NorthCoast Asset Management

Tactical Growth

2018 Strategy Review

December 31, 2018

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

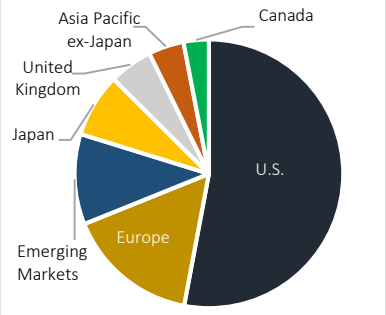
Objective & Description

Tactical Growth invests in a diversified basket of ETFs with a primary objective of long-term capital appreciation. The strategy has a global mandate - with the flexibility of full tactical shifts across equity, fixed income and alternative positions, and is designed to deliver better risk-adjusted returns in today's global equity 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

Benchmark Choice: All-Country World Index (ACWI)

The best way to understand the landscape of global equities is to reference the MSCI All-Country World Index (ACWI) - a market capitalization weighted index designed to provide a broad measure of equity-market performance throughout the world. It is comprised of stocks from both developed and emerging markets. This benchmark represents a reasonably accurate view of the world index and investment opportunities. Mixing U.S. and international stocks can be beneficial because it provides diversification of risk. International equities can be driven by different factors than U.S. equities and, in fact, international equities have outperformed U.S. markets in nine of the last seventeen years, as illustrated in the chart below.



Annual Returns | U.S. Equities (S&P 500) vs. International Equties (ACWI ex-U.S.)

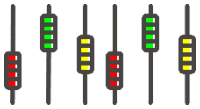
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
S&P 500	-22.5%	28.0%	10.2%	4.3%	15.1%	4.9%	-37.4%	25.5%	14.4%	1.5%	15.2%	31.5%	13.0%	0.7%	11.2%	21.1%	-4.9%	177.4%
ACWI ex-U.S.	-14.9%	40.8%	20.9%	16.6%	26.7%	16.7%	-45.5%	41.4%	11.2%	-13.7%	16.8%	15.3%	-3.9%	-5.7%	4.5%	27.2%	-14.2%	156.7%

Source: Bloomberg. 1/1/2002-12/31/2018.

Investment Process

① The first step in the Tactical Growth investment process is to determine the proper asset allocation across asset classes and regions. Our proprietary Global Tactical Asset Allocation (GTAA) model monitors 40+ data points across four market-moving indicators; Macroeconomic, Sentiment, Technical, and Valuation. The model aggregates these data points into a single score for each indicator. The portfolio management team uses these daily scores to understand the current market conditions and determine an appropriate asset allocation.

② Next, we use a similarly configured model to score and rank individual ETFs within our universe. We believe that ETFs can exhibit certain measurable factors that indicate future performance. Every day we score and rank over 50 ETFs using a similar set of data points as our GTAA model across the four broad dimensions macroeconomic, sentiment, technical and valuation. The positions demonstrating the most favorable potential return relative to its risk 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.

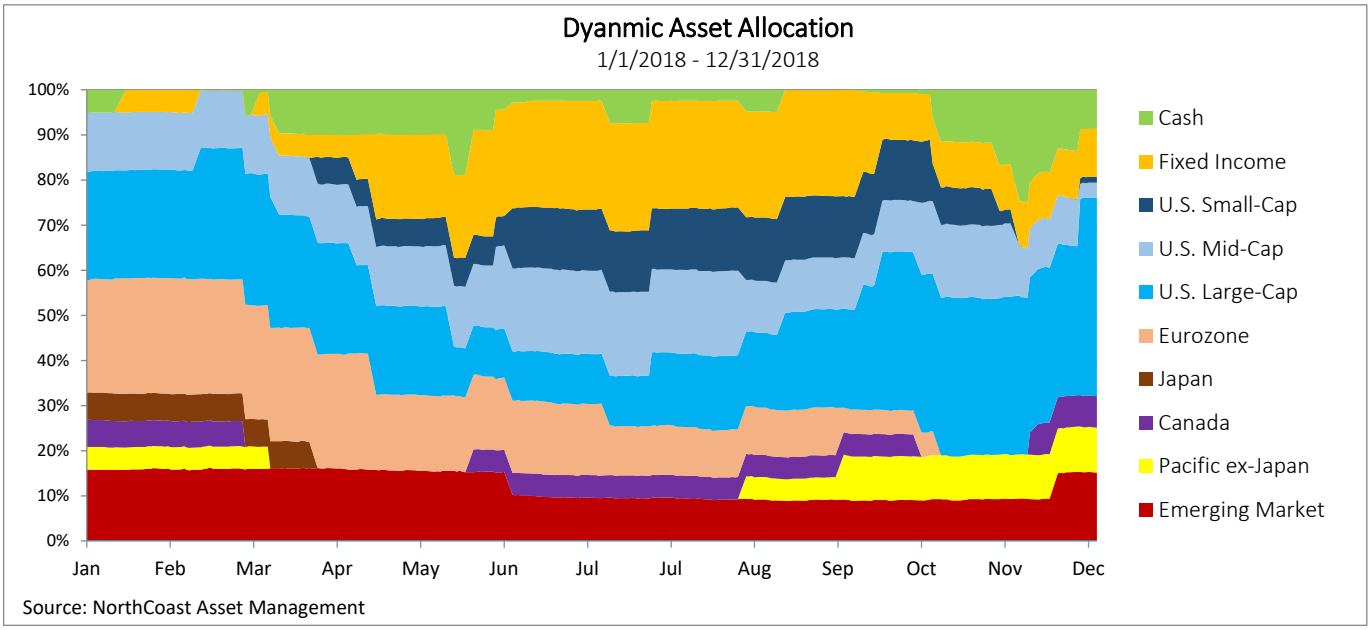
③ Finally, the strategy manages risk through daily monitoring of the current market environment and the relative attractiveness of individual ETFs. These quantitative inputs guide the portfolio construction with risk controls.

Strategy Allocation: 2018 Review

NorthCoast navigated 2018 with varying exposures to the global equity and fixed income markets. Over the course of the year, the strategy averaged a 6% allocation to cash, 14% allocation to fixed income and 80% exposure to global equities.

Average Equity Exposure: **80%**
High: **100%** Low: **63%**

Considering the four market-moving dimensions, 2018 provided an array of changing indicators that, in general, slowly weakened as the year progressed. Macroeconomic and sentiment indicators waned as the year went on with signs of slowing economic growth in international countries. These indicators were also impacted by the ongoing Brexit discussions, U.S. – China trade dispute and the JP Morgan Global Manufacturing survey declining throughout the year. Only technical indicators remained bullish throughout the year as they were buoyed by short-term reversal and fear indicators. The fear indicator is a measure of volatility considered a contrarian indicator in our model. Finally, valuation metrics improved as the year went on. With international equities declining, their P/E ratios became more attractive. These P/E multiples dropped by 35% from 18.9 at the beginning of 2018 to 12.3 on 12/31.



The strategy's allocation averages during 2018 were more conservative compared to 2017 due to our model's less bullish outlook. Tactical Growth averaged a 20% allocation to cash and diverse bonds throughout last year, which generated approximately +1.5% value-add versus the MSCI ACWI Index by protecting the portfolio against some downside market action. This tactical positioning is a key tactic of the strategy and a product of our GTAA model's outputs.

When comparing the strategy's asset allocation against the ACWI, Tactical Growth was relatively underweight U.S. equities. While the ACWI has a 50% U.S. large-cap equity exposure, Tactical Growth averaged a 23% allocation to the U.S. large-cap market segment in 2018. Our model indicated a less bullish outlook for the U.S. equity market due to the risks of an overheated economy, overvalued equity prices and the trade tensions between the U.S. and China. The iShares Core S&P 500 ETF (IVV) ended the year negative with -4.5%. Within our allocation to U.S. equities, we were underweight large-cap stocks which outperformed their mid and small-cap counterparts. This underweighting of large-cap stocks did have a negative impact on the strategy's performance.

A successful allocation decision this past year that added value to the strategy's performance was to underweight Eurozone equities (EZU), which underperformed most other equity markets in 2018. Instead of overweighting EZU as we did in 2017, we gradually reduced exposure to the region as our model's outlook became more negative this year. Diminishing GDP growth for the Eurozone confirmed an economic slowdown and U.S. trade policy changes created uncertainty for future trade in the region. Sentiment signals for the area remained negative since early March with the main drag coming from deterioration in consumer confidence due to concerns of easing demand. Our underweight position versus the ACWI proved to be advantageous as EZU lost -16.7% for the year.

Underweighting Japanese equities (EWJ) was another decision that added value to the strategy last year. Our model indicated relatively low macroeconomic, technical and sentiment signals for EWJ. Japan's economy weakened last year after its GDP grew at the fastest rate since 2013 two years ago. One sign of the weaker economy was that industrial production growth was negative for most of the months in 2018. EWJ returned -14.1% for the year.

One of the most valuable allocation decisions for the year was avoiding exposure to the United Kingdom equity market ETF, EWU. We remained out of the U.K. equity market throughout 2018 as we believed that the U.K. economy's underlying momentum was fragile. The uncertainty surrounding the outcome of Brexit was also weighing on U.K. business investment as companies waited further clarification on the country's exit from the EU. EWU ended -14.3% for 2018.

Below is an overview of the portfolio allocation in 2018.

ETF	Description	Tactical Growth Average Weighting	ACWI Benchmark: Weighting	Over/Underweight (Relative to ACWI Benchmark)	2018 ETF Performance
IVV	S&P 500	22.7%	51.5%	-28.8%	-4.5%
IJH	S&P Mid-Cap	14.2%	1.0%	13.2%	-11.2%
EZU	Eurozone/Western Europe	13.9%	15.9%	-2.0%	-16.7%
Bonds	Diverse Bonds	13.8%	0.0%	13.8%	-3.1%
IEMG	Emerging Markets	12.3%	10.9%	1.4%	-14.9%
IJR	S&P Small-Cap	7.5%	0.5%	7.0%	-8.5%
Cash	Cash Equivalents	6.7%	0.0%	6.7%	0.0%
EPP	Pacific ex-Japan	3.8%	4.3%	-0.4%	-10.8%
EWC	Canada	3.6%	3.0%	0.5%	-17.2%
EWJ	Japan	1.4%	7.7%	-6.3%	-14.1%
EWU	United Kingdom	0.0%	5.2%	-5.2%	-14.3%

Source: Bloomberg. NorthCoast Asset Management. 1/1/2017 – 12/31/2018.

Performance Summary

Tactical Growth ended 2018 with a total return of -9.2% slightly outperformimg its benchmark, the MSCI All-Country World Index. The strategy slightly underperformed its Morningstar competitor average, which averages performances of other investment strategies with similar mandates. The underpormance can largely be attributed to the competitors' more U.S. centric investment focuses and the U.S. equity market outperforming almost all other market in 2018. While underweighting the U.S equity market detracted from performance, the exposure to conservative asset classes such as bonds and cash did provide some beneficial downside protection. The portfolio also benefited from the allocation decisions of underweighting United Kingdom, Eurozone/Western Europe and Japan.

Competitive Benchmark		*Index*			
Tactical Allocation Competitor Average[1]	**-7.7%**	**S&P 500 +**	**-4.9%**	**NorthCoast Tactical Growth**	**-9.2%**
Aggressive Allocation Competitor Average[2]	**-7.8%**	**ACWI ex-US**	**-14.2%**	*Net of expense ratios and management fees	
		= ACWI	**-9.4%**		

Source: NorthCoast Asset Management, Bloomberg, Morningstar.

Moving into 2019…

Below is a table outlining the current 2019 strategy allocation.

ETF	Description	Tactical Growth	ACWI Benchmark	Over/Underweight (Relative to ACWI Benchmark)
IVV	S&P 500	44.4%	54.2%	-9.9%
IEMG	Emerging Markets	14.8%	10.3%	4.4%
Bonds	Diverse Bonds	10.9%	0.0%	10.9%
EPP	Pacific ex-Japan	10.0%	4.3%	5.7%
Cash	Cash Equivalents	8.4%	0.0%	8.4%
EWC	Canada	6.9%	3.0%	3.9%
IJH	S&P Mid-Cap	3.3%	0.0%	3.3%
IJR	S&P Small-Cap	1.4%	0.0%	1.4%
EZU	Eurozone/Western Europe	0.0%	15.4%	-15.4%
EWJ	Japan	0.0%	7.4%	-7.4%
EWU	United Kingdom	0.0%	5.1%	-5.1%

Source: Bloomberg. NorthCoast Asset Management. As of 12/31/2018.

In 2018, the U.S. economy enjoyed a banner year with real GDP annual growth rate on track to increase by close to 3%, which is the strongest gain of the nearly decade-long expansion. However, the stock market selloff at the end of 2018 started signaling a potential end to the longest bull market in history. In fact, the S&P500 index lost 9.03% in December

2018, lagging the ACWI ex US by about 5%. We believe the deficit-financed tax cuts and government spending increases will continue to help the economy grow much of next year, but these benefits will continue to diminish and may put downward pressure on the market in the longer term We also expect the labor market to continue to grow and unemployment to stay low by historical standards, but that the pace of job growth will moderate with a tightening labor supply. The trade tension between the U.S. and China and other geopolitical events remain threats to the economy and might increase the volatility of the U.S. equity market. Although our model indicates that the chance of recession in the U.S. remains relatively low in the coming months, investors should continue to expect some market volatility through 2019.

In the current business environment, we believe it is more important than ever to have a global strategy with a diverse array of investment opportunities that add diversification benefits to the portfolio. Internationally, our outlook for the Eurozone (EZU) remains relatively less optimistic compared to our view of some other international markets. Technical, sentiment and valuation indicators from our models are in negative territory for the economic union. The region was on an economic downtrend in 2018. European equity growth in the region might have also been muted by looming trade uncertainty. The European Central Bank is scheduled to halt asset purchases associated with quantitative easing as the economic union is moving to a more neutral fiscal policy stance after a very drawn-out period of accommodative central bank policy.

We continue to underweight UK equity market (EWU). Recent economic data indicated continuing weakness in UK's manufacturing sector, and further deterioration is likely into next year. Uncertainty related to the looming Brexit deadline is certainly expected to keep financial market volatility high in the coming months and keep domestic demand contained.

Our model indicated a higher score for Pacific ex Japan equity market (EPP) and the strategy is overweight the region right now. We're seeing positive macro and technical signals being the major contributors driving the score. Approximately 57% of EPP is composed of Australian equities. Recent Australian economic data have been encouraging with unemployment rate continuing its downward trend and participation rate picking up.

Conclusion

As 2019 evolves and new information enters the marketplace, we will continue to monitor indicators daily to assess our allocation and make the necessary adjustments. We will shift allocations when these indicators warrant actionable change. Due to this tactically active management, Tactical Growth will not necessarily correlate to typical equity or fixed income benchmarks as we saw in 2018. We manage the strategy this way for that reason and we believe the differences in allocations and lack of correlation make it capable of outperforming over time.

Points to Consider

- Think globally. There are more investment opportunities to add diversification benefits for your portfolio.
- Tactical investing has potential for downside protection benefits but can come at a slight cost of short-term cash drag.
- Markets are dynamic - Stay flexible and re-assess constantly to determine the proper course of action.

IMPORTANT DISCLOSURE INFORMATION

[1] The **Tactical Allocation Competitor Average** is the Morningstar Tactical Allocation Category. These portfolios seek to provide both capital appreciation and income by investing in three major areas: stocks, bonds, and cash. These portfolios tend to hold larger positions in stocks than moderate-allocation portfolios. These portfolios typically have 70% to 90% of assets in equities and the remainder in fixed income and cash.

[2] The **Aggressive Allocation Competitor Average** is the Morningstar Aggressive Allocation Category. These portfolios seek to provide capital appreciation and income by actively shifting allocations between asset classes. These portfolios have material shifts across equity regions and bond sectors on a frequent basis. The cumulative asset class exposure changes must exceed 10% over the measurement period.

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