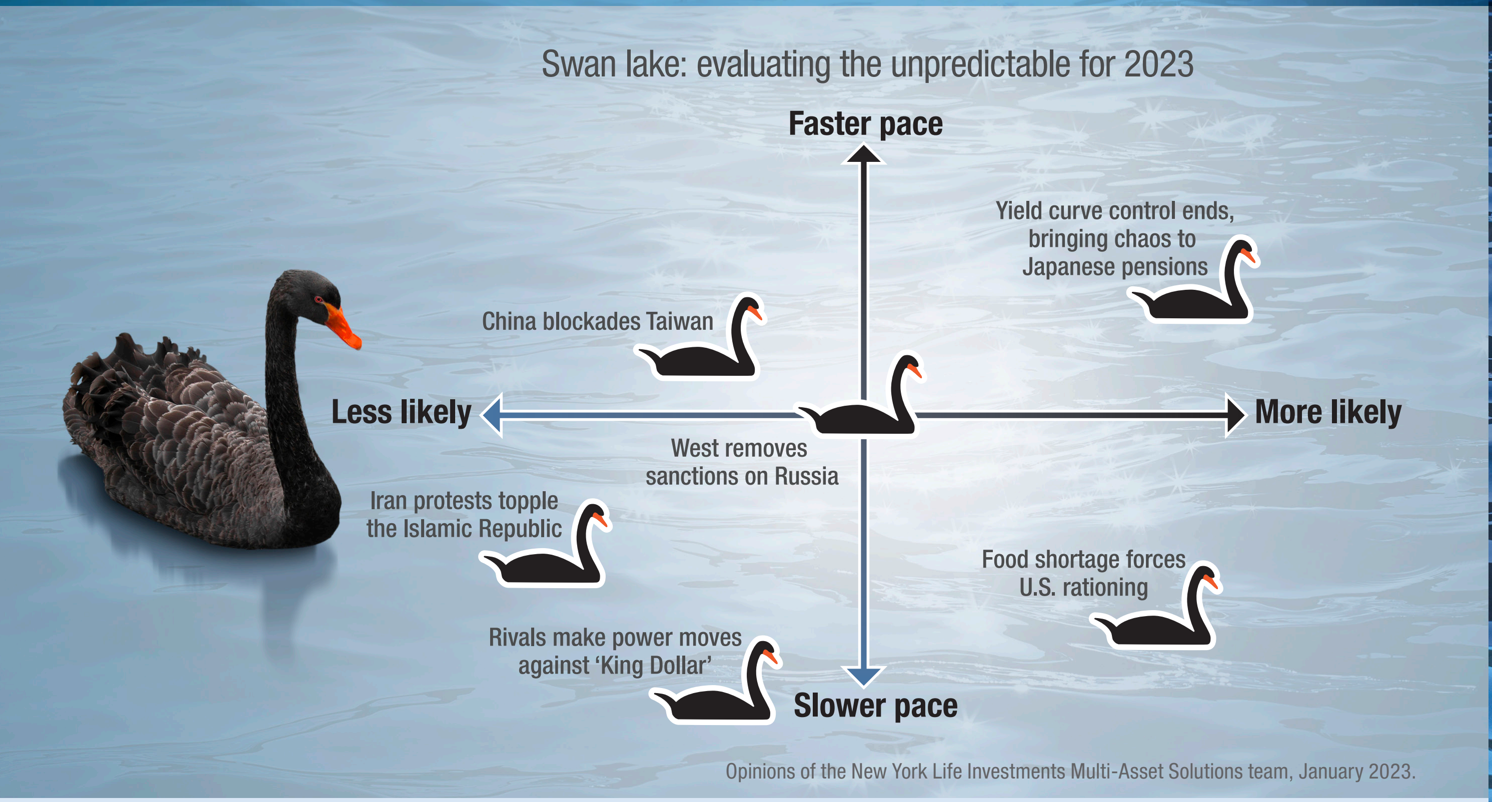
Swan lake: the risks that would most disrupt consensus in 2023



Executive summary:

- While the coming year is full of uncertainty, we've observed that much of the financial community is hugging consensus views around inflation, interest rates, and the likelihood of recession.
- But in the past several years, shocks previously considered impossible or unlikely have indeed come to fruition, with heavy impacts on economic growth, market behavior, and human life.
- Accordingly, we believe it is appropriate and perhaps necessary to consider not only the upside and downside scenarios to our base case views, but also **black swans** – high-impact, unpredictable events – that, though incredibly unlikely, could upend the 2023 outlook.

New York Life Investments

Black swans are high-impact, unpredictable events that disrupt investor consensus. These risks, and geopolitical risk more broadly, are always present for the economy and markets. Investor attention around them may ebb and flow, but these events always can, at any time and with no warning, disrupt entrenched economic narratives and reset market expectations.

For investors, it's important to be aware not only of any event's primary impacts, but also of the non-linear ways a shock can filter through the economy and markets. Global economic structures and international relations are changing, with sometimes long-dated and unpredictable repercussions.

Take the COVID-19 pandemic. The risk, though non-financial in nature, immediately gripped global markets. But as the pandemic played out, it also impacted economic structures – disrupting supply chains and pushing prices higher – and international relations, broadening the scope of products and processes considered in the national interest. Each wave of impact has been felt in the markets, though with varying severity and speed of impact.

We have conducted substantial research on tracking and managing portfolio disruptors and found that incorporating them effectively into an investment process is a delicate balance. Best practice advises that investors pressure-test their allocations with regular consideration of these potential events; reality suggests that these conversations can quickly veer away from practical takeaways.

We prioritize key risks by considering the likelihood, severity, and speed of their impact. Then, we build scenarios to determine how that impact would be felt – and what, if any, action investors could take to mitigate or capitalize on it. *While not in our base case for 2023, we believe these risks, if they occurred, would do the most to disrupt investment allocations.*

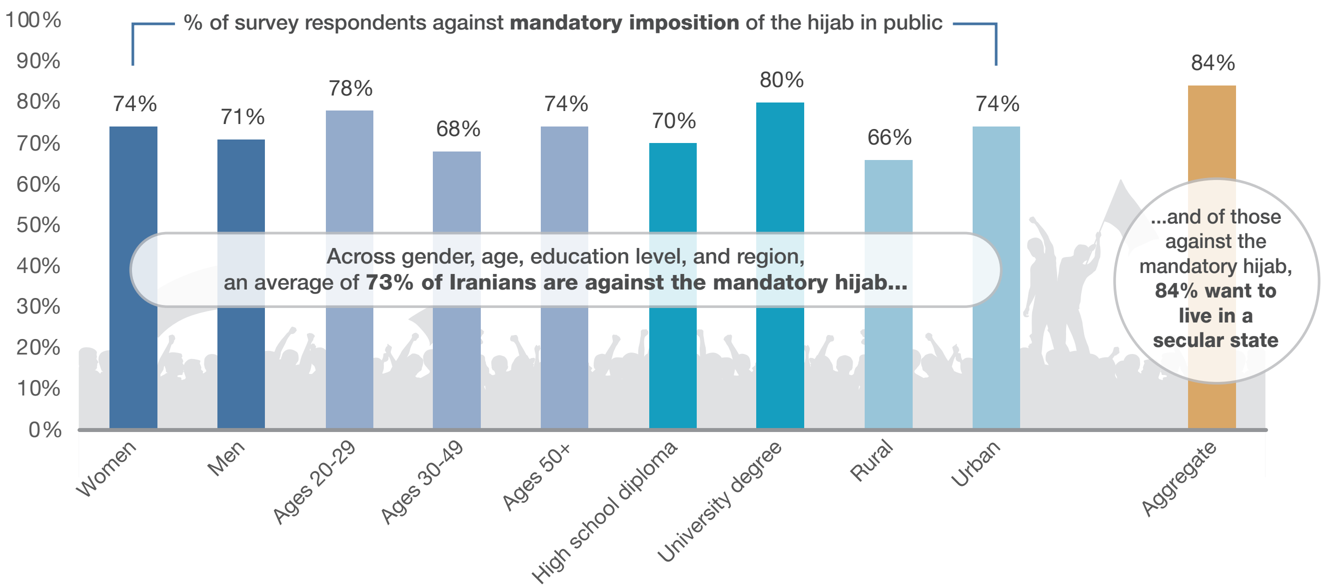
Iran protests topple the Islamic Republic

Likelihood: Lower | **Speed:** Medium

Iran is in the midst of its largest popular uprising since 2009. We expect the current regime to retain power through military force and censorship, but these protests have the potential to achieve their goal of regime change – which in turn could reorganize the alliance structure of the Middle East.

History suggests that successful uprisings share key characteristics: clear leadership capable of forming a new government; military tolerance; popularity that responds to or even creates national paralysis; international support or neutrality. Iran's 1979 overthrow of the Shah met these conditions, but its 2009 Green Revolution lacked leadership and military support. Today's uprising shares some weaknesses, but appears to be based in broadly-held views on human rights, likely magnified by the economic hardship suffered under years of sanctions due to the regime's behavior. Protests have prompted the suspension of Iran's "morality police," hinting at this movement's potential to gain support and force change.

Protests bridge the gap between widely held views and calls for regime change



Sources: New York Life Investments Multi-Asset Solutions, Tony Blair Institute for Global Change, Group for Analyzing and Measuring Attitudes in Iran. Surveys conducted over 2020 and 2022 polled various groups on their views on the mandatory imposition of the hijab. Of those against the mandatory hijab, 84% (on the whole) responded that they also want to live in a secular state. For full polling methodology, see Protests and Polling Insights From the Streets of Iran: How Removal of the Hijab Became a Symbol of Regime Change, as of November 2022.

Democratization and/or secularization of the Iranian government would mark a significant change in the Middle East's already delicate relationship balance. In many ways this could be constructive beyond Iran's borders, as was the case when the Berlin Wall came down. It may open a path to de-escalation of the current regime's tensions with the governments of Saudi Arabia, Israel, and other neighbors; it could also result in a de-funding of proxy wars, namely the Islamic Republic's support of the Assad regime in Syria. That said, change in these structures can also contribute to unprecedented global instability. Shifting alliances may prompt the U.S., China, and Russia to attempt to expand influence in the region.

Investment implications:

Iran accounts for 25% of Middle Eastern and 12% of global oil reserves, but under the current regime those reserves are subject to punitive sanctions and chronic underinvestment. A new regime may bring hope that sanctions would be removed, increasing global oil supply and therefore weighing on prices. Beyond oil, the severity and speed of impact to global markets depends on the degree to which other countries become entangled. Amid the uncertainty, increased defense spending needs could strain economies and markets.

Food shortage forces U.S. rationing

Likelihood: Higher | **Speed:** Slower

Threats to global food security are numerous, ever-present, and likely rising, most commonly affecting lives in developing nations. The Russian invasion of Ukraine – both countries being agricultural heavyweights – is but the latest broad-scale threat to food supply. Russia controls a significant portion of the fertilizer supply chain, including production of natural gas and fertilizer inputs. Combined, Russia and Ukraine supply a quarter of the world's wheat. Once the war began and drastically cut this supply, the risk of a global food shortage increased in probability and urgency. Recognizing this, Ukraine and Russia signed the Black Sea Grain Initiative (BSGI), providing a lifeline to vulnerable countries by permitting food and fertilizer exports from Ukraine.

Our base case assumes the BSGI holds up. Even so, reduced supply will continue to push prices higher. And, if the BSGI breaks down, or if Moscow refuses to renew it, governments may be forced to blunt spiraling food prices. 2020 saw the U.S. government issuing economic relief checks; 2023 could see a re-launch of WWII-era food rationing programs.

Food prices have stabilized thanks to the BSGI agreement – for now

Sources: New York Life Investments Multi-Asset Solutions, Macrobond, Chicago Board of Trade, as of December 2022. Wheat prices are illustrated by the Chicago Board of Trade's No. 2 Soft Red spot price, USD, which tracks the current price of wheat on global financial markets.

Unfortunately, there are reasons to be wary Russia will uphold the BSGI. Military targeting of ports, suspending and reinstating involvement, and challenging negotiations have drawn considerable uncertainty to food shipments.

If the deal fails – potentially concurrently with a fertilizer supply drop or crop failure – it could lead to a global food scarcity catastrophe. Shortages, rationing, and soaring prices could trigger protests and spread from the emerging to developed world. We expect many countries would respond with trade protectionism and agricultural nationalism. We have already seen examples of this in response to the Russian invasion; India, for example, banned wheat exports at the onset of the war. As more countries, including developed countries, implement export bans and subsidies, a food crisis' effects on human life and economic structures could be exacerbated.

Investment implications:

A global food crisis could dramatically shift investor priorities, reorienting focus from long-term financial futures and towards near-term security. Within this context, we would expect real assets such as agriculture and farmland-focused assets, including real estate, to see surges in demand. These assets could serve a dual purpose: benefiting from the premium placed on agriculture as food runs low, and potentially insulating a portfolio from the effects of inflation. Food rationing may also have a significant impact on consumer preferences, including in developed economies, potentially benefiting consumer staples and harming discretionary spending and services, such as travel and restaurant dining.

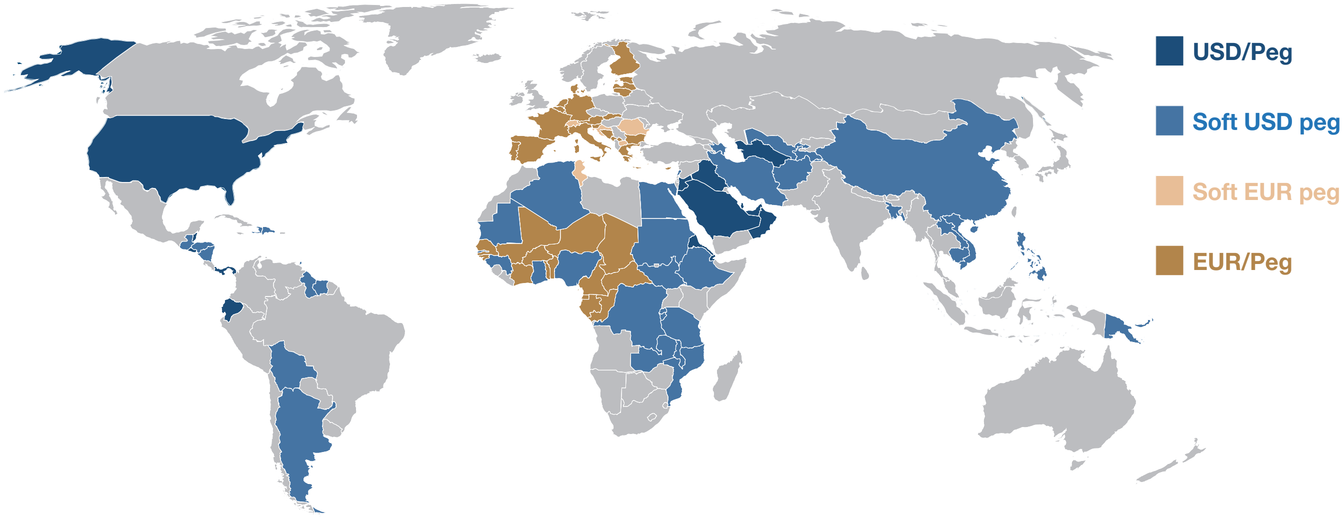
Rivals make power moves against ‘King Dollar’

Likelihood: Lower | **Speed:** Slower

Today, the U.S. dollar (USD) is the indisputable foundation of the global financial system. It accounts for 59% of global reserves and nearly all of global commodities trade. Our base case is that the dollar maintains this position of strength for decades to come. But dollar centrism does not suit all governments – and some may be willing to accept the significant costs of throwing off the yoke.

As the world’s preeminent reserve currency, the dollar is the most common base for currency pegs. While pegs can provide stability, maintaining a peg can be costly as its anchor currency strengthens. Due to these strains, as well as growing anti-U.S. political pressures, 2023 could see rivals move against the dollar in Hong Kong and Saudi Arabia.

Currency pegs are broadly used, with the dollar dominating worldwide



Sources: New York Life Investments Multi-Asset Solutions, The Economist, European Union, International Monetary Fund Annual Report on Exchange Arrangements and Exchange Restrictions 2021, as of December 2022. Soft USD or EUR pegs meet the IMF definition of stabilized, crawling, or de-facto pegs.

For years, **Hong Kong** has lived under the threat of China exerting dominance by moving the Hong Kong Dollar’s peg away from the U.S. dollar and towards the Chinese yuan. We expect the Hong Kong exchange would suffer catastrophic outflows in this scenario as investors doubt their ability to withdraw money from a Chinese system. Nevertheless, Beijing has asserted that Hong Kong’s status as a global financial center is not a policy priority.

Saudi Arabia struck a deal with the Nixon Administration in 1974 to sell oil in dollars and maintain a dollar peg to its currency in return for security guarantees. This relationship has come under myriad forms of stress: the Khashoggi murder, war in Yemen, efforts at an Iran deal, and the U.S. pullout from Afghanistan, among others. Countries like Russia and China are capitalizing on this tension and campaigning for the Saudis to price oil contracts in other currencies. Any diversification in oil contract pricing would be a big step in breaking up the oil-dollar relationship, and possibly dollar hegemony.

Investment implications:

If this risk were to unfold, investors would have to watch both the localized and global impacts of dollar de-pegging. Individually, both “power moves” would have immediate, severe implications for the local economies and markets. Then, taking the risk global, we would expect to see pressure on U.S. Treasury and equity markets as investors questioned not only U.S. dollar dominance, but also the stability of dollar-priced contracts. We would fade this concern; while dollar appetite has shifted over time, this is an inherently slow process, shaped not only by investors but also by business and consumer decisions in the real economy. Currently, no one currency is capable of replacing the dollar’s reach.

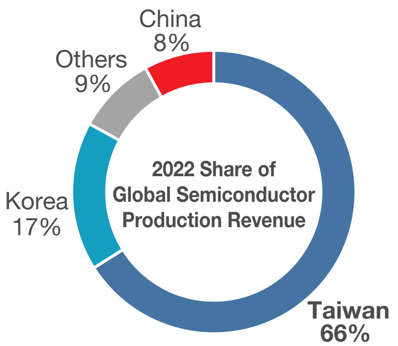
China blockades Taiwan

Likelihood: Lower | **Speed:** Medium

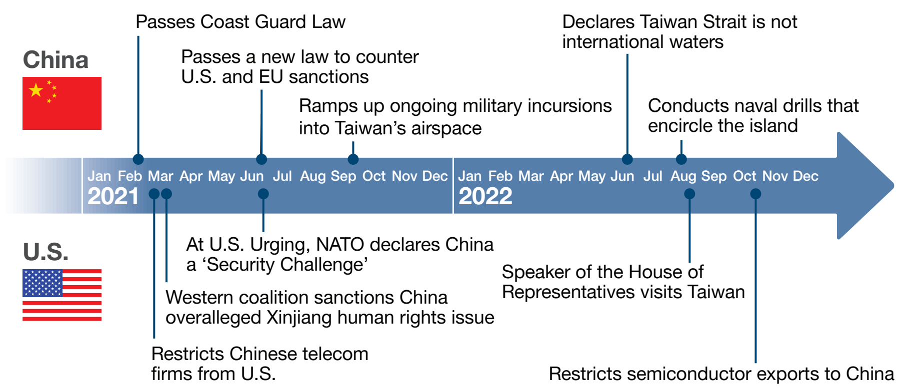
China's ambitions to "unify" with Taiwan are no secret, but there are many reasons why China has not acted militarily on this issue to date: it seeks legal and permanent reunification, making near-term conflict unattractive; China's military forces may lack the capabilities for a full-scale invasion; and the world depends heavily on Taiwan's semiconductor hub (Taiwan's "silicon shield"), underpinning active U.S. support of the status quo. The cost of conflict is simply too high.

Our base case assumes that the U.S. and China will continue tit-for-tat provocations regarding Taiwan without serious escalation. But a host of factors could tip the scales. The U.S. may test mainland resolve with a dramatic increase in tariffs or other instigation. Military exercises on either side could lead to conflict. China has laid a legal groundwork for sovereignty in the Strait; blockading the island provides a flexible and militarily-feasible means for China to exert its sovereignty.

Taiwan dominates the global semiconductor market



Tit-for-tat escalation over Taiwan is likely to continue



Sources: New York Life Investments Multi-Asset Solutions, Statista, New York Times, as of December 2022.

Taiwan alone supplies over 60% of the world's logic semiconductors, or chips, far surpassing OPEC's 40% control of global oil production. This factor dominance includes nearly all of the most advanced processors, generating one third of the world's new computing power each year. We believe the concentration of chip manufacturing risk in Taiwan has contributed to the U.S., EU, and China's frantic investment into their domestic semiconductor capacities – but no country is anywhere near tech self-sufficiency. The strategic value of Taiwan's chip manufacturing capacity – if left intact – contributes to China's potential preference for a blockade as an escalation option that might avoid technology disruption on a massive scale.

Investment implications:

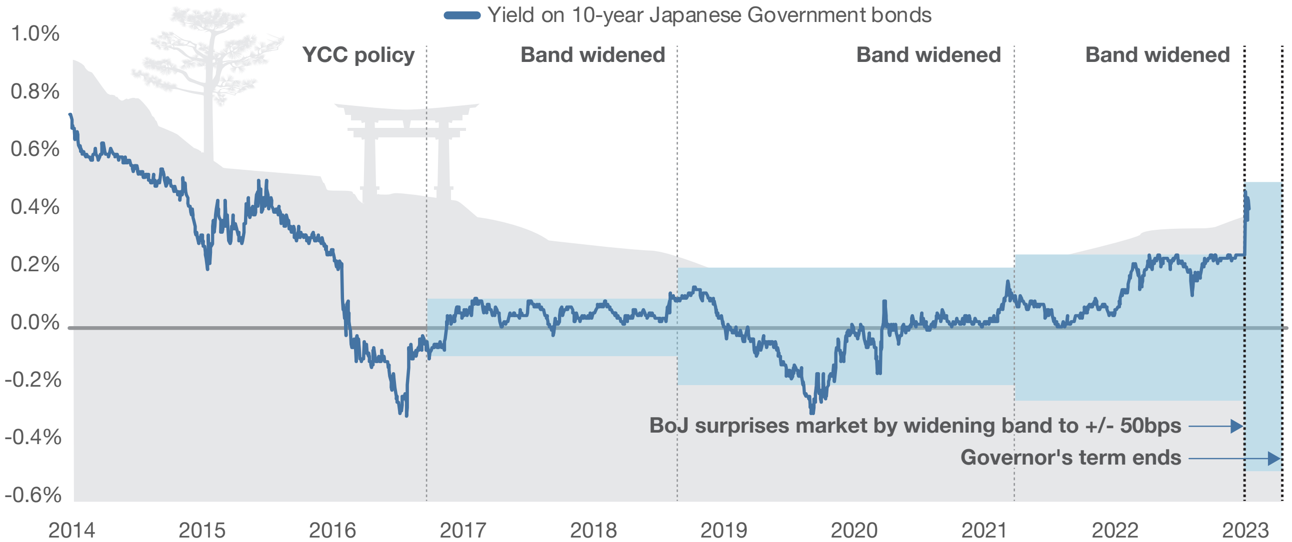
A blockade would curtail Taiwan's ability to export its products, sending the cost of existing technologies – from smartphones to Artificial Intelligence to high-capacity computing to cars – into the stratosphere. The technology sector would arguably be the most immediately impacted, **but the key pain point of this black swan is investors' inability to position around it.** In our view, avoidance of Asian markets, tech stocks, or manufacturing sectors is unlikely to shield investors from the market impact of a worldwide tech supply chain disruption. And, in the meantime, avoiding such sectors means missing out on any potential upside.

End of yield curve control brings chaos to Japanese pensions

Likelihood: Higher | **Speed:** Faster

For decades, Japan has struggled with low inflation – a sign of declining economic potential. In response, the Bank of Japan (BoJ) sought to stimulate price and wage growth through yield curve control (YCC), which reduces interest rate uncertainty by holding the 10-year Japanese government bond yield to a narrow band. At the end of 2022, the BoJ surprised markets by adjusting this band from ±25 basis points to ±50 basis points around 0%. Our base case assumes the BoJ upholds this wider band through 2023, but the recent change poses a risk to that view, especially as the BoJ governor's term ends in April. **If the BoJ abandons YCC, however carefully it implements this change, pockets of the Japanese market are unlikely to be prepared for a sudden rise in interest rates.** Specifically, the Japanese pension system could suffer, mirroring the crisis UK pensions faced in 2022.

The band on Japanese bond yields has been widening; if YCC ended, we expect yields would rise quickly



Sources: New York Life Investments Multi-Asset Solutions, Macrobond, as of December 2022.

The British government's "mini-budget" in September 2022 caused yields to spike, triggering panic among the UK's largest defined-benefit pension managers. It was only via emergency measures by the Bank of England that several pensions were rescued, mere hours before their collapse.

The pension system in Japan today looks eerily similar to that of the UK before its pension crisis. For years, due to the challenge low interest rates pose for meeting future liabilities, Japanese pension funds have used derivatives to hedge interest rate risk. Japan's shrinking and aging population has increased the need for future payouts, likely amplifying the use of risky yield-generation strategies and further increasing the fragility of this market. Worsening matters, it appears that like the Bank of England, the Bank of Japan has not implemented measures that would safeguard this market should it experience a rates shock, suggesting that a similar or worse outcome could occur in Japan.

Investment implications:

The UK's 2022 gilt crisis has already sent warning signs for how rapid and globalized an institutional solvency crisis can be – and Japan's bond market is five times bigger. Solvency issues in Japanese pension funds could result in forced selling of Japanese government bonds. The resulting higher yields would likely prompt a rapid appreciation of the yen against major currencies. A stronger yen would be challenging for Japanese exporters, and possibly disinflationary in the medium term. However, higher rates and a stronger yen may have at least one interesting investment implication: lower hedging costs. In this context, U.S. private and public corporate credit could benefit; these relatively broad and liquid markets have historically been an attractive place for Japanese investors to find longer duration bets.

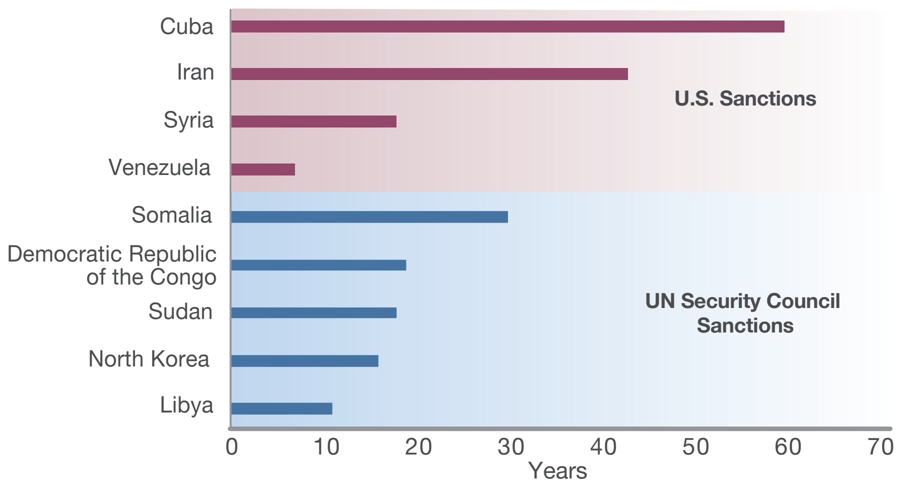
The West removes sanctions on Russia

Likelihood: Higher | **Speed:** Medium

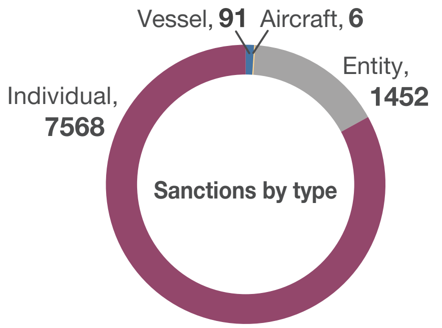
As the conflict between Russia and Ukraine extends, opportunities for either side to concede have diminished. Our base case is for a sustained conflict. And even in the improbable event that a durable peace is found in 2023, it may not result in economic relief. Why? Sanctions. Key measures such as preventing Russia's government, banks, and companies from using U.S. dollar exchanges, along with bans on importing Russian oil, have been the critical connectors between the war in Ukraine and the economic stress caused by lower Russian energy supply.

Historically, sanctions are imposed for decades, not years. This time may not be different; Russia's invasion of Ukraine crossed macroeconomic and political lines, which our research suggests permanently reshaped international relations and global perspectives on energy security. The rollback of sanctions – in response to a peace deal, a change in Russian leadership, unbearable energy stress in Europe or even a food crisis (see page 4) – would disrupt widely held expectations.

Historically, sanctions are imposed for decades, not years



Individual and entity sanctions dominate mix for Russia



Sources: New York Life Investments Multi-Asset Solutions, United Nations Security Council, U.S. Department of State, Castellum.ai, as of January 2023.

This event would remove a key vulnerability for Europe's energy supply and relieve pressure on global inflation. However, we doubt that Europe's push towards energy independence – or at least dependence only on trusted allies – would lose steam; the significant cost and vulnerability of Europe's energy mix has been laid bare. That said, some of the secondary impacts of Europe's energy crisis could be alleviated. Europe's energy insecurity has harmed its competitiveness in industries and companies with energy-intensive production processes, prompting some to consider relocation. Lower production cost estimates may reduce this pressure.

Investment implications:

We see lower inflation and recession risk as unambiguously positive for risk assets globally and even more so for Europe, on several fronts. The European Central Bank (ECB) could have an easier battle against inflation, and euro area bond yields could fall as a result. European equities would likely benefit from lower uncertainty, particularly the industrial and manufacturing sectors that have faced wildly varying costs. On the fiscal side, governments could reduce energy price-related support to households, removing a major debt sustainability concern.

Elsewhere, defense spending has increased among NATO allies; supporting companies would likely see lesser tailwinds as a result. At the same time, significant spend could be diverted to reconstructing Ukraine, creating opportunities in raw materials, homebuilders, and digital and physical infrastructure.

Other risks on our list

By their very nature, black swans are unforeseen. We therefore acknowledge that there are countless risks we did not, or cannot, identify. Still, there are a few themes that bear watching – plenty of swans lurking in all areas of the lake.

Risk	Why it didn't make our list for 2023
A militarized moon: rival countries establish territory on the moon, with the intent to discover or mine minerals	We are likely several years away from targeted efforts to explore and extract any valuable minerals on the moon. The entrance of private firms into this space and efforts to build national self-reliance in tech supply chains may push up this timeline.
Revolutionary invention in nuclear or clean energy: a long-duration battery or carbon sequestration technique cuts years off of the green energy transition	To us, this risk is a matter less of whether these developments will occur, but rather when. We have high conviction in investments related to the green energy transition – including all types of technological and physical infrastructure.
Countries extend maritime sovereignty over key shipping lanes, disrupting trade flow	This risk is omnipresent in areas such as the Suez Canal or the Malacca Strait. The truly global customer list for these shipping lanes makes likelihood low.
Cyber attack on critical infrastructure of a major economy like the United States	To us, this risk is highly important but ill-defined. The impact of such an attack would depend heavily on the infrastructure targeted and the national identity of the alleged perpetrator. The ambiguity of this threat is constructive for cyber security monitoring services and software solutions.
North Korea attacks South Korea	This risk is ever-present and has the potential to pull the world into war. However, due to internal constraints to North Korea (food insecurity, technological limitations) we think (hope) this risk is unlikely.
European energy crisis worsens	While highly impactful in nature, we believe these risks are well understood by the investment community.
China's reopening prompts a COVID pandemic 2.0	

Next steps for investors

The question for investors is not whether black swans could be a force for market change, but whether that force is relevant to their portfolio decisions today.

In some cases, the answer is an unambiguous yes. Agile portfolios with appropriate risk tolerance can take advantage of shifts — temporary or structural — brought on by market shocks. For these portfolios, monitoring dislocations can be an achievable and meaningful driver of excess investment return. Focused analysis can reduce the impact and severity of adverse events and enhance the potential for upside growth.

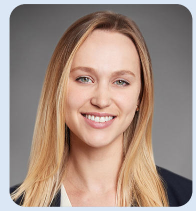
For other investors, day-to-day conversations about geopolitical risk are a little more than a drain on time and resources, with no realizable benefit to their investment process or return generation.

For this reason, we encourage investors to focus on action – not distraction – when it comes to black swans. Consider reviewing our piece, "Geopolitical Risks and Portfolio Resiliency" for steps to incorporate disruptive events effectively and appropriately into your investment process.

To read the piece, please visit our Insights page by clicking here.

The Multi-Asset Solutions team is New York Life Investments' specialist in multi-asset investing. The team leverages the depth and breadth of New York Life Investments' platform to seek to deliver strong investment opportunities across multi-asset strategies, market intelligence and insights, and customized solutions to its strategic partners.

Lauren Goodwin
Director of Portfolio Strategy



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