SEWERAGE & WATER BOARD OF NEW ORLEANS

PENSION COMMITTEE MEETING
MONDAY, SEPTEMBER 19, 2016
2:00 PM

625 ST. JOSEPH STREET
2ND FLOOR BOARD ROOM

Joseph Peychaud, Chair • Scott Jacobs, Vice-Chair • Alan Arnold • Eric Blue •
Harold Heller, Jr. • Ralph Johnson • Marvin Russell • Chante' Powell-Pierre • John Wilson

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FINAL AGENDA

ACTION ITEMS

1. Asset Allocation Targets and Ranges for Employees' Retirement System of Sewerage & Water Board of New Orleans – (R-092-2016)

PRESENTATION ITEMS

2. None

INFORMATION ITEMS

3. FFC July 2016 Flash Performance Report
4. Any Other Matters

"RE-BUILDING THE CITY'S WATER SYSTEMS FOR THE 21ST CENTURY"

Sewerage & Water Board OF NEW ORLEANS

MITCHELL J. LANDRIEU, President
SCOTT JACOBS, President Pro-Tem

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September 19, 2016

Pension Committee
Sewerage & Water Board of New Orleans
New Orleans, Louisiana

Subject: Asset Allocation Recommendation

Dear Committee Members:

Attached are two options for proposed investment policy targets and ranges. The options are identical except for how REITs are categorized: Option 1 has REITs categorized with U.S. Large Cap Equity investments while Option 2 has REITs categorized with real estate as alternative investments. Management considers REITs as appropriately categorized with alternative investments. Also attached are the existing policy targets and ranges.

Management recommends adoption of the attached draft resolution to adopt the revised asset allocations targets and ranges and to revise the Investment Policy Statement to incorporate these targets and ranges.

Robert K. Miller

Robert K. Miller
Deputy Director / Chief Financial Officer

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Sewerage and Water Board of New Orleans Employees' Retirement System
10/20 Year - Capital Market Assumptions Rationale

INTRODUCTION

The purpose of this document is to provide the framework for how **FFC Capital Management** ("FFC" or "the Pension Consultant") developed the *Stochastic Investment Model* (capital market assumption inputs) underlying the attached asset allocation recommendation done on behalf of the **SWBNO Employees' Retirement System** ("SWBNOERS" or "the System").

This analysis by design focuses on broad asset classes (i.e. **U.S. Large Cap Company Stocks, International Developed Stocks** and **Core Fixed Income**) for which we believe modeling is most appropriate; however additional non-traditional classes and strategies (i.e. **Hedge Funds**, **Private Equity**, **Real Estate** and **Commodities**) were incorporated to provide 1) value added opportunities and 2) an open architecture for portfolio construction.

An asset class is a group of securities with similar characteristics and properties that tend to react in a specific way to economic factors. The broader asset classes consist of traditional asset categories we define as 1) **Global Equity** and 2) **Global Fixed Income**; and a non-traditional asset category we refer to simply as 3) **Alternatives**. Alternatives however are further distinguished by a) *real assets* and b) *diversifying strategies*.

Traditional equity styles (i.e. **U.S. Large Cap Value** and **U.S. Large Cap Growth**) are actually subsets of a broader category (i.e. **U.S. Large Cap Company Stocks**); as such these are not likely to provide statistically valid outputs. Therefore style subsets are excluded from the modeling.

The Pension Consultant acknowledges that there are several generally accepted ways to develop a *Stochastic Investment Model* (the capital market assumption inputs) which produces values for critical variables such as **Expected Returns**, **Expected Risk**, and **Expected Correlation Coefficients** including using model defaults. Further we believe that since all inputs are estimates of future systematic and non-systematic influences involving random variables and probabilities, technically there is by definition no truly wrong way to develop these values, though admittedly some methods are thought to derive more robust outputs than others.

Therefore when developing the **Expected Correlation Coefficient** estimates, FFC analyzes all available historical relationship data, emphasis on the past 10 to 30 years, as we believe this range of correlation data to be more significant for our objectives; in addition to our belief that randomly generated estimations for these variables would result in statistically less information rich outputs than simply relying upon the historical mean. In other words, we believe that the inherent correlations between asset classes will remain consistent over the next 10 to 30 years, as with the past 10 to 30 years. It is important to note that we may make minor tunings to correlation estimates to adjust for inherent *Modern Portfolio Theory* (*MPT)* & *Mean Variance Optimization* (*MVO)* modeling deficiencies.

When developing the **Expected Risk ($E\sigma$)** estimates, as defined by standard deviation, FFC analyzes all available historical risk characteristics, emphasis on the past 10 to 30 years, as we believe this range of data to be more significant for our objectives; in addition to our belief that randomly generated estimations for these variables would result in statistically less information rich outputs than simply relying upon the historical mean. In other words, we believe that the variability of returns period over period; or the inherent risk; or the volatility generally of the markets and more specifically global asset classes will remain consistent over the next 10 to 30 years, as with the past 10 to 30 years. It is important to note that when and where applicable, standard deviation may be deliberately over or under-estimated to adjust for inherent *MPT* & *MVO* modeling deficiencies.

10/20 Year Forward - Capital Market Assumptions

In contrast, when developing the **Expected Return (E_R)** estimates, in addition to 1) robust historical market & economic data and 2) asset class mean return and spread analysis, FFC also considers inputs from various other sources (including direct polling and published surveys) in an effort to diminish the negative impacts of *error maximization* effects within the *MPT* & *MVO* modeling. The Pension Consultant leverages all available tools including rigorous quantitative and fundamental analysis, and what we consider to be skilled macro-economic & global policy awareness.

It is also important to note that we believe that to err on the side of conservative return estimations is not advised … we believe to do so, inherently drives more risk in a portfolio. Overly conservative capital market assumptions for traditional asset classes such as large cap company stocks and investment grade bonds tends to drive an overweight or underweight to that asset class … and some think can by design, drive larger allocations to alternative assets such as private equity, hedge funds and real estate.

Additionally, we have in recent years determined that 20 years is a more appropriate forecast horizon for pension systems. Therefore we have extended the following Capital Market Assumption calculations to 20 years versus 10 years. While still presenting very similar challenges, this extension of time horizon affords the latitude to be more sanguine with the forecasting process.

Among our aims for the *Global Asset Allocation* recommendation is that it is no less than "sufficient" in helping achieve the System's long-term (>20 years) objectives, though it should be cautioned that in the short to intermediate-term (<20 years) this *Global Asset Allocation* recommendation may be deemed by any individual or group of stakeholder(s) as "insufficient"; and that certain input parameters derived herein may have been grossly over- or under-estimated; which many studies have shown to be likely with *MPT* and *MVO Modeling* and forecasting in general.

FFC concedes that there are documented criticisms and deficiencies against *MPT and MVO Modeling* and that return, risk and correlation distributions are in fact non-normal and cannot be predicted with accuracy … no more than future world events and economic performance can be predicted with exactness. Additionally, the Pension Consultant acknowledges the considerations that generally investors may not be rational; and that the markets themselves may not be efficient. However, the widely accepted use of the *MPT and MVO Modeling* process contained herein remains the investment industry standard and best practice when developing and implementing a GAA portfolio.

These capital market assumptions are but estimations; and though studied and defensible when utilized as inputs in *MPT* and *MVO Modeling* and ultimately to build an actual GAA portfolio, will likely produce both asset and total portfolio performance results that are dissimilar from what is assumed herein.

10/20 Year Forward - Capital Market Assumptions

A LOOK BACKWARD AT DIFFERENT ASSET CATEGORIES

Broad Asset Class Sub-Class Category	3 Year Geometric Average ROR %	3 Year Standard Deviation %	5 Year Geometric Average ROR %	5 Year Standard Deviation %	10 Year Geometric Average ROR %	10 Year Standard Deviation %	30 Year Geometric Average ROR %	30 Year Standard Deviation %
U.S. EQUITY								
LARGE CAP EQUITY	20.62	9.12	15.64	13.15	7.96	14.91	11.4	15.28
SMALL & MID CAP EQUITY	19.97	11.67	16.36	16.5	8.72	18.58	11.87	18.1
NON-U.S. EQUITY								
INTERNATIONAL DEVELOPED	11.06	13.03	5.33	18.59	4.43	18.43	9.06	17.65
INTERNATIONAL EMERGING	4.41	14.99	2.11	18.38	8.78	24.13	*N/A*	*N/A*
ILLIQUID EQUITY								
PRIVATE EQUITY	15.18	7.1	15.35	8.02	13.52	10.89	*N/A*	*N/A*
GLOBAL FIXED INCOME								
CORE BONDS (U.S.)	2.66	2.63	4.45	2.66	4.71	3.21	7.44	4.11
TIPS - 10 YEAR (U.S.)	0.43	5.15	4.1	5.07	4.38	6.28	N/A	N/A
HIGH YIELD	7.9	4.39	8.67	5.77	7.33	9.57	9.58	7.96
REAL ASSETS								
REAL ESTATE/REITS (U.S.)	15.18	13.1	15.35	16.51	13.52	25.8	*N/A*	*N/A*
COMMODITIES	-12.75	16.66	-6.47	18.79	-4.77	23.84	4.91	20.15
DIVERSIFYING STRATEGIES								
HEDGE FUND-OF-FUNDS	5.69	3.13	3.3	3.98	3.04	5.49	*N/A*	*N/A*

Source: PSN Enterprise as of 12/31/2014. Large Cap Stocks (Russell 1000), Small/ Mid Cap Stocks (Russell 2500), Int'l Developed (MSCI EAFE), Int'l Emerging (MSCI Emerging Markets), Private Equity (Cambridge US Private Equity), Core Bonds (Barclays Aggregate), TIPS (Barclays Treasury Inflation Notes), High Yield (Credit Suisse High Yield), REITS Domestic (MSCI US REIT), Commodities (S&P GSCI), Hedge Funds Fund of Funds (HFRI FOF Composite)

10/20 Year Forward - Capital Market Assumptions

	Asset Category	Risk Type(s)	Objectives
Traditional	**Global Equity** – SC, MC & LC Domestic, International and Emerging Market Stocks. Also *Private Equity (Often considered an *Alternative approach*);	Equity Risk Premium;	Growth, Diversify Risk, Total Return, hedge against Inflation;
Traditional	**Global Fixed Income** – Investment Grade and High Yield; Domestic, International and Emerging Market; Government, Agency, Credit, Municipals and Mortgages. Also *Receivables, Bank Loans and TIPS (Often considered *Alternative approaches*);	Interest Rate, Credit, Duration, Reinvestment and Inflation;	Capital Preservation, Liquidity, Cash-Flows, Diversification to Equity & Real Asset Risk (Correlation Benefits);
Alternatives	**Real Assets** – Commodities, Real Estate, Metals and other Natural Resources;	Deflation;	Inflation Risk Mitigation, Diversification and Growth (Correlation Benefits);
Alternatives	**Diversifying Strategies** – Hedge Funds, Multi-Manager and Multi-Strategy Hedge Fund-of-Funds. *Private Equity, Receivables, Bank Loans and TIPS (May be included in Traditional Category Composites)	Alpha/Manager and Strategy based;	Absolute Return, Asset Protection, Performance Enhancement, Diversification and Growth (Correlation Benefits)

ASSUMPTION RATIONALE

INFLATION

FFC EXPECTED RATE: 2.20%

One method for estimating inflation is to consider the implied inflation rate, which is the difference between 10-Year Treasury yields and 10-year TIPS yields. This method may was thought to be less informative back during the market and economic turmoil which started near the end of 2008 when the implied rate was near zero. The low implied inflation was thought to be more of a function of low Treasury yields (which remain through 2015), as investors gravitated to the safety of U.S. government securities ... than it was a forecast of virtually no inflation. The reality is that in the U.S., we have experienced very little inflation in the past 7 years; as the implied rate in 2008 suggested. Nonetheless, over the next 10 to 20 years, there is significant risk for higher long-term inflation. The implied rate is 1.56% (Current 10 year UST yield is 2.20% – Current 10 year US TIP yield .64% = 1.56%). However, our assumption when balancing more recent (past 7 years) decreases in inflation with our 10 to 20 year expectation for inflation, results in an FFC estimate of 2.20%.

CASH & EQUIVALENTS

FFC EXPECTED RETURN: 2.70%

Cash & Equivalents traditionally are not considered in the asset allocation decision but as a residual of the investment process (i.e. Interim Position). Most cash equivalent investments are currently yielding well below 1%. Cash historically provides real returns slightly greater than the inflation rate, as these investments are typically meant to protect principal while providing liquidity. Thus, we forecast an expected return over the next decade of 2.70%.

U.S. EQUITY

FFC EXPECTED RETURN (weighted): 9.20%

- Stocks are themselves a distinct asset class, but small company and medium sized company stocks are technically sub-sectors; therefore a large company's stock does not have different characteristics and properties than when it was a small company.
- Further, securities in different asset classes are mutually exclusive of one another ... a treasury bond does not become a stock, and stocks don't become real estate. However, small companies do become medium sized companies, and medium sized companies do become large companies.
- Studies have indicated that small and medium sized company stocks outperform large company stocks on average. The reason is these smaller companies are riskier and deserve a risk premium, not because they are a separate asset class with different properties.
- The stocks of large, medium and small companies are referred to as large-cap, mid-cap and small caps respectively. Where the terms "Cap" or "Caps" refers to market capitalization.
- For example, if a company has 25 million shares outstanding in the *market* ... each share with a market price of $100 per, the company's market capitalization would be $25 Billion ($25 million X $100 = $25 Billion).
- Today, the approximate capitalization breakpoints for small, medium and large companies are:
    - Large Cap >$10 Billion in market capitalization
    - Mid-Cap Between $2 Billion and $10 Billion
    - Small Cap <$2 Billion in market capitalization
- Because we will use the asset allocation model to assist in setting sub-sectors, such as SMID (small and mid) Cap Equities, we have included return, risk, and correlation statistics for these sub-sectors of U.S. Equity.
- The U.S. stock market has historically been comprised of approximately 80% large cap, 15% mid cap, and 5% small cap or for our purposes herein simply 80% large and 20% SMID. Based on our large cap and SMID-cap assumptions, this leads to an expected weighted return of **9.20%** for **U.S. Equities**.

(U.S.) LARGE CAP COMPANY STOCKS

FFC EXPECTED RETURN: 8.90%

- Year over year equity returns are certainly unpredictable. However over longer periods, real returns on stocks have been fairly consistent.
- Dr. Jeremy Siegel's book (2008 Edition) *Stocks for the Long Run*, studies various periods for stock & bond performance during the 204 year period from approximately 1802 to 2006 …and suggests that since, real returns (returns net of inflation) on U.S. stocks (broadly) have remained around 7% (6.8% compounded).
- The Rule of 72 therefore informs that the purchasing power of the U.S. stock market, on average has doubled every 10 years over the past two centuries.
- Simply adding this historical figure of 7% (average real rate of return) to FFC's 2.20% inflation forecast, stocks (broadly) could be expected to return approximately <u>9.20%</u> (nominal return) over the next 10 to 20 years.
- During the 135 year period from 1871 to 2006 U.S. stocks broadly traded with an average PE multiple of 14.45 times earnings.
- According to Dr. Siegel, *earnings yield* (EY) calculated using the inverse of the long term PE ratio assumes all U.S. stock market *earnings* were paid out as a dividends from 1871 to 2006 i.e. 1 divided by 14.45 = 6.92 … virtually identical to the real rate of return of 6.8% calculated above.
- Therefore we can extrapolate for large cap company stocks utilizing Dr. Siegel's methodology … according to Bloomberg the long-term average P/E multiple of large cap company stocks as represented by the S&P 500 Index from 1960 through 2014 was approximately 16.58 times earnings. Deriving an earnings yield (EY) of 1 divided by 16.58 which equals 6.03% real rate of return forecast + FFC's 2.20% inflation forecast and we could derive a forecast for large cap company stocks of <u>8.23%</u> (nominal rate of return forecast).
- Further, from 1926 to 2006, U.S. stocks returned approximately 10% nominal rate of return. During that time inflation averaged right around 3.0% providing again another example of the mean average real return of around 7%. Three factors contribute to drive total return from stocks (since 1926).
  1. Dividend Yield (attributed with 4% nominal)
  2. Earnings Growth (attributed with 5% nominal)
  3. Multiple Expansion or P/E growth (attributed with 1%)
- **Dividend Yields**, which have provided a large portion of total return for U.S. stocks historically; after significant run ups, have declined in portions of the 1980s, 1990s, 2000s … but has moved higher in recent years. While dividends remain at risk of being cut with potential decreases in corporate earnings, we expect dividends to remain near 3%. We're forecasting <u>2.85%</u> for <u>dividend yields</u> for large cap company stocks for the next 10 to 20 years.
- **Earnings Growth** has provided approximately 2% in real returns (5% nominal) to U.S. stocks since 1926. However it is clear that earnings growth cannot sustainably be higher than overall GDP growth which has struggled to sustain an output level of growth at or above 2%. Since we do expect some economic volatility and potentially corporate earnings to decline in the near-term, but improve over the longer-haul, we believe a <u>2.85%</u> Real GDP (and earnings growth) assumption (5.05% nominal) is plausible for the next 10 to 20 years.

10/20 Year Forward - Capital Market Assumptions

- After peaking in 1999 at a 29 multiple and declining to a 12 multiple in 2009, U.S. large cap company **P/E Ratios** currently at 17.20 remain above their long-term average of 16.58. We anticipate potential earnings decline in a slow global growth economy, thereby applying upward pressure on P/E ratios and offsetting some of the decline in the ratio attributed to decreased stock values. However, despite any downward earnings pressure, we estimate “PE expansion” will provide benefits of 1% over the next 10 to 20 years as large cap company stock P/E ratios increase their long-term average of 16.58 to approaching 18.00 plus times earnings over the next two decades.
- Hence for **(U.S.) Large Cap Equities**, 2.85% from dividend yield + 5.05% nominal from earnings growth (2.85% real and 2.20% from inflation) + 1.0% from multiple expansion = **8.90%** assumption.

10/20 Year Forward - Capital Market Assumptions

(U.S.) SMALL AND MID-CAP (SMID-CAP) COMPANY STOCKS

FFC EXPECTED RETURN: 10.40%

- Since 1926, small and mid-cap company stocks have returned on average a 1 to 3 percentage points over large-cap company stocks. This would lead to an expected return of 9.90% to 11.90% for these sub-category asset classes.
- Based on excess return observations going back 36 years to 1979, we can defensibly utilize a 1.50% premium to large cap company stocks, which is toward the lower end of the historical range cited above, and forecast a **10.40%** return for **U.S. SMID-Cap Equities** for the next 10 to 20 years.

From a practical perspective, we have included a broad U.S. category weighted 80% to U.S. large cap company stocks and 20% to U.S. SMID cap company stocks called **U.S. Equity**. This weighted measure of broad U.S. equity (8.90 x 80%) + (10.40 x 20%) is expected to return **9.20%**.

NON-U.S. EQUITY

FFC EXPECTED RETURN: 9.375%

INTERNATIONAL DEVELOPED EQUITIES

FFC EXPECTED RETURN: 9.00%

- International developed equities are small, medium and large non-U.S. (referred to as foreign or international) companies that are based and operate in developed non-U.S. economies such as Italy, Spain and Germany ... Japan, UK, Canada and so on.
- There is no fundamental reason to expect foreign company stocks (international) in developed markets to significantly outperform U.S. company stocks over the long run. Although international stocks are trading at lower P/E multiples currently than their U.S. counterparts (but not historically), we can assume similar expansion of P/E multiples, given due consideration to the higher international developed dividend yields leading to a nominal premium for international developed equity returns over the 8.90% forecasted U.S. Large Cap return.
- Hence, 3.50% from international developed dividend yield + 4.25% nominal from earnings growth (2.25% real and 2.00% from inflation) + 1.25% from multiple expansion = **9.00%** assumption for **International Developed Equity**.

INTERNATIONAL EMERGING EQUITIES

FFC EXPECTED RETURN: 10.875%

- An emerging market economy is defined as an economy with low to mid-level per capita income. Such economies constitute approximately 80% of the global population, but represent but 20% of the global output.
- The term largely refers not only to economic development, but as well to governance, policies and reforms. Hence small countries like Tunisia ... and larger world players like Brazil, Russia, India and China (commonly referred to as “the BRIC Countries”) can each be considered as emerging markets.
- International Emerging Equity will have higher volatility and higher expected returns.
- Depending on the specific time frame and markets selected, expectations can vary dramatically, but over time have historically averaged between 3 to 4% above international developed equities.
- Given the historical decline in emerging market valuations and our belief that many EM countries will ultimately become categorized as international developed, we forecast a 150 basis point excess return estimate over the next 10 to 20 years (which is well below the lower end of the historical 300 to 400 basis point historical range versus developed international stocks), leading to a 10.50% expected return for international EM equities.

10/20 Year Forward - Capital Market Assumptions

- Another methodology suggests a 3.25% international EM dividend yield + 8.75% nominal from earnings growth (3.50% real and 5.25% from inflation) + (-0.75%) from multiple expansion = 11.25% assumption for international EM equity.
- Averaging both methods (10.50 + 11.25/2) produces an expected rate of return for **International Emerging Market Equities** of **10.875%**

From a practical perspective, we have included a broad international category comprised of 80% of International Developed (Large Cap), 20% of International EM called **Non-U.S. Equity**. This weighted measure of broad international equity (9.00 x 80%) + (10.875 x 20%) is expected to return **9.375%.**

GLOBAL FIXED INCOME – CORE + PLUS

CORE - FFC EXPECTED RETURN: 4.50%

- Total returns (price appreciation included) from bonds do not exhibit strong serial correlations. The income component of bonds, however does exhibit strong serial correlations (since 1968, the serial correlations of long-term government and intermediate-term yields were 85% and 75% respectively). Over longer periods, total returns in the investment grade bond markets are driven predominantly by yield. Therefore, some believe a best predictor of future bond returns is informed by current bond yields (Barclays Aggregate Bond Index currently yielding around 2.65%).
- Another way, of forecasting bond returns (preferred by FFC) is to observe historic premiums (excess returns) over cash. We have forecasted cash to return 2.70% over the next 10 to 20 years. Bonds have averaged 1.5 to 2% above cash since 1926. This method informs a 4.20 to 4.70% forecast. We split the difference in the range and forecast an average annual return for the next 10 to 20 years for **Core Fixed Income** of **4.50%**.

TIPS - FFC EXPECTED RETURN: 6.05%

- Though not as much historical evidence exists versus other asset classes to support our forecasts for TIPS … and the fact that Treasury Inflation Protected Securities (TIPS) have different properties and do behave differently than traditional bonds … and therefore, can technically be considered a separate asset class. The expected returns, however, should not differ very much from Treasuries, assuming our inflation expectations are not remarkably divergent from consensus.
- 10-year TIPS have a longer duration than core bond portfolios, and therefore, will be more susceptible to changes in interest rates versus Core Fixed Income; and with 10-year TIPS yielding approximately .64% and our 2.20% forecast for inflation over the next 10 to 20 years, we can assume on one hand, an expected return of 2.84%.
- However, in this case, we prefer to consider the annual proxy index benchmark performance (+5.74%) since 1997 as more informative. Factoring in higher expected differences between inflation for the next 10 to 20 years versus the past 20 years, hence we forecast performance for **TIPS** at **6.05%**.

10/20 Year Forward - Capital Market Assumptions

HIGH YIELD BONDS

FFC EXPECTED RETURN: 7.05%

- As mentioned above, the current yield of a fixed income security provides an effective estimate for future total return. The current yield for high yield bonds is approximately 6.75%.
- Spreads for high yield bonds widened over Treasuries from under 4% on average to above 10% at the end of 2008. Default rates typically rise with spreads, but up until more recently, default rates have not kept pace. Default rates at the end of 2008 approached 5%, very near the historical average of 5% despite those grossly deteriorating credit markets
- One means of developing an expectation for high yield bonds (as defined by Barclays HY US Corporate Bond Index) is observing the premium (excess returns) it has posted over core fixed income (as defined by the Barclays Capital Aggregate Bond Index) over periods of time. Since 6/1983, high yield bonds have posted a return premium of approximately 1.25% above the aggregate bond market; and for the ten years ending 2015 the excess returns are approximately 3.00%. We are forecasting excess returns or a spread of 2.55% for the next 10 to 20 years.
- This 2.55% premium on top of the 4.50% expected return from core fixed income equals a **7.05%** expected return for **High Yield U.S. Corporate**.
- Although bank loans are non-investment grade, they are distinct from high yield, as the interest rate typically resets every 90 days. Historically, bank loans returned 2.5-3.5% points over cash. Because of their seniority in the capital structure, we expect bank loans to yield less than high yield bonds, have lower default rates, and have higher recovery rates than high yield bonds. Historically, **Bank Loans** returned slightly less than high yield bonds, and we therefore assume an expected return of **6.50%**.

ALTERNATIVE INVESTMENTS

The following asset categories are considered "**alternative**" or "**non-traditional**" investments in that they provide different patterns of return and risk characteristics. Historically there is a limited amount of available data for these assets and strategies as most are primarily private, therefore we have modeled these with what we consider to be caution and prudence.

- Returns for illiquid alternative investments (private equity, private real estate, private energy, and timber) are not directly comparable to those in liquid markets, as the returns generally reported on an Internal Rate of Return basis, because of the managers' control over the timing of cash flows, rather then a time-weighted return basis. In addition, a "liquidity" premium should be required as capital is locked up for the life of the partnership with much of the return produced at the end of an investment cycle of five to ten years.
- Liquid alternative investments (hedge funds and managed futures) often use options and other derivatives that create skewed return distributions. Standard deviation, which measures variability around the mean, may not be the best measure of risk for these types of investments.
- Alternative investment performance data is based on manager returns (comprising a universe of sorts). Public market index data are securities-based. Manager-based data include alpha (excess return), survivorship bias, and self selection bias, and therefore, performance may be overstated in comparison to passively managed public markets benchmarks.
- Correlation statistics can be misleading.
    - In illiquid markets due to pricing lags compared to the public markets, and;
    - In liquid alternative investments, there tends to be a divergence of correlation in up versus down markets.

10/20 Year Forward - Capital Market Assumptions

REAL ESTATE/REITs

FFC EXPECTED RETURN: 7.65%

- Real Estate expected returns can be estimated by *GDP Growth + Inflation + Income Return*
- There are two markets in which to buy real estate: public and private. Although both are investments in the same underlying asset, pricing mechanisms have caused shorter-term return characteristics to differ greatly. For purposes of the asset allocation model, public real estate (REITs) is considered and serves as a proxy for core real estate.
- Publically traded **REITs** should not be considered a growth asset … instead dividends plus inflation should comprise the total return expectation. Dividends for REITs (as defined by MSCI REIT Index) are averaging approximately 5.45% today. When added to an inflation expectation of 2.20% for the next 10 to 20 years, the total return expectation for **Real Estate/REITs** is **7.65%.**
- Value added and opportunistic private real estate investments are commonly used in real estate allocations. These investments are higher risk and higher reward, with return expectations typically ranging from 10 to15% or more.

TIMBERLAND

FFC EXPECTED RETURN: 7.20%

- Timberland is an illiquid investment, with limited return data, and therefore, is not easily modeled. Although there is a NCREIF Timberland Property Index, limitations of the index include that the data only goes back to 1987 and there are only two providers of data.
- Other source data may go back as far as 1960; however this data is not as relevant or robust.
- There are 3 components to Timberland returns: 1) biological growth rate of trees; 2) changes in timber prices; and 3) changes in land values.
- Since investing in natural resources generally offers a good inflation hedge, we assume that over the long-term, the changes in timber prices and land values will minimally match inflation. Thus, we are left with biological growth in trees plus inflation as our return expectation.
- A plantation with established trees can expect annual growth rates of approximately 7-9% with growth rates slowing to approximately 3-6% over the subsequent years. Thus a 5.0% long-term growth rate is reasonable.
- Real returns from timber investing have averaged 7 to 9%, with higher returns in high inflationary environments and only modest returns in low inflationary environments.
- Recent observations of the market show decreased demand for many related products due to slowing global growth in particular in China.

- Additionally, fewer production-based buyers and more investment buyers are increasing efficiencies and decreasing opportunities.
- A moderate inflation expectation of 2.20% plus a conservative 5.0% biological growth rate produces a **7.20%** expected return for **Timberland**.

COMMODITIES

FFC EXPECTED RETURN: 4.50%

- In Helyette Geman's book, "*Commodities and Commodity Derivatives: Modeling and Pricing for Agriculturals, Metals and Energy*". (Wiley, 2005) she writes . . .

- "How to define a commodity? An economist would say that it is a consumption asset whose scarcity, whether in the form of exhausting underground reserves or depleted stocks, has a major impact on the world and country-specific economic development. A banker would observe that it is not a financial security, giving rise to a stream of cash flows and priced by net present value arguments. An ecologist would suggest that it is a natural good whose original integrity should be preserved. An academic would argue that, given the current volatility of all currencies, including the most established ones, a commodity is an exemplary numeraire with respect to which portfolio values should be measured. Indeed, oil-producing countries concerned with the decline of the dollar and uncertain about the long-term health of the Euro recently proposed that a barrel of oil be priced against an average of the dollar and the Euro (Financial Times, February 2004). A valid suggestion would be to go the other way around and suggest a barrel of oil or a million BTUs of natural gas as a " universal numeraire " relative to which all currencies would be expressed (the role gold used to play decades ago)."

- Commodities constitute the only spot markets which have existed nearly throughout the history of human kind. Over the millennia, the scope of commodities available for human existence has grown from essential agricultural commodities to include metals and energy. The nature of trading has evolved from barter organized on town marketplaces in the absence of any monetary vehicle, to more elaborate forward contracting between producers and merchants, then to organized Futures markets with clearing houses guaranteeing the creditworthiness of transactions. The specification of contracts has evolved from "plain-vanilla" forwards to exotic options and structured products allowing originators and intermediaries to hedge away the risks residing outside the domain of their primary expertise. Some key properties of commodity markets contrasting them with stock and bond markets include the following:

  (a) Commodity spot prices are defined by the intersections of supply and demand curves in a given location, as opposed to the net present value of receivable cash flows;

10/20 Year Forward - Capital Market Assumptions

(b) Demand for commodities is generally inelastic to prices, given the indispensable nature of the good. Inventories when they exist in sufficient volumes allow a smooth balance of supply and demand over time to be created. Hence, their importance in the discussion conducted in the economic literature for decades;
(c) Physical transactions - which were the only ones prior to the introduction of financial trades - still have a crucial importance today among other virtues; they provide a reference spot price or index against which derivative transactions are financially settled;
(d) Supply is defined by production and inventory. But, in the case of energy commodities, underground reserves also play a role since they have an impact on long-term prices;
(e) Financial transactions (forwards, Futures, options) represent today a huge volume. They involve prices closely related to spot prices in particular because physical delivery is a choice that is left to the buyer. Consequently, the understanding of spot markets and their characteristics is a necessary step in the analysis of commodities and commodity derivatives;
(f) For most energy commodities, the balancing of supply and demand now takes place both at the regional level and at the world level. This explains the explosion of shipping and freight markets and the emergence of new trading strategies such as the rerouting of an LNG (Liquid Natural Gas) tanker to countries where gas prices exhibit a momentary spike;
(g) Commodities represent today a new asset class in its own right. Many institutional investors and funds are increasingly turning to it for diversification benefits and for the returns generated.

- Since investing in natural resources generally offers a good inflation hedge, we assume that over the long-term, the changes in commodity prices will minimally keep pace with inflation;
- Recent observations of the market show decreased demand for certain commodity based products due to possibly re-emerging difficulties in the housing market and a slowing global economy in particular in China;
- Though significant (robust) data exists for commodities going back hundreds, if not thousands of years; for the purpose of modeling commodities as an asset class utilizing futures, forwards and options are a bit too complex;
- Instead we chose known statistics from as far back as 1969 for a basket of commodities represented by the S&P GSCI;
- The S&P GSCI (Goldman Sachs Commodities Index) is a commodity based index weighted heavily to energy as it reflects energy's relative economic importance to global commerce;
- Since 1984, we observe an average return of approximately 4.91% for the S&P GSCI;
- In acknowledgment of slightly higher expected inflation, continued slow global growth for the next 10 to 20 years, we estimate a .40 basis point discount versus historical performance of the index and forecast an expected return of **4.50%** for **Commodities** (basket).

PRIVATE EQUITY

FFC EXPECTED RETURN: 11.50%

- Private Equity (PE) is not easily modeled and the process is wrought with potential hazards. There are several sub-groups including venture capital, leveraged buyouts, and special situations financing, as well as an international component. These markets all have unique characteristics and unique risks. In addition, because the funds are private, they are not valued frequently and returns are calculated differently.
- Two approaches to dealing with this sector can be used. One is to make reasonable return estimates that fit the model framework. Historical data from Venture Economics and Cambridge Associates show that institutional quality top-tiered funds returned 5 to10% above U.S. public equity markets. Combined with our U.S. Equity assumptions, this would lead to return assumptions of approximately 14.20% to 19.20%. However we think this estimate is too high.
- A second approach does not attempt to model PE. Instead, private equity is considered as a return-enhancer for the equity portfolio. The allocation is based on return needs and the ability to accept illiquidity.
- For volatility assumptions, we can assume private equity (especially venture capital) has the volatility and return characteristics similar to a group of the smallest publicly traded companies. Using data from the Center for Research in Security Prices (CRSP), we utilized the standard deviation for the smallest decile of publicly traded companies to build our estimate for the expected amount of volatility for private equity.
- This model assumes the investment in private equity will be diversified between venture capital, buyout funds, and special situations. This approach to investing in private equity if likely to experience less volatility than an investment in just one of the sub-categories.
- We have chosen to discount the historical premium for **Private Equity** of 5 to 10% and use an estimate of 5.3% premium above U.S. Equity expectations over the next 10 to 20 years or **11.50%**.

HEDGE FUNDS

ABSOLUTE RETURN - FFC EXPECTED RETURN: 7.70%
FUND-OF FUNDS - FFC EXPECTED RETURN: 6.00%

- As previously described, hedge funds, which vary widely in style and philosophy, are diversifying investment strategies, not a specific asset class to themselves. To some extent, this prevents useful modeling of these investments in an asset allocation study.
- FFC can model hedge funds in this asset allocation study to analyze their expected impact, but warn that these assumptions may not accurately reflect the true risk/return tradeoff.
- Hedge funds traditionally have been described as unregulated and unconstrained mutual funds. As with mutual funds, hedge funds invest in many different asset classes using different investment strategies. Although there is return data to analyze, the category is extremely broad and includes many asset classes and strategies … too many to consider individually. Therefore using this data may not produce meaningful optimization output.
- Historical performance data on hedge funds for modeling purposes remain questionable for the following reasons.
    - (a) **Lack of substantively long-term performance data**;
    - (b) **Survivorship Bias** - Hedge funds that have been closed due to poor performance are no longer included;
    - (c) **Self-Selection Bias** - Many investment managers provide returns to benchmark developers only if their performance has been strong. Others never report because they choose not to for various reasons.
- In addition, the standard deviation of returns for the above data (which itself should be viewed with caution) would not incorporate all the risks associated.
    - Many hedge funds invest in illiquid securities. The infrequent pricing of such securities can have an artificial smoothing effect on returns that may not exist if securities were priced more frequently.
    - Some funds post small incremental returns over the long-term, but are at risk of experiencing substantial losses over a short period if the worst-case scenario for their strategy is experienced, as was the case in 2008. Huge losses, in a strategy that posts only incremental returns over time, will not be recovered quickly.
    - Performance returns may not be normally distributed due to the use of derivatives.
- Hedge funds are diversifying investment strategies worth examining. Our recommended method of incorporating hedge funds into a portfolio is to consider the specific need: enhanced return, reduced risk, return target, etc., and structure or identify funds to meet that specific objective. Within the allocation framework, most hedge funds should then arguably be considered part of the overall equity or fixed income allocation.

10/20 Year Forward - Capital Market Assumptions

- We have reviewed data on **Absolute Return** strategies, those that attempt to generate annual returns of approximately 5% over cash. These investments seek to have volatility more bond-like than stock-like and use leverage. For our modeling purposes we assume an expected return of 5.00% premium above cash (estimate of 2.70%) for the next 10 to 20 years for this category or **7.70%**.
- Due to the layered fees and additional costs of multi-strategy and multi-manager hedge fund-of-funds, we estimate diversified and pooled returns of approximately 3.33% over cash (estimate of 2.70%) for the next 10 to 20 years. Therefore, we utilize a **6.00%** expected return for **hedge fund-of-funds**.

10/20 Year Forward - Capital Market Assumptions

2015 Expected ROR, Risk and Correlation Table

Group	Asset Category	20 Year Forward Compounded E_R	20 Year Forward Expected E_σ	Category
GLOBAL EQUITY	**U.S. EQUITY**	**9.20**	**15.60**	CATEGORY 1
	LARGE CAP COMPANY STOCKS	*8.90*	*15.00*	
	SMID CAP COMPANY STOCKS	*10.40*	*18.00*	
	NON-U.S. EQUITY	**9.375**	**18.60**	
	INTERNATIONAL DEVELOPED	*9.00*	*17.00*	
	INTERNATIONAL EMERGING	*10.88*	*25.00*	
GLOBAL FIXED	**FIXED INCOME**	**6.025**	**7.165**	CATEGORY 2
	CORE BONDS (U.S.)	*4.50*	*3.66*	
	TIPS (U.S.)	*6.05*	*7.00*	
	HIGH YIELD (U.S.)	*7.05*	*9.00*	
	BANK LOANS	*6.50*	*9.00*	
ALTERNATIVES	**ILLIQUID EQUITY**	**11.50**	**27.00**	CATEGORY 1
	PRIVATE EQUITY	*11.50*	*27.00*	
	REAL ASSET INVESTMENTS	**6.72**	**17.33**	CATEGORY 3
	REAL ESTATE/REITS	*7.65*	*15.00*	
	TIMBERLAND	*8.00*	*12.00*	
	COMMODITIES	*4.50*	*25.00*	
	DIVERSIFYING STRATEGIES	**6.85**	**7.00**	CATEGORY 4 Variations on 1 & 2
	HEDGE FUNDS (ABSOLUTE)	*7.70*	*8.00*	
	HEDGE FUNDS (Fund-of-Funds)	*6.00*	*5.62*	

R-092-2016

ASSET ALLOCATION TARGETS AND RANGES FOR EMPLOYEES' RETIREMENT SYSTEM OF SEWERAGE AND WATER BOARD OF NEW ORLEANS

WHEREAS, the investment of assets of the Employees' Retirement System of Sewerage and Water Board of New Orleans are governed by an Investment Policy Statement adopted by the Pension Trustees; and

WHEREAS, the assets are allocated among equity investments, fixed income investments, and alternative investments according to targets established in the Investment Policy Statement; and

WHEREAS, the Pension Committee of Sewerage and Water Board of New Orleans has considered extensive analysis and recommendations for updating the asset allocations.

NOW, THEREFORE, BE IT RESOLVED by Board of Trustees of the Employees' Retirement System of Sewerage and Water Board of New Orleans that proposed policy targets and ranges contained in the attached document identified as Option 2 in the report titled *SWBNOWERS Forward Capital Market Assumptions & Global Asset Allocation Recommendation* dated January 14, 2016 prepared by FFC Capital Management be adopted and that the Investment Policy Statement be revised to incorporate these targets and ranges.

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true and
correct copy of a Resolution adopted at the Special Meeting of the
Board of Trustees of the Employees' Retirement System
of Sewerage and Water Board of New Orleans, duly called and held,
according to law, on September 21, 2016.

CEDRIC S. GRANT, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

Proposed Policy Targets and Ranges

Mandate	Minimum	Target	Maximum
GLOBAL EQUITY	20	61.5	65
U.S. Large Cap Stocks	20	**29**	35
Large Cap Value	0	4	20
Large Cap Enhanced Core	0	10	35
Large Cap Growth	0	10	20
U.S. REITs	0	5	10
U.S. Small/Mid Cap Stocks	7.5	**22.5**	22.5
SMID Cap Core	0	12.5	22.5
Other Small, MID or SMID Cap (tbd)	0	10	22.5
Non US Stocks	5	**10**	10
International Developed Equity	5	10	10
GLOBAL FIXED INCOME	15	28.5	100
U.S. Core	15	18.50	100
Global Plus	0	10.00	10
ALTERNATIVES	0	10	30
Commodities	0	0	10
Multi-Strategy HFOF	0	10	10
Real Estate	0	0	10
Private Equity	0	0	10

Option 1 = REITs categorized separately from Real Estate; categorized with U.S. Large Cap Equity; and is considered as *Non-Bank Financial* sector concentration.

Proposed Policy Targets and Ranges

Mandate	Minimum	Target	Maximum
GLOBAL EQUITY	20	56.5	65
U.S. Large Cap Stocks	20	**24**	35
Large Cap Value	0	4	20
Large Cap Enhanced Core	0	10	35
Large Cap Growth	0	10	20
U.S. Small/Mid Cap Stocks	7.5	**22.5**	22.5
SMID Cap Core	0	12.5	22.5
Other Small, MID or SMID Cap (tbd)	0	10	22.5
Non US Stocks	5	**10**	10
International Developed Equity	5	10	10
GLOBAL FIXED INCOME	15	28.5	100
U.S. Core	15	18.50	100
Global Plus	0	10.00	10
ALTERNATIVES	0	15	30
Commodities	0	0	10
Multi-Strategy HFOF	0	10	10
Real Estate/REITs	0	5	10
Private Equity	0	0	10

Option 2 = REITs are categorized with Real Estate an are considered Alternatives.

July 2016
Monthly Flash Monitor

FFC CAPITAL MANAGEMENT®

Prepared for:
Employees' Retirement System of the Sewerage and Water Board of New Orleans

Sewerage and Water Board of New Orleans

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MARKET MONTH: July 2016

Following an initial downturn largely in response to June's Brexit vote, equities rebounded during the month of July. The first full week of the month saw each of the indexes listed here improve over the prior week, led by the Nasdaq, which gained almost 2.0%. The Dow recouped just about all of the value lost right after the vote. Long-term bond yields, highlighted by 10-year Treasuries, continued to slide--falling 90 basis points from their year-end value. By the week ended July 15, money flowed from long-term bonds (10-year Treasuries yield increased by 18 basis points) into equities as the Dow posted a 2.0% weekly gain, while the Russell 2000 jumped almost 2.4%. Also helping boost stocks was a much-improved labor report, which saw the addition of almost 290,000 new jobs in June. As the month wore on, light trading slowed the growth of the indexes listed here with the exception of the Nasdaq, which ended the week of the 22nd about 1.5% ahead of its value from the prior week. As the month of July came to a close, each of the indexes listed here posted robust gains, led by the Nasdaq and the Russell 2000, each gaining about 6.0% over their June closing values.

Long-term bond yields fluctuated during the month, ultimately closing at essentially the same yield as June's closing return. The price of gold (COMEX) increased by month's end, selling at $1,357.90--about
$33 over June's end-of-month price of $1,324.90.

The Month in Review

- **Employment:** The labor market picked up the pace in June after a pullback in May, based on the latest information from the Bureau of Labor Statistics. Total nonfarm payroll employment added 287,000 new jobs in June compared to the revised estimate of only 11,000 in May. Job growth occurred in leisure and hospitality, health care and social assistance, and financial activities. The unemployment rate increased by 0.2 percentage point to 4.9% in June, and the number of unemployed persons increased by 347,000 to 7.8 million. The labor force participation rate remained at 62.7%. The average workweek was 34.4 hours for the fifth consecutive month. In June, average hourly earnings for all employees on private nonfarm payrolls edged up $0.02 to $25.61 on the heels of a $0.06 increase in May. Over the year, average hourly earnings have risen by 2.6%.
- **FOMC/interest rates:** At its meeting at the end of July, the Federal Open Market Committee opted to maintain the target range for the federal funds rate at its current 0.25% to 0.50%. The rate range has not changed since last December. In its statement, the FOMC noted improvement in the employment sector, growth in household spending, and expanding economic activity in general. However, business fixed investment has been soft, while inflation continues to run below the Fed's long-run objective of 2.0%. The Committee does not meet again until September, when the possibility of a rate hike may be realized.
- **Oil:** Crude oil prices took a nosedive during July, as prices dropped to under $42 per barrel by the close of the month. This is well below the June closing price of $48.57 per barrel.

- **GDP/budget:** The most recent estimate for the second-quarter GDP showed only a modest 1.2% annual rate of growth. On the plus side, consumer spending jumped 4.2%. However, businesses apparently aren't quite as confident in the prospect of economic growth, as the report showed diminishing business investment and inventories--a drag on the GDP, which has not experienced a rate of growth of at least 2.0% in three quarters. The year-to-date federal deficit was $487.0 billion through June, compared to the $316.4 billion deficit over the same period last year--an increase of about 27%. June actually saw a budget surplus for the month of $6.3 billion. For the month, the government took in $329.6 billion in receipts and paid out $323.3 billion in expenditures.
- **Inflation:** The latest inflation rate for the United States based on the Consumer Price Index is 1.0% through the 12 months ended June 2016, as published by the Bureau of Labor Statistics--still below the Fed's stated target rate of 2.0%. For June, the Consumer Price Index rose 0.2%--the same increase as May. The index for all items less food and energy (core prices) increased 0.2% in June. Core prices rose 2.3% over the 12 months ended in June--the same increase as for the 12 months ended May. Businesses paid higher prices for goods and services in June as the Producer Price Index rose 0.5% in June from May--the biggest increase in a year. Prices less foods, energy, and trade services rose 0.3% in June after declining 0.1% in May. The index for services advanced 0.4% in June, the third consecutive monthly increase. Prices for goods rose 0.8%. Since businesses generally pass on any price increases they incur to the consumer, rising producer prices may be a precursor to further price increases for consumers, which will likely accelerate inflationary pressure. Not deterred by rising prices, consumers continued to spend, as retail sales for goods and services increased 0.6% for June from the previous month and 2.7% above June 2015. Excluding autos and gasoline, retail sales climbed 0.7%. Nonstore retailer sales (online sellers) were up 14.2% from June 2015, while department store sales fell 3.8% over the same period.
- **Housing:** Consumers continued to invest in real estate in June on the back of a solid job market and low mortgage rates. In June, new home sales increased 3.5% for single-family homes from the prior month, and a whopping 25.4% ahead of June 2015. Prompted by increasing demand and limited supplies, the median sales price for new homes jumped from $288,800 in May to $306,700 in June, while the average sales price was $358,200. With roughly 244,000 new homes available for sale, the supply is down to 4.9 months compared to 5.1 months in May. Sales of existing homes also increased in June--up 1.1% to an annual rate of 5.57 million compared to 5.51 million in May. Existing home sales are up 3.0% from a year ago. The median existing-home price for all housing types in June was $247,700, up 3.7% from the prior month and 4.8% ahead of June 2015. The 2.12 million existing homes available for sale represents a supply of 4.6 months, a slight decrease from the 4.7-month supply in May. Single-family home starts increased 4.8% in June as did the number of building permits issued, which increased 1.5% for the month.
- **Manufacturing:** June brought conflicting information on the health of the manufacturing sector. On the one hand, the Federal Reserve reported that industrial production increased 0.6 percentage point in June following a 0.3 percentage point decline in May. Manufacturing output moved up 0.4 percentage point in June, a gain largely due to an increase in motor vehicle assemblies. However, total industrial production for the 12 months ended June 2016 is down 0.7 percentage point. The recent increase in industrial production is reflected in manufacturers' guarded optimism as both the Markit U.S. Manufacturing Purchasing Managers' Index™ and the Institute for Supply Management PMI showed improvement in June compared to May. The Markit PMI was 51.3 in June, up from 50.7 for May. The ISM Manufacturing Index for June came in at 53.2, following May's reading of 51.5. On the other hand, new orders for manufactured goods fell a

noticeable 4.0 percentage points in June. Unfilled orders also dropped 0.9 percentage point, meaning manufacturers are meeting demand, which is a good thing, unless new orders continue to slow, which may cause manufacturers to cut back on jobs.

- **Imports and exports:** Based on the advance report from the Census Bureau, the trade deficit grew about 3.7% to $63.3 billion in June from $61.1 billion in May. June's exports were $120.2 billion, while imports totaled $183.5 billion. Based on advance figures, the trade in goods deficit for the first four months of 2016 sits at $239.0 billion. Import prices for goods manufactured abroad and purchased here rose 1.8% for the month, and export prices increased 0.9% in June. The goods deficit in June 2016 is essentially the same as the June 2015 deficit ($63.8 billion).
- **International markets:** Following the UK's referendum vote in late June to leave the European Union, UK business and consumer confidence about their respective economic prospects has been less than upbeat. UK businesses cut payroll and output in response to the uncertainty created by the Brexit vote, in contrast to the eurozone, where businesses added to their payrolls at a rate not seen in the last five years. The European Central Bank kept its monetary policy intact with the benchmark rate at 0.0%. Equities in the UK have actually experienced a nice recovery from the end of June through July, with the FSTE 100 gaining almost 6.0%. Elsewhere, major stock indexes in Japan and China continue to run below their 2015 year-end closing values.
- **Consumer sentiment:** The Conference Board Consumer Confidence Index® for June, at 97.3, remained relatively the same as May's reading of 97.4, as respondents expressed positive sentiments about the employment situation, but were not as confident in the prospects of economic growth in the short term.

Eye on the Month Ahead

The dog days of August will likely keep trading volumes light, which can sometimes heighten volatility. The FOMC does not meet in August so interest rates will remain unchanged for at least another month. Global economies will probably remain relatively quiet through August as well.

Equity Market Levels:

Index	7/29/2016	6/30/2016	Monthly Change	12/31/2015	YTD Return
Dow Jones	18,432.24	17,929.99	2.94%	17,425.03	7.38%
Global Dow	321.47	308.21	4.30%	307.97	4.38%
S&P 500	2,173.60	2,098.86	3.69%	2,043.94	7.66%
Russell 2000	1,219.94	1,151.92	5.97%	1,135.89	8.31%
MSCI EAFE	1,689.12	1,608.45	5.07%	1,716.28	0.83%
Nikkei 225	19,033.71	19,033.71	6.39%	17,450.77	-12.07%
MSCI Emerging Markets	873.47	834.10	5.09%	794.14	11.95%

Price to Earnings:

Index	7/29/2016	12/31/2015	7/28/2011	7/27/2006	5 Year Avg.
S&P 500	20.39	18.65	14.97	15.83	16.65

U.S. Treasury Yield Levels:

Maturity	7/29/2016	6/30/2016	Monthly Change	12/31/2015	7/29/2015	7/29/2013	7/29/2011	7/29/2009	7/31/2006
30 Yr. Treas.	2.183	2.285	-4.46%	3.016	2.998	3.674	4.118	4.507	5.065
10 Yr. Treas.	1.453	1.470	-1.13%	2.269	2.286	2.602	2.796	3.658	4.979
5 Yr. Treas.	1.024	1.000	2.40%	1.760	1.613	1.388	1.356	2.632	4.896
3 Yr. Treas.	0.747	0.693	7.82%	1.307	1.034	0.596	0.537	1.685	4.915
6 Month Treas.	0.366	0.350	4.37%	0.474	0.142	0.056	0.153	0.254	5.144

Sovereign Debt Yield Levels:

Maturity	7/29/2016	6/30/2016	Monthly Change	12/31/2015	7/29/2015	7/29/2013	7/29/2011	7/29/2009
Italy 10 Yr.	1.169	1.258	-7.07%	1.596	1.902	4.455	5.868	4.264
Spain 10 Yr.	1.031	1.214	-15.12%	1.762	2.022	4.712	6.089	3.931
Germany 10 Yr.	-0.179	-0.152	17.75%	0.597	0.673	1.666	2.601	3.454
France 10 Yr.	0.063	0.159	-60.13%	0.924	0.981	2.349	3.225	3.662
Japan 10 Yr.	-0.190	-0.217	-12.44%	0.265	0.410	0.796	1.082	1.382

Commodities Prices:

Commodity	7/29/2016	6/30/2016	Monthly Change	12/31/2015	7/29/2015	7/29/2013
Oil	42.33	49.59	-14.64%	41.88	54.47	84.89
Natural Gas	2.88	2.92	-1.44%	2.52	3.11	4.16
Gold	1,351.00	1,322.20	2.18%	1,061.42	1,096.80	1,328.02
Silver	20.34	18.72	8.67%	13.86	14.82	19.87
Wheat	407.75	431.25	-5.45%	470.00	496.25	651.50

Monthly Fund and Composite Values:

Fund Value	Global Equity (42% Target)	Global Fixed Income (37% Target)	Alternatives (21% Target)	Date
$213,593,592	$104,361,797 (48.86%)	$84,099,520 (39.37%)	$25,132,275 (11.77%)	July 2016
$208,186,791	$100,509,564 (48.28%)	$83,053,564 (39.89%)	$24,623,663 (11.83%)	June 2016
$207,415,209	$101,148,158 (48.77%)	$81,656,129 (39.37%)	$24,610,922 (11.87%)	May 2016
$208,404,897	$100,338,644 (48.15%)	$83,393,867 (40.02%)	$24,672,386 (11.84%)	April 2016
$206,360,828	$99,113,641 (48.03%)	$82,516,242 (39.99%)	$24,730,945 (11.98%)	March 2016
$200,486,526	$86,840,366 (43.31%)	$77,865,117 (38.84%)	$35,781,043 (17.85%)	February 2016
$200,648,134	$87,022,786 (43.37%)	$77,502,087 (38.63%)	$36,123,261 (18.00%)	January 2016
$207,917,610	$93,459,408 (44.95%)	$77,077,145 (37.07%)	$37,381,057 (17.98%)	December 2015
$211,465,128	$95,876,085 (45.34%)	$77,612,992 (36.70%)	$37,976,051 (17.96%)	November 2015
$210,711,050	$94,563,195 (44.88%)	$78,054,381 (37.04%)	$38,093,475 (18.08%)	October 2015
$206,449,987	$91,301,638 (44.22%)	$77,265,437 (37.43%)	$37,882,912 (18.35%)	September 2015
$210,226,771	$94,143,815 (44.78%)	$77,429,443 (36.83%)	$38,653,512 (18.39%)	August 2015
$221,169,213	$103,307,913 (46.71%)	$78,130,398 (35.33%)	$39,730,902 (17.96%)	July 2015
$220,074,899	$101,932,689 (46.32%)	$77,596,693 (35.26%)	$40,545,518 (18.42%)	June 2015
$224,509,413	$104,919,175 (46.73%)	$78,307,649 (34.88%)	$41,282,590 (18.39%)	May 2015
$224,041,047	$103,911,634 (46.38%)	$78,715,464 (35.13%)	$41,413,948 (18.48%)	April 2015
$224,342,534	$105,247,163 (46.91%)	$78,415,218 (34.95%)	$40,680,153 (18.13%)	March 2015
$225,052,403	$105,705,883 (46.97%)	$78,201,577 (34.75%)	$41,144,943 (18.28%)	February 2015
$218,162,584	$99,372,924 (45.55%)	$78,500,147 (35.98%)	$40,289,512 (18.47%)	January 2015
$219,742,023	$102,058,918 (46.44%)	$77,282,312 (35.17%)	$40,400,793 (18.39%)	December 2014
$223,293,029	$104,340,664 (46.73%)	$77,547,338 (34.73%)	$41,405,027 (18.54%)	November 2014
$221,469,402	$102,259,306 (46.17%)	$77,200,686 (34.86%)	$42,009,410 (18.97%)	October 2014
$221,316,630	$102,672,745 (46.39%)	$76,598,806 (34.61%)	$42,045,080 (19.00%)	September 2014
$226,871,175	$105,727,326 (46.60%)	$77,557,874 (34.19%)	$43,585,975 (19.21%)	August 2014

Data sources: Economic: Based on data from U.S. Bureau of Labor Statistics (unemployment, inflation); U.S. Department of Commerce (GDP, corporate profits, retail sales, housing); S&P/Case-Shiller 20-City Composite Index (home prices); Institute for Supply Management (manufacturing/services). Performance: Based on data reported in WSJ Market Data Center (indexes); U.S. Treasury (Treasury yields); U.S. Energy Information Administration/Bloomberg.com Market Data (oil spot price, WTI Cushing, OK); www.goldprice.org (spot gold/silver); Oanda/FX Street (currency exchange rates). All information is based on sources deemed reliable, but no warranty or guarantee is made as to its accuracy or completeness. Neither the information nor any opinion expressed herein constitutes a solicitation for the purchase or sale of any securities, and should not be relied on as financial advice. Past performance is no guarantee of future results. All investing involves risk, including the potential loss of principal, and there can be no guarantee that any investing strategy will be successful.

The Dow Jones Industrial Average (DJIA) is a price-weighted index composed of 30 widely traded blue-chip U.S. common stocks. The S&P 500 is a market-cap weighted index composed of the common stocks of 500 leading companies in leading industries of the U.S. economy. The NASDAQ Composite Index is a market-value weighted index of all common stocks listed on the NASDAQ stock exchange. The Russell 2000 is a market-cap weighted index composed of 2,000 U.S. small-cap common stocks. The Global Dow is an equally weighted index of 150 widely traded blue-chip common stocks worldwide. The U.S. Dollar Index is a geometrically weighted index of the value of the U.S. dollar relative to six foreign currencies. Market indices listed are unmanaged and are not available for direct investment.

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Securities offered through FFC Capital Advisors, LLC - Member FINRA & SIPC

FFC Capital Management

Market Index Performance
Period Ending July 31, 2016

US Equity	MTD	YTD	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years
Dow 30	2.93	7.37	7.01	8.18	8.58	11.87	11.52	13.33	7.87	9.85
S&P 100 Index	3.79	6.96	5.75	8.26	10.89	13.50	13.26	13.66	7.53	9.13
NASDAQ	6.60	3.09	0.66	8.69	12.49	15.12	13.37	14.68	9.46	9.14
S&P 500	3.69	7.66	5.61	8.37	11.16	14.47	13.38	14.32	7.75	9.29
Russell 1000	3.81	7.69	4.84	7.99	10.93	14.57	13.22	14.44	7.89	9.44
Russell 1000 Growth	4.72	6.15	4.35	10.06	12.86	15.00	13.62	15.15	9.50	8.69
Russell 1000 Value	2.90	9.38	5.38	5.89	8.99	14.06	12.75	13.69	6.18	9.69
S&P 400 Mid Cap	4.29	12.56	5.53	8.38	9.86	15.24	12.28	15.59	9.33	12.14
S&P 400 Midcap Grwth	4.52	10.42	3.32	9.71	10.22	15.03	11.74	16.00	10.17	12.06
S&P 400 Midcap Value	4.09	14.77	7.81	6.82	9.35	15.34	12.76	15.13	8.42	12.12
Russell Mid Cap	4.57	10.31	4.37	7.49	10.37	15.50	12.73	15.80	8.79	11.18
Russell Mid Growth	4.95	7.21	1.07	7.65	10.08	14.91	11.91	15.37	9.04	9.63
Russell Mid Value	4.24	13.48	7.77	7.20	10.61	15.98	13.44	16.18	8.30	11.66
Russell 2500	5.22	9.40	1.54	6.26	8.16	14.27	11.46	14.76	8.21	10.50
Russell 2500 Growth	5.94	5.91	-3.35	7.06	8.56	14.55	11.42	15.19	9.13	8.92
Russell 2500 Value	4.55	12.75	6.36	5.44	7.74	13.93	11.41	14.32	7.15	11.13
S&P Small Cap 600	5.09	11.63	5.96	8.92	9.62	15.43	13.05	15.51	8.77	11.15
S&P Sm Cap 600 Grwth	5.02	9.16	3.27	10.29	10.22	15.37	12.96	16.24	9.56	10.28
S&P Sm Cap 600 Value	5.17	14.38	8.95	7.58	8.99	15.48	13.14	14.82	7.98	11.55
Russell 2000	5.97	8.32	0.00	5.84	6.74	13.15	10.43	13.39	7.17	9.00
Russell 2000 Growth	6.54	4.84	-5.30	6.63	7.39	13.80	10.78	14.10	8.40	7.34
Russell 2000 Value	5.40	11.81	5.59	4.94	6.01	12.44	10.03	12.61	5.85	10.20
Russell 3000	3.97	7.74	4.44	7.81	10.59	14.45	12.99	14.36	7.82	9.36
Russell 3000 Growth	4.86	6.05	3.57	9.79	12.42	14.90	13.39	15.07	9.41	8.54
Russell 3000 Value	3.09	9.56	5.39	5.81	8.75	13.93	12.53	13.60	6.15	9.69
Wilshire 5000	3.98	7.80	3.95	7.30	10.21	14.21	12.73	14.25	7.91	9.37

Global / International Equity	MTD	YTD	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years
DJ Global Index	4.30	4.38	-2.16	-0.39	4.99	8.52	5.29	7.54	3.07	5.21
MSCI AC World	4.34	5.98	0.13	1.74	6.44	9.94	7.20	9.44	5.19	7.16
MSCI AC Wld Grwth	4.72	5.43	0.49	4.41	8.25	10.94	8.05	10.53	6.29	N/A
MSCI AC Wld Value	3.95	6.55	-0.26	-0.96	4.59	8.91	6.32	8.31	4.04	N/A
MSCI AC WxUS Growth	4.82	5.24	-1.58	-0.80	3.84	6.83	2.85	6.36	3.54	N/A
MSCI AC WxUS Value	5.12	3.28	-8.59	-8.42	-0.22	3.69	0.37	3.60	1.68	N/A
MSCI AC World Ex US	4.97	4.28	-5.06	-4.61	1.81	5.52	1.82	5.13	2.59	N/A
MSCI EAFE	5.08	0.83	-7.07	-3.53	2.45	7.46	3.49	5.87	2.46	5.28
MSCI EAFE Growth	4.90	2.89	-2.12	0.80	4.61	8.83	4.75	7.46	3.69	4.59
MSCI EAFE Value	5.27	-1.24	-11.97	-7.80	0.24	6.02	2.16	4.22	1.15	5.86
MSCI Emerging Mkts	5.09	12.02	-0.38	-6.94	0.07	0.62	-2.41	3.29	4.24	6.06
MSCI EM Growth	4.74	10.58	1.29	-4.40	1.80	2.54	-0.93	4.52	4.26	N/A
MSCI EM Value	5.45	13.51	-2.20	-9.55	-1.74	-1.38	-3.97	1.98	4.14	N/A

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FFC Capital Management

Market Index Performance
Period Ending July 31, 2016

Fixed Income	MTD	YTD	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years
Barclays Aggregate	0.63	5.98	5.94	4.37	4.23	2.66	3.57	4.44	5.06	5.88
Barclays Global Agg	0.75	9.78	9.45	1.41	2.63	1.43	1.51	3.22	4.37	5.35
Lehman Government	0.39	5.64	5.61	4.43	3.62	2.04	3.12	3.64	4.64	5.58
Lehman 1-3 Gov't	-0.06	1.36	1.19	1.12	0.93	0.76	0.78	1.16	2.46	3.88
Lehman Int Governmen	0.04	3.59	3.55	3.00	2.38	1.51	2.06	2.78	3.96	4.94
LONG-TERM GOV'T BOND	2.22	17.49	17.61	13.34	11.86	5.16	9.74	9.03	8.72	8.46
Lehman Gov't/Credit	0.80	7.08	6.78	4.64	4.40	2.76	3.88	4.68	5.17	5.95
LB Int Gov't/Credit	0.28	4.36	4.25	3.25	2.94	2.10	2.66	3.61	4.39	5.31
Lehman HY Corp	2.70	12.01	4.98	2.64	4.46	5.69	6.16	9.48	7.74	7.50
ML US Treas 1-3 Yr	-0.06	1.37	1.19	1.10	0.91	0.74	0.75	1.13	2.38	3.79
ML All US Convert	4.55	6.94	0.23	2.74	7.20	10.98	8.62	10.96	6.87	8.47
Barclays Wld Inf Lkd	1.07	7.70	3.07	0.79	2.99	1.36	1.82	3.77	4.14	N/A
CG World Gov Bond	0.53	11.33	11.32	1.35	2.37	0.70	0.83	2.55	4.19	5.08

Alternatives	MTD	YTD	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years
HFRI Fund Weighted	1.77	2.98	-0.16	1.14	3.06	4.36	2.69	4.47	3.78	8.21
HFRI Equity Hedge	2.42	1.95	-1.61	0.26	3.08	5.40	2.81	4.65	3.22	9.49
HFRI Event-Driven	1.97	4.22	-0.88	-1.00	2.22	4.91	3.18	5.85	4.09	9.20
HFRI ED: Merger Arb	0.53	0.55	0.77	1.95	2.59	2.97	2.54	3.37	3.60	7.02
HFRI ED: Distressed	2.40	5.99	-2.21	-4.23	0.47	3.99	2.62	6.01	3.65	8.51
HFRI Macro (Total)	0.87	3.72	1.87	3.67	2.83	1.56	0.75	1.90	3.51	7.66
HFRI Relative Value	1.20	3.83	1.14	1.40	3.64	4.86	4.39	6.38	5.36	7.89
HFRI RV: Fixed Inc	1.60	4.09	3.16	2.16	3.43	4.77	3.74	6.28	4.76	7.75
HFRI RV: Multi-Strat	1.45	2.90	1.18	1.84	3.41	4.76	3.72	5.85	3.80	6.22
HFRI Fund of Funds	1.46	-1.21	-4.25	0.05	2.05	3.39	1.85	2.76	1.75	5.39
MSCI REIT	4.20	18.33	22.41	15.88	14.76	12.98	13.11	19.78	7.42	11.64
Wilshire REIT	4.35	15.91	21.03	16.06	14.95	12.98	13.06	20.02	7.08	11.95
FTSE EPRA/NAREIT x	5.62	11.41	5.39	0.91	5.11	7.37	5.70	N/A	N/A	N/A
DJ Wilshire xUS RESI	4.26	11.02	4.79	1.38	5.77	7.59	6.36	11.88	4.34	N/A
S&P GSCI	-9.57	-0.65	-22.18	-33.22	-23.68	-18.14	-16.08	-9.26	-11.24	-0.02
80% ACWI 20% BarAgg	3.59	6.13	1.50	2.43	6.14	8.59	6.67	8.64	5.48	7.15
60% ACWI 40% BarAgg	2.85	6.20	2.77	3.05	5.77	7.18	6.04	7.74	5.60	7.02
20% ACWI 80% BarAgg	1.37	6.12	4.99	4.01	4.82	4.22	4.48	5.63	5.40	6.38
60% AWCI 40% BarGlob	2.90	7.70	4.15	1.88	5.12	6.66	5.15	7.18	5.28	6.78
60% S&P 500 40% BarA	2.46	7.20	6.18	7.09	8.62	9.86	9.74	10.66	7.31	8.44

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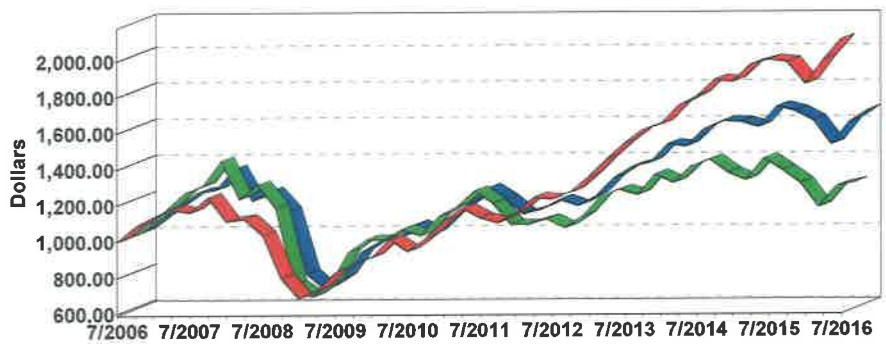
FFC Capital Management

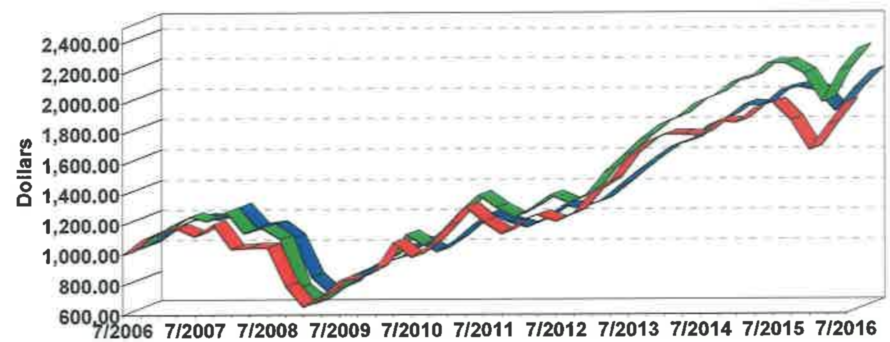
Relative Broad Market Performance & Style Comparison
Period Ending July 31, 2016

Domestic vs. International



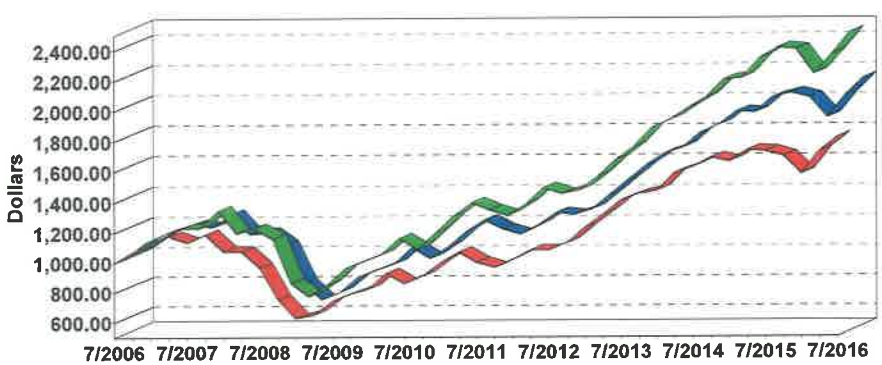
	MTD	YTD	ONE YEAR	THREE YEARS	FIVE YEARS	TEN YEARS
MSCI AC WORLD	4.34	5.98	0.13	6.44	7.20	5.19
MSCI AC WORLD EX US	4.97	4.28	-5.06	1.81	1.82	2.59
S&P 500	3.69	7.66	5.61	11.16	13.38	7.75

Large vs. Small



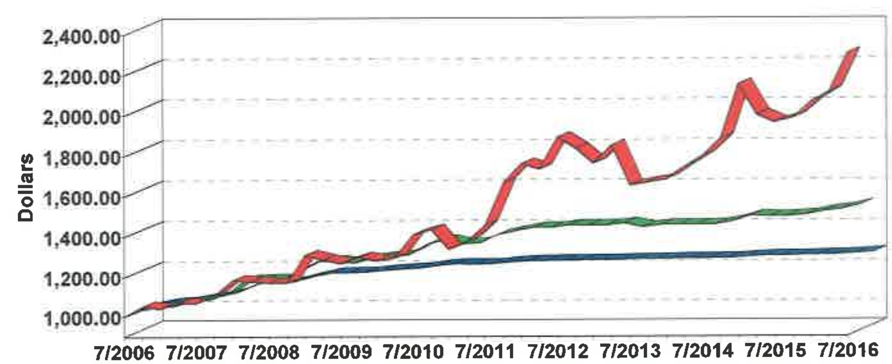
	MTD	YTD	ONE YEAR	THREE YEARS	FIVE YEARS	TEN YEARS
RUSSELL 1000	3.81	7.69	4.84	10.93	13.22	7.89
RUSSELL MID CAP	4.57	10.31	4.37	10.37	12.73	8.79
RUSSELL 2000	5.97	8.32	0.00	6.74	10.43	7.17

Value vs. Growth



	MTD	YTD	ONE YEAR	THREE YEARS	FIVE YEARS	TEN YEARS
RUSSELL 1000	3.81	7.69	4.84	10.93	13.22	7.89
RUSSELL 1000 GROWTH	4.72	6.15	4.35	12.86	13.62	9.50
RUSSELL 1000 VALUE	2.90	9.38	5.38	8.99	12.75	6.18

Treasuries



	MTD	YTD	ONE YEAR	THREE YEARS	FIVE YEARS	TEN YEARS
ML US TREAS 1-3 YR	-0.06	1.37	1.19	0.91	0.75	2.38
ML US TREAS 3-5 YR	-0.03	3.63	3.51	2.45	2.00	4.32
ML US TREAS 10+ YR	1.99	17.07	17.39	11.71	9.62	8.71

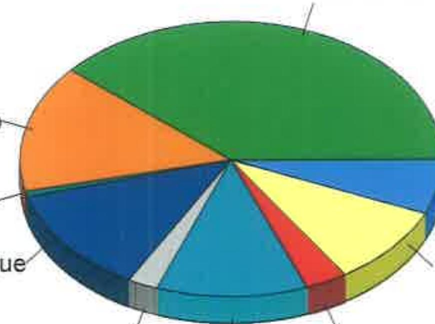
FFC Capital Management

Sewerage and Water Board of New Orleans Composite
Asset Class and Sub Class Allocations
Period Ending July 31, 2016

Allocation by Asset Class

	Value	Percent
Equity Composite	104,361,797	48.86
Fixed Income Composite	84,099,520	39.37
Alternatives Composite	25,132,275	11.77
Total	213,593,593	100.00

Allocation by Asset Sub Class



	Value	Percent
Core Plus	82,641,402	38.69
SMID Cap	31,727,851	14.85
LC Value	27,184,056	12.73
LC Enhanced Core	24,757,273	11.59
Multi-Strategy HFOF	20,158,927	9.44
International	13,813,463	6.47
LC Growth	6,879,154	3.22
Domestic REIT	4,973,348	2.33
Cash	1,410,654	0.66
Residual Assets	47,465	0.02
Total	213,593,593	100.00

FFC Capital Management

Sewerage and Water Board of New Orleans Composite
Period Ending July 31, 2016

Target Allocation	Current Allocation	Name	Market Value	MTD	2nd Qtr 2016	1st Qtr 2016	4th Qtr 2015	3rd Qtr 2015	YTD	2015	2014	2013	2012	2011	Since Inception	Inception Date
48.25%	48.86%	Equity Composite	104,361,797	3.90	1.45	0.80	5.48	-9.07	6.25	-0.50	9.97	24.00	16.17	4.15	8.56	Nov-02
		Equity Policy Index		4.10	2.24	0.63	5.65	-8.28	7.10	-0.71	9.04	29.88	16.68	-1.98	8.46	
12.50%	12.73%	**LC Value**														
		Barrow Hanley	27,184,056	3.11	4.42	-0.85	5.07	-7.66	6.75	-1.28	12.73	32.02	14.67	1.96	6.31	Aug-06
		Russell 1000 Value		2.90	4.58	1.64	5.64	-8.39	9.38	-3.83	13.45	32.53	17.51	0.39	6.05	
		S&P Barra Value		2.72	3.96	2.20	6.05	-8.25	9.13	-3.13	12.36	31.99	17.68	-0.48	5.84	
11.50%	11.59%	**LC Enhanced Core**														
		Chicago Equity	24,757,273	3.51	1.09	-0.51	6.18	-6.97	4.10	2.47	13.06	32.28	15.62	5.35	7.74	May-06
		Russell 1000		3.81	2.54	1.17	6.50	-6.83	7.69	0.92	13.24	33.11	16.42	1.50	7.79	
		S&P 500		3.69	2.46	1.35	7.04	-6.44	7.66	1.38	13.69	32.39	16.00	2.11	7.69	
3.25%	3.22%	**LC Growth**														
		iShares S&P 500 Growth ETF	6,879,154	4.64	-0.92	N/A	N/A	N/A	3.68	N/A	N/A	N/A	N/A	N/A	3.68	Mar-16
		S&P Barra Growth		4.65	1.01	0.53	7.86	-4.83	6.27	5.52	14.89	32.75	14.61	4.65	5.70	
		Russell 1000 Growth		4.72	0.61	0.74	7.32	-5.29	6.15	5.67	13.05	33.48	15.26	2.64	5.36	
14.75%	14.85%	**SMID Cap**														
		New South Capital	31,727,851	3.63	1.08	5.55	5.73	-10.10	10.56	0.51	11.97	26.04	16.71	N/A	15.32	Aug-11
		Russell 2500		5.22	3.57	0.39	3.28	-10.30	9.40	-2.90	7.07	36.80	17.88	-2.51	14.20	
		Russell 2500 Value		4.55	4.37	3.33	2.78	-9.58	12.75	-5.49	7.11	33.32	19.21	-3.36	14.14	
6.25%	6.47%	**International**														
		Earnest Partners	13,813,463	6.47	-1.53	-2.03	4.48	-13.17	2.71	-6.34	-2.48	12.43	18.50	N/A	6.27	Sep-11
		MSCI AC World Ex US		4.97	-0.40	-0.26	3.31	-12.11	4.28	-5.24	-3.43	15.80	17.40	-13.32	6.34	
39.75%	39.37%	Fixed Income Composite	84,099,520	1.17	2.91	3.17	-0.35	-0.35	7.41	-0.30	4.97	-1.21	7.09	7.91	4.29	Nov-02
		Fix Inc Policy Index		0.61	2.13	3.00	-0.64	0.82	5.82	-0.18	5.53	-2.71	4.90	8.57	4.42	
38.25%	38.69%	**Core Plus**														
		Pyramis Global Advisors	82,641,402	1.19	2.98	3.17	-0.47	-0.02	7.51	0.14	6.20	-0.68	7.65	7.81	5.65	Apr-07
		Barclays Aggregate		0.63	2.21	3.03	-0.57	1.23	5.98	0.55	5.97	-2.02	4.21	7.84	4.84	
		Barclays Global Agg		0.75	2.89	5.90	-0.92	0.85	9.78	-3.15	0.58	-2.59	4.32	5.64	4.11	
1.50%	0.66%	**Cash**														
		Fidelity Inst Prime Mmkt CL III #6	1,410,654	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.01	0.02	0.04	Jan-09
		30 Day T-Bill		0.02	0.04	0.05	0.01	0.00	0.11	0.02	0.03	0.03	0.05	0.05	0.07	
0.00%	0.02%	**Total Residual Assets**	47,465	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Nov-06

Fund data is on a trade date basis and income is included in the fund returns on an accrual basis. Fund data is net of available flows and fees. Returns for longer than one year are annualized. All returns include reinvestment of income. Residual Assets include a reinstated position (as of March 2009) of Enron Corp SR Sub Deb, one convertible bond position, a small cash position left after the termination of manager Zazove, and the side pocket left after the termination of the Equitas Evergreen fund. Current Policy Index Allocation: 42% Russell 3000, 6.25% MSCI ACWI xUS, 38.25% Barclays Aggregate Bond, 10% HFRI Fund of Funds, 2% MSCI REIT, 1.5% Citi 1 month Tbill. Inception date for the Vanguard REIT, is 4/14/2010. Inception date for iShares S&P 500 Growth is 4/19/2016. FFC Capital Management has relied on the accuracy of the data provided by FIS Group, Inc. since inception through May 31, 2007. Data from inception to December 31, 2002 is on a Total Fund Composite return basis only. This report has been prepared for informational purposes only. It is based on information from sources believed to be reliable. No guarantee is made that the information is accurate or complete. For Historical Policy Indices please see the following page.

FFC Capital Management

Sewerage and Water Board of New Orleans Composite
Period Ending July 31, 2016

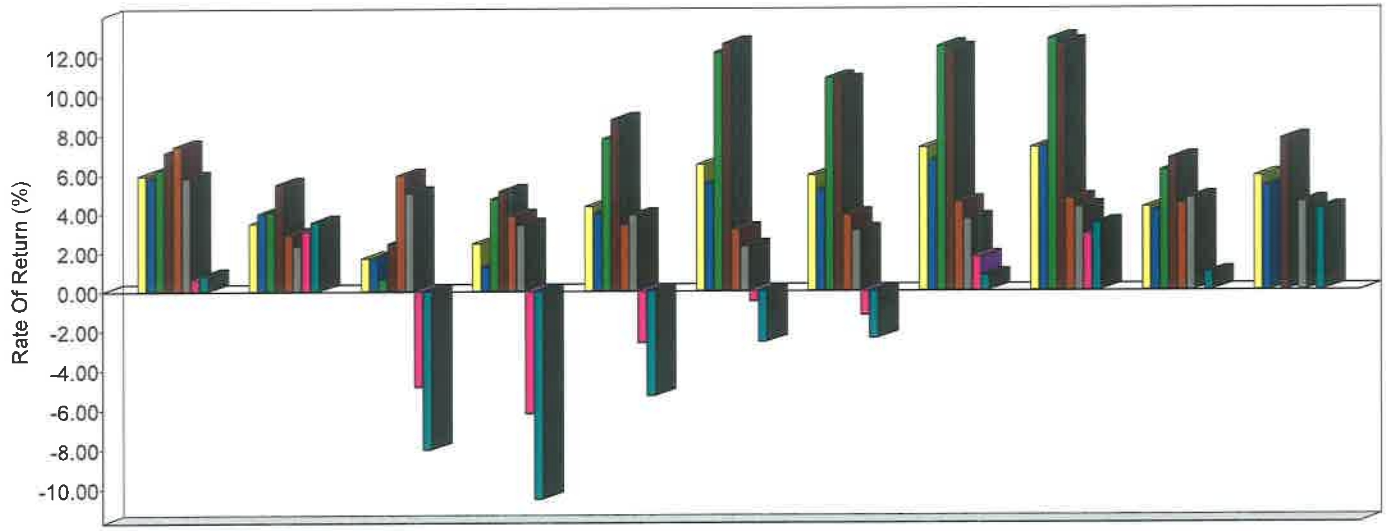
Target Allocation	Current Allocation	Name	Market Value	MTD	2nd Qtr 2016	1st Qtr 2016	4th Qtr 2015	3rd Qtr 2015	YTD	2015	2014	2013	2012	2011	Since Inception	Inception Date
12.00%	11.77%	Alternatives Composite	25,132,275	2.23	0.61	-2.16	-1.01	-6.32	0.63	-6.62	-4.12	3.22	10.77	-4.80	-2.39	Mar-07
		Alt Policy Index		1.93	1.59	-2.62	-4.41	-8.07	0.84	-11.63	-6.13	4.58	7.88	-1.30	-0.24	
10.00%	9.44%	**Multi-Strategy HFOF**														
		Prisma Capital Partners & KKR	20,158,927	1.75	-0.77	-3.75	0.92	-4.00	-2.83	0.15	2.27	11.12	7.31	-3.21	2.83	Apr-07
		HFRI Fund of Funds		1.46	0.50	-3.12	0.73	-3.60	-1.21	-0.27	3.37	8.95	4.81	-5.71	0.71	
		Barclays Aggregate		0.63	2.21	3.03	-0.57	1.23	5.98	0.55	5.97	-2.02	4.21	7.84	4.84	
2.00%	2.33%	**Domestic REIT**														
		Vanguard Index FDS REIT	4,973,348	4.23	6.72	6.26	7.03	3.19	18.20	2.61	29.72	-1.77	17.69	8.23	13.00	Apr-10
		MSCI REIT		4.20	6.81	6.31	7.08	2.06	18.33	2.52	30.38	2.47	17.77	8.69	13.95	
		S&P 500		3.69	2.46	1.35	7.04	-6.44	7.66	1.38	13.69	32.39	16.00	2.11	12.53	
100.00%	100.00%	Total Fund Composite	213,593,593	2.61	1.92	1.29	2.04	-5.47	5.93	-1.61	5.42	10.35	11.62	3.50	5.86	Jun-02
		Policy Index		2.45	2.12	1.14	1.15	-4.97	5.82	-2.83	4.22	11.50	10.49	2.18	5.36	

Fund data is on a trade date basis and income is included in the fund returns on an accrual basis. Fund data is net of available flows and fees. Returns for longer than one year are annualized. All returns include reinvestment of income. Residual Assets include a reinstated position (as of March 2009) of Enron Corp SR Sub Deb, one convertible bond position, a small cash position left after the termination of manager Zazove, and the side pocket left after the termination of the Equitas Evergreen fund. Current Policy Index Allocation: 42% Russell 3000, 6.25% MSCI ACWI xUS, 38.25% Barclays Aggregate Bond, 10% HFRI Fund of Funds, 2% MSCI REIT, 1.5% Citi 1 month Tbill. Inception date for the Vanguard REIT, is 4/14/2010. Inception date for iShares S&P 500 Growth is 4/19/2016. FFC Capital Management has relied on the accuracy of the data provided by FIS Group, Inc. since inception through May 31, 2007. Data from inception to December 31, 2002 is on a Total Fund Composite return basis only. This report has been prepared for informational purposes only. It is based on information from sources believed to be reliable. No guarantee is made that the information is accurate or complete. For Historical Policy Indices please see the following page.

FFC CAPITAL MANAGEMENT

Sewerage and Water Board of New Orleans Composite
Executive Summary
Composite Profile

Performance Analysis
June 30, 2002 through July 31, 2016



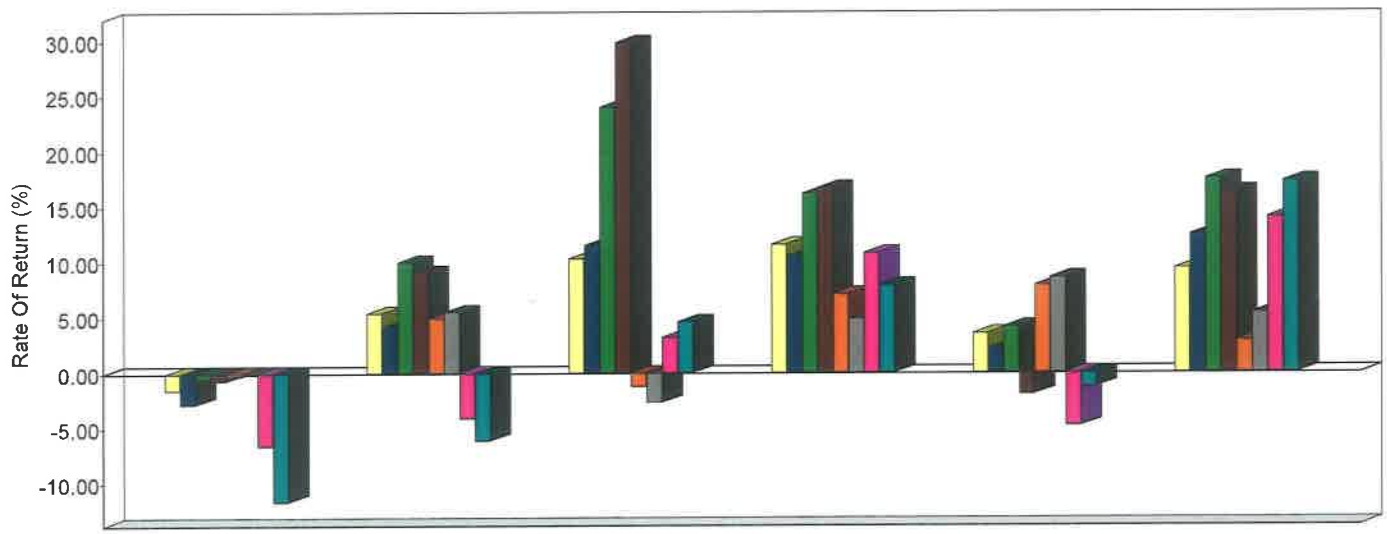
	YTD	Last Thre Months	One Year	Two Years	Three Years	Four Years	Five Years	Six Years	Seven Years	Ten Years	Since Inception
Total Fund Composite	5.93	3.50	1.69	2.47	4.35	6.46	5.96	7.35	7.35	4.27	5.86
Policy Index	5.82	4.02	1.66	1.26	4.03	5.54	5.18	6.71	7.38	4.12	5.36
Equity Composite	6.25	4.05	0.62	4.75	7.80	12.15	10.85	12.46	12.83	6.17	N/A
Equity Policy Index	7.10	5.49	2.48	5.17	8.76	12.61	10.68	12.24	12.54	6.79	7.76
Fixed Income Composite	7.41	2.94	5.93	3.88	3.41	3.18	3.89	4.54	4.69	4.44	N/A
Fix Inc Policy Index	5.82	2.37	5.05	3.42	3.89	2.32	3.12	3.69	4.26	4.77	4.53
Alternatives Composite	0.63	3.09	-4.87	-6.23	-2.63	-0.52	-1.23	1.75	2.92	N/A	N/A
Alt Policy Index	0.84	3.56	-8.04	-10.52	-5.32	-2.61	-2.40	0.79	3.44	0.91	4.19

Fund data is on a trade date basis and income is included in the fund returns on an accrual basis. Fund data is net of available flows and fees. Returns for longer than one year are annualized. All returns include reinvestment of income. Policy Index Allocation: 42% Russell 3000, 6.25% MSCI ACWI xUS, 38.25% Barclays Aggregate Bond, 10% HFRI Fund of Funds, 2% MSCI REIT, 1.5% Citi 1 month Tbill. FFC Capital Management has relied on the accuracy of the data provided by FIS Group, Inc. since inception through May 31, 2007. Data from inception to December 31, 2002 is on a Total Fund Composite return basis only. This report has been prepared for informational purposes only. It is based on information from sources believed to be reliable. No guarantee is made that the information is accurate or complete.

FFC Capital Management

Sewerage and Water Board of New Orleans Composite
Executive Summary
Composite Profile

Calendar Year Performance Analysis through December 31, 2015



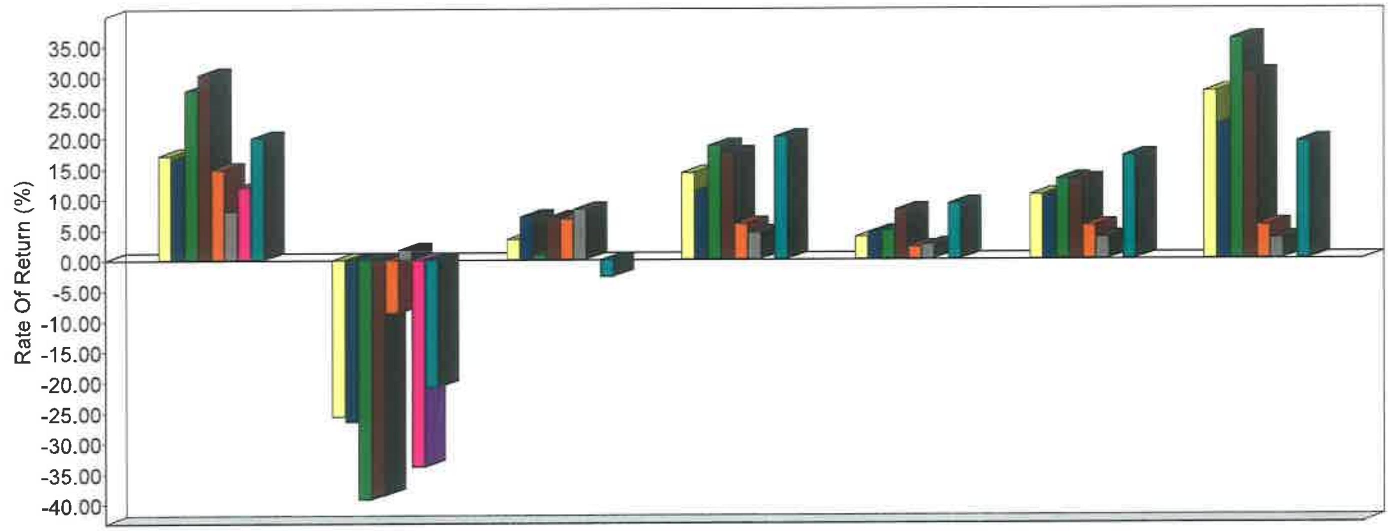
	2015	2014	2013	2012	2011	2010
Total Fund Composite	-1.61	5.42	10.35	11.62	3.50	9.37
Policy Index	-2.83	4.22	11.50	10.49	2.18	12.45
Equity Composite	-0.50	9.97	24.00	16.17	4.15	17.51
Equity Policy Index	-0.71	9.04	29.88	16.68	-1.98	16.31
Fixed Income Composite	-0.30	4.97	-1.21	7.09	7.91	2.88
Fix Inc Policy Index	-0.18	5.53	-2.71	4.90	8.57	5.40
Alternatives Composite	-6.62	-4.12	3.22	10.77	-4.80	14.01
Alt Policy Index	-11.63	-6.13	4.58	7.88	-1.30	17.27

Fund data is on a trade date basis and income is included in the fund returns on an accrual basis. Fund data is net of available flows and fees. Returns for longer than one year are annualized. All returns include reinvestment of income. Policy Index Allocation: 42% Russell 3000, 6.25% MSCI ACWI xUS, 38.25% Barclays Aggregate Bond, 10% HFRI Fund of Funds, 2% MSCI REIT, 1.5% Citi 1 month Tbill. FFC Capital Management has relied on the accuracy of the data provided by FIS Group, Inc. since inception through May 31, 2007. Data from inception to December 31, 2002 is on a Total Fund Composite return basis only. This report has been prepared for informational purposes only. It is based on information from sources believed to be reliable. No guarantee is made that the information is accurate or complete.

FFC Capital Management

Sewerage and Water Board of New Orleans Composite
Executive Summary
Composite Profile

Calendar Year Performance Analysis through June 30, 2009



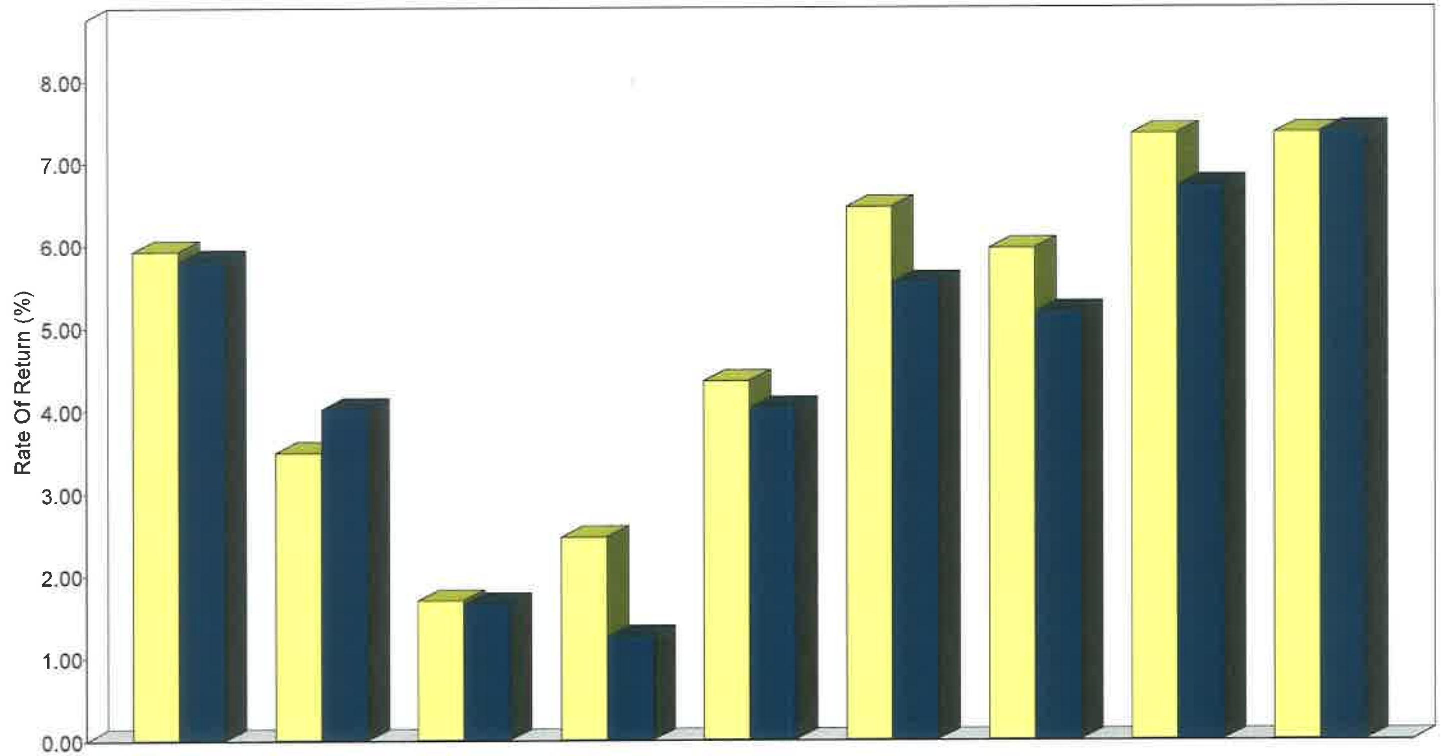
	2009	2008	2007	2006	2005	2004	2003
Total Fund Composite	17.14	-25.77	3.34	14.23	3.82	10.61	27.38
Policy Index	16.60	-26.59	7.11	11.24	4.47	10.37	22.03
Equity Composite	27.75	-39.20	0.87	18.62	4.80	13.14	36.07
Equity Policy Index	30.31	-38.64	6.99	17.46	8.20	12.93	30.20
Fixed Income Composite	14.88	-8.73	6.65	5.89	2.08	5.45	5.54
Fix Inc Policy Index	8.06	1.66	8.24	4.52	2.44	3.65	3.44
Alternatives Composite	12.08	-33.84	N/A	N/A	N/A	N/A	N/A
Alt Policy Index	19.95	-20.96	-2.79	20.06	9.09	16.89	19.21

Fund data is on a trade date basis and income is included in the fund returns on an accrual basis. Fund data is net of available flows and fees. Returns for longer than one year are annualized. All returns include reinvestment of income. Policy Index Allocation: 42% Russell 3000, 6.25% MSCI ACWI xUS, 38.25% Barclays Aggregate Bond, 10% HFRI Fund of Funds, 2% MSCI REIT, 1.5% Citi 1 month Tbill. FFC Capital Management has relied on the accuracy of the data provided by FIS Group, Inc. since inception through May 31, 2007. Data from inception to December 31, 2002 is on a Total Fund Composite return basis only. This report has been prepared for informational purposes only. It is based on information from sources believed to be reliable. No guarantee is made that the information is accurate or complete.

FFC Capital Management

Sewerage and Water Board of New Orleans Composite
Executive Summary
Composite Profile

Rolling Period Performance Analysis through July 31, 2016



	YTD	Last Three Months	One Year	Two Years	Three Years	Four Years	Five Years	Six Years	Seven Years
Total Fund Composite	5.93	3.50	1.69	2.47	4.35	6.46	5.96	7.35	7.35
Policy Index	5.82	4.02	1.66	1.26	4.03	5.54	5.18	6.71	7.38

Fund data is on a trade date basis and income is included in the fund returns on an accrual basis. Fund data is net of available flows and fees. Returns for longer than one year are annualized. All returns include reinvestment of income.
Policy Index Allocation: 33% Russell 3000, 9% MSCI ACWI xUS, 28% Barclays Aggregate Bond, 9% Barclays World Inflation Linked, 7.25% S&P GSCI, 8.75% HFRI Fund of Funds 3.25% MSCI REIT, 1.75% FTSE EPRA/NAREIT ex US.
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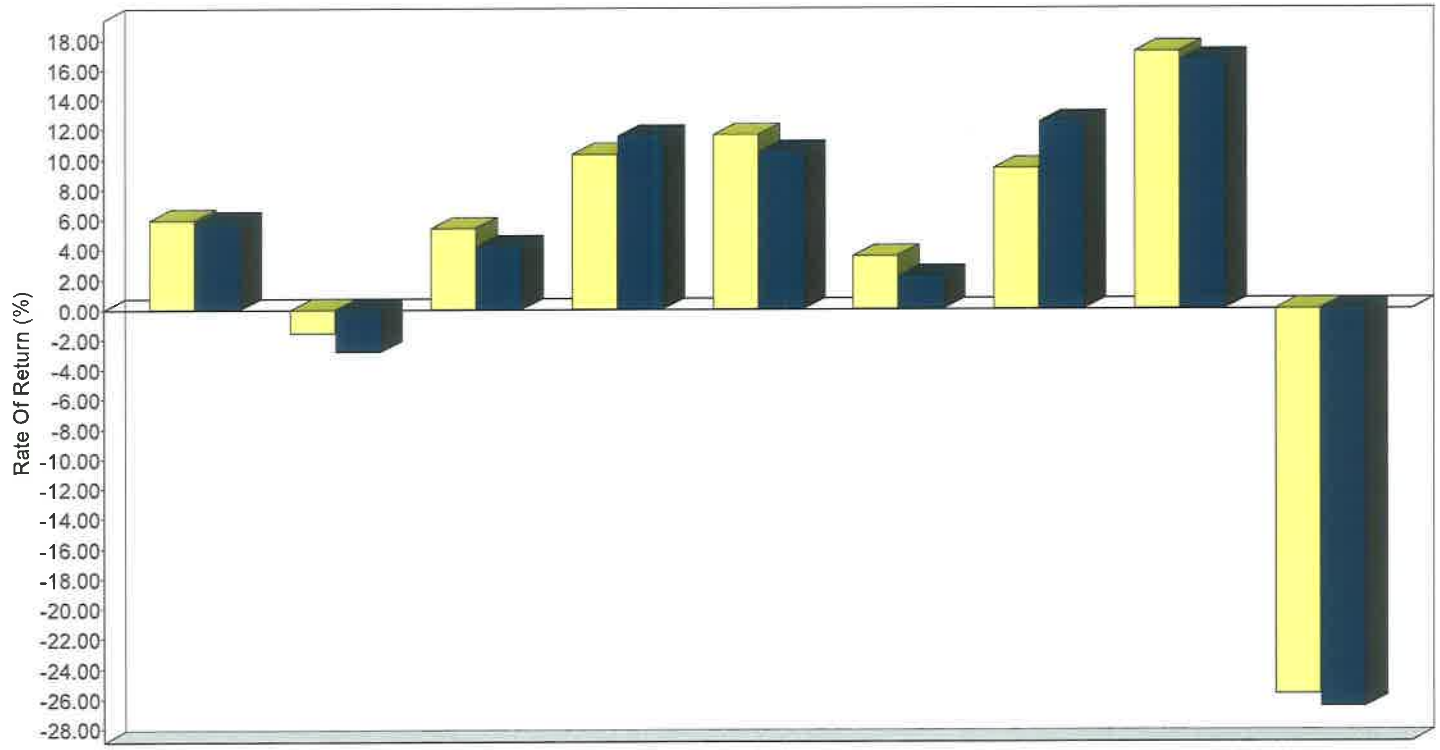
FFC Capital Management

Sewerage and Water Board of New Orleans Composite
Executive Summary
Composite Profile

Calendar Year Performance Analysis
through July 31, 2016



	YTD	2015	2014	2013	2012	2011	2010	2009	2008
Total Fund Composite	5.93	-1.61	5.42	10.35	11.62	3.50	9.37	17.14	-25.77
Policy Index	5.82	-2.83	4.22	11.50	10.49	2.18	12.45	16.60	-26.59

Fund data is on a trade date basis and income is included in the fund returns on an accrual basis. Fund data is net of available flows and fees. Returns for longer than one year are annualized. All returns include reinvestment of income.
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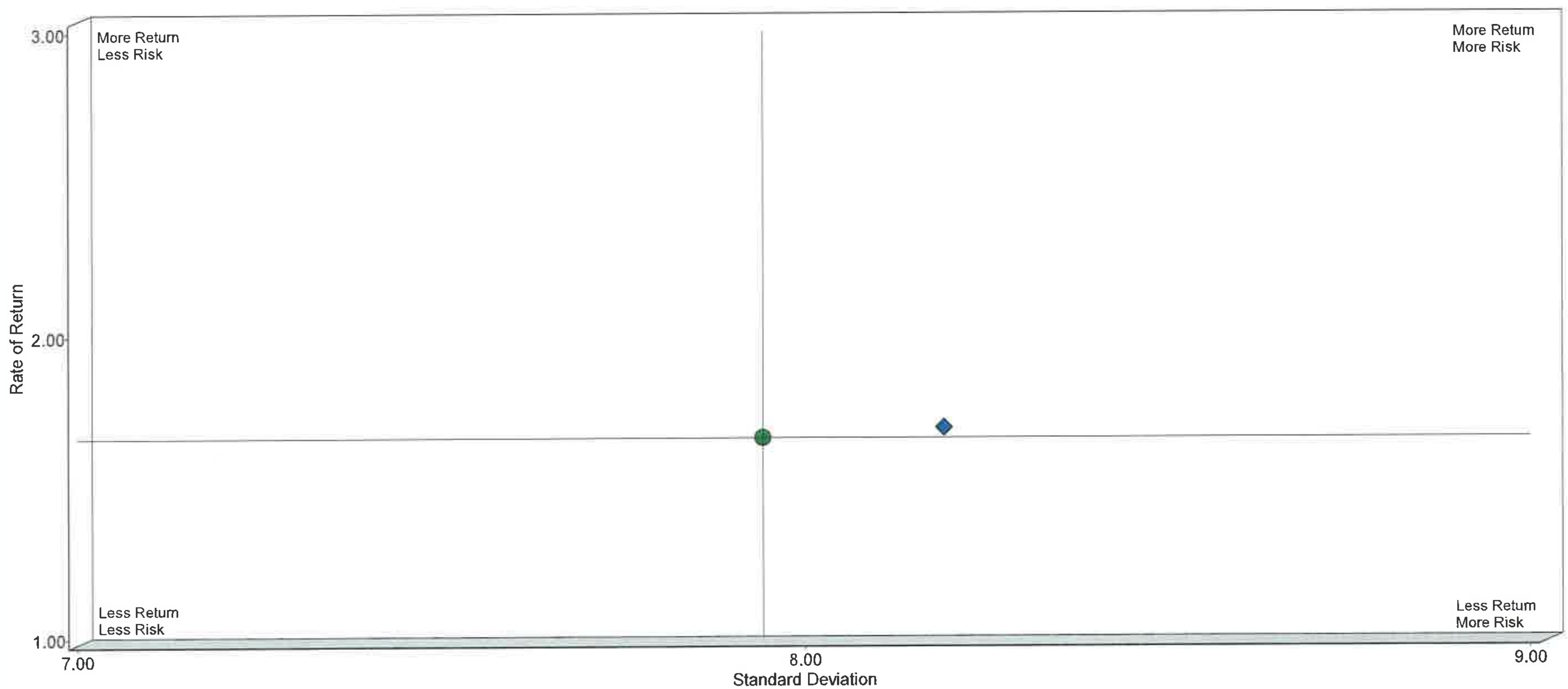
FFC Capital Management

Sewerage & Water Board of New Orleans
Risk Reward Analysis
July 31, 2015 Through July 31, 2016



	Return	Std Dev	Alpha	Beta	R-Squared	Sharpe Ratio
Total Fund Composite	1.69	8.19	0.04	1.01	95.24	0.18
Policy Index	1.66	7.94	0.00	1.00	100.00	0.18

Risk Index: Policy Index
Fund data is on a trade date basis and income is included in the fund returns on an accrual basis. Fund data is net of available flows and fees. Returns for longer than one year are annualized. All returns include reinvestment of income
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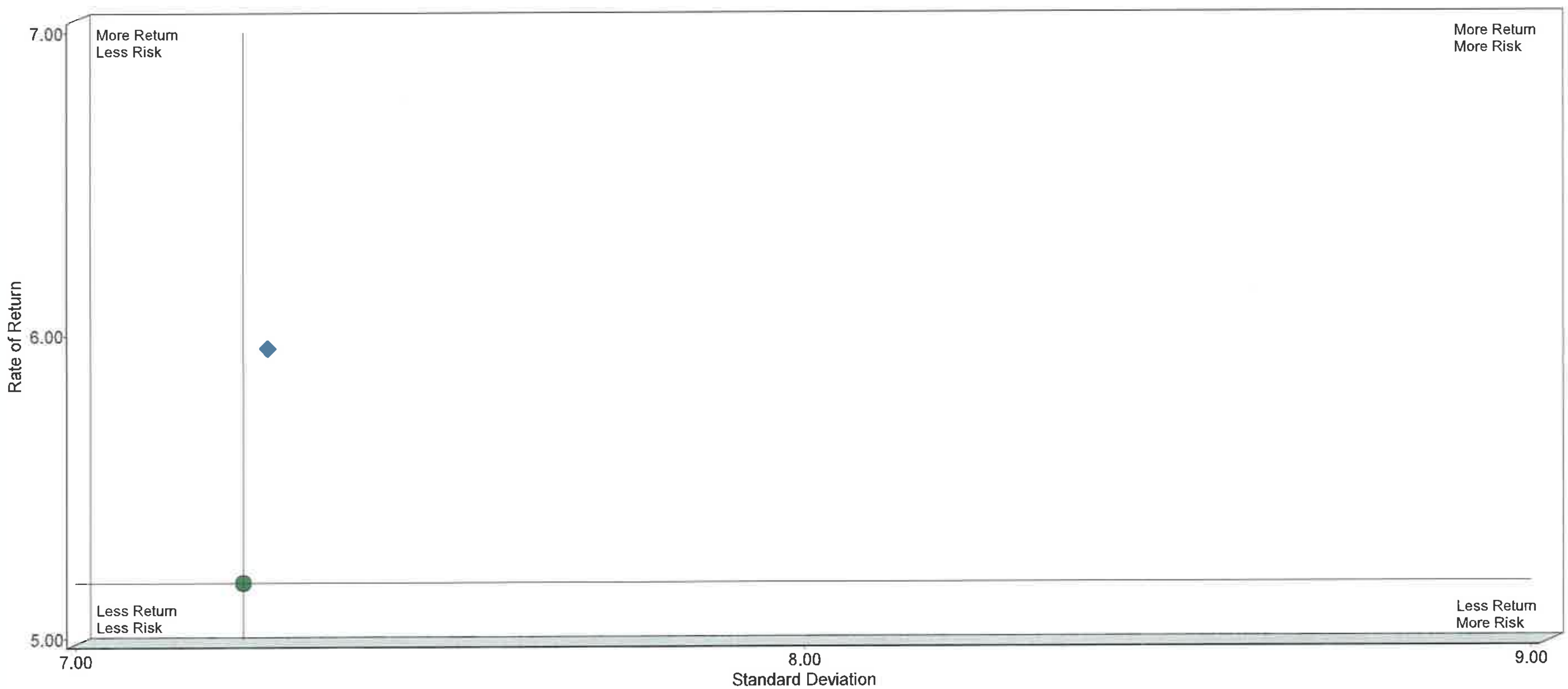
FFC Capital Management

Sewerage & Water Board of New Orleans
Risk Reward Analysis
July 31, 2011 Through July 31, 2016



	Return	Std Dev	Alpha	Beta	R-Squared	Sharpe Ratio
◆ Total Fund Composite	5.96	7.26	0.91	0.97	92.73	0.81
● Policy Index	5.18	7.23	0.00	1.00	100.00	0.71

Risk Index: Policy Index
Fund data is on a trade date basis and income is included in the fund returns on an accrual basis. Fund data is net of available flows and fees. Returns for longer than one year are annualized. All returns include reinvestment of income
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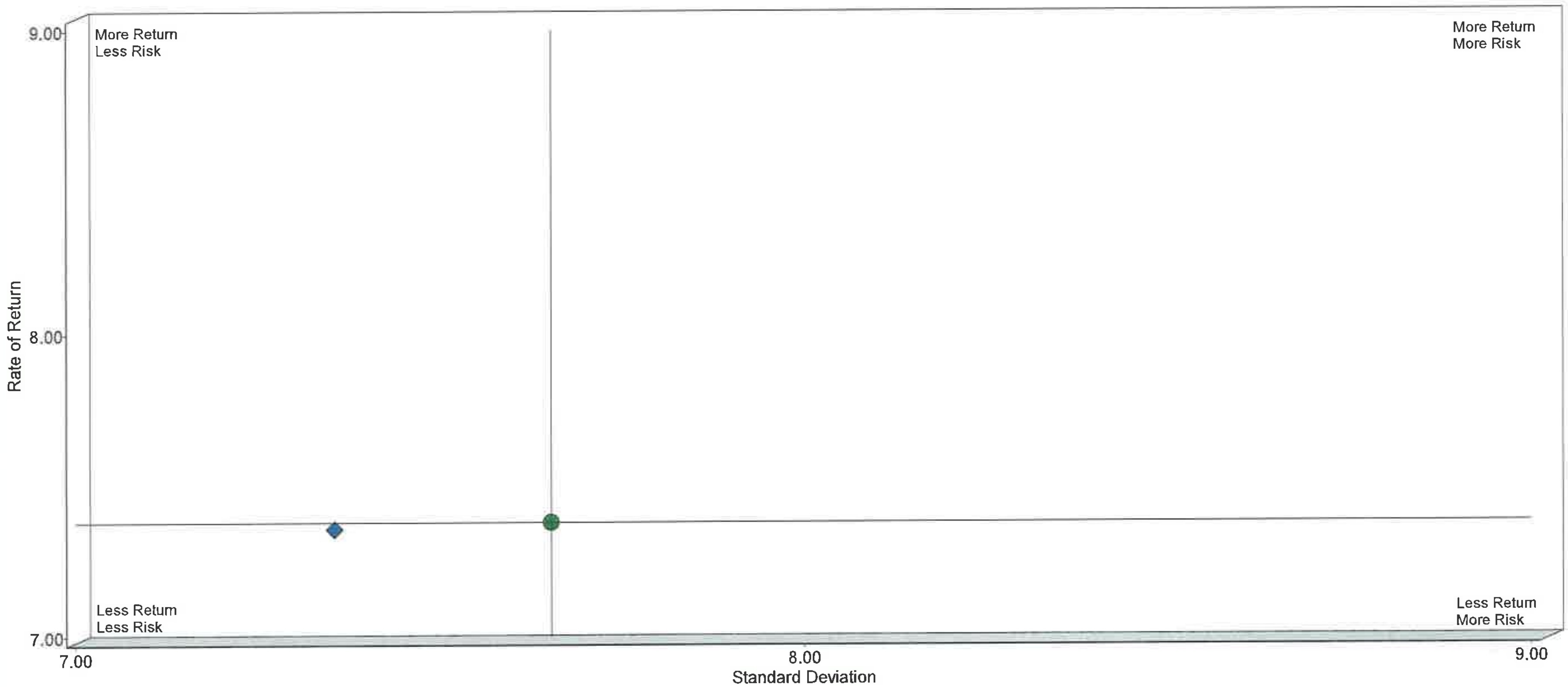
FFC Capital Management

Sewerage & Water Board of New Orleans
Risk Reward Analysis
July 31, 2009 Through July 31, 2016



	Return	Std Dev	Alpha	Beta	R-Squared	Sharpe Ratio
◆ Total Fund Composite	7.35	7.35	0.53	0.92	92.09	0.99
● Policy Index	7.38	7.65	0.00	1.00	100.00	0.95

Risk Index: Policy Index
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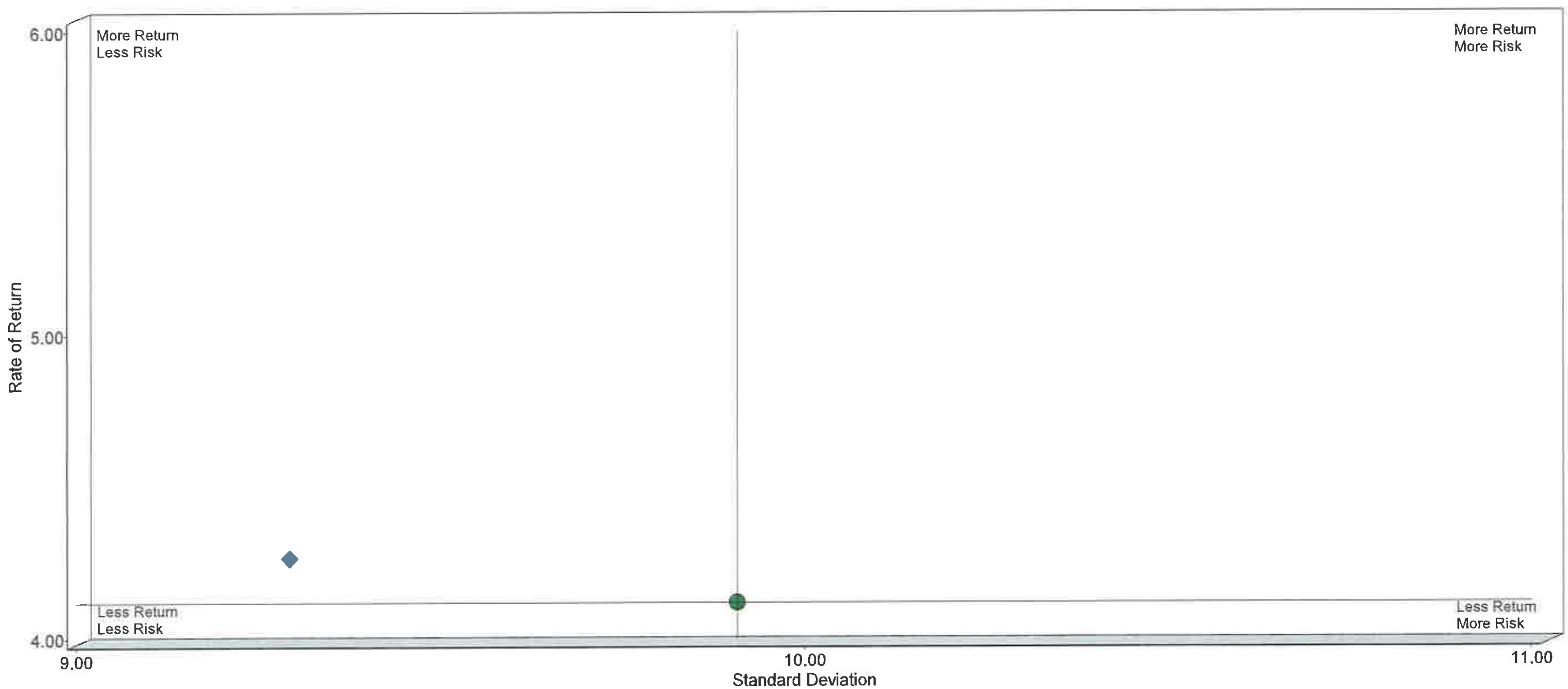
FFC Capital Management

Sewerage & Water Board of New Orleans
Risk Reward Analysis
July 31, 2006 Through July 31, 2016



	Return	Std Dev	Alpha	Beta	R-Squared	Sharpe Ratio
Total Fund Composite	4.27	9.29	0.42	0.91	94.07	0.37
Policy Index	4.12	9.91	0.00	1.00	100.00	0.33

Risk Index: Policy Index
Fund data is on a trade date basis and income is included in the fund returns on an accrual basis. Fund data is net of available flows and fees. Returns for longer than one year are annualized. All returns include reinvestment of income
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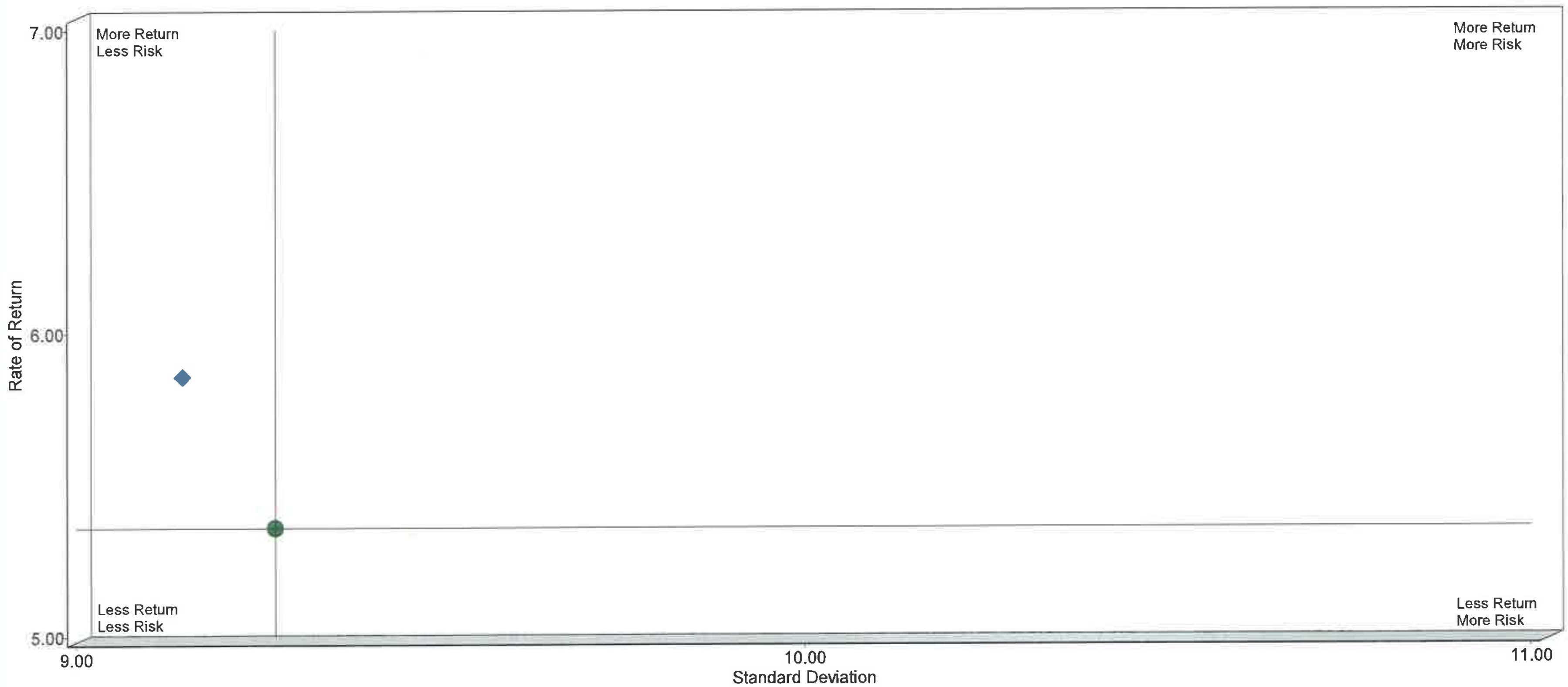
FFC Capital Management

Sewerage & Water Board of New Orleans
Risk Reward Analysis
June 30, 2002 Through July 31, 2016



	Return	Std Dev	Alpha	Beta	R-Squared	Sharpe Ratio
Total Fund Composite	5.86	9.14	0.70	0.95	92.08	0.50
Policy Index	5.36	9.27	0.00	1.00	100.00	0.44

Risk Index: Policy Index
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Glossary of Terms

ACCRUED INCOME - The interest the issuer of a security (bond, money market, stocks, etc.) owes before the issuer actually makes the scheduled payment. Since the holder of the security is entitled to this payment, the total portfolio value should reflect this amount.

AIMR - The Association for Investment Management and Research (AIMR-PPSTM) amended and restated its Performance Presentation Standards on Sept. 13, 1996. The compliance date for the new standards was Jan. 1, 1997. AIMR-PPSTM has stated consultants and software vendors cannot make a claim of compliance and that a calculation methodology cannot be in compliance. Only a firm that manages assets can be in compliance.

ALLOCATION - Allocation is also part of attribution. When used on the attribution page, this definition would be wrong. In attribution, allocation is the percent of a sector held versus the percent held by the benchmark.

ALPHA - A measure of selection risk (also known as residual risk) of a portfolio in relation to the market. A positive alpha is the extra monthly return awarded to the investor for taking a risk, instead of accepting the market returns. The higher your Alpha, the better your portfolio has done in achieving "excess" returns.

ANALYTICS - Analytics quantify the return a portfolio, class, subclass or asset achieves compared to the risk that is taken.

ANNUALIZED RETURN - An annualized return is calculated using monthly returns that are geometrically linked to account for compounding. Annualization does not occur until at least one year of performance data has been obtained.

ASSET CLASS - A broad category of assets with similar investment characteristics.

ASSET CLASSIFICATION - Each asset is broken down into a category based on the asset's investment characteristics. These characteristics include the type of security, issuing agency (corporate vs. government bonds), price and descriptive data (current price, shares outstanding, etc.), as well as others.

ASSET SUBCLASS - A specific category of assets within an asset class with similar investment objectives.

AVERAGE COUPON - Coupon is the annual interest payment that the bond issuer has promised to the holder of the bond. A bond is essentially a loan to a company or organization with a promise of payment on the future plus interest payments (coupons) periodically. A Coupon is expressed in a percentage of the par value of the bond.

AVERAGE CURRENT YIELD - Average of the current annual rate of return.

AVERAGE DIVIDEND YIELD - An average of the most recent four quarters of a stock's dividends as a percentage of the current stock price.

AVERAGE MARKET CAP - The average of the equity value of a publicly traded company as measured by the outstanding shares multiplied by the unit price.

AVERAGE MATURITY - The date the issuer of the bond will pay the holder of the bond the par value. After this date, the bond no longer exists.

AVERAGE P/E - A position-weighted average which describes the relationship between the price of a portfolio's various stocks and their earnings per share.

AVERAGE UNIT COST - Average cost per item.

AVERAGE YIELD TO MATURITY - Yield to maturity is the interest rate that will make the present value of a bond's remaining cash flows (if held to maturity) equal to the price (plus accrued interest, if any). The yield to maturity calculation takes into account not only the current coupon income but also any capital gain or loss the investor will realize by holding the bond to maturity.

BEGINNING MARKET VALUE - The value associated with the start of a price.

BENCHMARK - A composite of assets grouped according to a specific market strategy. By comparing your portfolio's results to that of the benchmark, you can see how your portfolio has performed relative to the market.

BETA - Measures the portfolio's sensitivity to movements in the market portfolio, or benchmark index. A beta > 1.0 means that the
asset or portfolio is more volatile (risky) than the benchmark index, and a beta < 1.0 means the asset or portfolio is less volatile.

CFA INSTITUTE - CFA Institute (formerly the Association for Investment Management and Research or AIMR®) recognized the need for a global set of performance presentation standards. As of January 1, 2006, the AIMRPPS®, a country version of the Global Investment Performance Standards (GIPS®), transitioned to the GIPS® standards. GIPS® states consultants and software vendors may not make a claim of compliance and that a calculation methodology may not be in compliance. Only a firm that manages assets may claim compliance.

CHARACTERISTICS - Quantifiable attributes that summarize the features of individual securities, collections of similar holdings, or an entire portfolio. Characteristics are used to measure and compare quality, value, investment category, and diversification, to name just a few metric types.

CLASS - A class is a broad category of assets such as Taxable Bonds, Money Markets or US Equities.

CLASSIFICATION STRUCTURE - This refers to the classes and subclasses an institution has available for assets. Every asset must be classified in one of the available classes and subclasses.

CLOSE DATE - The date the account was closed.

CONSOLIDATED - A level of reporting that displays performance of a portfolio containing more than one account.

CONTRIBUTIONS - A contribution is a deposit into an account, including cash or assets.

CONTRIBUTIONS/WITHDRAWALS - The net amount you have put in or taken out of the account, including withdrawals for investment management fees.

CORE - A core investment style includes a blend of both Growth and Value securities.

COST BASIS - The purchase price or value at time of receipt of an asset.

Glossary of Terms

COUPON - Coupon is the annual interest payment that the bond issuer has promised to the holder of the bond. A bond is essentially a loan to a company or organization with a promise of payment on the future plus interest payments (coupons) periodically. A Coupon is expressed in a percentage of the par value of the bond.

CREDIT RATING - The determination of the ability and past performance in paying debts, which is usually established by the credit bureau.

CUMULATIVE RETURN - Cumulative return uses periodic returns and geometrically links them over time to form a total return achieved during a given time period. Cumulative returns for periods of time longer than 12 months are displayed in annualized form.

CURRENT YIELD - The current annual rate of return. This calculation is a weighted average that does not include cash and cash equivalents.

CUSIP - A CUSIP is a combination of nine numbers that uniquely identifies a specific security. CUSIP stands for the Committee on Uniform Securities Identification Procedures.

DIVIDEND - A dividend is when a company pays its owners (the shareholders) some of its profits, either in the form of cash or more shares of the underlying security.

DIVIDEND YIELD - The most recent four quarters of a stock's dividends as a percentage of the current stock price.

DOWNSIDE CAPTURE RATIO - The measurement of a manager's performance against the benchmark. A down market is one in which the market's return is less than zero.

ENDING MARKET VALUE - The value of your investment portfolio at the end of the report period. Only marketable securities are presented, so other types of assets, such as real estate, are not included. This may result in a dollar amount different from your accounting statement.

EXPENSE - Amount paid for a good or service.

FEE - Any cost of doing business with a particular firm.

GAIN/LOSS - What your portfolio has made or lost during the specified time period. This includes both realized (such as proceeds from a sale) and unrealized (such as accrued interest, dividends, and market price changes) gains or losses.

GROSS OF FEES - Gross of fees are returns before management fees are paid.

GROWTH - A Growth investment style focuses on stocks that are expected to experience price appreciation.

HOLDING - An investment that you plan to keep in your portfolio.

INCLUSION PERIOD - Period for which the underlying assets are included.

INCOME - Proceeds received from asset sales, dividends and/or interest payments.

INFLATION - The appreciation in the level of prices for a given basket of goods over time.

INFORMATION RATIO - the measurement of the active return of the manager divided by the manager's active risk. Active return is the annualized differences of the manager and the benchmark index, while active ris is measured by tracking error.

INTERACTION (ATTRIBUTION) - The product of sector and stock decisions.

INTERNATIONAL EQUITY - Non-US. Equity securities.

INVESTMENT GAIN/LOSS - What your portfolio has made or lost during the specified time period. This includes both realized (such as proceeds from a sale) and unrealized (such as accrued interest, dividends, and market price changes) gains or losses.

LARGE CAP - Generally a market capitalization of over $5 billion

LEHMAN GLOBAL AGGREGATE - The Lehman Global Aggregate Index provides a broad-based measure of the global investment-grade fixed income markets. The three major components of this index are the U.S. Aggregate, the Pan-European Aggregate, and the Asian-Pacific Aggregate Indices. The index also includes Eurodollar and Euro-Yen corporate bonds, Canadian Issues, and USD investment

LONG POSITIONS - Signifies ownership.

LONG TERM GAIN/LOSS - Usually refers to gain/loss after asset has been owned for a specific amount of time.

MANAGEMENT FEES - Fees charged by an Investment Advisor for services rendered.

MARKET CAP ($MM) - The equity value of a publicly traded company as measured by the outstanding shares multiplied by the unit price.

MARKET CAPITALIZATION - The equity value of a publicly traded company as measured by the outstanding shares multiplied by the unit price.

MARKET VALUE - The last reported price.

MATURITY - The date the issuer of the bond will pay the holder of the bond the par value. After this date, the bond no longer exists.

MATURITY DATE - The date the issuer of the bond will pay the holder of the bond the par value. After this date, the bond no longer exists.

MID CAP - While the range is discretionary, typically defined as a market capitalization of $1 - $5 billion.

MSCI EAFE GROWTH GROSS - The Morgan Stanley Capital International (MSCI) EAFE Growth Index is an unmanaged index consisting of equities from Europe, Australasia, and the Far East. The index is generally considered to be representative of the international growth stock market activity and often used as a benchmark for international growth equity portfolios. This index includes dividends and distributions net of corresponding withholding taxes, but does not reflect fees, brokerage commissions, or other expenses of investing.

NET ADDITIONS - Net additions are the net contributions/withdrawals in/out of an account.

NET OF FEES - Net of fees are returns after management fees have been paid.

OPEN DATE - The date the account was opened.

Glossary of Terms

P/E RANGE - Range of P/E values.

P/E RATIO - A position-weighted average which describes the relationship between the price of a portfolio's various stocks and their earnings per share.

PAR VALUE - The price the issuer of the bond will repay to the holder when the bond reaches maturity.

PERFORMANCE - The measure of the change in value of an asset or group of assets over time.

PORTFOLIO - All of the holdings in a account or group of accounts which have been consolidated.

PORTFOLIO ALLOCATION - The percentage of your portfolio, class or subclass allocated to each type of class, subclass or asset. This percentage will not include nonmarketable securities.

PROCEEDS - Income received from asset sales, dividends and/or interest payments.

R-SQUARED - Indicates the percentage of a portfolio's movement that is explained by the movement in the market portfolio or benchmark index. R2 ranges from 0 to 100%, with a score of 100 indicating that all movements of the portfolio are completely explained by the market portfolio or benchmark index. In general, the higher the R2, the more reliable a portfolio's alpha and beta measurements will be.

RATE OF RETURN - The percentage gain or loss (whether realized or unrealized) on the amount invested.

REALIZED GAIN/LOSS - A Realized Gain/Loss is any monetary gain received from an asset. Received is the key in the case of a Realized Gain/Loss. If an asset appreciates in value, but you do not sell it, the gain is unrealized. The moment the asset is sold and your account is credited with the funds, the gain becomes realized. Other forms of realized gains are dividends from stocks or interest payments from fixed income securities.

RELATIVE RISK - It is the uncertainty of future returns. It is the standard deviation of the portfolio divided by the standard deviation of the market.

REPORT PERIOD - The Report Period represents the date range for the data.

RISK ADJUSTED RETURN - The amount of risk a fund or portfolio took on to earn its returns, usually expressed as a number or a rating.

RUSSELL 3000® INDEX - measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

SECTOR - Sectors as defined by the Global Industry Classification Standards (GICs). A sector is a classification of stocks sharing common characteristics. The 11 GICs sectors are utilities, consumer staples, consumer cyclicals, transportation, technology, health care, financial, energy, basic materials, capital goods, and communication services.

SECURITY - Securities are investment instruments. Securities are most commonly classified as an equity, a debt (fixed income), an investment company (mutual fund) or a derivative.

SHARPE RATIO - The Sharpe Ratio indicates the excess return per unit of risk associated with the excess return. The higher the Sharpe Ratio, the better the performance relative to the investment risk the portfolio has taken.

SHORT POSITIONS - Selling a security that you do not own.

SHORT TERM GAIN/LOSS - Usually refers to gain/loss after asset has been owned less than a specific amount of time.

SMALL CAP - While the range is discretionary, typically defined as a market capitalization under $1 billion.

STANDARD DEVIATION - A measure of a portfolio's return dispersion, standard deviation is a statistical measure of the range of a portfolio's monthly performance. The higher the number the greater the dispersion of the returns.

STANDARD & POOR'S 500 - The S&P 500, computed by the Standard & Poor's Corporation is a well known gauge of stock market movements computed by Standard & Poor's Corporation and determined by the weighted capitalization of a carefully selected list 10 industry sectors. Median capitalization is $6.56 billion while capitalization range is $0.18 billion to $259 billion.

STATIC BLENDED BENCHMARK - A blended portfolio

SUBCLASS - A subclass is a categorical subset of assets within a class. Sector, industry, capitalization, investment valuation, and style are examples of attributes that may be used to define a set of subclasses.

SYMBOL - A unique combination of letter assigned to a security. NYSE and AMEX listed stocks have symbols of three characters or less. Nasdaq-listed securities have four or five characters.

TARGET ALLOCATION - Used to keep the investment plan set by the advisor, target allocation is the dispersion of assets within a portfolio.

TARGET BLENDED BENCHMARK - The target allocation is compared against a blend of industry benchmarks that are assigned to an asset.

TAX LOT - A technique used in record keeping that traces the dates of purchase or sale, cost basis, and transaction size for each security in a portfolio.

TIME WEIGHTED RETURN - A measure of the compound rate of growth in a portfolio. Because this method eliminates the distorting effects created by inflows of new money, it is used to compare the returns of investment managers.

TRACKING ERROR - A measurement that indicates the standard deviation of the difference between a selected market index and a manager's quarterly returns.

TREYNOR MEASURE - A measure of the excess return per unit of risk, where excess return is defined as the difference between the portfolio's average return and the risk-free rate of return over the same evaluation period and where the unit of risk is the portfolio's Beta. It measures the returns earned in excess of those that could have been earned on a risk less investment per unit of market risk assumed.

TREYNOR RATIO - A measure of the excess return per unit of risk, where excess return is defined as the difference between the portfolio's average return and the risk-free rate of return over the same evaluation period and where the unit of risk is the portfolio's Beta. It measures the returns earned in excess of those that could have been earned on a risk less investment per unit of market risk assumed.

UNIT - Any division of quantity accepted as a standard of measurement or exchange.

FFC Capital Management

Glossary of Terms

UNREALIZED GAIN/LOSS - An Unrealized Gain Loss is any market value gain on an asset. The key in the case of an unrealized gain/loss is that the value of the market value has not been received since the asset has not been sold. If an asset appreciates in value, but you do not sell it, the gain is unrealized. The moment the asset is sold and your account is credited with the funds, the gain becomes realized.

UPSIDE CAPTURE RATIO - The measurement of a manager's performance against the benchmark.

VALUE - Target of investments that are low in price relative to the earnings received.

WITHDRAWALS - A withdrawal occurs when a client removes assets or cash from an account.

YIELD - Yield to maturity is the interest rate that will make the present value of a bond's remaining cash flows (if held to maturity) equal to the price (plus accrued interest, if any).

YIELD TO CALL - The percentage rate of a bond or note if you were to buy and hold the security until the next call date. The yield is valid only if the security is called prior to maturity. Generally, bonds are callable over several years and normally are called at a slight premium. The calculation of a yield to call is based on the coupon rate, length of time to the call, and market price.

YIELD TO MATURITY - Yield to maturity is the interest rate that will make the present value of a bond's remaining cash flows (if held to maturity) equal to the price (plus accrued interest, if any). The yield to maturity calculation takes into account not only the current coupon income but also any capital gain or loss the investor will realize by holding the bond to maturity.

YIELD TO WORST - The worst yield possible using Yield to Maturity and each Yield to Call as variables