Commonwealth of Pennsylvania Public School Employees' Retirement System

DATE: November 15, 2012

SUBJECT: Internally-managed Commodities Portfolio Recommendation Global Agriculture Absolute Return Fund Ltd. Recommendation

TO: Members of the Board

FROM: Robert E. Little, CPA Portfolio Manager, External Public Markets

At the December Finance Committee meeting, staff and Aksia will recommend that PSERS invest in the Global Agriculture Absolute Return Fund Ltd. (Fund). This Fund is an open-ended fund that uses futures to generate returns in the commodity markets.

Founded in 1865, Cargill is an international producer and marketer of food, agriculture, financial, and industrial products. Cargill employs over 142,000 employees in 65 countries worldwide. Black River Asset Management LLC, an independently managed subsidiary of Cargill and manager of the Fund, has approximately \$5.0 billion in assets under management and over 160 employees worldwide. Black River, currently with \$330 million in assets under management for PSERS, has managed money for PSERS since 2011.

Investment staff has managed swap exposure to various equity and fixed income markets over the past few years. We have developed an expertise in managing the beta exposure and counterparty risks. The proposed account would be structured as follows:

- 1. \$200 million in cash would be allocated to this account and invested as follows:
 - a. \$50 million invested in the internally-managed PSERS LIBOR-Plus Portfolio and/or PSERS STIF Portfolio; and,
 - b. \$150 million invested in the Global Agriculture Absolute Return Fund Ltd. This fund would be the alpha source for the portfolio.
- 2. Investment Staff would enter into a \$200 million commodity swap to gain the commodity beta exposure.

Staff recommends a \$150 million investment to the Global Agriculture Absolute Return Fund Ltd., a new commodities fund created to access Cargill's vast agricultural supply chain insights. Black River has selected only four institutional investors to participate in this fund and is limiting the fund size to \$500 million. We propose using this fund as part of a larger commodities portfolio managed by internal staff. Internal staff would enter into a \$200 million commodities swap. The \$200 million cash backing the swap would be invested 75% in this fund (\$150 million) and 25% in the PSERS LIBOR-Plus Portfolio and/or PSERS STIF Portfolio (\$50 million). A graphical depiction of this account structure is located in the presentation included with this memo. The objective would be for this account to generate a return of the DJ UBS Commodity Index plus 6.0%.

Included for your review are Aksia's recommendation letter, a presentation prepared by staff, a confidential presentation prepared by Black River, the confidential fund terms, and the resolution recommending the investment in the Fund. Representatives from Black River will make a presentation to the Finance Committee and will be available for any questions.

If you have any questions or comments prior to the meeting, please contact me at 717-720-4707.



Manager Recommendation Memo

November 15th, 2012

Board of Trustees Pennsylvania Public School Employees' Retirement System 5 North Fifth Street Harrisburg, PA 17101

Re: Global Agriculture Absolute Return Fund

Dear Trustees:

Aksia LLC, having been duly authorized by the Board of PSERS, has evaluated and herewith recommends a direct allocation to Black River's Global Agriculture Absolute Return Fund ("Global Agriculture Fund"). In the ongoing development of PSERS' portfolio of absolute return funds, Aksia recommends an initial allocation in line with Exhibit D of PSERS Investment Policy Statement, Objectives, and Guidelines.

Black River, a fully owned subsidiary of Cargill, and a manager with whom PSERS has an existing investment, is offering a medium to long-term fundamental trading strategy in global agricultural futures. As a result of Cargill's position as a dominant player in the global agriculture market, this fund seeks to take advantage of the fundamental market insights and replicate the firm's proprietary positioning in the futures and listed options markets. Markets traded included wheat, corn, soy and soy products, and oilseeds. The fund's primary risks include the concentration risk of being entirely focused on agricultural commodities and the market risks that are generally present in commodities strategies.

Aksia's recommendation is based upon the following analytical factors and is made within the context of PSERS' investment guidelines.

- Due diligence of the Global Agriculture Fund's investment strategy, including a review of their investment strategy, investment team and structure, and risk management process.
- Pending due diligence of the Global Agriculture Fund's operations, including an operations and infrastructure review, regulatory and compliance review, private placement memorandum review, Form ADV review, and financial statement review.
- Evaluation of the Global Agriculture Fund's investment strategy within the context of the current investment environment.
- Appropriateness of the Global Agriculture Fund for the Absolute Return component of PSERS' portfolio.

This recommendation is confidential, given solely for the benefit of PSERS and cannot be relied upon by other investors considering an investment in the Global Agriculture Fund, since their needs, objectives and circumstances may not be identical to those of PSERS. The scope of this recommendation is limited to the investment merits of the Global Agriculture Fund. Aksia manager recommendation memos should be reviewed with other Aksia due diligence materials, including the full Investment Review and Operational Review. In addition, please consult your tax, legal and/or regulatory advisors before allocating to any private investment fund.

Please feel free to contact us should you have any questions about this recommendation.

Respectfully,

Bruce D. Ruell

Bruce Ruehl Partner, Head of Portfolio Advisory, Americas

Patrick Adelsbach Partner, Head of Event Driven Strategies



Commodity Program Allocation

Global Agriculture Absolute Return Fund Ltd.

December 5, 2012

Robert E. Little, CPA Portfolio Manager, External Public Markets

Overview of Cargill

- Founded in 1865
- An international producer and marketer of food, agricultural, financial, and industrial products and services (A rated by S&P, A2 rated by Moody's)
- Privately held company employing 142,000 employees in 65 countries

Overview of Black River Asset Management LLC

- Began trading for Cargill in 1984 as Cargill's Global Capital Markets Division
- Established as an independently managed subsidiary in 2003
- Leverage the Cargill relationship to:
 - Obtain favorable financing and funding terms with counterparties
 - Manage risk within the portfolio
- Manage assets of approximately \$5.0 billion
- The five principals of the firm have been with Black River or its predecessor an average of more than 24 years

Investment Team

- Over 160 employees worldwide located in 13 offices in 11 countries
 - 80 employees in Portfolio Management, Trading, and Research
 - 80 employees in Non-Investment functions

Value Proposition to PSERS

- Cargill ranks among the top three physical commodity traders in the world in most agriculture markets
- Cargill's World Trading Unit (WTU) monitors the Cargill agricultural supply chain (planting, harvesting, selling) to determine where supply and demand imbalances exist
- This strategy has access to the WTU's intellectual property (personnel, research, and resources)
- Black River will generate and implement trading ideas obtained from discussions with the WTU

Fund Strategy

 Utilize Cargill's market insights to generate positive returns that have low correlations with other asset class returns

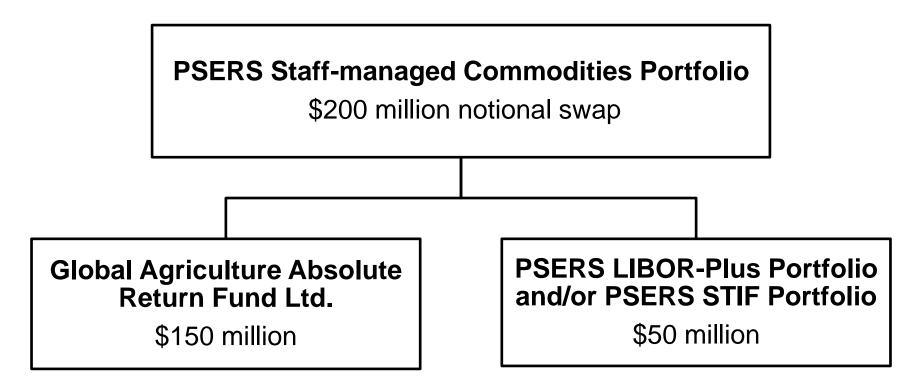
Targeted Returns and Volatility

- Estimated Net Annualized Target Alpha: 8.0 to 12.0%
- Sharpe Ratio: 1.0

Portfolio Use

 Staff plans to use this product as a portable alpha vehicle in an internally-managed commodities portfolio as shown on the next slide

Global Agriculture Absolute Return Fund Ltd. Proposed Account Structure



This portable alpha structure has built in liquidity through the PSERS LIBOR-Plus portfolio and/or PSERS STIF portfolio and a return target of the DJ UBS Commodities Index Return plus 6.0%.

Performance (through 09/30/2012)

	2009*	2010	2011	2012	Annualized since 09/01/2009
Proprietary Trading Results, net of fees	-6.16%	32.30%	4.92%	3.22%	10.08%
DJ UBS Commodity Index, Total Return	10.74%	16.83%	-13.32%	5.64%	5.65%
3-Month T-Bill	0.03%	0.13%	0.07%	0.05%	0.28%

The return data is net of the standard fee schedule.

- The results shown above are for the Cargill Agriculture basket not an actual portfolio.
- Strategy inception date: September 1, 2009
- All information presented has a start date of September 1, 2009 (the strategy inception date)

Other

- Relationship with Aksia: None
- Placement Agents: None
- Political Contributions in PA: None
- Introduction Source: Staff
- History with PSERS: Black River has managed money for PSERS since 2011

Recommendation

Staff, together with Aksia LLC, recommends (i) that the Board invest an initial amount of \$150 million in the Global Agriculture Absolute Return Fund Ltd., and (ii) that the Investment Office shall have the discretion to invest additional sums within the target ranges approved by the Board in Exhibit D of the Investment Policy Statement, Objectives and Guidelines, as amended from time to time (the current version of which can be found at http://www.psers.state.pa.us/invest/guide/index.htm), provided that any investment of an additional sum by the Investment Office shall be reported to the Board in a timely manner.

DISCLAIMER: This document was presented to the Public School Employees' Retirement Board at the public meeting at which the Board acted on the resolution to which the information relates. The sole purpose for posting the presentation information on this website is to enable the public to have access to documents that were utilized at a public meeting of the Public School Employees' Retirement Board, and no other purpose or use is intended.

Appendix - Correlations

Correlation (as of 09/2012)	Cargill Ag basket	DJ UBS Commodity	MSCI AC World Index IMI	Barclays Aggregate	Barclays Global Aggregate
Cargill Ag basket	1.00				
DJ UBS Commodity	0.37	1.00			
MSCI AC World Index IMI	0.26	0.68	1.00		
Barclays Aggregate	0.02	0.08	0.14	1.00	
Barclays Global Aggregate	0.27	0.45	0.50	0.73	1.00



Commodity Program Allocation

Global Agriculture Absolute Return Fund Ltd.

December 5, 2012

Robert E. Little, CPA Portfolio Manager, External Public Markets