

## What's the Coronavirus ETF Playbook?

Over the weekend, Astoria released a report (click [here](#)) highlighting the performance of various asset allocation strategies during prior epidemics. We believe the most important statistics from our report are as follows:

- Since 1981, there have been **11 major epidemics** for which we have a 3-year track record of measuring how a 60/40 portfolio would have done over the subsequent 3-year period when the epidemic struck.
- In only **1 instance**, did a 60/40 portfolio produce a **subsequent negative 3-year total return** (-142bps for the Bird Flu virus in 2006).
- Of the 11 epidemics, there has been only **2 instances** where the **subsequent 1-year return was negative for a 60/40 portfolio** (-458bps for HIV in 1981 and -112bps for Measles in 2014).
- We realize that investors will argue that *this time is different*, China is a bigger part of the global economy, and the Coronavirus is both a demand and supply shock. All this is indeed factual.
- If you triple the worst-case return for a 60/40's portfolio on a 1-year basis (-458bps for HIV in 1981), this would equate to a theoretical 13.7% decline. In our view, this is not a draconian outcome for a long-term strategic asset allocation strategy.

### What's the ETF Playbook for 2020?

- In our view, we believe the following strategies will be prudent for the balance of 2020.
- **High-quality stocks are likely to stay in demand.** The majority of our global equity risk is in high-quality ETFs (DGRW, IHDG, DGRE) with the exception of MCHI. Specifically, these high-quality stocks have relatively attractive balance sheets and have demonstrated the ability to grow their earnings. With regards to our China overweight, have you noticed that China has dramatically outperformed the US over the past 1-month?
- **Dividend growers and high dividend yielding stocks are likely to stay in demand given the zero bound interest rate environment.** Astoria recently developed an Enhanced Income Model where we attempt to double the yield of the Bloomberg Barclays US Aggregate Bond Index while delivering comparable levels of risk. We are overwriting short dated calls on our equity positions to help soften our portfolio volatility. Astoria believes this is an ideal environment for option overwriting given how elevated front month implied volatility is.
- **We believe large caps over small caps makes intuitive sense in a global economic slowdown.** We don't own any small cap ETFs in our dynamic portfolios.

- **Gold is likely to continue to stay in demand as economic uncertainty increases, recessionary risks loom large, and we are at a zero bound in rates globally.** Astoria has owned gold for several years now and we don't plan on selling.
- **Alternatives were an impossible sale when the S&P 500 rallied over 300% over the past decade.** Those days are long gone, and we think portfolios will now start to incorporate alternatives. The key is to find alternative ETFs that are negatively correlated to stocks.
- **Longer duration bonds will outperform as the probability of rates rising is low.** We have extended duration slightly over the past 12 months. TLT and ZROZ are up 15-20% year to date. Should we be buying TLT or ZROZ? We don't think so. Why? While long duration strategies could continue to rise, we don't think the risk/reward is attractive. If the goal is to hedge equity risk, Astoria believes the risk/reward of using non fixed income alternatives is more attractive. We continue to hold gold (GLDM), gold miners (GDX), merger arbitrage (MNA), and long/short market neutral strategies (BTAL) as part of our alternatives.
- Finally, Astoria has **shifted** our ETF portfolios to be **more defensive** in recent years via our factor tilts, our **overweight towards higher-quality stocks & bonds**, and our **allocation towards alternatives**. Specifically, our alternatives have been chosen because they've demonstrated the ability to be **negatively correlated to stocks**. These principles have guided Astoria well thus far, particularly during acutely volatile markets.
- On Feb 19, Astoria went on CNBC and mentioned we thought the impact of the Coronavirus would spread to US and European stocks. At the time, it was a China centric concern. Check out our interview (click [here](#)).

### Astoria's Portfolio Construction Tilts

- In the tables below, we show our portfolio construction tilts towards different equity regions of the world, as well as across fixed income.
- Aside from our Multi-Asset Risk Strategy Model (MARS), which is designed to have slightly higher active risk, we have been **underweight** the US market across our all our risk-based ETF models and **overweight** the rest of the world. Our view was that US stocks were **more vulnerable** given higher PE ratios and crowded positioning.

- Within Fixed Income, our view was that US treasuries had little room for upside given lower rates. Treasuries did provide a negative beta to stocks, but we simply think they are **too expensive** to warrant an overweight. While Munis and Mortgage Backed Securities don't have as much negative beta as Treasuries, their risk/reward is **more attractive on a longer-term basis**.

Model	Country/Region Tilts (bps)				US Factor Exposure (bps)			Fixed Income Tilts (bps)			
	North America	Europe	Greater Asia	China	Value	Growth	Government	Municipal	Corporate	Securitized	Duration
Multi-Asset Risk Strategy	500	-400	0	600	100	-350	-4500	2800	-400	1900	-2.29
Dynamic Aggressive Model	-350	300	100	400	-200	-800	-4300	3600	-800	1700	-1.68
Dynamic Growth Model	-350	300	100	400	-150	-700	-4300	4500	-850	1000	-0.49
Dynamic Growth & Income Model	-400	400	0	300	-150	-600	-4100	3700	-700	1400	-0.82
Dynamic Conservative Model	-400	500	0	200	-200	-500	-3800	2800	-500	1700	-1.1
Risk Managed Dynamic Income Model	0	300	-50	200	0	-200	-4300	3600	-800	1700	-0.85

Source: Vanguard, Astoria Portfolio Advisors. Data accessed on March 2, 2020. All data shown is expressed in basis points (bps) aside from Duration.

### Bloomberg Total Risk, Equity Risk & Style Factor Exposures

- Using Bloomberg's risk model, we show the total risk contribution from a variety of asset classes. Naturally the higher the equity allocation we hold, the greater the equity risk contribution to that specific model.

Model	Total Risk					
	Equity	Currency	Fixed Income	Non-Factor	Commodity	Alternative
Multi-Asset Risk Strategy	0.95	0.97	0.76	0.62	0.54	0.00
Dynamic Aggressive Model	0.97	0.42	0.31	0.76	0.59	0.00
Dynamic Growth Model	0.63	0.53	0.50	0.68	0.55	0.00
Dynamic Growth & Income Model	0.73	0.77	0.55	0.59	0.58	0.00
Dynamic Conservative Model	0.52	1.16	0.70	0.48	0.55	0.00
Risk Managed Dynamic Income Model	0.38	1.64	1.07	0.27	0.34	0.00

- Below we show the equity risk contribution from Country, Style, & Industry risk.

Model	Equity Risk		
	Country	Style	Industry
Multi-Asset Risk Strategy	1.03	0.45	0.32
Dynamic Aggressive Model	0.55	0.56	0.37
Dynamic Growth Model	0.35	0.49	0.35
Dynamic Growth & Income Model	0.39	0.43	0.29
Dynamic Conservative Model	0.23	0.33	0.32
Risk Managed Dynamic Income Model	0.13	0.14	0.28

- Our models are **tilted towards** Profit & Dividend Yield and **tilted away from** Size & Growth.

Model	GL				Portfolio Versus Benchmark Style Factor Exposure			GL		
	Profit	Dividend Yield	Trade Activity	Earnings Variability	Value	Momentum	Volatility	Growth	Size	Leverage
Multi-Asset Risk Strategy	0.15	0.07	0.05	0.01	0.009	-0.008	-0.04	-0.06	-0.32	0.00
Dynamic Aggressive Model	0.19	0.03	0.07	0.05	0.00	0.007	-0.05	-0.02	-0.40	-0.04
Dynamic Growth Model	0.20	0.03	0.05	0.05	-0.005	0.008	-0.03	-0.01	-0.33	-0.05
Dynamic Growth & Income Model	0.16	0.03	0.04	0.04	-0.004	0.005	-0.03	-0.01	-0.29	-0.04
Dynamic Conservative Model	0.06	0.02	0.06	0.02	0.01	0.005	-0.04	-0.02	-0.24	-0.02
Risk Managed Dynamic Income Model	0.04	0.02	0.008	0.006	0.003	0.003	-0.007	-0.01	-0.09	-0.01

- Below we show the fixed income risk contribution from Yield Curve & Spread risk.

Model	Fixed Income Risk	
	Yield Curve	Spread
Multi-Asset Risk Strategy	0.82	0.22
Dynamic Aggressive Model	0.32	0.09
Dynamic Growth Model	0.49	0.15
Dynamic Growth & Income Model	0.67	0.20
Dynamic Conservative Model	0.68	0.24
Risk Managed Dynamic Income Model	1.02	0.36

- Our models are **tilted towards** Municipal Spreads & Municipal Slopes and **tilted away from** Sovereign Spreads and Sovereign Slopes.

Model	Portfolio Versus Benchmark Spread Factor Exposures									
	Long	Sov Spread	Sov Slope	Muni Spread	Muni Slope	Corp Spread	Corp Slope	Agy Slope	CMBS WALA	
Multi-Asset Risk Strategy	-0.65	-0.84	-3.66	0.36	0.36	-0.19	-0.15	-0.33	0.00	
Dynamic Aggressive Model	-0.20	-0.37	-1.68	0.28	0.28	-0.07	-0.07	-0.16	-0.05	
Dynamic Growth Model	-0.32	-0.57	-2.54	0.63	0.92	-0.11	-0.11	-0.25	-0.07	
Dynamic Growth & Income Model	-0.23	-0.73	-3.58	0.84	1.21	0.00	-0.15	-0.36	-0.13	
Dynamic Conservative Model	0.00	-0.81	-4.57	0.90	1.19	0.00	-0.22	-0.48	-0.30	
Risk Managed Dynamic Income Model	-0.33	-1.27	-6.36	1.75	2.48	0.00	-0.29	-0.65	-0.32	

Source for the above tables: Bloomberg, Astoria Portfolio Advisors. Data as of March 2, 2020. Risk Model Source = Bloomberg Global Risk Model. Benchmark = MSCI ACWI and Bloomberg Global Aggregate Bond ETFs. Both the AGG ETF and the BNDX ETF were used proportionately to represent Bloomberg Global Aggregate Bond benchmark portion. Note that Astoria's benchmarks are a blend of MSCI ACWI, Bloomberg Global Aggregate Bond, and Wilshire Liquid Alternative. The above analysis is purely for illustrative purposes to demonstrate Astoria's factor exposure.

Best,  
Nick Cerbone

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Astoria Portfolio Advisors Disclosure: As of the time of this writing, Astoria held positions in DGRW, IHDG, MCHI, IHDG, DGR, GLDM, GDX, GLD, IAU, MNA, and BTAL across a variety of our ETF model portfolios. Note that this is not an exhaustive list of our ETF holdings across either Astoria's dynamic or strategic ETF portfolios. Our holdings will vary depending on risk tolerances, tracking error bands, and client mandates.