

## RISK

### EXECUTIVE SUMMARY

# 2022 GLOBAL RISK REPORT: TAIL RISKS

Exploring the Unknowns

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## RISK CAN COME IN MANY FORMS

Some of it we can see coming, some of it we could never predict, and rarely can we be sure of its ultimate impact. Of course, some risks are more likely than others, and in some cases past experience can help bolster the response to the next bout of tumult.

Scenarios seen as more likely to occur than other “black swan” events, such as a global economic slowdown or a second pandemic, have historical parallels that may be more easily mapped and modeled. With concerns currently swirling around stagflation, for example, it might be possible to get a general feel for what financial markets might do based on the environment of the 1970s.

But what happens when the risk is less foreshadowed or understood?

PGIM set out to survey institutional investors around the globe to identify tail-risk scenarios with perceived low likelihood of occurrence, but potentially high impact, and low level of preparedness. Our survey aims to provide insights on where these risks may present a weakness for institutional investors — either due to current investments, lack of risk-management oversight, regulatory blind spots or policies that lead to unintended tail events — to discuss lessons learned from the past, and to offer insights on how to best prepare for severe risks.

# INSTITUTIONAL INVESTORS SURVEYED ACROSS THE GLOBE

We canvassed 400 senior investment decision-makers at institutional investors in Australia, China, Germany, Japan, the UK and the US with a combined AUM of more than \$12 trillion.

Based on our findings, the top three global tail risks are:

1

An unexpected liquidity crunch in key capital markets (US Treasuries, commodities, etc.) that results in a market crash.

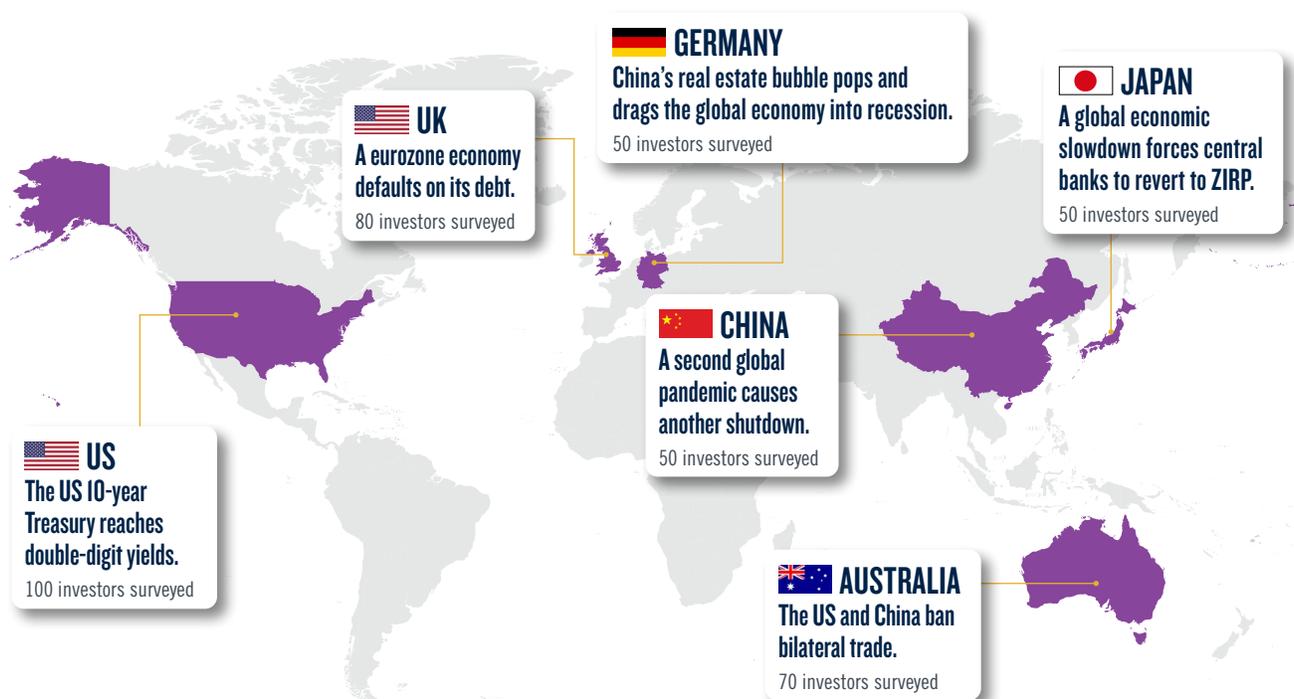
2

A military conflict in the Taiwan Strait or South China Sea.

3

A cyberattack disables a major financial platform or government agency for a significant period of time.

The top country-specific tail risks, as cited by investors in each region, are:



# GLOBAL TAIL RISKS

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## 1 AN UNEXPECTED LIQUIDITY CRUNCH THAT RESULTS IN A MARKET CRASH

A sudden drying up of liquidity in some of the most fluid markets in the world can create terrifying moments for investors. Here's partly why: As of 2021, the size of the bond market (total debt outstanding) was estimated to be \$119 trillion worldwide, and \$46 trillion for the US market, according to the Securities Industry and Financial Markets Association. Were it to happen, a severe liquidity crisis in arguably the world's most important market (US Treasuries) would have a cascading, ripple effect across global markets. Treasuries are the backbone of the international financial system, widely held by foreign central banks and the gauge off of which rates on many loans are set. A reduction in global liquidity could pave the way for disruptions in the proper behavior of financial markets and, in the worst cases, suppress investor risk appetite to the point it leads to malfunctioning markets. The decline in Treasury issuances since the height of the COVID-19 crisis — when the government issued debt to fund an unprecedented amount of fiscal stimulus — has exacerbated liquidity concerns in the bond market.

## 2 A MILITARY CONFLICT IN THE TAIWAN STRAIT OR SOUTH CHINA SEA

The tensions between mainland China and Taiwan appear to be headed to a boil, so it's no surprise institutional investors cited a military conflict as their second-highest tail risk. Much of the ubiquitous technology and electronic equipment used around the world is powered by semiconductors manufactured in Taiwan. The Semiconductor Industry Association says that if Taiwan production was shut down for a year because of military or political circumstances, the cost to annual revenue for device makers worldwide would be \$490 billion. Meanwhile, the potential impact to the global supply chain of a conflict between mainland China and Taiwan would be substantial. According to Bloomberg, about half of the world's container ships passed through the Taiwan Strait in the first seven months of 2022. Global supply chains require geopolitical stability and low trade barriers to function properly, the exact opposite of what this tail-risk scenario would deliver.

## 3 A CYBERATTACK DISABLES A MAJOR FINANCIAL PLATFORM OR GOVERNMENT AGENCY

SWIFT, the global payments messaging system used by financial institutions around the world, supports trillions of dollars every day crossing borders globally. While individual banks have various levels of protections against cyberattacks, experts were concerned that Russia might retaliate against economic sanctions by targeting SWIFT, potentially disrupting the entire financial system. Notably, only 30% of our respondents said they are prepared for such a major cyberattack — despite this being seen as one of the most likely tail risks to occur over the next three years. In a July 2022 report, the Federal Reserve warned that “the rising number of advanced persistent threats increases the potential for malicious cyber activity within the financial sector.”

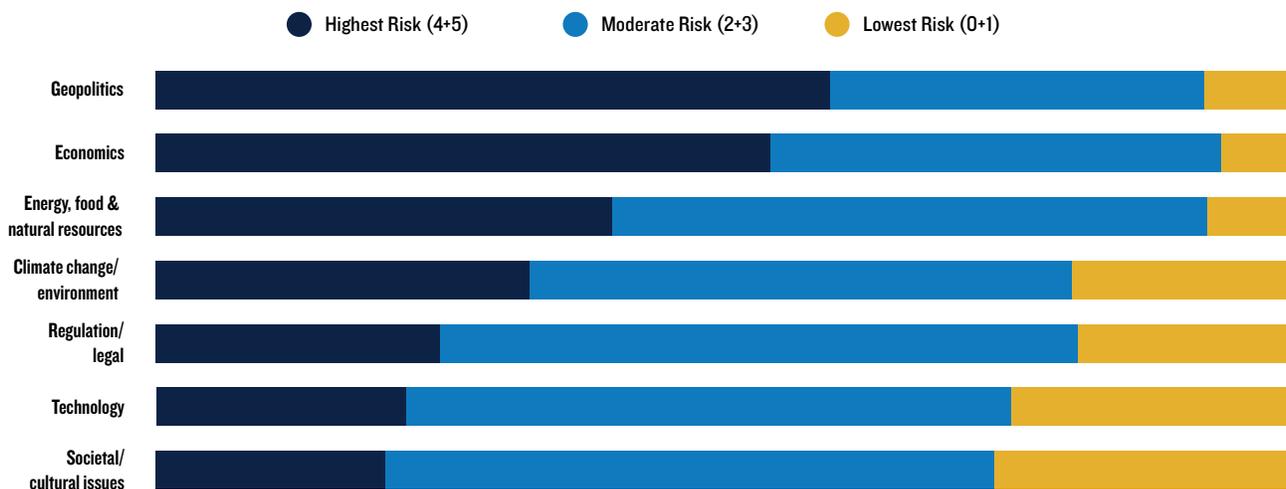
# GEOPOLITICS AND ECONOMICS POSE THE GREATEST RISKS TO PORTFOLIOS

At an overarching level, the predominant concerns of institutional investors center around the relationship between the US and China, questions about market function in times of stress, energy and natural resources, and the pervasive role of technology within the financial markets — and where it can go wrong.

Building on already heightened risk levels, geopolitics and economics present some of the major future risks to portfolios over the next three years, according to our survey.

Global investors see inflation as the primary market risk (69% high risk), followed by recession (57%), interest rate risk and stock market risk (both 42%). Inflation and recession risk are considered the biggest market risks across all regions and particularly among investors in the US and Europe.

## Exhibit: Investors Say Geopolitics and Economics Are Biggest Risks



Data may not sum to 100% due to rounding

Source: 2022 PGIM Global Tail Risk Monitor Survey



## HOW PREPARED ARE INVESTORS FOR TAIL RISKS?

According to our survey, just a tiny proportion (3%) of institutions have a dedicated tail-risk manager, and fewer than four in 10 actively monitor tail risks, although this rises to more than half of large (\$50B+) institutions. Only a third actively track and analyze interconnections between risks and prepare specific risk-response plans.

Predictive, AI-powered models for unknown risks are at the top of the wish list for many institutions, while tail-risk hedging strategies are sought after when it comes to information sharing. Subject matter expertise is key for many to get in front of looming tail risks.

# HOW CAN INVESTORS HEDGE AGAINST RISKS?

**In times of uncertainty, asset owners need to employ agile tail-risk hedging strategies and be more dynamic with their investment allocations. But by definition, tail risks are rare, which makes them exceedingly difficult to prepare for.**

The best insurance against such rare and complex events is perhaps found in two tried-and-true investment mantras: taking a long-term view and diversifying portfolios.

- **Remaining diversified** across asset classes, investment styles, and time frames, and choosing solutions with a low beta to traditional markets over a full market cycle, remains imperative.
- **A dynamic multi-asset defensive solution** that uses macro tail risk and capital preservation to address volatile market environments can provide reliable diversification.
- **Liquid alternative solutions** that combine trend following with directional and relative value strategies can be advantageous diversifiers in any market environment.
- **Monitoring leverage, collateral arrangements, and liquidity positions** through these shocks can help investors avoid becoming a forced seller while the event is unfolding.
- **Investors should also consider stress testing** as opposed to looking at traditional statistical measures that make assumptions that may not be realistic for some exposures.



**People just don't pay enough attention to the downside. It may be optimism bias, or the desire not to pay away money in good times. But the same people who buy fire insurance for their house oppose doing the same thing for their portfolio."**

**SUSHIL WADHWANI**  
CIO, PGIM Wadhvani

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