

# AlphaSolutions Multi-Sector Fixed Income Model

A fixed income model based on trending and momentum strategies

### **Portfolio Goals**

**Primary:** Seeks to invest in highranked sectors within the fixed income market to achieve long term positive returns and to minimize fixed income risk by rotating out of weaker sectors

**Secondary:** Seeks income from interest and dividends

## **Suitability**

Investors that seek an active approach to fixed income management to help maximize total return.

Investors that seek income from the historic safety of the lower volatile fixed income market while minimizing the threat of higher interest rates and credit risks.

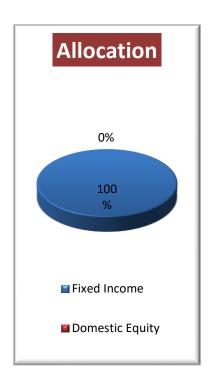
## **Investment Strategy**

We employ technical trending strategies that utilize relative strength to evaluate and invest in high ranking fixed income sectors. We rank each sector daily according to our trending strategies and at the start of each quarter we invest in three of the four highest ranking fixed income sectors. We eliminate the highest ranked sector due to the likelihood of mean reversion and invest in the following three sectors. Each quarter we repeat the process of ranking the fixed income sectors and then investing in those that meet the criteria. This type of investing is typically characterized as momentum investing. The economic cycle is cyclical and as the economy goes through periods of expansion and periods of weakness, during these periods various sectors within the fixed income market behave and perform very differently therefore continually investing in highly ranked sectors may improve total return.

#### **Risk Control Measures**

The AlphaSolutions Multi-Sector Fixed Income model also utilizes momentum investing to minimize risk. Unlike many of our AlphaSolutions models that go to cash when a market indicator is crossed this fixed income model is continuously invested. The risks that are faced by investing in fixed income is different than the risks that are inherent in investing in equities.

There will be periods where interest rates move higher and times when rates decline. Interest rates and bond prices are inversely related, as rates increase bond prices decrease and vice versa, keeping everything else equal. When interest rates climb, often times you want to avoid interest sensitive bonds. As the prices fall for interest sensitive bonds they would drop on our ranking sheet; therefore, we would avoid them during this cycle, which would minimize risk. In addition, as the economy enters a soft patch, credit spreads widen and investments that have credit risk would fall in value. During periods that the economy is softening or weak avoiding bonds with credit risk would help minimize risk.

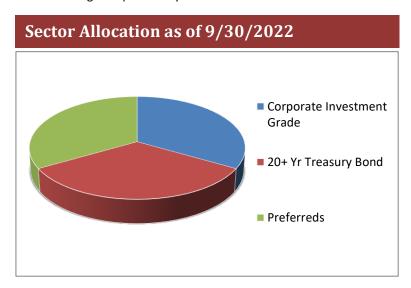


### **Portfolio Characteristics**

Cost-effective diversification is primarily derived from the use of Exchange Traded Funds which track an entire sector of the fixed income market. These ETF's have exposure to many positions, often greater than a few hundred positions.

Each portfolio is managed within a single separate account and is not part of a pooled portfolio.

Technical analysis used to minimize risk and sector rotation based on relative strength to potentially enhance returns and lower risk.



Cash and Fixed								
Income -	100%							
Cash		1%	0%					
BIL		33%	3.4%					
MINT		33%	3.3%					
SHY		33%	2.4%					

### **Multi-Sector Fixed Income Model Overview**

There are number of methods to implement a Multi-Sector Fixed Income strategy. The AlphaSolutions Multi-Sector Fixed Income model is based on continually evaluating relative strength of the major fixed income sectors relative to one another. The four highest ranking sectors are selected for inclusion, while the remaining weaker sectors are eliminated and will not be utilized for this period. Furthermore, the highest ranking sector is rejected due to the probability that the highest ranking sector will revert to its mean after a period of outperformance. Therefore, we invest in the second, third and fourth highest ranking fixed income sectors for the quarter. Each quarter a snapshot is taken and screened through our relative strength ranking sheet as to what sectors would be included and what sectors would be excluded from the model.

The chart below illustrates an example of a Multi-Sector Fixed Income analysis based upon relative strength. The strongest positions have been identified and would be candidates for inclusion in the portfolio, while weaker sectors are avoided.

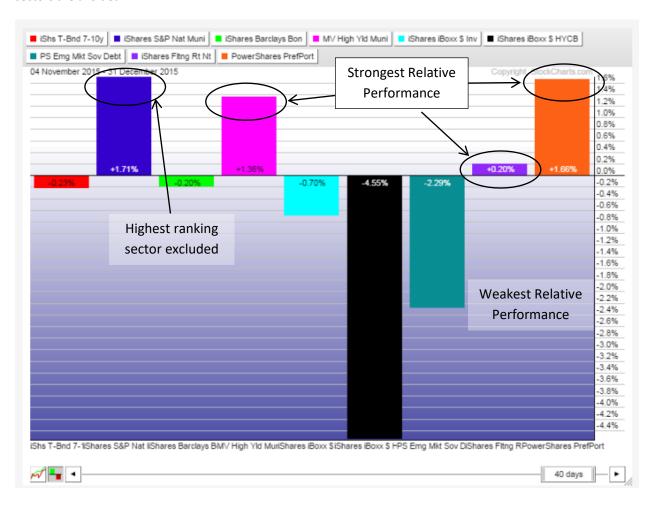
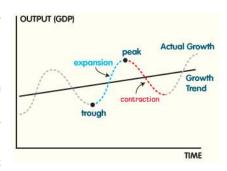


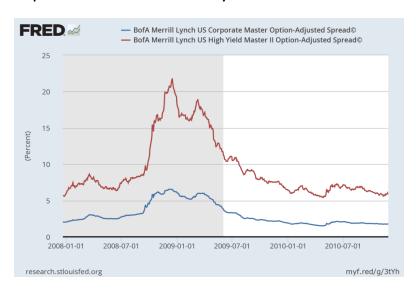
Figure 1: Example of Relative Strength within the fixed income market. This is a partial list of sectors reviewed and is for illustrative purposes only.

The reason for much of the relative strength/weakness in fixed income sectors is that they are not perfectly correlated; they behave and perform differently within the various stages of the economic cycle.

For example, during an economic expansion, corporate bonds and high yield corporate bonds may outperform more defensive sectors due to the likelihood that corporations would be able to pay back their debt as their sales and earnings increase. Investors would be willing to take more risk, and bid up the prices of corporate bonds, credit risk would fall and credit spreads would narrow relative to U.S. treasuries.



#### **Corporate Bonds Reaction to Economy**



During a recession (shaded area) credit spreads for fixed income investments such as investment grade and high yield corporate bonds widen as they did in the 2008-2009 recession. During this period corporate bonds fall in value as investors are nervous and want to be compensated with higher yields for the uncertainty of future corporate cash flow.

During periods of economic expansion corporate spreads narrow as yields fall driving up prices

#### U.S. Treasuries Reaction to Economy

During a contraction in the economy, investors would rather invest in defensive positions, such as, U.S. Treasuries as a flight to safety and rotate out of high yield corporate bonds.



During a recession (shaded area) the Federal Reserve is lowering short term interest rates in an attempt to stabilize and jump start the economy. U.S. Treasury yields fall and treasury prices increase as rates fall.

During periods of economic expansion the Federal Reserve is concerned with inflation and attempts to slow the economy by increasing short term interest rates thus affecting borrowing costs. During this period Treasury yields increase and their prices fall.

## **Multi-Sector Fixed Income Rotation Example**

Examples that can help explain the Multi Sector Fixed Income strategy is to examine what transpired in a few previous years. The first example is from 2011, which started the year with 10 year treasury yields at 3.36%. The yield increased to 3.46 at the end of the first quarter. The equity market as measured by the S&P 500 was up about 5.4% during this period. During this period fixed Income investors were rotating into non defensive fixed income investments. The second quarter ended with economic uncertainty, equity market volatility that turned into a sharp decline, interest rates as measured by the 10 year treasury fell to 1.80%. Therefore the rotation in fixed income within the AlphaSolutions Multi-Sector Fixed Income model was to more defensive U.S. Government positions for the remainder of the year.

The Fixed Income Sector Rotation strategy performed well during the turbulent year of 2011. Its risk/return performance on both a nominal and relative basis to its benchmark was strong.

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Convertible Bond			Con	vertible B	ond	Inflation Protected Government (Tips)			7-10 Year Government		
Emerging Mkts Bond		High Yiel	d Municip	al Bonds	7-10 Year Government			MBS Bond Fund			
Laddered Treasuries			Emer	ging Mkts	Bond	20+ Yr Treas Bond Inflation Pro Government					

Figure 1: 2011 Multi-Sector Fixed Income Rotation

One additional example is from 2009. The end of 2008 and through the first quarter of 2009 fixed income investors invested in defensive positions as the economy was going through a recession. Fixed Income investors were afraid of any investment that had risk, including many historically conservative fixed income investments. The Federal Reserve was maintaining a policy of unprecedented low rates, and Investors globally bid up U.S. government debt; therefore, our model was investing in defensive positions for the first and second quarter of 2009. As the recession reached the trough and started the early stages of expansion, investors started to rotate out of defensive positions and into higher yielding investments that had severely sold off during the recession. As the economy started its expansion the yield on the 10 year treasury increased to approximately 3.85%.

The Fixed Income Sector Rotation strategy performed well during the turbulent year of 2009. Its risk/return performance on both a nominal and relative basis to its benchmark was strong.

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Corporate Investment Grade		Emer	ging Mkts	Bond	High Yield Corporate			Convertible Bond			
7-10 Year Government		Mu	nicipal Bo	nds	Emerging Mkts Bond High Yield Municipal Bo				cipal Bonds		
Aggregate Bond		7-10 Y	ear Gover	nment	Co	onvertible	Bond	Em	erging Mk	ts Bond	

Figure 2: 2009 Multi-Sector Fixed Income Rotatio

Past performance is no guarantee of future results. Information provided in this report is for educational and illustrative purposes only and should not be construed as individualized investment advice. The investment or strategy discussed may not be suitable for all investors. All investments involve risk and although our rules-based investment process utilizes downside risk controls, loss of principal can still occur. Principal values and investments returns are neither guaranteed nor issued by, guaranteed by, or obligations of a bank, savings and loan, or credit union; and are not insured or guaranteed by the FDIC, SIPC, NCUSIF or any other agency.

Current holdings are subject to change at any time without notice. In addition to the normal risk associated with fixed income investing, high yield and convertibles among others, historically exhibit higher volatility and are less readily marketable then investments in government debt. The holdings in which the strategy invests in are likely to be concentrated in fixed income sectors. Holdings concentrated in fixed income sectors present more risks than holdings that are broadly diversified. The Barclays US Aggregate Bond Index is an unmanaged group of securities considered to be representative of the U.S. investment-grade bond market in general, and its performance is not reflective of the performance of any specific investment. Investments cannot be made directly into an index.

1 Returns are through September 30, 2022. Net returns reflected after deducting portfolio management fee of .40%, applicable to \$100,000 - \$499,999 account size. Actual management fee will vary for accounts that are less than or greater this range. Management fee schedules are available upon request or may be found in Part 2A of Harvest Investment Service's ADV. Calculations may not reflect all potential fees, charges and expenses that might be incurred over the time frame including program fees, investment advisor fees and administrative fees. Individual performance may vary depending upon the timing of contributions and withdrawals. Historical returns data are calculated using data provided by sources deemed to be reliable, but no representation or warranty, expressed or implied, is made as to their accuracy, completeness or correctness. This information is provided "AS IS" without any warranty of any kind. All historical returns data should be considered hypothetical. All AlphaSolutions rules based managed models have been back tested over multiple market cycles to prove the validity and reliability of the rules-based strategy. Historical back tested returns were based on the use of Ishares ETFs; actual ETFs chosen may differ from the use of Ishare ETFs, past and future returns may be higher or lower.

Additional Definitions: The Compound Annual Growth Rate represents the annualized growth rate of an investment over a specified period of time. The Maximum Drawdown represents the greatest peak to trough decline over the life of an investment. Capture Ratio is a measure of the investment performance in periods when the benchmark has positive/negative returns. It tells you what percentage of the up/down market, as represented by the benchmark return, was captured. Standard Deviation is a statistical measurement of dispersion from an average, which, for an investment, depicts how widely the returns varied over the time period indicated. Alpha is an indication of how much an investment outperforms or underperforms on a risk-adjusted basis relative to its benchmark. Beta is a measure of price variability relative to the market. Sharpe Ratio is a measure of excess reward per unit of volatility.

Advisory Services offered through Harvest Investment Services, LLC, a Registered Investment Advisor.