NorthCoast Asset Management

Tactical Income

2018 Strategy Review

December 31, 2018

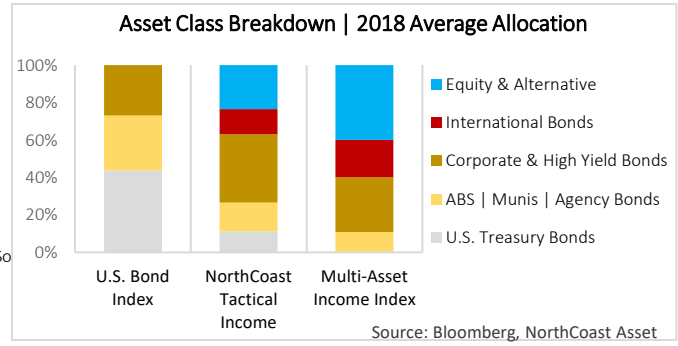
The following report provides in-depth analysis into the successes and challenges of the NorthCoast Tactical Income managed ETF strategy throughout 2018, important research into the mechanics of the strategy, and a brief outlook for 2019.

Objective & Description

Tactical Income invests in a diversified basket of global ETFs across the income spectrum using U.S. bonds, global bonds, corporate bonds, mortgages, U.S. and global dividend equities, and income alternatives. The portfolio seeks to generate income of 2-3% in excess of inflation by focusing on risk-adjusted returns in today's market. The strategy aims to generate these risk-adjusted returns by utilizing three key investment tactics:

① Determine global asset allocation - how much to allocate to equity vs. fixed income vs. alternative assets
② Identify factors that drive relative ETF performance and then invest in ETFs that demonstrate those factors
③ Manage risk by constructing a diversified portfolio of ETFs

Proper Benchmarking | A Variety of Yield Options in Today's Market



To achieve these outcomes, we need to understand the alternative options producing income in today's marketplace. We've presented two index options for comparing and contrasting our tactical strategy. One index, the Barclays U.S. Aggregate Bond Index (U.S. Bonds) stays in the more conservative end of the spectrum, while the other offers a more aggressive yet riskier approach, the Multi-Asset High Income Index (MAHIT) provided by Morningstar. When breaking down the sector decomposition of the more conservative U.S. Bond Index, we notice the index is more heavily weighted towards treasury bonds, asset-backed securities and credit bonds, with no allocation to high yield or municipal bonds, TIPS, international bonds or yield alternatives. In contrast, the Multi-Asset High Income Index emphasizes credit bonds, high yield bonds and yield alternatives, with no weight on the treasury bonds or the asset-backed securities and municipal bonds. NorthCoast Tactical Income, in its quest for a higher yield than U.S. Bonds but at a lower risk than the Multi-Asset Income Index, attempts to bridge the gap between those two compositions by allocating to all five income sectors with a dynamic investment process that considers a variety of assets throughout the year.

Investment Process

① The first step in the Tactical Income investment process is to determine the proper asset allocation across ETFs; how much to allocate to defensive fixed income vs. higher yield fixed income and alternative assets (such as real estate or preferred shares). Our proprietary Global Tactical Asset Allocation (GTAA) model monitors 40+ data points across four market-moving indicators; Macroeconomic, Sentiment, Technical, and Valuation. The daily aggregate of the indicators is then used to determine the proper asset allocation given current market conditions.

② Next, we score, rank and select the individual ETFs. We believe ETFs can exhibit certain measurable factors that lead to future performance and every day we score and rank over 50 ETFs based on which embody the most desirable characteristics using a set of data points across the four broad dimensions (macroeconomic, sentiment, technical, valuation). Positions demonstrating the most favorable relationship between expected risk and return are added to the portfolio. Changes are only made to the strategy if dictated by the research. For more information on ETF selection, we encourage you to review our recently published research whitepaper, ETF Harmony®: Modern Logic to ETF Selection.

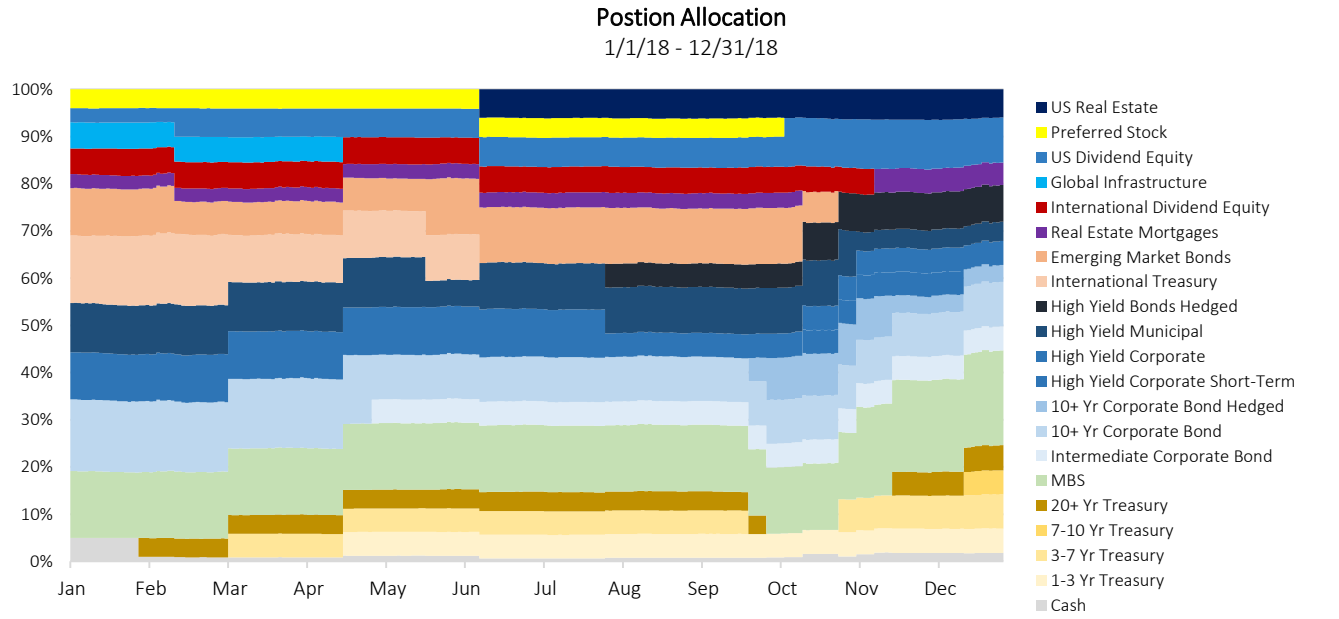
③ Finally, the strategy manages risk through daily monitoring of the current market environment and the relative attractiveness of individual ETFs. These quantitative inputs are going to guide the portfolio construction with risk controls.

Portfolio Positioning: 2018 Review

2018 Exposure Average:

Fixed Income: **75%** Equity: **14%** Alternatives: **10%** Cash: **1%**

Our Global Tactical Asset Allocation (GTAA) model indicated a mixed outlook for the global market environment throughout 2018. When looking through the lens of our four market-moving dimensions, 2018 provided a growth outlook that declined as the year progressed. Only technical indicators, which were strengthened by short-term reversals and a high fear index, as measured by volatility, remained bullish throughout the year. Fear, seen as a contrarian indicator, buoyed the technical data points. However, macroeconomic and sentiment indicators waned as the year went on. Geopolitical factors such as the pending Brexit and U.S.-China trade disputes hindered international growth. International markets began showing signs of slowing economies with reduced GDP growth and weakened industrial production while the JP Morgan Global Manufacturing survey declined throughout the year. Finally, valuation metrics improved as the year went on. With international equities declining, their P/E ratios became more attractive. Starting the year at an 18.9 P/E multiple, equity valuations dropped to 12.3 on 12/31, a 35% drop. Thus, on average, Tactical Income held 75% exposure to fixed income and cash, and 24% to alternative assets and equities. Currently, its yield generation is at +3.8%, not including asset appreciation (and varies with the portfolio positioning).



Source: NorthCoast Asset Management

The following chart highlights the difference in allocation between the Tactical Income strategy and two competitive benchmarks in 2018.

Traditional Fixed Income - ---> Alternative Assets

	ETF	Description	U.S. Bond Index	Tactical Income	Multi-Asset Income Index	2018 ETF Performance
Traditional Fixed Income	**US Treasury Bonds**		**44%**	**11%**	**-**	**0.9%**
	SHY	1-3 years	9%	4%	-	1.5%
	IEI	3-7 years	18%	4%	-	1.4%
	IEF	7-10 years	10%	-	-	1.0%
	TLH	10-20 years	2%	-	-	0.4%
	TLT	20+ years	5%	3%	-	-1.6%
	ABS, Municipal, Agencies		**29%**	**15%**	**11%**	**0.8%**
	MBB	MBS	28%	15%	11%	0.8%
	CMBS	CMBS	-	-	-	0.8%
	AGZ	Agencies	-	-	-	1.3%
	MUB	Municipal	1%	-	-	0.9%
<----------	**Credit & High Yield Bonds**		**27%**	**36%**	**29%**	**-0.9%**
	IGSB	Short-Term Credit	12%	-	-	1.2%
	IGIB	Intermediate Credit	11%	3%	5%	-0.7%
	IGLB	Long-Term Credit	4%	11%	1%	-6.9%
	LQD	Investment Grade Credit	-	-	3%	-3.8%
	HYG	High Yield Corporate	-	8%	20%	-2.0%
	SHYG	High Yield Corporate Short-Term		1%	-	0.0%
	HYGH	High Yield Corporate Hedged	-	3%	-	-0.9%
	IGBH	Long-Term Corporate Hedged	-	2%	-	-4.1%
	HYD	High Yield Municipal	-	9%	-	2.2%
Alternative Assets	**International Bonds**		**-**	**13%**	**20%**	**-5.2%**
	EMB	Emerging Market Bonds	-	8%	15%	-5.5%
	LEMB	Local Currency Emerging Market Bonds	-	-	5%	-7.5%
	IGOV	International Treasury Bond	-	5%	-	-2.6%
	Yield Alternatives		**-**	**23%**	**40%**	**-6.8%**
	REM	Real Estate Mortgages	-	3%	14%	-3.0%
	IDV	International Dividend Equity	-	5%	12%	-10.3%
	DVYE	Emerging Marketing Dividend Equity		-	1%	-5.5%
	IGF	Infrastructure Stocks	-	2%	-	-9.9%
	DVY	U.S. Dividend Equity	-	7%	2%	-6.3%
	PFF	Preferred Shares	-	3%	6%	-4.6%
	IFGL	International Real Estate	-	-	-	-6.4%
	HDV	U.S. High Dividend Equity	-	-	5%	-3.0%
	IYR	U.S. Real Estate	-	3%	-	-4.3%
	EFV	EAFE Value	-	-	1%	-14.6%

*Source: Bloomberg. NorthCoast Asset Management. 1/1/2018 – 12/31/2018. Tactical Income displays the 2017 average position allocation. Allocations are rounded and may not add up to 100%.

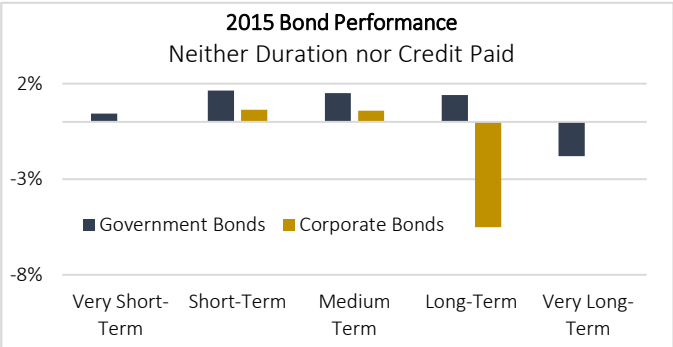
As can be seen in the chart above, the strategy was underweight treasuries, overweight corporate bonds and alternatives compared to the Barclays U.S. Aggregate Bond Index (AGG). Our model indicated that low yielding treasuries, producing +1.7% yield for the 1-3 year treasuries and +2.6% for the 20+ year treasuries, did not present the best risk-adjusted return potential. Therefore, more weight was placed on corporate bonds and alternative income sources. While the allocation continued to produce yield, declining markets and the rising rate environment negatively impacted these positions.

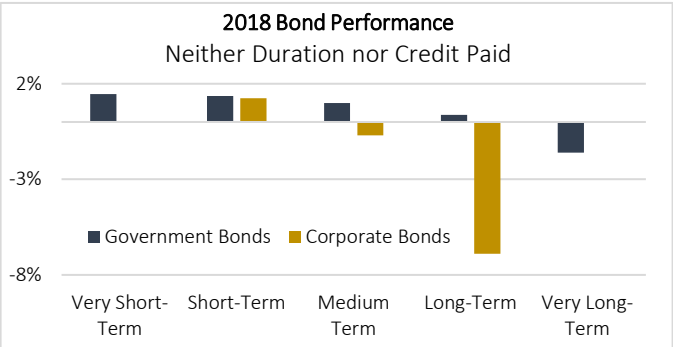
For asset backed securities and international bonds, the Tactical Income portfolio positioned itself in between AGG and the Morningstar Multi-Asset Income Index (MAHIT). The allocation was consistent with the mandate of our portfolio: higher yield than the Barclays Bond Aggregate and lower risk than the Morningstar Multi-Asset High Income Index.

Several ETF selections proved to be successful for Tactical Income, including allocating to more conservative short term U.S. treasury bonds, mortgage backed securities (MBS) and high yield municipal bonds. We increased our allocations to iShares 1-3 Year Treasury Bond ETF (SHY) and iShares 1-3 Year Treasury Bond ETF (IEI). SHY and IEI returned 1.5% and 1.4% respectively. The MBS sector continued to benefit from the relatively low interest rate and benign prepayments environment. In response, the iShares MBS ETF (MBB) returned 0.8%. HYD (VanEck Vectors High-Yield Municipal Index ETF) was an unlikely success story in 2018, producing 2.2% return. Municipal bonds continued to enjoy high demand and declining issuance and HYD's current yield of 4.9% certainly provided a boost of income for the strategy. Another position worth mentioning was iShares Interest Rate Hedged High Yield Bond ETF (HYGH). Our proprietary Duration Timing model provides us with tools to actively manage interest rate risk. As the model indicated a relatively short targeted duration, we trimmed our position in HYG (iShares iBoxx $ High Yield Corporate Bond ETF) and introduced HYGH.

While currency hedging was a major point of conversation as exchange rates diverged around the globe, Tactical Income invested in iShares J.P. Morgan USD Emerging Markets Bond ETF (EMB) versus iShares Emerging Markets Local Currency Bond ETF (LEMB). The allocation proved slightly beneficial for the strategy as EMB ended the year -5.5%, while LEMB lost 7.5%. Almost all alternative investments including real estate, dividend equities and infrastructure stocks faced some challenges in 2018. Real estate was one of the asset classes that suffered less in that space. The strategy held about 6% of iShares Mortgage Real Estate ETF (REM) and iShares U.S. Real Estate ETF (IYR), which returned -3.0% and -4.3% respectively in 2018. However, we are closely monitoring the trend of interest rates, which have risen recently, and have put pressure on the price of REITs.

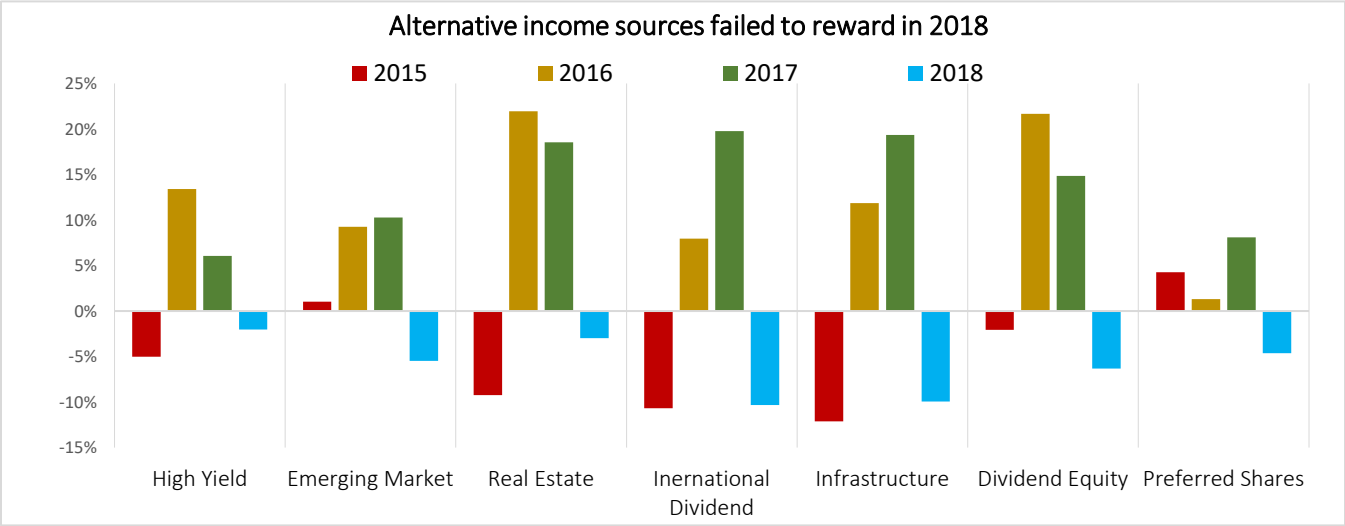
To better understand the source of income production in today's interest rate environment, let's consider the three primary risks associated with generating *higher* yield; 1) credit, 2) duration, and 3) alternative assets. While these risks contributed to the positive performance in both 2016 and 2017, all three levers underperformed in 2018, similar to what we experienced in 2015.





The figures above demonstrate that the longer the duration of the Treasury or Corporate Bonds, the worse the performance in 2018. It also shows that the Corporate Bonds total returns were lower than the Treasury Bonds. This is a

complete reversal from 2016 and 2017. When turning to the alternatives, most experienced negative performance in 2018 as shown in the figure below.



Source: Bloomberg, NorthCoast Asset Management.

Performance Summary

With a net performance of **-3.8%**, Tactical Income underperformed the general U.S. Aggregate Bond Index (AGG Index), which returned 0.0% for the year, while outperforming the Morningstar's Multi-Asset High Income Index by about 1%, which declined -4.8%.

Onto 2019…

Looking forward, we are still cautiously conservative on the global market environment, leading us to an approximately 80% exposure to fixed income and cash, and a 20% allocation to alternative assets such as real estate and preferred equities.

We have made several changes to the Tactical Income portfolio recently. We added exposure to iShares 3-7 Year Treasury Bond ETF (IEI) and iShares 7-10 Year Treasury Bond ETF (IEF) given our cautious market outlook. Mortgage backed securities are still under-represented compared with the U.S bond index in our portfolio as we acknowledge the increasing refinancing and prepayment risk. We believe that the rising interest rate environment next year will likely trigger an increase in the volatility of real estate prices and uptick in mortgage spreads.

The table below outlines the model strategy allocation as we enter 2019.

	ETF	Description	U.S. Bond Index	Tactical Income	Multi-Asset Income Index
Traditional Fixed Income	**US Treasury Bonds**		**44%**	**22%**	**-**
	SHY	1-3 years	9%	5%	-
	IEI	3-7 years	18%	7%	-
	IEF	7-10 years	10%	5%	-
	TLH	10-20 years	2%	-	-
	TLT	20+ years	5%	5%	-
	ABS, Municipal, Agencies		**29%**	**20%**	**5%**
	MBB	MBS	28%	20%	5%
	CMBS	CMBS	-	-	-
	AGZ	Agencies	-	-	-
	MUB	Municipal	1%	-	-
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	IGSB	Short-Term Credit	12%	-	-
	IGIB	Intermediate Credit	11%	5%	15%
	IGLB	Long-Term Credit	4%	10%	-
	LQD	Investment Grade Credit	-	-	-
	HYG	High Yield Corporate	-	5%	20%
	SHYG	High Yield Corporate Short-Term		4%	-
	HYGH	High Yield Corporate Hedged		4%	-
	IGBH	Long-Term Corporate Hedged	-	8%	-
Alternative Assets	**International Bonds**		**-**	**0%**	**20%**
	EMB	Emerging Market Bonds	-	-	15%
	LEMB	Local Currency Emerging Market Bonds	-	-	5%
	IGOV	International Treasury Bond	-	-	-
	Yield Alternatives		**-**	**21%**	**38%**
	REM	Real Estate Mortgages	-	5%	14%
	IDV	International Dividend Stocks	-	-	14%
	DVYE	Emerging Market Dividend Equity	-	-	5%
	IGF	Infrastructure Stocks	-	-	-
	DVY	U.S. Dividend Stocks	-	10%	-
	PFF	Preferred Shares	-	-	5%
	IFGL	International REITS	-	-	-
	HDV	U.S. High Dividend Stocks	-	-	-
	IYR	Real Estate	-	6%	-

*Source: Bloomberg. NorthCoast Asset Management. As of 12/31/2018. Allocations are rounded and may not add up to 100%.

We continue to actively manage duration risk by adding iShares Intermediate-Term Corporate Bond ETF (IGIB), trimming the position of HYG (iShares iBoxx $ High Yield Corporate Bond) and adding exposure to iShares Interest Rate Hedged High Yield Bond ETF (HYGH).

Internationally, we closed positions in iShares J.P. Morgan USD Emerging Markets Bond ETF (EMB) and iShares International Treasury Bond ETF (IGOV) as our model indicated lower scoring for both asset classes and the anticipated volatility associated with trade tensions and geopolitical risks.

We emphasize the need to remain agile in allocating to fixed income in the current market environment. What has been quite intriguing is that, while in the past few years staying away from duration may have increased returns, over the last few months we have noticed the inverse effect. Staying both tactical and objective continue to be very important to the strategy.

As 2019 evolves and new information enters the marketplace, we will continue to monitor the indicators daily to assess our allocation and make the necessary adjustments to deliver risk-adjusted returns. Utilizing this strategy, our investments will not perfectly correlate to typical benchmarks, meaning there may be times when the markets are up and your accounts are down, and vice versa. This is very much a part of the investment process and why, when given time, we believe the Tactical Income strategy will outperform.

Important Disclosure Information

*Barclays U.S. Bond Aggregate Index ("U.S. Bonds")	The Barclays Capital Aggregate Bond Index is a market capitalization-weighted index. Most U.S. traded investment grade bonds are represented. Municipal bonds, and Treasury Inflation-Protected Securities are excluded, due to tax treatment issues. The index includes Treasury securities, Government agency bonds, Mortgage-backed bonds, Corporate bonds, and a small amount of foreign bonds traded in U.S.

*Morningstar Multi-Asset Income Index ("Multi-Asset Income")	The Morningstar Multi-Asset High Income Index is broadly diversified and seeks to deliver a high level of current income while maintaining long-term capital appreciation. This index consists of a comprehensive set of exchange traded funds (ETFs) that collectively target equity, fixed income, and alternative income sources.