

Current Ukraine-Russian Conflict: Effect on economies and financial markets

Geopolitical Events And Stock Market Reactions

| Market Shock Events | Event Date | S&P 500 Index | | Calendar Days To | |
|-------------------------------------|------------|---------------|----------------|------------------|-----------|
| | | 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

The above table shows a 5% average S&P 500 decline when a war, threat of war, terrorist act or other destabilizing geopolitical event occurs. It then takes 47 days on average for the S&P 500 to recover.

The three most serious wars—WWII, Korean War and Iraq War—resulted in S&P 500 declines of 19.8%, 12.9% and 16.9%, respectively, or 16.5% on average. These three wars also resulted in U.S. direct participation in combat, which appears extremely unlikely in the Ukraine-Russia conflict. We expect that this conflict will not be nearly as serious to the U.S. and most of the rest of the world when compared to these three other major conflicts. Therefore, a 7-12% decline in the S&P 500 due to the conflict might be the outcome. Such a decline could take 40 to 60 days to recover from.

If we look at the S&P 500 from Feb. 8 to Feb. 23, it was down 5.8%, just over the 5% average decline of recent past geopolitical events. The S&P 500 rallied over 6% the subsequent two days, perhaps signaling that the worst is over. Nevertheless, a new price downtrend is developing. It is possible that we retest

and go below the Feb. 23 low. Europe is experiencing larger stock price declines, while Japan is holding up better than the U.S. and Europe.

Global sanctions on Russia are already producing great stress on the Russian economy. Russian banks are facing insolvency due to a run on some banks and loss of the SWIFT cash transfer capability of five of the larger Russian banks, which is interfering with financing Russian commodity exports. The Russian ruble has dropped enough that inflation is surging. One estimate shows an expected decline in Russian economic output of 5%. All of these factors could result in Russia calling for a cease fire and going to the negotiating table. However, Russia does have some alternatives to the SWIFT system, and it is more likely that it will just put up with the problems that the sanctions are creating.

A near-term cease fire would likely result in an immediate global stock market rebound. A complete conquest of Ukraine and continued sanctions could result in stocks dropping another 2-10%. If Russia escalates by waging a successful cyber war with those implementing sanctions, then stocks could decline another 10% or more and result in a bear market (cumulative decline of 20%+). It is unknown how vulnerable the U.S. and other countries would be to Russian cyber-attacks. Russia may be loath to incur yet additional sanctions (e.g., loss of SWIFT to all Russian banks). Plus, the U.S. is reported to have strong cyber warfare capabilities too, which thus far appears to have not been used on Russian entities. A full-scale cyber war looks unlikely at this point, but it is possible.

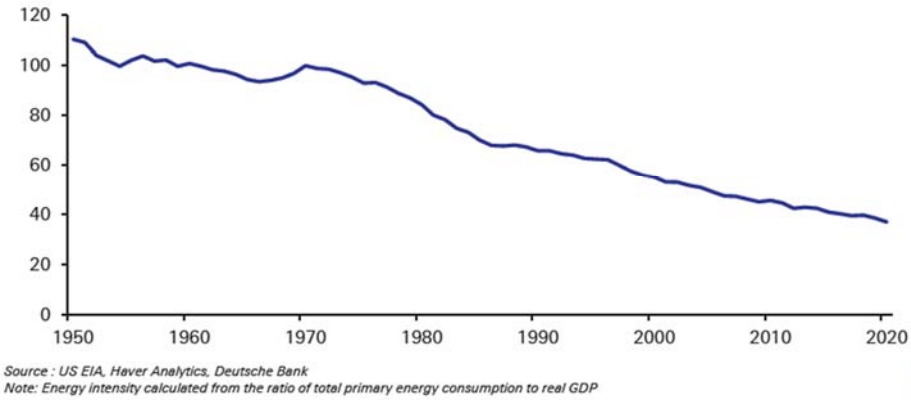
Sanctions and new Russian currency and foreign reserves controls may result in some Russian bonds defaulting. The Financial Times reports that Italy, France and Austrian banks hold \$25 billion, \$25 billion and \$17.5 billion, respectively, of Russian bonds. Financial contagion may be limited to banks in those countries and it is likely that those countries and the EU would step-in to limit a financial crisis.

Avoiding a bear market also assumes that the U.S., Asia and Europe do not fall into recessions. Oil prices have risen to above \$100/barrel due to the conflict, which has created concerns of both higher inflation and a reduction in global demand, which could trigger recessions in some countries.

Per the following chart, the U.S. economy uses only 37% of the energy required per unit of output compared to 1970. Most other developed nations have shown

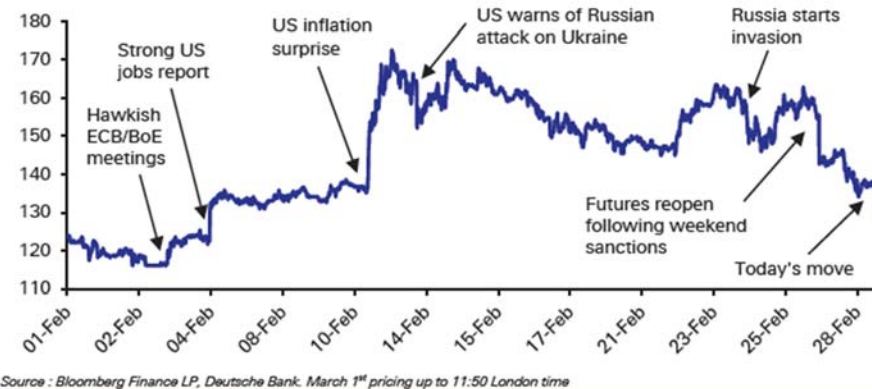
a similar pattern of declining energy intensity. So higher oil prices alone are unlikely to trigger a recession.

Figure 1: US Energy Intensity (1970 = 100)



A bigger risk of U.S. recession is the possibility that the Federal Reserve tightens monetary policy too much. However, this risk appears to be diminishing. The next graph shows that financial markets are now expecting that the Fed Funds interest rate to rise by only about 1.2% in total versus 1.7% expected two weeks ago. The Federal Reserve tends to respond to global financial turmoil by adopting less restrictive monetary policies. Lower than previously expected future U.S. interest rates may make it more difficult to reduce inflation and financial speculation, but it would reduce the probability of recession over the next two years.

Figure 1: Amount of Fed hikes (bps) priced in by the December 2022 meeting. Today has seen a sharp move lower so far after a turnaround in February.



In summary, global markets appear to be responding in line with the risks associated to the Ukraine-Russia conflict. This assumes no recession, no widespread cyber warfare, no direct military conflict among great powers, and no major financial markets contagion. While unlikely, if any of these do occur, global stock markets and credit-sensitive fixed-income could decline noticeably from current levels. Regardless of the path of the conflict, financial markets and commodity volatility should be expected to continue for at least several more weeks. Large stock price declines and gains on a daily and weekly basis should be expected. Countries not involved in the conflict or with sanctions are likely to do better. Oil producers (Russia excepted) should do better than oil consumers. Cybersecurity, energy and defense stocks have done well recently. However, when the conflict eventually winds down, these sectors are likely to underperform and others are likely to rebound.

Please contact your WESCAP advisor to discuss this further.