Memorandum

To:	BCA Clients and Friends
From:	Sid Nadkarni, BCA CIO
Date:	Thursday February 24, 2022[1]
Subject:	Russian Invasion of Ukraine – Potential Market Implications

UPDATE ON MARKET DEVELOPMENTS AND OUR PERSPECTIVES

Dear BCA Clients and Friends,

Since its beginning, 2022 has been challenging to investors and the geopolitical order. While we will be sending out our comprehensive quarterly piece shortly, today's news regarding the Russian invasion of Ukraine has already led to a short-term stock market selloff and a major recovery, with a major increase in volatility broadly. While the news is fresh and it is far too early to draw meaningful conclusions, we wanted to address some potential scenarios.

Equity Market Backdrop Prior to Russian Invasion

Equities markets had already been weak prior to today's invasion (See Appendix) with the S&P 500 and MSCI ACWI Ex-US indexes down 11% and 5% respectively YTD as of February 23, 2022. Investors have been grappling with the positives of strong global growth (driven by excess consumer savings and re-opening of economies post pandemic) while weighing the negatives of surging inflation (driven by strong demand coupled with persistent supply chain shortages), rising geopolitical tensions, and above-average equity market valuations. For the first time in many years, major central banks appear likely to embark on interest rate hiking cycles. This environment has proven challenging for quality and growth stocks whereas value stocks have performed better (with those directly tied to interest rates or energy actually exhibiting positive performance). International stocks have outperformed

[1] Note: this memo was originally prepared at the end of Thursday, 2/24. As of 4:00 PM ET, Friday 2/25/2022, the S&P500 has continued its recovery, rising 2.2% to close at 4384. WTI crude is off 0.7% to $91.76/barrel.

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US stocks as international stock markets have higher exposure to cyclical value sectors (financials, energy, materials, and certain industrials).

Russian Invasion of Ukraine – Potential Scenarios

The Russian Invasion of Ukraine may lead to increased volatility in the short-term and will lead to significant economic sanctions applied to Russia. However, outside of its commodity sector, Russia is a marginal player in the global economy. It plays little role in global supply chains, and European and US firms export minimal amounts of goods and services to Russia. In terms of the energy sector, oil and natural gas prices may move higher near-term, with the ultimate amount dependent on the nature of the sanctions as well as on Russian actions with regards to potentially disrupting flows of oil and gas to Europe (Russia supplies 40% of Europe's natural gas needs). The major question is the magnitude and duration of these spikes and how that might impact economic growth and central bank policy going forward. While this analysis is extremely preliminary, we have outlined three scenarios.

<u>SCENARIO 1: Relatively Limited Duration with minimal impact to European energy access</u>

Under this scenario, Russia conducts military activities over a relatively limited time frame, likely with a view of securing the separatist areas in Donbas and potentially annexing them under Russian control (similar to what occurred in Crimea and Georgia). Russia may also attempt to force regime change in Ukraine. Under this scenario, there would likely be limited to no disruption to oil and gas supply flowing through Ukraine, and any increase in energy prices would be due to increased risk premium rather than actual supply shortages. European and US inflation would modestly increase from current levels under this scenario. However, given the backdrop of strong consumer balance sheets coupled with economic re-opening, the effect on European and the broader global economy should be relatively minor. Under this scenario, we assume that risk assets may suffer a short-term pullback followed by a rally (once it is reasonably clear that broader economic growth and corporate earnings growth trends remain generally intact). In fact, today, we witnessed sharp selloffs across global markets to start the day followed by swift reversals in sentiment, with 3%-5% rallies to close the day (especially in the US).

<u>SCENARIO 2: More Prolonged War with modest impact to European energy access</u>

Under this scenario, Russia expands its military activities with an aim of forcing regime change in Ukraine. Also, in this scenario, we assume that perhaps 10% of gas flows are shut off to Europe. In the short term, we could see a larger spike in oil and gas prices which would lead to increasing inflation in Europe, the US and across many emerging market nations. This would lead to some demand destruction coupled with margin pressures for many companies. Central banks would be faced with an uncomfortable choice of forging ahead with hikes (to restrain inflation and keep inflation expectations in check) or being more cautious in case economic growth were to slow. Under this scenario, we could see the equity market decline by 10% over several months with a potentially longer time period to recovery.

SCENARIO 3: Large Scale Military Incursion with larger energy disruption

Under this scenario (the least likely), Russia would not only engage in large scale prolonged military activity but would also shut off significant Ukraine gas supply access to Europe. European energy prices would rise sharply, and oil and gas prices broadly would spike significantly (with oil potentially reaching $130 per barrel). Headline inflation would accelerate further in the US, Europe and some emerging economies which would put central banks in a very precarious position. Likely, the sharp spike in energy costs coupled with general risk averse sentiment would lead to rapid slowdown in economic growth and potentially lead to recessionary conditions. Equity markets would likely fall by more than 20% under this scenario. We do not consider this scenario as likely given the extremely negative consequences that Russia would have to bear. Already, Russia is likely to face severe sanctions due to their actions. Shutting off energy revenues for leading Russian companies like Gazprom, etc. will likely lead to a severe recession in Russia which Putin would most likely wish to avoid.

Equity Market Performance after Military Conflicts – Historical Perspective

Historically, equity markets have taken military conflicts in stride (especially in more recent history). After initial short-term declines, performance has generally recovered steadily and relatively swiftly (as shown in the table below).

Geopolitical Events And Stock Market Reactions

		S&P 500 Index		Calendar Days To	
Market Shock Events	Event Date	One-Day	Total Drawdown	Bottom	Recovery
Iranian General Killed In Airstrike	1/3/2020	-0.7%	?	?	?
Saudi Aramco Drone Strike	9/14/2019	-0.3%	-4.0%	19	41
North Korea Missile Crisis	7/28/2017	-0.1%	-1.5%	14	36
Bombing of Syria	4/7/2017	-0.1%	-1.2%	7	18
Boston Marathon Bombing	4/15/2013	-2.3%	-3.0%	4	15
London Subway Bombing	7/5/2005	0.9%	0.0%	1	4
Madrid Bombing	3/11/2004	-1.5%	-2.9%	14	20
U.S. Terrorist Attacks	9/11/2001	-4.9%	-11.6%	11	31
Iraq's Invasion of Kuwait	8/2/1990	-1.1%	-16.9%	71	189
Reagan Shooting	3/30/1981	-0.3%	-0.3%	1	2
Yom Kippur War	10/6/1973	0.3%	-0.6%	5	6
Munich Olympics	9/5/1972	-0.3%	-4.3%	42	57
Tet Offensive	1/30/1968	-0.5%	-6.0%	36	65
Six-Day War	6/5/1967	-1.5%	-1.5%	1	2
Gulf of Tonkin Incident	8/2/1964	-0.2%	-2.2%	25	41
Kennedy Assassination	11/22/1963	-2.8%	-2.8%	1	1
Cuban Missile Crisis	10/16/1962	-0.3%	-6.6%	8	18
Suez Crisis	10/29/1956	0.3%	-1.5%	3	4
Hungarian Uprising	10/23/1956	-0.2%	-0.8%	3	4
N. Korean Invades S. Korea	6/25/1950	-5.4%	-12.9%	23	82
Pearl Harbor Attack	12/7/1941	-3.8%	-19.8%	143	307
Average		**-1.2%**	**-5.0%**	**22**	**47**

Source: LPL Research, S&P Dow Jones Indices, CFRA, 01/06/20

Conclusion

It is too early to have any clarity as to how the Russia / Ukraine conflict develops. The potential negative impact on the US economy is limited under most scenarios whereas the potential impact on the European economy is more sever. Oil and gas prices may likely spike further which would increase inflationary pressures. At the same time, central banks may slow the pace of rate hikes given risks of a global growth slowdown (a positive for quality and growth stocks especially in the US). **In summary, there are lot of moving parts at this time, and until there is greater clarity over Russia's ultimate goals and potential sanctions / ramifications, it is difficult to have much conviction in terms of forecasting outcomes.**

Having said that, if equity markets were to pull back by another 15%, valuations would become reasonably compelling. For instance, at 3,700, the S&P 500 would be trading at 15x 2023 consensus earnings. Within 9-12 months, if the S&P 500 recovered back to 18x (above the 16.5x historical average but below the 20x+ multiple over the past 18 months), the implied S&P price would be 4,400 (19% appreciation in that scenario).

We recommend that investors stay the course and not make knee-jerk decisions at this point. For those clients that have the scope to add to equities, we recommend watching for further weakness and potentially employing a dollar-cost averaging strategy on the way down to add exposure. We would recommend adding to quality companies with above-average revenue growth, high margins, strong free cash flow and re-investment capabilities, and attractive balance sheets. These companies' stock prices have declined between 10%-20% thus far in 2022, as valuations had expanded significantly over the past five years (as investors had bid up the quality of their businesses and ability to deliver attractive earnings growth in a variety of economic scenarios). Valuations have now improved for many of these high-quality companies (with several offering potential annualized returns of 15%-25% over a two to three -year period).

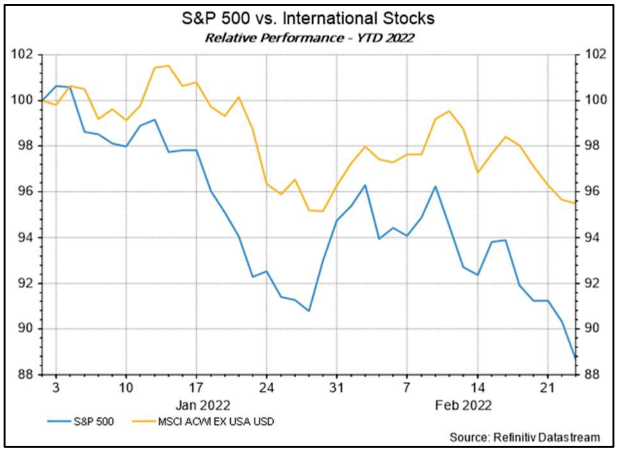
As always, we welcome the opportunity to speak further. Please let us know if there are any topics you wish to discuss further.

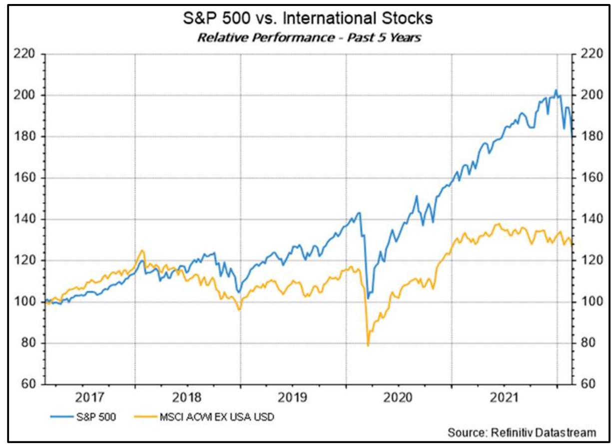
Regards,

The BCA Team

APPENDIX

S&P 500 vs. International Stocks





Russell 1000 Growth vs. Russell 1000 Value