Mike Salice, CFA
Sr. PM, Dir. of Research & Strategy
msalice@skyhcm.com
February 28, 2022

SKY HARBOR CAPITAL MANAGEMENT

SKY Harbor Weekly Briefing

SKYView: Rapid Escalation

Earlier in February, we published a *Weekly Briefing* that highlighted a rising sense of geopolitical unease, with a build-up of pressure becoming increasingly evident in various measures of investor confidence, volatility, and risk premiums. Though we noted that prior geopolitical events were typically consistent with periods of acute – albeit short-lived – bouts of spread widening, the exercise was more or less theoretical in nature, meant to goalpost potential outcomes of ongoing threats directed at Ukraine should diplomatic efforts fail to stymie an actual invasion. Unfortunately, the theoretical has now become reality, with Russian forces having crossed a sovereign border at the time of writing. In this *Weekly Briefing*, we gauge areas of the market likely to come under the most significant pressure at the onset of this crisis, using events of the recent past that had the potential to deliver a similar level of destabilization upon global markets.

Following a pre-dawn televised event that appeared to justify further aggression, **Russian forces invaded Ukraine, with explosions and gunfire audible in Kyiv shortly thereafter**. *Cognizant of the time delay between writing this piece (Thursday Feb 24) and distribution (Monday Feb 28), we comment only on initial market reactions*. Equities sold off, with Russian stock indices down more significantly than Europe, which fell more severely than in the US. Commodity prices were on the rise, notably crude oil and natural gas. There was also a flight to safety, with US Treasury yields falling and US high yield spreads widening. Furthermore, volatility spiked, and the implied probability of a 50 bps Fed hike in March dropped precipitously.

As mentioned in our February 4, 2021 *Weekly Briefing* entitled "Geopolitical Threats," and mindful that all such occurrences have unique attributes, similar market shocks of years past resulted in a median high yield index spread widening of 14 bps and median time to recovery of 8 trading days. **Focusing on the six most severe of those events (those with an OAS reaction of over 20 bps and time to recovery of at least 10 days), we attempted to isolate factor contribution to subsequent (1-week) price returns**. First, a note on methodology - not all of these events were discrete / single-day occurrences, not all were complete surprises, and not all have clearly delineated start and end dates. As such, quantifying the magnitude and duration of spread change and price return required some judgement on our part. Nevertheless, we are confident that data presented in the tables below represent a consistent measurement approach. After eliminating outliers (bonds with OAS > 1,000 bps, duration < 1.0, duration > 8.0), we utilized regression analysis on remaining bonds in our dataset in an effort to attribute subsequent 1-week price returns following each geopolitically-driven selloff by risk factor – duration (increasing levels of spread duration), credit risk (as measured by a bond's weighted-average-rating-factor), sector (a dummy variable for energy credits), illiquidity (a dummy variable to identify bonds sized in the bottom decile of the high yield universe at any point in time), and flow risk (a dummy variable that represented top decile tickers, or those likely to be influenced by ETF flows at any point in time). **The resulting output showed consistent factor reactions across a differentiated set of geopolitical events, with duration, credit, and flow risk universally penalized, illiquidity risk universally rewarded, and sector (energy) risk mixed though skewed to the positive.**

Factor Reaction Commonality Amidst Geopolitical Selloffs

estimated spread reaction and time to recovery | factor contribution to price return in week following event

Geopolitical-Driven Risk Selloffs				Factor Reaction (if statistically significant)				
Approx. Date	Event	Est. OAS Reaction (bps)	Est. Time to Recovery (days)	Duration Risk	Credit Risk	Energy Risk	Small Issue / Illiquidity Risk	Top Tickers / Outflow Risk
Sep '01	9/11 Attacks	196	53	Neg	Neg		Pos	
Feb '11	Libya / Arab Spring	64	36		Neg	Pos	Pos	Neg
Feb '14	Annexation of Crimea	18	10	Neg	Neg	Pos	Pos	Neg
Jun '16	EU Referendum (Brexit)	74	13	Neg	Neg	Pos		
Apr '17	Retaliatory Missile Strike in Syria	21	11			Neg	Pos	
Jul '17	N. Korea Successful ICBM Launch	41	44	Neg			Pos	Neg
	Full Set Median	53	25	*High*	*High*	*Medium*	*Medium*	*Low*

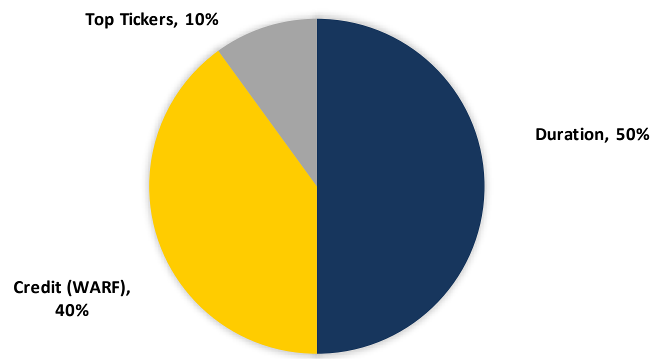
Coefficient size / level of influence on price returns

Source: SKY Harbor, ICE Data Indices, Wall Street Journal, CNBC, Wikipedia, BBC, Bloomberg

At first glance, these moves appear intuitive. A negative reaction to credit risk (CCCs underperform BBs) seems justified given an increase in risk premiums demanded by the market; a negative reaction to flow risk (top tickers underperform) is likely a function of redemption concerns during market shocks; a positive reaction to illiquidity risk (small bonds outperform large bonds) is potentially a consequence of managers selling what they can and in size when they need to raise cash; and a generally positive reaction to Energy is consistent with commodity inflation typically observed during periods of geopolitical stress. **The factor that caught us somewhat by surprise was the penalization attributed to longer-duration securities**. Digging deeper, we would note that 5-Year Treasury yields have declined in all six of the geopolitical events in our sample set (mean of -16 bps, median of -12 bps), yet duration has failed to outperform shorter securities. In our view, this dynamic is likely the result of greater investor uncertainty which may translate into an aversion to extend credit for longer periods of time and, perhaps, heighted trading activity from recently issued / on-the-run securities that are easier to liquidate and which most often carry an inherently longer duration than the balance of the market.

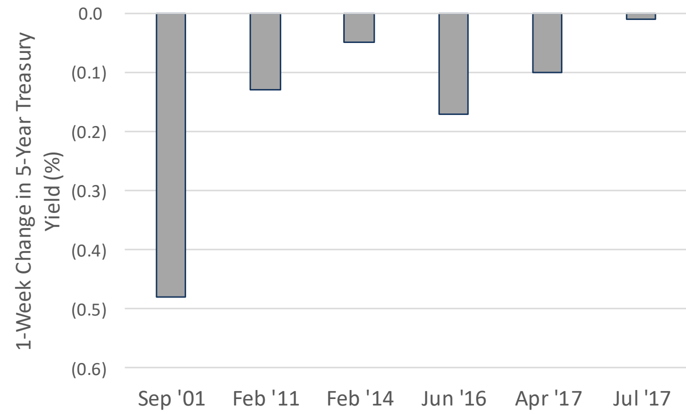
Selloffs Most Significantly Penalize Duration and Credit Risk

average factor contribution to negative periodic price return



Longer-Duration High Yield Suffers Despite Ensuing Rate Rally

1-week post event change in 5 year Treasury yield



Source: SKY Harbor, Bloomberg, ICE Data Indices

Taking our analysis a step further, we measured factor contribution to negative returns in the two weeks that followed each of our previously identified geopolitical events. Results were consistent with the one week move – **duration and credit risk are most penalized, with top market tickers also creating a drag amidst selling pressure, while small issues remain a good place to hide**. Upon a turn in sentiment – and this occurs at various distances from the initial event, ranging from 10 trading days (annexation of Crimea in Feb '14) to 53 days (9/11 Terrorist Attacks in Sep '01) – the factors first to recover aren't necessarily those that had been most penalized during the selloff. More specifically, **credit risk and top tickers often inflect first regardless of whether or not they were a leading contributor to negative returns following the initial market shock, while duration is often slower to be rewarded even if it was the factor driving negative returns in earlier trading days / weeks**. While all factors eventually recover, it appears as though the market most often inches its way back into the asset class with liquid and lower-rated credits, often making longer-duration securities laggards in the initial stages of a rally.

Duration & Credit Risk Continue to Weigh on Returns in Week 2

contributors to price return through 2nd week after event (primary = red, secondary = yellow)

Most Significant Contributors to Negative Returns					
Event	Duration Risk	Credit Risk	Energy Risk	Small Issue / Illiquidity Risk	Top Tickers / Outflow Risk
9/11 Attacks	Primary	Secondary			
Libya		Primary			Secondary
Crimea	Primary	Secondary			
Brexit		Primary			Secondary
Syria Retaliation		Secondary	Primary		
N. Korea ICBM	Primary	Secondary			

Credit Risk and Top Tickers First to Recover

contributors to positive inflection week after event (primary = green, secondary = yellow)

Most Significant Contributors to Positive Returns					
Event	Duration Risk	Credit Risk	Energy Risk	Small Issue / Illiquidity Risk	Top Tickers / Outflow Risk
9/11 Attacks		Primary			Secondary
Libya		Primary			Secondary
Crimea		Primary			Secondary
Brexit	Primary	Secondary			
Syria Retaliation	Primary				Secondary
N. Korea ICBM		Secondary			Primary

Source: SKY Harbor, ICE Data Indices, Wall Street Journal, CNBC, Wikipedia, BBC, Bloomberg

As stated in our prior geopolitical briefing, we are aware that all conflicts play out in unique ways, with the ultimate impact either cushioned or exacerbated by prevailing economic conditions. With that said, market reaction stemming from this tragedy has thus far played out very much in-line with the other geopolitical shocks of recent decades. Mindful of risks associated with extended or heightened conflict, we continue to believe our bias toward the shorter-duration portion of the market, smaller / less liquid bonds, and issuers that derive most of their demand from US / domestic sources should provide some degree of protection in the current market environment. Upon evidence of an alleviation of these tensions, we may consider opportunistically increasing our exposure to top tickers in anticipation of that cohort leading an eventual inflection.

Important Disclosures and Disclaimers

This analysis and the opinions expressed herein are intended solely for institutional and professional investors that are responsible for assessing their own risk tolerances under prevailing market conditions. SKY Harbor Capital Management, LLC ("SKY Harbor") provides this document for informational purposes only. Nothing contained in this document is or should be construed as an advertisement, or an offer to enter any contract, investment advisory agreement, a recommendation to buy or sell securities of any kind, a solicitation of clients, or an offer to invest in any particular fund, product, investment vehicle, or derivative.

This document contains forward-looking statements that are based on SKY Harbor's current views and assumptions. Forward-looking statements such as the findings of our analytical research, our outlook for interest rates, Fed policy, the economy, high yield markets and the like, or our intended adjustments to the portfolios within our strategies are subject to inherent risks, biases and uncertainties that are beyond SKY Harbor's control and may cause actual results to differ materially from the expectations expressed herein.

The information contained herein is subject to change, and SKY Harbor is under no obligation to update any information contained herein. Certain information contained in this document has been obtained from third-party sources and, although believed to be reliable, has not been independently verified, and its accuracy or completeness cannot be guaranteed.

Investing in securities involves risk of loss and past performance is not necessarily indicative of future results. Fixed income securities, especially high yield debt securities, are subject to loss of income and principal arising from credit risk, which is the risk that the issuer will be unable to make interest and principal payments when due. Material risks in investing in high yield debt securities also include, but are not limited to, opportunity cost (the risk that an issuer's credit trends deteriorate resulting in a higher level of compensation demanded by the market relative to the initial investment), interest rate risk, liquidity risk, selection risk, and overall market risk. In general, issuers of high yield debt securities have a greater likelihood of defaulting on the payment of interest or principal than issuers of investment grade bonds. There can be no assurance that the investment objectives described herein will be achieved or that substantial losses can be avoided.

Gross performance results do not reflect the deduction of investment advisory fees, which would reduce an investor's actual return. For example, assume that $1 million is invested in an account with the Firm, and this account achieves a 6% compounded annualized return, gross of fees, for five years. At the end of five years that account would grow to $1,338,226 before the deduction of management fees. Assuming management fees of 0.55% per year are deducted annually from the average annual AUM, the value of the account at the end of five years would be $1,302,846, which is the equivalent of an annual compounded rate of 5.43%. For a ten-year period, the ending dollar values before and after fees would be $1,790,848 and $1,697,408, respectively. SKY Harbor's asset-based fees are generally billed monthly or quarterly in arrears. Please refer to the SKY Harbor's ADV Part 2A or applicable Offering Documents for more information on fees. Consultants supplied with gross results are to use this data in accordance with SEC, CFTC, NFA or the applicable jurisdiction's guidelines.

SKY Harbor is not a tax or legal advisor. Prospective investors should consult their tax or legal advisors before making tax-related investment decisions.

The ICE BofA Index data referenced herein is the property of ICE Data Indices, LLC ("ICE BofA") and/or its licensors and has been licensed for use by SKY Harbor. ICE BofA PERMITS USE OF THE ICE BofA INDICES AND RELATED DATA ON AN "AS IS" BASIS, MAKES NO WARRANTIES REGARDING SAME, DOES NOT GUARANTEE THE SUITABILITY, QUALITY, ACCURACY, TIMELINESS, AND/OR COMPLETENESS OF THE BofA INDICES OR ANY DATA INCLUDED IN, RELATED TO, OR DERIVED THEREFROM, ASSUMES NO LIABILITY IN CONNECTION WITH THE USE OF THE FOREGOING, AND DOES NOT SPONSOR, ENDORSE, OR RECOMMEND SKY Harbor or ANY OF ITS PRODUCTS OR SERVICES.