



*Memorandum*

MEETING DATE
MAR 28 2012
AGENDA ITEM
#10

**Date:** March 19, 2012  
**To:** CCCERA  
**From:** Timothy Price and Bob Helliesen  
**Subject:** Recommendation to Shift INTECH Enhanced Plus to INTECH Global Low Volatility

***Overview and Recommendation***

CCCERA has two domestic equity mandates with INTECH, US Large Core and US Enhanced Plus. The bulk of the assets are invested in the Large Core strategy with a modest allocation to the Enhanced Plus strategy. The smaller allocation to Enhanced Plus is kept in order to qualify for a multiple-product discount with INTECH. The firm has recently developed a Global Low Volatility equity strategy which fits with CCCERA's global equity goals. Milliman recommends that CCCERA shift the funds currently allocated to the Enhanced Plus strategy into the Global Low Volatility strategy. CCCERA would be the first outside investor in this strategy.

***INTECH Allocation***

CCCERA has had an allocation to INTECH equity products since March 2002 when the Enhanced Plus strategy was funded. Following a review of other INTECH strategies in the 2006, the bulk of the INTECH allocation was moved to the firm's Large Core strategy, a similar but slightly more aggressive version of Enhanced Plus strategy. A modest allocation to the Enhanced Plus strategy was maintained in order to qualify for a multiple product discount.

**Target INTECH Allocations as of January 31, 2012**

Strategy	Target (% of Total Fund)	Target (\$MM)
INTECH Large Core	3.2%	\$169
INTECH Enhanced Plus	0.3%	\$16

***Strategy Assessment***

We have followed the development of INTECH's global equity capabilities over the past several years. The proposed Global Low Volatility strategy leverages the firm's strength in building and managing quantitatively-driven equity portfolios that exploit the differences in volatility between stocks in a given index. The traditional INTECH strategies use these quantitative models to try to generate an excess return while minimizing tracking error (variability relative to an index). The low volatility strategy's goal is to use the same models to deliver a market-like return while minimizing the portfolio's absolute standard deviation. The Global Low Volatility strategy is benchmarked to the MSCI World index (developed markets only) and uses only developed market equities in the portfolio.



### ***Performance Assessment***

INTECH provided a back-test of the Global Low Volatility strategy. While we tend to view back-tested data with some skepticism, we have seen INTECH's models work well in US and non-US strategies. The INTECH back test included the following assumptions:

- Simulated trades take place at the closing price every day.
- The simulated results include the reinvestment of all dividends, interest, and capital gains.
- The simulated results are calculated gross of investment advisory fees.

In the following tables, we show the back-tested performance of the INTECH Global Low Volatility strategy relative to CCCERA's other global low volatility manager, First Eagle, and the broad MSCI World benchmark.

### **Performance of Global Low Volatility Strategies Cumulative Performance through December 31, 2011**

<u>Firm</u>	<u>Quarter</u>	<u>1 Yr</u>	<u>2 Yrs</u>	<u>3 Yrs</u>	<u>4 Yrs</u>	<u>5 Yrs</u>	<u>7 Yrs</u>	<u>10 Yrs</u>
First Eagle	5.63	0.95	9.55	14.26	4.46	5.77	9.40	13.36
INTECH	4.98	2.14	7.87	5.77	-0.46	1.20	4.64	7.60
MSCI World (GD)	7.72	-5.02	3.30	11.75	-4.47	-1.82	2.77	4.15

Note: Periods greater than 1 year are annualized

### **Annual Performance through December 31, 2011**

<u>Firm</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>2005</u>
First Eagle	0.95	18.88	24.32	-20.17	11.14	21.87	16.30
INTECH	2.14	13.93	1.69	-17.03	8.11	20.17	7.73
MSCI World (GD)	-5.02	12.34	30.79	-40.33	9.57	20.65	10.02

### **Risk Statistics - Annualized Three Years Periods Ending December 31, 2011**

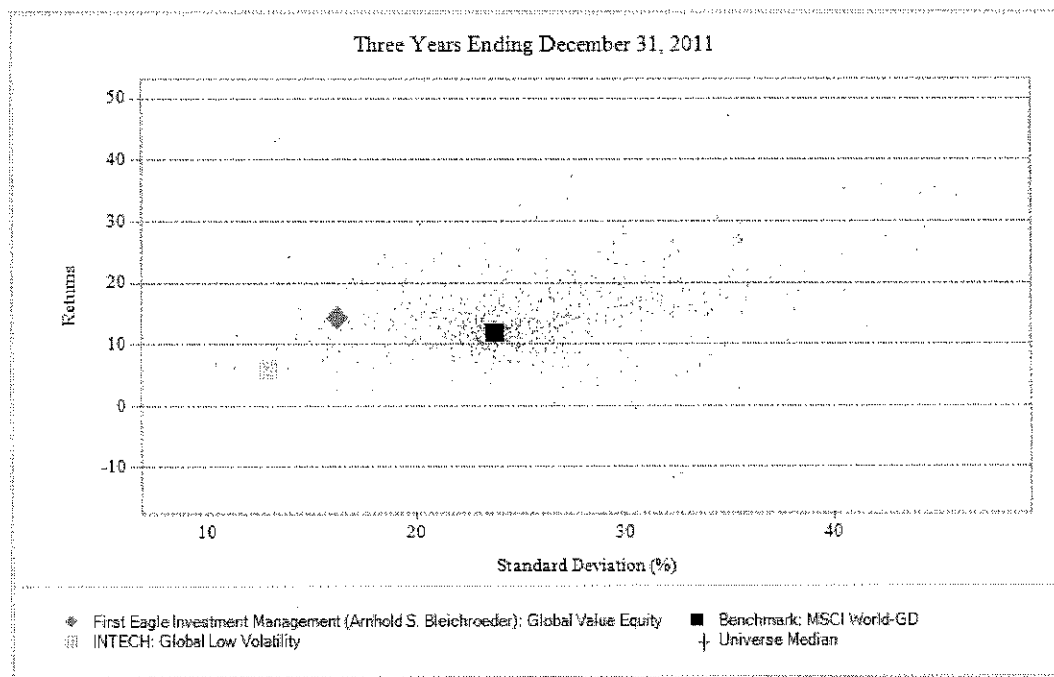
<u>Firm</u>	<u>Excess</u>	<u>Std Dev</u>	<u>Trk Err</u>	<u>Info</u>	<u>Sharpe</u>	<u>Alpha</u>	<u>Beta</u>	<u>R-Sqr</u>
First Eagle	2.51	16.17	8.35	0.30	0.87	5.57	0.67	0.97
INTECH	-5.98	12.92	13.65	-0.44	0.44	-0.26	0.48	0.79
MSCI World (GD)	0.00	23.84	0.00	---	0.49	0.00	1.00	1.00

### **Risk Statistics - Annualized Five Years Periods Ending December 31, 2011**

<u>Firm</u>	<u>Excess</u>	<u>Std Dev</u>	<u>Trk Err</u>	<u>Info</u>	<u>Sharpe</u>	<u>Alpha</u>	<u>Beta</u>	<u>R-Sqr</u>
First Eagle	7.58	14.83	9.15	0.83	0.30	6.34	0.63	0.96
INTECH	3.02	11.54	13.80	0.22	-0.01	1.50	0.45	0.80
MSCI World (GD)	0.00	23.17	0.00	---	-0.14	0.00	1.00	1.00



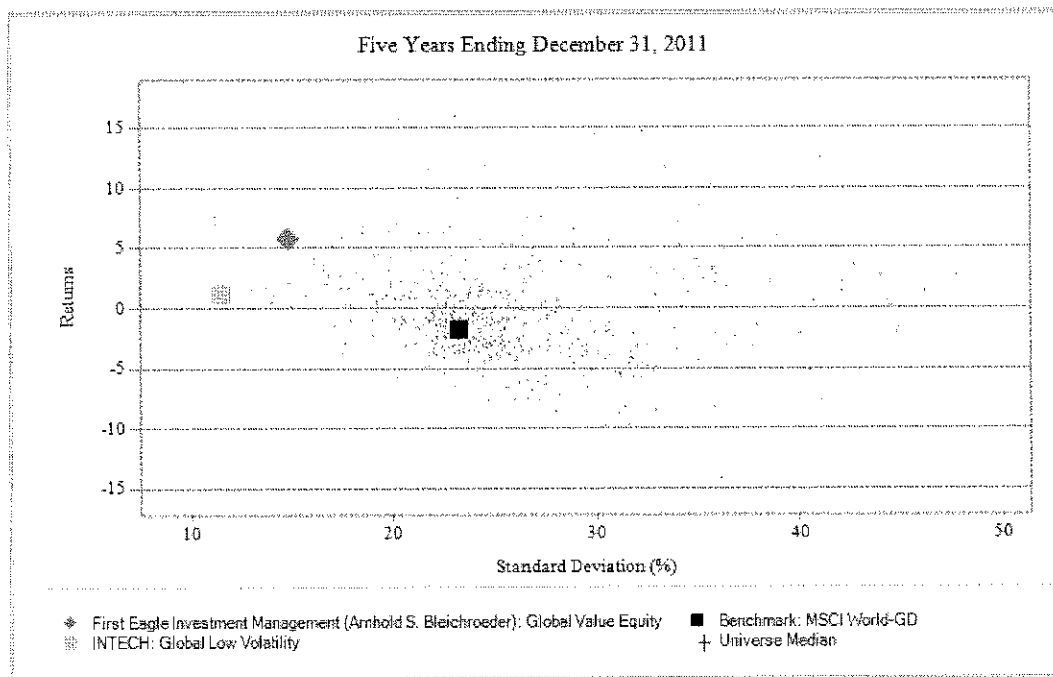
## Risk vs. Return Analysis Trailing Three Years Ending December 31, 2011



<u>Firm/Product</u>	<u>Returns</u>	<u>Standard Deviation</u>
First Eagle: Global Value	14.3	16.2
INTECH: Global Low Volatility	5.8	12.9
Benchmark: MSCI World-GD	11.8	23.8



## Risk vs. Return Analysis Trailing Five Years Ending December 31, 2011



<u>Firm/Product</u>	<u>Returns</u>	<u>Standard Deviation</u>
First Eagle: Global Value	5.8	14.8
INTECH: Global Low Volatility	1.2	11.5
Benchmark: MSCI World-GD	-1.8	23.2



### ***Fees***

The standard fee schedule for the INTECH Global Low Volatility strategy is 35 basis points on the first \$100 mm. However, this is a new strategy for INTECH and CCCERA would be the seed investor in the strategy's commingled fund. Given these factors, Milliman has negotiated a reduced fee for CCCERA of 24.5 bp. This compares favorably to the fee of 35 bp currently paid on the Enhanced Plus account.

### ***Conclusion***

Shifting to INTECH's Global Low Volatility strategy will help CCCERA move forward on several long-standing goals:

1. Shift the CCCERA equity allocation towards a more globally-diversified posture.
2. Reduce investment management fees.
3. Make the second INTECH account more relevant to the CCCERA portfolio.

Milliman has been monitoring the development of INTECH's global equity program for several years. We believe that the new strategy is based upon a sound, though as of yet untested in a global context, investment thesis. Funding the new Global Low Volatility strategy will give CCCERA access to a unique global equity strategy at a low cost basis, while maintaining the multiple product discount on the Large Core strategy. We recommend that the current allocation to INTECH Enhanced Plus be moved to the Global Low Volatility strategy, subject to legal review of the new fund's documentation.