



HackGT 9: Retro Reset Sponsor Challenge

Introduction

This past year has been a highly turbulent period for financial markets. Overly expansionary fiscal and monetary policy in recent years has resulted in abnormally high rates of inflation. Additionally, supply chain disruptions and geopolitical tensions are contributing to economic concerns. With central banks committed to restoring price stability, we believe many investors fear that rapidly increasing interest rates will eventually lead to significant economic consequences. The result has been large stock market declines and high levels of volatility.

Many economists believe the Great Moderation, the period of steady growth and inflation we have experienced since the mid-1980s, has ended and that we are now entering a new regime of heightened macro volatility. When markets get volatile, it can be tempting to change the course of investment. Though each crisis can feel daunting, it is critical for investors to think clearly and plan for volatility rather than try to predict what happens next. As a global investment manager and fiduciary to our clients, BlackRock's goal is to build portfolios that can withstand prolonged periods of volatility.

Challenge Statement

Build a tool to help individual investors or organizations understand and manage the impact of market volatility. This is open to interpretation, and your solution can help individuals or organizations with investments, retirement, or other financial decisions. Some ideas to get you started include educating individuals on future returns, the impact on retirement funding, and the impact of other volatility factors (federal funds interest rate, inflation, etc.). Be creative! These ideas are not all-encompassing. Your tool can target people of nearly any level of investment/market knowledge, from retail investors up to experienced analysts.

Requirements

- Final solution should have a name
- Final solution should care to the needs of individual or institutional investors with at least basic investment knowledge
- Final solution should include a functional prototype with some working features
- Final presentation should include a brief overview of the problem in need of solving, background on sources used, and a demo of your prototype

Criteria to consider

- Functionality of the product
- User-friendly design
- Data visualization
- Use of relevant data
- Creativity

FAQ

- Are we required to connect to an API?
 - BlackRock API connection or connection to BlackRock's Aladdin system is not needed for this challenge. We encourage you to be creative by using open-source market data that fits your solution. We have provided some examples, but feel free to step outside of the ones provided.
- Where can we learn more about market volatility and read what BlackRock's experts have to say about it and other market themes?
 - Check out the BlackRock Investment Institute at <https://www.blackrock.com/us/individual/insights/blackrock-investment-institute> to see the latest insights and articles about markets.
 - Check out the sources below to see some additional links regarding market volatility, uncertainty, factors of volatility, etc.
 - Investopedia (<https://www.investopedia.com/>) is a great resource for learning about market and investment terminology.
- Where can I learn more about BlackRock's early career opportunities?
 - 2023 Summer Internship Program applications are open until November 4th for software engineering roles. Applications for other positions have already closed. Our Summer Internship Program targets undergraduate or master's students graduating between August 2023 through July 2024.
 - 2023 Full-Time Analyst Program (new graduate) applications are open until November 4th for software engineering roles. Applications for other positions have already closed. Our Full-Time Analyst Program is a two-year rotational program designed to connect new graduates to their ideal role at BlackRock. This program targets undergraduate or master's students graduating between January 2022 through July 2023.
 - Check out more information regarding our new graduate opportunities by visiting <https://careers.blackrock.com/early-careers/>.

Resources

Volatility: Meaning in Finance

<https://www.investopedia.com/terms/v/volatility.asp>

BII: Back to Volatility

<https://www.blackrock.com/corporate/literature/whitepaper/bii-2022-midyear-global-outlook.pdf>

Staying calm amid market volatility

<https://www.blackrock.com/us/financial-professionals/literature/investor-guide/staying-calm-amid-market-volatility-va-us.pdf>

Insight and action items for volatile stock markets

<https://www.blackrock.com/us/individual/insights/insight-for-volatile-stock-markets>

Insightful article outlining central banks' twin objectives of balancing price and output

<https://www.imf.org/external/pubs/ft/fandd/basics/monpol.htm>

Fed's current hawkish stance and the reason behind

<https://www.imf.org/en/News/Articles/2022/07/11/CF-US-Economy-Inflation-Challenge>

Tight labor markets and wage growth in the current economy

<https://www.brookings.edu/research/tight-labor-markets-and-wage-growth-in-the-current-economy/>

Simple facts about Europe's energy crisis

<https://www.goldmansachs.com/insights/pages/europe-energy-crisis-is-at-a-tipping-point.html>

Short article about market volatility for beginners

<https://www.fidelity.com.sg/beginners/what-is-volatility/market-volatility>

BlackRock iShares article about managing market volatility

<https://www.ishares.com/us/insights/managing-market-volatility>

Public APIs and Datasets

<https://rapidapi.com/blog/best-stock-api/>

<https://geekflare.com/best-stock-market-api/>

<https://www.nber.org/research/data>