit crisis; the factor focuses on the cash that the company holds
  - In 2009 they added a factor related to pension funding
  - In 2009 they have introduced a short-term model that is used to predict stock performance over the next few weeks; the model focuses on technical factors and the flow of information and improves trade timing
  - They are comfortable that their contextual alpha modeling adds value over static modeling
- Environmental, Social and Governance Factors:
  - Their model doesn't include any specific environmental, social, and governance factors
  - They do flag companies that have exposure to clean energy; depending on the environment, they might integrate it to their model
- Research agenda:
  - They're working on a factor that would help in predicting the impact of commodity prices on basic material company
  - They're working on a factor that predicts the source of a company revenues by using a country ranking developed with the help of their macro team
  - They're working on a factor that will help improve trading by looking at microstructure and informed trades
  - They're working on industry-specific models for Banks, Insurance, Biotechnology, Pharmaceuticals, and REITs using a specialized database
  - To select research projects they look at areas where the information fails to capture the entire picture

    - They try to maintain their research proprietary by keeping it confidential – they have reduced the disclosure in the articles they publish; the database that they purchase, although they're available to everyone, require significant adjustments, which makes it difficult to replicate
    - They believe that their core model will remain the same but that the inclusion of innovative research should change the model by 15%-20% over the next two years
- The portfolio uses stock index futures to equitize cash

Risk Controls

- Their portfolio construction process involves balancing portfolio risk and expected return
- PanAgora has several processes in place to control risk
    - BARRA risk model
    - Conduct due diligence on new screens, risk budgeting, liquidity checks, database integrity, alpha changes, and market cap mismatches
    - Limits on active weights on all accounts
    - Sector and industry constraints
    - They look for data anomalies as part of their portfolio construction process
    - Compliance is required prior to every trade

Trading

- We met with Joel Greenberg Feinberg, who is the Head of Portfolio Construction; there are two dedicated traders reporting to him; Joel has demonstrated a good understanding of their trading, portfolio construction and risk control processes.
- Accounts are optimized separately to avoid having the smaller accounts penalized when transactions in larger accounts take longer to execute
- They regularly review their trading partners; they work only with traders that provide agency services
- They believe that if the Securities and Exchange Commission required more disclosure from dark pools, it would be beneficial to them as it would help them to identify the best ones.
- Their trading practices have reduced the implementation slippage to 4-5 bps, compared to 25-35 bps if they didn't have the process in place
- They deal with liquidity issues by imposing weight limits, by looking at a stock short-term liquidity (looking at the number of days required to sell a stock) and by looking at the long-term liquidity of a stock
- They have a list of approved brokers and counterparty list; the list is based on the brokers implementation costs, as determined by each of the investment teams
- Counterparty risk relates to foreign currency contracts
    - Doesn't apply to UWO as we don't use currency hedging
    - They look at the credit rating of each counterparty (minimum of A1 or A-) and credit default swap rates
    - They monitor the amount allocated to each counterparty

COMPLIANCE

- Met with Louis Iglesias, Chief Compliance and Sean Collins, Compliance Manager
- We reviewed PanAgora’s compliance program, their business continuity plan and some aspects of their code of ethics
- PanAgora is in compliance with the investment manager mandate; they have been providing a compliance report since the second quarter of 2008
- PanAgora is not facing major litigation; they are currently in arbitration with Integra, the firm that used to distribute its products in Canada; they are also in litigation with an insurance company regarding the non-payment of a settlement regarding PanAgora’s errors and omissions coverage
- The Securities and Exchange Commission did a review in March 2008 and they found no deficiencies or weaknesses; PanAgora expect them to be back in 2012.
- The Ontario Securities Commission has never conducted a review
- They have no conflict of interest
- Deloitte Touche audits their financial statements
- They use the Charles River system for trading and investment compliance
- PanAgora uses soft dollars to purchase database; they follow the CFA Institute Soft Dollars Standards
- They don’t allow cross trading
- Employees have to comply with PanAgora’s Code of Ethics; the CFA Institute Code of Ethics is a subset of PanAgora’s code of ethics
- We reviewed PanAgora business continuity plan:
    - They have an alternate site about 25 miles east of Boston
    - They will relocate 18 employees in case of a major disruption; the remaining employees will work from home
    - They regularly test the continuity; for the first two hours they access their client holdings without using PanAgora’s systems

THE UNIVERSITY OF WESTERN ONTARIO RETIREMENT PLANS
PanAgora Asset Management
Meeting Agenda

Date: December 8, 2009
Meeting time: 9:00 PM to 12:00 PM
Location: 470 Atlantic Avenue, 8th Floor, Boston, MA 02110

UWO Attendees:

Martin Bélanger, Director, Investments
Louise Koza, Director, Total Compensation (conference call)

ORGANIZATION:
- Introduction – relationship review
- Discuss any meaningful change to your corporate structure since the last review
- Review changes in assets under management
- Discuss clients gained and lost
- Overview of new products
- Briefly discuss your business continuity plan, with a focus on the H1N1 flu virus

INVESTMENT PERSONNEL:
- Introduction to key personnel on our mandate
- Discuss personnel turnover for our mandate

REVIEW OF UWO PORTFOLIO:
- Performance overview
- Attribution analysis
- Portfolio characteristics
- Overview of investment process and changes to investment philosophy, if any
- Discuss changes made to the portfolio
- Detractors/contributors to performance
- Describe how you measure and control portfolio investment risk
- Report how you integrate environmental, social and governance factors in your investment process and the impact on your portfolio and investment strategy

RESEARCH:
- Review of models
- Portfolio construction
- Overview of research agenda
- Provide timeline of past changes to the quantitative model

TRADING:
- Overview of trading systems and methodology
- Execution analysis
- Discuss total trading costs

- Discuss broker/dealer selection
- Discuss stock exchange selection

COMPLIANCE:
- Confirm that all investments managed by PanAgora Asset Management on behalf of the UWO Retirement Plans are in compliance with the terms and conditions of the Investment Manager Mandate, the Managed Account Agreement and in compliance with all applicable laws
- Describe any material litigation to which your firm, key personnel or the funds have been party over the past year
- Describe any material issue raised as a result of recent regulatory reviews
- Confirm that your key investment personnel complies with an appropriate code of ethics
- Confirm that any conflict of interest or potential conflict of interest involving PanAgora or key investment personnel has been disclosed

OTHER:
- Office tour