April 10, 2018 - CSCE Board Meeting Minutes
Location: Officers Club, U.S. Coast Guard Academy, New London, CT

The following people from CSCE were in attendance at this meeting: President Christopher Beaulieu, President-Elect David Chapman, Treasurer Ben Cote (via telephone), Secretary Julie Silva, Director I Hudson Jackson, Director II Gary Fuerstenberg, Scholarship Fund Committee Chair Jim Sime, Water Resources Committee Chair Tom Loto, and CSCE Administrative Assistant Amy Petrone.

The CSCE Board meeting began at 4:17 p.m. The following topics were discussed:

1. ACE Award Applications

1.1 ACE Award Application Review Committees: The following people were placed on the review committees:

Transportation – Chris Beaulieu, Hudson Jackson and Kassim Tarhini
Structural – Kassim Tarhini and David Chapman
Environmental/Water Resources/Sustainability – Julie Silva
Geotechnical – Ben Cote, Hudson Jackson and David Chapman

For rating the applications, Gary Fuerstenberg has a rating sheet and scoring system that was used in the past.

1.2 Individual Awards – These need to be finalized.

2. ACE Awards Dinner

2.1 Master of Ceremonies – After discussing the possibilities, it was decided that Amy Petrone will ask Quinnipiac professor John Greenleaf if he would like to MC the ACE Awards again this year. For use in his synopses of the awards, CSCE should give reasons why the projects were selected for awards to him beforehand.
2.2 Photographer – After discussing the possibilities, it was decided that Hudson Jackson will ask Jay Harman to photograph the ACE Awards again this year.
2.3 Awards – Deadline for production – The project award choices should be determined by April 23, 2018, so awards can be ordered before the end of April.
2.4 PowerPoint Presentation – Amy Petrone will ask Bob Gomez if he would be interested in managing the slide show again this year.

3. 2018-2019 CSCE Officers

The following people will be nominated to be officers for next year:

President – David Chapman
President-Elect – Omkar Jambotkar
Vice President – Ben Cote
Director I – Chris Beaulieu
Director II – Hudson Jackson

The Treasurer, Secretary and Newsletter Editor positions do not have nominations yet.

4. ERYMC 2018 Conference

Since all the costs for the attendees at this conference were not reimbursed by ASCE, the attendees should submit expense reports to CSCE Treasurer Ben Cote, so CSCE can pay for the remaining costs.

5. CSCE-ITE Annual Golf Outing

Jason Wibble is interested in volunteering to help manage this event. Ray Janeiro currently manages this event, but he is interested in having someone else manage it in the future. As a result, Amy Petrone will contact Ray Janeiro to see if he would be interested in co-managing this event with Jason Wibble this year. Chris Beaulieu will contact ITE regarding who will manage the event from its organization.

6. Scholarship Winners Photos

Gary Fuerstenberg offered to photograph the winners at tonight's dinner meeting for posting on the CSCE website.

7. Connecticut State Report Card

Chris Beaulieu will ask Sara Ramsbottom, Tom Loto and Omkar Jambotkar for status updates on the Report Card.

8. ASCE Region I Governor

The ASCE Region I Governor contacted Chris Beaulieu and CSCE may speak with her at the annual planning meeting in the summer.

9. Scholarship Fund Committee Report

The Scholarship Fund Committee Chair Jim Sime provided the Board with a report of the Scholarship Committee (see following pages). After discussing the information in the report, David Chapman made a motion to approve the recommendations in the report. Gary Fuerstenberg seconded the motion and it passed unanimously.

The meeting adjourned at 5:16 p.m.

Connecticut Society of Civil Engineers Section of the American Society of Civil Engineers
Scholarship Committee Report for April 2018

CSCE-ASCE		goal %		4/9/18	actual %		
Policy Portfolio recommended by David Swensen/Yale	Symbol	Goal/Policy Fund Allocation	Goal Amounts	Actual Amounts	Actual Fund Allocation	Buy (Sell) this # Shares	Buy (Sell) this $ amount
Domestic Equity Index ETF, Large Cap	SCHB	20.0%	$ 43,851.37	$ 43,855.54	20.0%	(0)	($4)
Domestic Equity Index ETF, Small Cap	SCHA	5.0%	$ 10,962.84	$ 10,954.66	5.0%	0	$8
Vanguard Energy ETF	VDE	5.0%	$ 10,962.84	$ 11,003.43	5.0%	(0)	($41)
Guggenheim S&P 500® Equal Wt Energy ETF	RYE	5.0%	$ 10,962.84	$ 10,985.66	5.0%	(0)	($23)
Foreign developed equity Index ETF	SCHF	15.0%	$ 32,888.53	$ 32,893.76	15.0%	(0)	($5)
Emerging market equity Index ETF	SCHE	10.0%	$ 21,925.68	$ 21,952.72	10.0%	(1)	($27)
Real Estate Index ETF	SCHH	5.0%	$ 10,962.84	$ 10,945.07	5.0%	0	$18
U.S. Treasury bonds or FDIC-insured Bank CDs	CDs	25.0%	$ 54,814.21	$ 53,747.66	24.5%		$1,067
Fixed Income Mutual Fund #1 (uncorrelated asset)	DLSNX	5.0%	$ 10,962.84	$ 11,368.47	5.2%	(41)	($406)
Fixed Income Mutual Fund #2 (uncorrelated asset)	PTRNX	5.0%	$ 10,962.84	$ 11,476.87	5.2%	(52)	($514)
U.S. Treasury Inflation-protected Securities	SCHP	0.0%	$ -	$ -			$0
Cash	cash	0.0%	$ -	$ 73.00	0.0%		($73)
Totals, above		100.0%	$ 219,256.84	$ 219,256.84	100.0%		
		goal %	goal $	actual $	actual %	actual %	
Equities (USA)		35.0%	$ 76,739.89	$ 76,799.29	35.0%	65.0%	
Foreign Equities		25.0%	$ 54,814.21	$ 54,846.48	25.0%		
Real Estate		5.0%	$ 10,962.84	$ 10,945.07	5.0%		
Fixed Income		35.0%	$ 76,739.89	$ 76,593.00	34.9%	35.0%	
Cash		0.0%	$ -	$ 73.00	0.0%		
		100.0%	$ 219,256.84	$ 219,256.84			

Table 1 Asset allocation today

CURRENT SITUATION:

On the day following the Board's January 18, 2018 meeting, the new Policy Portfolio percentages were implemented for 65% Equities and 35% Fixed Income. Within Fixed Income, 10% of that allocation is kept as readily available cash through 5% allocated to DLSNX and 5% allocated to PTRNX. See discussion below under **PARKING CASH**.

In Brinker's April 4th newsletter, there were six (6) key takeaways:

1) A mid-term off-presidential year correction event began on January 27 and is on-going. Brinker's technical analysis is looking for a buying opportunity that is likely to present itself this summer or in the fall. Brinker reviewed historical information on previous corrections that lasted 19 and 24 weeks, where the underlying message to investors is to be patient as market correction events typically experience a volatile phase before the correction concludes.
2) Marketimer indicators associated with a bear market suggest that the risk of a bear market in 2018 remains low. Brinker continues to anticipate the current mid-term off-presidential election year market decline will likely be contained with the correction range of less than 20%. To date, the maximum decline from the previous market peak (January 26 @ S&P500 of 2,872.87) was -10.14% on February 8 @ S&P500 of 2,581.66.
3) As reported in the September 2017 issue of Marketimer, Bob Brinker presented historical information on fourteen (14) mid-term off-presidential election year market declines from 1962 to 2014, where each was a decline of -7.4% to -48.2%.
4) Each correction's decline was followed by a rebound rally lasting 16 to 93 months.
5) In all 14 previous mid-term election years, the advance following the mid-term election year correction has exceeded 27% as measured by the S&P 500 Index.

6) The Federal Reserve now anticipates a slightly higher real GDP growth in 2018 with a central tendency value of 2.7%, an increase of 0.55% versus the value reported in the November 2017 report. Brinker's estimate of real GDP growth in 2018 remains as a range of 2.2 to 2.8% with a midpoint of 2.5%.

MARKET OUTLOOK:

The S&P500 market valuation is down 9.8% from its all-time high on January 26, 2018 with Monday's midday value at 2,591. The tax reform legislation has improved the business climate and Brinker increased his estimate for S&P500 operating earnings for 2018 by another $2 to $152. His valuation range for the P/E ratio of the S&P500 remains in the range of 17.5 to 18 times operating earnings, therefore market valuation is predicted at between 2,660 and 2,736 by the end of 2018. Presently, the market is trading 2.97% to 5.6% below the predicted stock market valuation of the S&P500 companies by the end of 2018.

Brinker's investment guidance can be summarized as to stay fully invested, rebalance to maintain your chosen asset allocation, dollar-cost-average any investment of new money, and don't be surprised by market volatility in the coming months leading up to the November election.

SWENSEN'S OBSERVATIONS:

As discussed in the January report, in a recent public appearance Yale's David Swensen revealed what asset allocations the Yale Endowment has used in the past. Swensen stressed in his investment books that asset allocation determines more than 100% of an investor's returns, so asset allocation percentages are essentially the most important decisions an investor makes. Swensen regards these percentages as a key strategic decision of any investor. Once asset allocation percentages are set in place, the job of the investor is to continually rebalance the investment account(s) to bring actual investment amounts into alignment with their chosen "Policy Portfolio Percentages" (to use Swensen's term).

In Swensen's November 2017 talk, he revealed that in the months leading up to the 2008 financial crisis, he (Yale) had decided the markets were overvalued and likely to experience a downturn. Swensen made a strategic decision to reset the asset allocation for the Yale endowment, as follows:

Late 2007:

70% Equities (correlated assets)

30% Cash, US Treasury Bonds, and other non-correlated assets

When the downturn came, Swensen waited until 2009 when he felt there was a buying opportunity and at that time, he changed Yale's asset allocation to

2009:

85% Equities (correlated assets)

15% Cash, US Treasury Bonds, and other non-correlated assets

In late 2017, Swensen again anticipated a market downturn and again changed the asset allocation of the Yale endowment, as follows:

Late 2017:

68% Equities (correlated assets)

32% Cash, US Treasury Bonds, and other non-correlated assets

Swensen's revealing public talk showed how Yale positioned its investments to limit loses in a market downturn, as well as to have plenty of cash available to make an advantageous future change in its strategic asset allocation, bringing its equity allocation back up to a larger percentage after market prices had fallen and bottomed during the market correction. Swensen would argue that he is not a market timer and has no idea when the market will correct, but he believed it must and will correct to some lower price level — and both Yale and now the CSCE Scholarship Fund are ready and waiting for a buying opportunity to develop in 2018.

		Before Bear Mkt	Bear Mkt Lows		Bull begins			Market Highs	
Asset Classes	**Allocation (examples anticipating a problem, above, and not anticipating a problem, below)**	**Pre-crisis investment dollars in 2007 (example)**	**2008 crisis effect on asset classes to bottom of market decline in 3/2009**	**Values at bottom in 3/2009**	**New strategic Allocation set at market bottom in 2009**	**2009 new investment dollar amounts at new allocation percentages (example)**	**Growth, 3/2009 to 11/2017**	**1/2018 dollar values**	**Resultant increase in investment value from strategic changes in asset allocation percentages**
Equities	**70%**	$70,000	-57%	$30,100	**85%**	$53,635	311%	$220,440	
Fixed (non-correlated)	**30%**	$30,000	10%	$33,000	**15%**	$9,465	47%	$13,914	
	100%	$100,000		$63,100	**100%**	$63,100		**$234,353**	**11.9%**
Equities	**65%**	$65,000	-57%	$27,950	**85%**	$56,483	311%	$232,143	
Fixed (non-correlated)	**35%**	$35,000	10%	$38,500	**15%**	$9,968	47%	$14,652	
	100%	$100,000		$66,450	**100%**	$66,450		**$246,795**	**17.9%**
Equities	**60%**	$60,000	-57%	$25,800	**85%**	$59,330	311%	$243,846	
Fixed (non-correlated)	**40%**	$40,000	10%	$44,000	**15%**	$10,470	47%	$15,391	
	100%	$100,000		$69,800	**100%**	$69,800		**$259,237**	**23.8%**
Equities	**55%**	$55,000	-57%	$23,650	**85%**	$62,178	311%	$255,550	
Fixed (non-correlated)	**45%**	$45,000	10%	$49,500	**15%**	$10,973	47%	$16,130	
	100%	$100,000		$73,150	**100%**	$73,150		**$271,679**	**29.8%**
EXAMPLE: Do-nothing; never change strategic asset allocation percentages									
Equities	**70%**	$70,000	-57%	$30,100	**70%**	$44,170	311%	$181,539	
Fixed (non-correlated)	**30%**	$30,000	10%	$33,000	**30%**	$18,930	47%	$27,827	
	100%	$100,000		$63,100	**100%**	$63,100		**$209,366**	

Table 2 Example of Asset Allocation Changes in Response to Bear and Bull Markets

LONG-TERM MEGATRENDS:

The present market level is 283% higher than the S&P500 as it stood at the beginning of the current bull market on March 9, 2009 (676.53).

Cyclical Type	Time Period	Time (years)	Perc. Change	Note
				03/27/00: S&P500 = 1,527.46
Bear	March 2000 to Oct 2002	2.54	-49%	10/09/02: S&P500 = 776.76
Bull	Oct 2002 to Oct 2007	5.00	101%	10/09/07: S&P500 = 1,565.15
Bear	Oct 2007 to March 2009	1.42	-57%	03/09/09: S&P500 = 676.53
Bull	March 2009 to April 2018	9.08	283%	4/19/2018: S&P500 = 2590.84

Table 2 Summary of Bull and Bear Cycles in U.S. Stock Market

ASSET ALLOCATION: The present Policy Allocation (Goal) in this portfolio is 60% to Equities, 5%

to Real Estate, and 35% to Fixed Income investments.

EQUITIES: Specific allocations by asset class are: 25% to U.S. Domestic Markets, 10% to Energy Sector, 15% to Foreign-developed Country Markets, 10% to Foreign-emerging Markets, and 5% to Real Estate. Presently, equity investments are in balance. You will note in Table 1 that CDs are low by $1,067. Following the discussion and Board action at the April 10, 2018 meeting, I will bring the asset allocation into alignment with all goal percentages on or after April 18.

In the equity and real estate components of the portfolio (combined 65% goal), the Board-approved investment strategy is based on a Swensen-style (Yale) diversified portfolio of ultra-low-cost, no-transaction-fee Exchange Traded Funds (ETFs) that track major indices. Portfolio rebalancing continues throughout the year (April to April), which at a minimum is done prior to periodic (usually monthly) reports to the Board.

FIXED INCOME: In the fixed income component of the portfolio (35% goal), the Scholarship fund is 25% invested in a ladder of FDIC-insured Certificates of Deposit (CDs) with various maturity dates. CDs keep fixed-income funds intact. Interest rates are projected to increase gradually from record lows back to historically normal levels likely in the 4 to 6% range for a 10-year U.S. Treasury Note. The next CD to mature in our current ladder will be on April 8, 2019.

As noted in Table 4, below, the weighted average yield of the CD ladder is 2.98%. This calculation is based on the face value of the CDs.

PARKING CASH: We have used CDs as fixed investments not subject to share price declines in response to increases in interest rates, but these investments are designed to be held to maturity.

Following the January Board meeting, we purchased chares in two low-duration fixed income funds, DLSNX and PTRNX, which Schwab offers with no transaction fees to buy or sell, but both require a minimum 90-day holding period. Both funds were purchased on January 18, so both funds may be sold without penalty or transaction fees anytime on or after April 18, 2018.

A 5% allocation to Putnam Absolute Return Bond Fund, PTRNX has the stated goal of delivering 3% return above US Treasury bills. Current distribution yield is 4.40% and average weighted duration of -0.73 (negative 0.73), which is favorable. The Fund value is approximately 1% higher that when purchased about 3 months ago.

A 5% allocation to Doubleline Low Duration Bond Fund, DLSNX, and it has a duration of 1.35, which translates into a 1.35% decline in market value for every 1% increase in interest rates. In February, Brinker advised that because the Federal Reserve has established plans to raise interest rates three to six times over the next two years (+1.5 to 3%), he advises changing from DLSNX to a Money Market Fund with a constant share value of $1.00, such as the Schwab MMF, SWVXX. The interest rate of the SWVXX money market fund will increase each time the Fed raises short term rates, while the share price remains unchanged at $1.00 per share.

Bank	Due Date	Face Amount	Coupon Rate	Frequency
Goldman Sachs Bank	04/08/2019	$ 1,000.00	3.75%	Semi-annual
1st Finl Bank USA	09/27/2019	$ 4,000.00	2.40%	Monthly
Discover Bk US	10/21/2020	$ 5,000.00	2.20%	Semi-annual
GE Capital Bank	09/16/2021	$ 4,000.00	2.85%	Semi-annual
Goldman Sachs Bank	01/05/2022	$ 4,000.00	3.00%	Semi-annual
Goldman Sachs Bank	09/06/2022	$ 1,000.00	2.40%	Semi-annual
Synchrony Bank	10/11/2023	$ 6,000.00	3.30%	Semi-annual
Goldman Sachs Bank	02/26/2024	$ 4,000.00	3.25%	Semi-annual
Synchrony Bank	08/29/2024	$ 7,000.00	3.30%	Semi-annual
Goldman Sachs Bank	02/11/2025	$ 2,000.00	2.75%	Semi-annual
Goldman Sachs Bank	06/17/2025	$ 5,000.00	3.15%	Semi-annual
JPMorgan Chase Bank	04/17/2026	$ 4,000.00	3.20%	Semi-annual
JPMorgan Chase Bank	08/16/2027	$ 3,000.00	2.80%	Quarterly
Signature Bank	11/08/2027	$ 1,000.00	2.85%	Semi-annual
HSBC Bank USA	11/24/2027	$ 3,000.00	3.00%	Monthly
HSBC Bank USA	02/08/2029	$ 3,000.00	3.10%	Monthly
HSBC Bank USA	09/29/2029	$ 1,000.00	3.00%	Monthly
Total Face Value		$ 58,000.00		
		Weighted Average Return	2.98%	

Table 4 CD Ladder as of April 9, 2018

REBALANCING: We continue to follow Yale Professor David Swensen's advice, as explained in his book, "Unconventional Success: A Fundamental Approach to Personal Investment" to frequently rebalance the portfolio, which studies have shown can add approximately 1.1% to the annual return of a portfolio as compared to an unbalanced portfolio with the same securities and starting point.

RECOMMENDATION:

1. It is recommended that the Board approve changing from Doubleline Low Duration Bond Fund, DLSNX, and purchasing instead the Schwab Value Advantage Money Market Fund, SWVXX. This change has no transaction fees when executed on or after April 18, 2018.
2. It is recommended that the Board continue following Brinker's market analyses as they may lead to identification of a buying opportunity during the present market correction.
3. Subject to a Buying Opportunity Alert by Brinker, it is recommended that the Board approve a future change in asset allocation, from 65% Equities to 75% Equities. Funds would be shifted from PTRNX and SWVXX. The New allocation would increase SCHB from 20% to 25% and SCHA from 5% to 10%, as shown in table 5, below, which was originally presented in the January 2018 report to the Board.
4. Maintain the Policy Portfolio percentages through periodic re-balancing.

		A	B	C				
Policy Portfolio recommended by David Swensen/Yale	**Current Fund Allocation**	**PROPOSAL A Pre-Correction Allocation**	**PROPOSAL B Pre-Correction Allocation**	**PROPOSAL C Pre-Correction Allocation**	**PROPOSED Planned Future (post-correction) Allocation**	**Symbol**	**Fund Name**	**Current Fund Allocation**
Equties	70%	65%	60%	55%	75%			$ 156,447
Fixed Income	30%	35%	40%	45%	25%			$ 70,508
Domestic Equity	20%	20%	15%	10%	25%	SCHB	Schwab U.S. Broad Market	$ 45,341.79
Domestic Equity	5%	5%	5%	5%	10%	SCHA	Schwab U.S. Small-Cap Market	$ 11,337.45
Domestic Equity	5%	5%	5%	5%	5%	VDE	Vanguard Energy ETF	$ 11,229.66
Domestic Equity	5%	5%	5%	5%	5%	RYE	Guggenheim S&P 500® Equal Wt Energy ETF	$ 11,307.79
Foreign developed equity	15%	15%	15%	15%	15%	SCHF	Schwab International Equity ETF	$ 34,046.76
Emerging market equity	5%	10%	10%	10%	10%	SCHE	Schwab Emerging Markets Equity ETF	$ 11,348.70
Real Estate	15%	5%	5%	5%	5%	SCHH	Schwab U.S. REIT ETF	$ 31,834.53
U.S. Treasury bonds or FDIC-insured CDs	30%	25%	25%	25%	25%		FDIC-Insured CDs	$ 64,411.77
Fixed Income Mutual Fund #1	0%	5%	10%	10%	0%	DLSNX or	Doubleline Low Duration Bond Fund or Metrowest Unconstrained Bond Fund	$ -
Fixed Income Mutual Fund #2	0%	5%	5%	10%	0%	PTRNX	Putnam Absolute Return 300 Bond Fund	$ -
Cash	0%	0%	0%	0%	0%			$ 6,095.80
Total	100%	100%	100%	100%	100%			

Table 5 On January 18, a Board Motion was approved to adopt Proposal A (65% Equities, 35% Fixed Income) as the pre-correction allocation. The proposed post-correction allocation is shown above as 75% Equities and 25% Fixed Income.

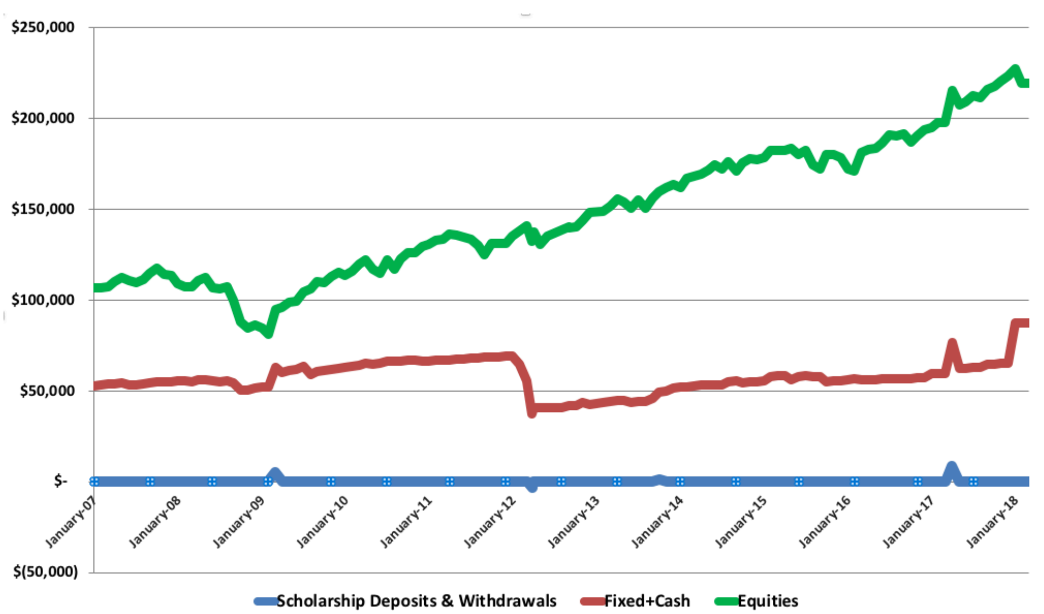

Figure 1 An updated chart of the Scholarship Fund Values from 2007 to 2018.

Period Ending, April of	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	March 2018
April to April Returns	0.8%	-13.6%	27.5%	11.3%	1.0%	13.0%	8.8%	7.8%	0.3%	13.0%	6.0%

Figure 2 Annual Returns, April to April, from 2007 to March 2018 (ignores deposits and withdrwals)