INVESTMENT STRATEGY

Global Insights

Europe’s Paradigm Shift on Energy and Defense

In our Jan. 26 Global Insights, “Could Russia-Ukraine Tensions Cast a Shadow on the Markets?” we explored the possibility of an escalation in the eight-year conflict between Russia and Ukraine. Even still, we were not prepared for Russia’s large-scale invasion 29 days later. In the weeks that have followed, commodity prices have surged, European stocks have seen intense selling pressure and the once nearly unthinkable war has triggered a new reality for the continent.

In the near term, European equities are vulnerable to fears that a prolonged conflict could push the continent into a recession. Commodities, particularly fossil fuels, remain skewed to the upside given conflict-related supply shocks amid below average energy inventories and supply chain disruptions. Rampant geopolitical uncertainty will likely bolster calls for energy independence and highlight the need to address Europe’s military-readiness shortfall.

With major indexes down significantly, we see opportunities for long-term investors should European leaders focus on funding defense and energy investments, both of which stand to benefit from recent geopolitical events.

This edition of Global Insights examines the possibility that European policymakers ramp up military spending and explores options for reducing dependence on imported energy.
Since Russia launched a full-scale military invasion of Ukraine, multilateral sanctions have isolated Russia from most of the developed world. Among other things, the sweeping US-led sanctions target Russia’s financial system by excluding several financial institutions from using the Society for Worldwide Interbank Financial Telecommunication (SWIFT) system and banning the import of Russian oil, natural gas and coal to the US. Moreover, European Union (EU) officials have pressed forward with plans to eliminate the EU’s dependence on Russian energy by 2027.

**Energy Independence.** As Russia’s invasion of Ukraine intensifies, commodity markets, particularly for fossil fuels, continue to gyrate wildly. In fact, the three-month implied volatility of crude oil is in the 98th percentile of its 10-year range. The Energy Information Administration (EIA) predicts the price of oil could remain above $100 per barrel in the coming months, owing to fears that Europe’s primary energy source may be threatened.

Russia’s acts of aggression toward Ukraine have reminded investors that energy supply chains are fragile. In fact, the recent conflict has historical precedents, and investors stand to benefit from applying the lessons learned from the Yom Kippur War of 1973 and the Iranian Revolution of 1979 (see Exhibit 1).

The Yom Kippur War resulted in Middle Eastern OPEC members placing an embargo on petroleum exports to the US and other nations that supported Israel during the multinational conflict. Led by Saudi Arabia, the cartel cut output by 25%, causing oil prices to rise substantially. Similarly, the Iranian revolution removed nearly 5% of global supply, causing oil prices to nearly double.

Exhibit 1: Supply Disruptions Contribute to Higher Prices

![Graph showing inflation-adjusted oil prices](image)

In 2021, the US imported nearly 700,000 barrels per day from Russia. However, even as domestic gasoline prices surged, the US imposed a ban on crude oil and petroleum imports from Russia. If the US were to push its European allies to impose a similar ban or Russia were to cut Europe’s gas supplies, investors worry that the actions, taken together, would result in shortages that would further pressure prices. In fact, a recent IEA projection estimated that we could see a reduction in Russian exports of 2.5 million barrels per day as soon as next month.

This comes at a time when inventories are already low, as highlighted in our Oct. 13, 2021 Global Insights, “Power Shortages Threaten Growth.” According to a June 2021 Eurostat report, although EU member states are required to maintain emergency oil stocks of at least 90 days of average daily net imports, seven members were below the 90-day requirement. This provides a stark reminder of the danger of having a high proportion of energy imports concentrated among a small number of countries. Low inventories are not limited to EU members. According to the IEA, in January, storage levels in Organization for Economic Cooperation and Development (OECD) countries reached their lowest levels since 2014.

Before Russia invaded Ukraine, Europe was facing serious energy problems, and the crisis has highlighted the extent of its energy dependence. In fact, Eurostat and the World Nuclear Association have published data showing that more than half of the EU’s energy needs have recently been met by imports (see Exhibit 2), at a cost in excess of 350 billion euros per year.

Exhibit 2: More Than 50% of EU Energy Needs Are Met by Imports

![Graph showing EU energy imports dependency](image)

Statistics show that the EU relies heavily on Russia for energy. In 2020, 49% of coal, 26% of crude, and 38% of natural and liquified natural gas came from Russia. With few short-term
options to meet current needs, we expect the EU to shy away from committing to a hard break from Russian energy sources. Longer-term, the EU is in search of options, which has created a compelling investment case for renewable energy.

Exhibit 3: Russia Is the Leading Supplier of Coal, Natural Gas and Crude Oil to the EU

Exhibit 4: The Growth of EU Production of Renewable Energy Has Exceeded Other Energy Types

While growth in renewable energy has exceeded that of fossil fuels, we think renewables will continue to benefit from an increased focus on energy independence. A May 2020 IEA report estimated a record 17% decline in capital expenditures across the energy sector from the prior year, particularly for oil and gas, driven by uncertainties around future demand and sustainability goals (see Exhibit 5). That being said, we believe that Europe will focus future capital expenditures on renewable energy sources like solar, nuclear and wind. The shift in policymakers’ priorities could be a tailwind for the industry as officials plot a course for energy independence.

Exhibit 5: Investment in the Upstream and Midstream Stages of the Oil and Gas Industry Declined in 2020

Note: The oil and gas industry is divided into three major components: upstream, midstream and downstream.

With mitigation of supply shocks in mind, policymakers have clashed over whether nuclear should be considered a clean energy source. There are currently 103 nuclear reactors operating in 13 of the EU’s member states, accounting for nearly 25% of electricity generation. Production is very concentrated, however, with more than half generated in France. According to the US Department of Energy, there are nearly 450 nuclear reactors worldwide providing nearly 10% of the world’s electricity. While nuclear could enhance Europe’s energy security by increasing its diversity of options, it is not a perfect substitute. The World Nuclear Association projects total nuclear investment of up to 755 billion euros through 2050, which is less than 20% of the total needed to meet the EC’s strategic vision for achieving a climate neutral economy by 2050. While nuclear may be underutilized in Europe, taking a step back, the EU’s renewed focus on renewables and capex expansion creates a compelling opportunity for the renewable energy industry.

Security and Defense. The Russian invasion of Ukraine will likely prompt European nations to increase military spending. According to a NATO report, only eleven of its 30 members...
met the 2% guideline on defense expenditures in 2020. In fact, the US accounts for more than 70% of the alliance’s combined defense expenditure. Even more concerning, according to data from the Stockholm International Peace Research Institute, inflation-adjusted defense spending for the average NATO country declined 5% from 2010 to 2020, whereas for China and Russia it increased by 89% and 34%, respectively, over the period.

As Russia’s invasion moves into its fifth week, NATO countries have begun to acknowledge the need for a more rapid modernization of the continent’s military as the peace dividend has evaporated. Much of Europe’s military equipment is outdated; for 17 countries, for instance, the average military jet is more than two decades old.

Germany, which has seen military spending as a percent of GDP decline over the last few decades, has decided to boost its defense spending by at least 44 billion euros, with the bulk of spending targeting warplanes and ammunition. For example, Germany has committed to purchasing 35 F-35 stealth jet fighters and 15 Eurofighters. Other European NATO countries, like Poland and France, have also pledged to increase spending in response to the invasion. Sweden, a non-NATO country that borders Russia, has committed to boost defense spending to 2% of GDP. Notably, the latest round of public opinion polls shows that 51% of Swedish citizens favor joining NATO—the first time this view has shifted to the majority.

In their March 14 report, “Defence: Divergence of Views Between Mainstream and Sustainable Investors,” Morgan Stanley & Co. Research’s aerospace and defense team estimated that if each NATO member were to raise its military expenditures to a minimum of 2% of GDP, more than $60 billion in additional annual defense spending would be generated, supporting a relative premium for defense sector stocks. The defense and aerospace sectors have already rallied, with the S&P Aerospace and Defense Index sector up 8.7% and the MSCI Euro Defense Index up 1.6% from Feb. 24 to March 21.

Historical analysis of military spending, notably on imports of weapons and equipment, corroborates a strong relationship with performance of defense stocks (see Exhibit 6). Since 1960, defense sector returns have led global military spending, generally by approximately two years. As such, to some extent, recent defense sector gains are likely anticipating an uptick in spending. In fact, the S&P 500 Aerospace and Defense Index is currently trading at its 60th percentile of price-to-earnings over the last five years. However, these companies are at their 65th percentile levels of free cash flow and are only at their 35th percentile of operating margins over the same period.

**Investment Implications**

Russia’s invasion of Ukraine was not priced into markets. Geopolitical uncertainty has rattled stocks, bonds and commodities, as the once nearly unthinkable war has triggered a new reality for the continent. European nations will need to adjust to the shifting landscape. We expect policymakers to focus on addressing energy independence and national security.

In the near term, European equities are vulnerable to concerns that a prolonged conflict could push the continent into a recession. Commodities, particularly fossil fuels, remain skewed to the upside given conflict-related supply shocks amid below average energy inventories and supply chain disruptions. With major indexes down significantly, we see opportunities in the renewable energy and defense industries, both of which stand to benefit from recent geopolitical events.

---

**Exhibit 6: Equity Returns in the Defense Sector Lead Actual Spending by Two Years**

![Chart showing the relationship between military imports and defense industry index]

Source: SIPRI, Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of March 23, 2022
Charts You Can't Miss

Exhibit 7: Investment in Nuclear Energy Lags Other Groups Globally Among Renewables


Exhibit 8: France Derives More Than 75% of its Electricity From Nuclear Energy


Exhibit 9: Russian Oil Exports to China Could Increase

Source: Reuters, IEA, Morgan Stanley Wealth Management Global Investment Office as of March 16, 2022


Source: Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of March 17, 2022

Please refer to important information, disclosures and qualifications at the end of this material.
Exhibit 11: Europe’s Pivot Toward Electric Vehicles Could Speed Transition From Russian Energy

Source: Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of March 7, 2022

Current Readings From Our Quantitative Framework

<table>
<thead>
<tr>
<th>Top 5</th>
<th>Value</th>
<th>Quality</th>
<th>Momentum</th>
<th>Capital Use</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>Materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>Energy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>Communication Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>Energy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>Materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bottom 5</th>
<th>Value</th>
<th>Quality</th>
<th>Momentum</th>
<th>Capital Use</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Pac ex Japan</td>
<td>Consumer Discretionary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia Pac ex Japan</td>
<td>Health Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia Pac ex Japan</td>
<td>Industrials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>Utilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>Real Estate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Levels
- Unfavorable
- Neutral
- Favorable

Changes
- Deteriorating
- Unchanged
- Improving

Ongoing Development Spotlight

Although Russia’s invasion of Ukraine will be responsible for lasting geopolitical shifts, another notable consequence is the acceleration of the eurozone away from reliance on Russian energy. With more details to be announced in May, the European Commission recently expressed its desire to phase out that dependence by 2027. A potential part of the transition could be enthusiastic support for electric vehicles (EVs). Norway, which leads the world in EV adoption—with 15% of its cars partially or completely powered by electricity—has reduced its oil demand by 10% from 2011 levels. While EV sales in Europe are expected to exceed traditional internal combustion engine sales by around 2030, the conflict could accelerate the transition. — Brad Fulton
Disclosure Section

Index Definitions

MSCI EUROPE AEROSPACE & DEFENSE INDEX is designed to measure the performance of the GICS aerospace & defense sub-industry.

For other index, indicator and survey definitions referenced in this report please visit the following: https://www.morganstanley.com/wealthinvestmentsolutions/wmir-definitions

Glossary

Equity risk premium is the excess return that an individual stock or the overall stock market provides over a risk-free rate. The risk-free rate represents the interest an investor would expect from an absolutely risk-free investment over a specified period of time.

Important note regarding economic sanctions

This report may involve the discussion of country/ies which are generally the subject of selective sanctions programs administered or enforced by the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC"), the European Union and/or by other countries or multi-national bodies. The content of this presentation is for informational purposes and does not represent Morgan Stanley's view as to whether or not any of the Persons, instruments or investments discussed are or may become subject to sanctions. Any references in this presentation to entities or instruments that may be covered by such sanctions should not be read as recommending or advising on any investment activities involving such entities or instruments. You are solely responsible for ensuring that your investment activities in relation to any sanctioned country/ies are carried out in compliance with applicable sanctions.

Risk Considerations

Investing in foreign markets entails greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. Investing in currency involves additional special risks such as credit, interest rate fluctuations, derivative investment risk, and domestic and foreign inflation rates, which can be volatile and may be less liquid than other securities and more sensitive to the effect of varied economic conditions. In addition, international investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets and frontier markets, since these countries may have relatively unstable governments and less established markets and economies. Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment.

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

Bonds rated below investment grade may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high-yield bonds. High yield bonds should comprise only a limited portion of a balanced portfolio.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

Because of their narrow focus, sector investments tend to be more volatile than investments that diversify across many sectors and companies. Technology stocks may be especially volatile. Risks applicable to companies in the energy and natural resources sectors include commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Health care sector stocks are subject to government regulation, as well as government approval of products and services, which can significantly impact price and availability, and which can also be significantly affected by rapid obsolescence and patent expirations.

Rebalancing does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy.

The indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

The indices selected by Morgan Stanley Wealth Management to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time.

Disclosures

Morgan Stanley Wealth Management is the trade name of Morgan Stanley Smith Barney LLC, a registered broker-dealer in the United States. This material has been prepared for informational purposes only and is not an offer to buy or sell or a solicitation of any offer to buy or sell any
security or other financial instrument or to participate in any trading strategy. Past performance is not necessarily a guide to future performance.

The author(s) (if any authors are noted) principally responsible for the preparation of this material receive compensation based upon various factors, including quality and accuracy of their work, firm revenues (including trading and capital markets revenues), client feedback and competitive factors. Morgan Stanley Wealth Management is involved in many businesses that may relate to companies, securities or instruments mentioned in this material.

This material has been prepared for informational purposes only and is not an offer to buy or sell or a solicitation of any offer to buy or sell any security/instrument, or to participate in any trading strategy. Any such offer would be made only after a prospective investor had completed its own independent investigation of the securities, instruments or transactions, and received all information it required to make its own investment decision, including, where applicable, a review of any offering circular or memorandum describing such security or instrument. That information would contain material information not contained herein and to which prospective participants are referred. This material is based on public information as of the specified date, and may be stale thereafter. We have no obligation to tell you when information herein may change. We make no representation or warranty with respect to the accuracy or completeness of this material. Morgan Stanley Wealth Management has no obligation to provide updated information on the securities/instruments mentioned herein.

The securities/instruments discussed in this material may not be appropriate for all investors. The appropriateness of a particular investment or strategy will depend on an investor’s individual circumstances and objectives. Morgan Stanley Wealth Management recommends that investors independently evaluate specific investments and strategies, and encourages investors to seek the advice of a financial advisor. The value of and income from investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies and other issuers or other factors. Estimates of future performance are based on assumptions that may not be realized. Actual events may differ from those assumed and changes to any assumptions may have a material impact on any projections or estimates. Other events not taken into account may occur and may significantly affect the projections or estimates. Certain assumptions may have been made for modeling purposes only to simplify the presentation and/or calculation of any projections or estimates, and Morgan Stanley Wealth Management does not represent that any such assumptions will reflect actual future events. Accordingly, there can be no assurance that estimated returns or projections will be realized or that actual returns or performance results will not materially differ from those estimated herein.

This material should not be viewed as advice or recommendations with respect to asset allocation or any particular investment. This information is not intended to, and should not, form a primary basis for any investment decisions that you may make. Morgan Stanley Wealth Management is not acting as a fiduciary under either the Employee Retirement Income Security Act of 1974, as amended or under section 4975 of the Internal Revenue Code of 1986 as amended in providing this material except as otherwise provided in writing by Morgan Stanley and/or as described at www.morganstanley.com/disclosures/dol.

Morgan Stanley Smith Barney LLC, its affiliates and Morgan Stanley Financial Advisors do not provide legal or tax advice. Each client should always consult his/her personal tax and/or legal advisor for information concerning his/her individual situation and to learn about any potential tax or other implications that may result from acting on a particular recommendation.

This material is disseminated in Australia to "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813).

Morgan Stanley Wealth Management is not incorporated under the People’s Republic of China (“PRC”) law and the material in relation to this report is conducted outside the PRC. This report will be distributed only upon request of a specific recipient. This report does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors must have the relevant qualifications to invest in such securities and must be responsible for obtaining all relevant approvals, licenses, verifications and or registrations from PRC’s relevant governmental authorities.

If your financial adviser is based in Australia, Switzerland or the United Kingdom, then please be aware that this report is being distributed by the Morgan Stanley entity where your financial adviser is located, as follows: Australia: Morgan Stanley Wealth Management Australia Pty Ltd (ABN 19 009 145 555, AFSL No. 240813); Switzerland: Morgan Stanley (Switzerland) AG regulated by the Swiss Financial Market Supervisory Authority; or United Kingdom: Morgan Stanley Private Wealth Management Ltd, authorized and regulated by the Financial Conduct Authority, approves for the purposes of section 21 of the Financial Services and Markets Act 2000 this material for distribution in the United Kingdom.

Morgan Stanley Wealth Management is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the “Municipal Advisor Rule”) and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule.

This material is disseminated in the United States of America by Morgan Stanley Wealth Management.

Third-party data providers make no warranties or representations of any kind relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages of any kind relating to such data.

This material, or any portion thereof, may not be reprinted, sold or redistributed without the written consent of Morgan Stanley Smith Barney LLC.

© 2022 Morgan Stanley Smith Barney LLC. Member SIPC.

RSI6479850531363 03/2022