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February 14, 2022

Ukraine-Russia Geopolitical Risk Analysis

Tom Galvin
Chief Investment Officer

HIGHLIGHTS

- Tension continues and negotiations are at a standstill regarding Russia's aggression toward Ukraine.
- A wide range of outcomes exist, and near-term risks are high that some level of Russian action forthcoming.
- Expect continued financial market volatility.
- Europe is significantly more exposed than the US, supporting CNR's underweight.
- Barring a worst-case scenario of full invasion and severe sanctions, economic and financial market impacts should be manageable, and may represent a buying opportunity for investors.
- Stay the course on overweight to risk assets, markets tend to be resilient when fundamentals are strong.

Determining outcomes with a conflict of this nature is difficult, given the complexity of the situation and limited historical precedence. In our current assessment, there is an extraordinarily wide range of outcomes and probabilities, from a best case of de-escalation and a revamped NATO-Russia relationship, to a worst case that would include both a Russian takeover of the entire Ukraine, followed by onerous Western sanctions directly targeting the Russian financial system. In between, outcomes include but are not limited to Russia taking over parts of Eastern Ukraine and establishing a land bridge to Crimea, proxy wars, missile and air attacks in new regions, aggressive cyber-attacks, an extended standoff and disruptions/accidents of gas pipelines and supplies.

For the moment we are staying the course in our investment strategy. The framework we present below is not intended to be a complete assessment of all possible actions and reactions. However, as risk managers and stewards of capital, our job is to identify the key issues and to have a game plan in place for potential impacts to economic growth, inflation, capital markets and our asset allocation positioning. Barring the worst-case outcome, we see limited negative impact on our positive view for a multi-year expansion in the US and our overweight to risk assets. Volatility in the short term, though, will likely rise until the crisis is over and equities could come under varying degrees of pressure. History shows the impact on equities from geopolitical tensions tend to be short-lived modest on average. Should the worst case unfold, we believe the European economy would be impacted much more than the US, reinforcing our underweight to European equities. Rest assured, we have a game plan to preserve capital should unanalyzable shocks occur that would raise the risks of recessions in the US meaningfully.

UKRAINE RISK MATRIX

SCENARIOS	BEST CASE	MOST LIKELY OUTCOMES		WORST CASE
ACTION	Return to diplomacy	Cyber-attacks	Annexes East/Land bridge to Crimea	Russian takeover of Ukraine
	Troops are pulled back	Extended standoff	Aggressive cyber-attacks	Aggressive cyber response
		Destabilize Ukraine	Air and missile campaign	Weaponization of energy
REACTION	Arms shipments stopped	Increased arms shipments	Increased arms shipments	Target Russian financial system
	Nord Stream 2 continues	Lower level sanctions	Sanction key firms & Putin inner circle	Sanction key firms and Putin inner circle
		Proxy wars	Nord Stream 2 stopped	Potential NATO involvement
Probability	**10-20%**	**30%**	**30%**	**10-20%**
US recession risk	No change	No change	No change	Increases
Inflation impact	No change	No change	Modestly higher	Solidly higher
Oil prices	Lower	No change	Modest increase	Solidly higher
Food prices	No change	No Change	Modestly higher	Solidly higher
Policy response	No change	No Change	Modestly higher	Fed hikes off the table
Dollar $	Lower	Little Change	Modestly higher	Solidly higher
10-year yield	Yield higher	Yield modestly lower	Yield modestly lower	Yield strongly lower
SPX	Higher	Modest sell-off likely	Modest sell-off likely	Solidly lower, then US outperforms
Risk exposure	Maintain/Uptick depending on market levels	Maintain/Uptick depending on market levels	Maintain/Uptick depending on market levels	Potential capital preservation

Source: CNR Research.

Scenario Analysis

MOST LIKELY OUTCOMES

> Outcomes are broad, ranging from an extended standoff and increased cyber-attacks to more direct military intervention such as an air/missile campaign, or Russian deployment into occupied Donbas and attempts to seize a land corridor to Crimea.

> Western response measures would likely also be broad depending on Russian actions, and range from lower-level sanctions to increased military aid for Ukraine, more targeted sanctions, and a halting of planned operations for the Nord Stream 2 pipeline.

Investment Implications

> Economic impact would be manageable, with most notable impact being a modest increase to inflation resulting from higher food, energy and commodity prices. EU economy most impacted. Reduced uncertainty may warrant an increase in risk asset class exposure, depending on market levels and events.

> Near-term financial volatility will increase. A modest equity market sell-off is likely, and yields would trend modestly lower from heightened uncertainty causing investors to seek out safer assets.

> May present an opportunity for opportunistic buying, depending on market levels and events.

BEST-CASE SCENARIO

> Russia significantly lowers tensions and pulls back large amounts of troops and equipment from the Ukrainian border.

> Arms shipments by NATO allies into Ukraine are stopped, and the Nord Stream 2 approval process continues.

> Diplomatic initiatives are restarted, though they would likely take months to conclude.

> Key discussion items include Ukraine sovereignty and NATO admissibility, a revisit of prior Minsk agreements, and a fresh start for NATO-Russian relations. Favorable terms on Nord Stream 2 gas pipeline and other energy supplies to Europe.

Investment Implications

> Under this scenario, economic and market impacts should be relatively minor.

> Reduced uncertainty may warrant an increase in risk asset class exposure, depending on market levels and events.

WORST-CASE SCENARIO

> Russia invades and takes control of Ukraine, and potentially cuts off energy exports to Europe.

> Western response measures would include substantial and broad sanctions on Russia's central bank, sovereign debt, dollar transactions and potentially cutting Russia off from the international SWIFT global electronic payment messaging system.

> Targeted sanctions would also likely be applied on key Russian finance, energy and technology firms, as well as assets linked to Putin himself and other oligarchs.

> Sanctions will require western support to be fully effective.

> Direct NATO or US/Western military response is also a potential, though less likely, option.

Investment Implications

> Economic activity in Europe would be negatively impacted, with likely spillover into global economic activity.

> Risks to growth coming from sharply higher energy prices, tighter global financial conditions and negative shock on sentiment.

> US recession risk rises modestly, but US is best insulated.

> Shock could result in abrupt policy pivot from recent tightening direction, despite higher inflation.

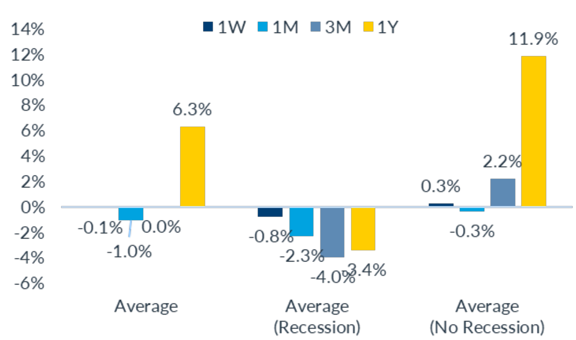
> Financial volatility is expected to be high. Equity market correction is likely and yields are likely to fall meaningfully on a flight to safety.

> May necessitate a shift in investment strategy to capital preservation, depending on market levels and events.

MARKETS TEND TO BE RESILIENT

S&P 500 Performance

After Select Geopolitical Shocks



Select Geopolitical Shocks	First Trading Date	S&P 500 Performance 1W	1M	3M	1Y
Yom Kippur War/Oil Embargo	10/8/1973	1.4%	-3.9%	-10.0%	-43.2%
Iran Hostage Crisis	11/5/1979	-1.0%	3.6%	12.3%	24.3%
Financial Panic of '87	10/2/1987	-5.2%	-22.0%	-22.0%	-17.3%
Iraq Invades Kuwait	8/2/1990	-4.7%	-8.9%	-12.8%	12.8%
First Gulf War	1/17/1991	4.5%	17.2%	23.6%	36.6%
WTC Bombing	2/26/1993	1.2%	2.1%	2.2%	8.3%
Russian Financial Crisis	8/17/1998	-.08%	-7.4%	3.9%	17.1%
9/11	9/17/2001	4.9%	-0.9%	4.7%	-15.5%
War in Afghanistan	10/8/2001	1.9%	3.0%	5.8%	-24.2%
Second Gulf War	3/20/2003	0.5%	2.4%	14.3%	29.2%
Orange Revolution/Ukraine	11/22/2004	1.1%	2.2%	3.1%	8.6%
Russo-Georgian War	8/8/2008	0.1%	-2.2%	-29.1%	-22.3%
Lehman Brothers Collapse	9/15/2008	-5.1%	-18.8%	-22.6%	-11.5%
Russian Invasion of Crimea	2/27/2014	1.6%	0.5%	3.5%	16.8%
North Korea Missile Crisis	7/28/2017	-1.3%	0.1%	5.4%	14.8%
U.S.-China Trade War	1/22/2018	2.2%	-2.6%	-3.7%	-3.1%

Source: FactSet.

INDEX DEFINITION

S&P 500 Index: The S&P 500 Index, or Standard & Poor's 500 Index, is a market-capitalization-weighted index of 500 leading publicly traded companies in the U.S. It is not an exact list of the top 500 U.S. companies by market cap because there are other criteria that the index includes.