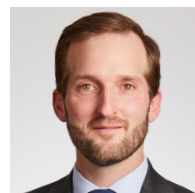


Peak Insights represent the thought leadership of Portfolio Manager Chris Smith and the Antero Peak Group. Through Peak Insights, the team seeks to offer unique access to innovative leaders and a view into important trends that will impact markets and businesses.

## Liquidity: A Major Driving Force for Markets

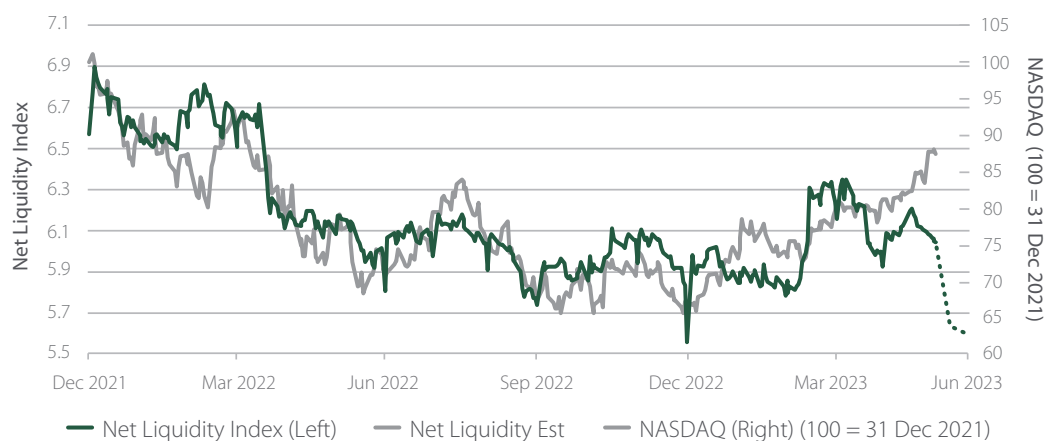
An examination of the relationship between overall liquidity and market direction reveals a tight link. This close relationship, we believe, has been on full display so far in 2023 and is an important factor driving equity market strength year-to-date—a factor that is likely to reverse as the year progresses. Through the first five months of the year, earnings estimates have moved lower. We’ve seen a regional banking crisis that led to government intervention, the Federal Reserve continued to raise interest rates, all while leading indicators remain soft. Yet, the S&P 500® has risen 9.65% as of the end of May. Why is this occurring? One of the reasons is this close relationship between the directional changes in liquidity and markets. This brief memo dives deeper into this relationship.



Christopher Smith  
Portfolio Manager

20 Years Investment Experience

Exhibit 1: NASDAQ Price Level Compared to Antero Peak Group Liquidity Proxy Index



Source: Antero Peak Group/NASDAQ/Strategas Research. As of 31 May 2023. Estimates are based on the team’s analysis and are subject to material revision.

### Understanding the Treasury General Account

The Treasury General Account, or TGA, is the primary operational account for the US Treasury Department at the Federal Reserve. Nearly all government operational disbursement funding comes from this account. The sources and uses primarily consist of tax receipts and payments, marketable debt like treasuries, and non-marketable debt like government employee pensions. Throughout 2023, the TGA has provided a material amount of liquidity into the market. This volume is usually supported by treasury bond sales and net tax receipts, but this is not the case when we approach the debt ceiling. The lack of new debt issuance has caused a sharp decline in the TGA to “risk of default” levels, triggering the debt ceiling drop-dead date to occur in early June.



# Peak Insights

Why is this important? The account must be refilled to a more normal level of ongoing cushion. While a fall in the TGA indicates an increase in liquidity, a rise implies a tightening of liquidity. Over the remainder of the year, this account will get refilled towards a committee-advised operational level of about \$600B, representing a steep increase from current levels. While this is only one of many macro variables, the market will have to digest a short-term contraction in liquidity as the debt ceiling debate gets resolved to bolster the account. This will also result in a shrinking of bank reserves.

**Exhibit 2: The TGA Has Served as a Substantial Source of Liquidity**

(\$ BILLIONS) FOR PERIOD ENDING	FEDERAL RESERVE BALANCE SHEET	REVERSE REPO VOLUMES	TREASURY GENERAL ACCOUNT	NET LIQUIDITY
Jan 2023	\$8,471	\$2,062	\$568	\$5,841
Feb 2023	\$8,382	\$2,188	\$415	\$5,779
Mar 2023	\$8,706	\$2,375	\$178	\$6,153
Apr 2023	\$8,563	\$2,325	\$316	\$5,921
May 2023	\$8,386	\$2,160	<b>\$49</b>	\$6,177
<b>Net Change</b>	<b>\$(85)</b>	<b>\$98</b>	<b>\$(519)</b>	<b>\$336</b>
Dec 2023	\$7,773	\$1,750	\$600	\$5,423
<b>Incremental 2023 Change</b>	<b>\$(612)</b>	<b>\$(410)</b>	<b>\$551</b>	<b>\$(754)</b>

Source: Antero Peak Group/NASDAQ/Federal Reserve. As of 31 May 2023. Estimates are based on the team's analysis and are subject to material revision.

*Note: A reduction in the TGA acts as a source of liquidity, while a rise represents a contraction in liquidity. Similarly, a reduction in Reserve Repo (RRP) volumes represents a source of liquidity, while a rise represents a contraction. This table assumes a normalization of RRP volumes.*

In addition to the refilling of the TGA, quantitative tightening or "QT" is still ongoing at a rate of around \$60-95B per month. This conceptually means the Federal Reserve will attempt to shrink its balance sheet through both outright sales of bonds into the secondary Treasury market or retiring Treasury bonds at maturity in addition to mortgage-backed securities. This will likely further tighten liquidity. Illustrated in Exhibit 2, reverse repo volumes may serve as an offset should the Fed aim to redirect capital away from money markets and back into the open market.

## Tying Together Markets and Liquidity

Our Index is based on a simple calculation that aims to act as a proxy for the overall level of market liquidity. The methodology takes three readily available data points in a simple calculation.

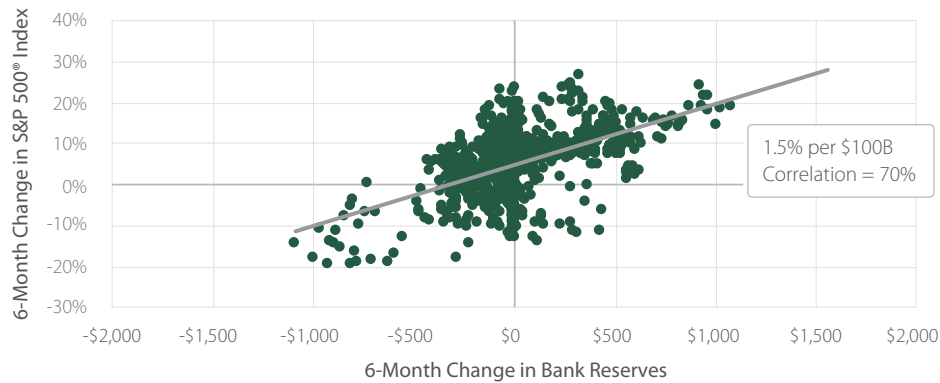
$$\text{Net Liquidity} = \text{Federal Balance Sheet Assets} - \text{Reverse Repo Volumes} - \text{TGA Balance}$$

This basic measure of liquidity, as displayed in Exhibit 1, has tracked the Nasdaq 100 Index in nearly lock-step fashion throughout 2023. Note the sharp rise post the collapse of Silicon Valley Bank.

Similarly, one can use bank reserves as a proxy as well. There is a 70% correlation of the S&P 500® Index returns over a rolling 6-month period over the last fifteen years to the corresponding change in bank reserves (as shown by Exhibit 3). The current path implies about a \$500-800B contraction in bank reserves over the next six months.

# Peak Insights

**Exhibit 3: There is a Tight Relationship Between Changes in Bank Reserves and the S&P 500® Index**

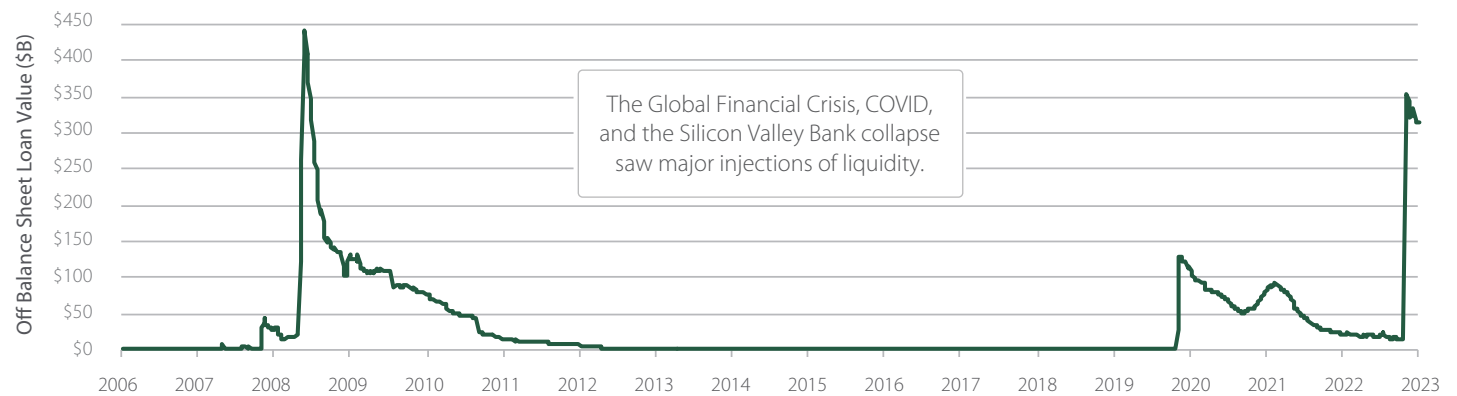


Source: Morgan Stanley/S&P. As of 31 May 2023.

## What About the Banking Crisis?

The Regional Banking Crisis sparked a major injection of liquidity. As a result, the value of off-balance sheet loans made by Federal Reserve Banks inflected sharply in the first quarter of 2023. This was a result of emergency funding after the collapse of Silicon Valley Bank in early March. This was the largest bank failure since 2008 and sparked aggressive Fed action to prevent contagion. Unlike 2008 however, the regional banking crisis was not caused by a widespread credit risk like the mortgage crisis, so the Fed was extremely effective at mitigating the damage.

**Exhibit 4: Federal Reserve Off-Balance Sheet Loans**



Source: Antero Peak Group/Federal Reserve. As of 31 May 2023.

On a net basis, this action by the Fed more than compensated for the risks in the banking system and left the overall market with rising levels of liquidity.

## Summary

In total, we find the relationship between markets and liquidity useful in understanding market direction. In a time when many are bearish and worried about a recession after an aggressive tightening cycle, one would think an event like a regional banking crisis would push us over the edge. Yet, it didn't. Instead, it caused a sharp injection of liquidity. This, combined with help from the TGA despite a looming debt ceiling default, ultimately created favorable conditions for the most liquid equities. Some of this may reverse going forward, but in a sea of macro crosscurrents, we believe liquidity will likely continue to be the major driver.

---

For more information: Visit [www.artisanpartners.com](http://www.artisanpartners.com) | Call 800.344.1770

---

Carefully consider the Fund's investment objective, risks and charges and expenses. This and other important information is contained in the Fund's prospectus and summary prospectus, which can be obtained by calling 800.344.1770. Read carefully before investing.

Current and future portfolio holdings are subject to risk. The value of portfolio securities selected by the investment team may rise or fall in response to company, market, economic, political, regulatory or other news, at times greater than the market or benchmark index. A portfolio's environmental, social and governance ("ESG") considerations may limit the investment opportunities available and, as a result, the portfolio may forgo certain investment opportunities and underperform portfolios that do not consider ESG factors. Non-diversified portfolios may invest larger portions of assets in securities of a smaller number of issuers and performance of a single issuer may have a greater impact to the portfolio's returns. Use of derivatives may create investment leverage and increase the likelihood of volatility and risk of loss in excess of the amount invested. High portfolio turnover may adversely affect returns due to increased transaction costs and creation of additional tax consequences. Securities of small- and medium-sized companies tend to have a shorter history of operations, be more volatile and less liquid and may have underperformed securities of large companies during some periods. International investments involve special risks, including currency fluctuation, lower liquidity, different accounting methods and economic and political systems, and higher transaction costs. These risks typically are greater in emerging and less developed markets, including frontier markets.

This material is provided for informational purposes without regard to your particular investment needs. This material shall not be construed as investment or tax advice on which you may rely for your investment decisions. Investors should consult their financial and tax adviser before making investments in order to determine the appropriateness of any investment product discussed herein.

The Nasdaq Composite Index is a market capitalization-weighted index of more than 3,700 stocks listed on the Nasdaq stock exchange.

S&P 500® Index measures the performance of 500 US large-cap companies. The index(es) are unmanaged; include net reinvested dividends; do not reflect fees or expenses; and are not available for direct investment. The S&P 500® Index is a product of S&P Dow Jones Indices LLC ("S&P DJI") and/or its affiliates and has been licensed for use. Copyright © 2023 S&P Dow Jones Indices LLC, a division of S&P Global, Inc. All rights reserved. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. S&P® is a registered trademark of S&P Global and Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). None of S&P DJI, Dow Jones, their affiliates or third party licensors makes any representation or warranty, express or implied, as to the ability of any index to accurately represent the asset class or market sector that it purports to represent and none shall have any liability for any errors, omissions, or interruptions of any index or the data included therein.

Artisan Partners Funds offered through Artisan Partners Distributors LLC (APDLLC), member FINRA. APDLLC is a wholly owned broker/dealer subsidiary of Artisan Partners Holdings LP, Artisan Partners Limited Partnership, an investment advisory firm and adviser to Artisan Partners Funds, is wholly owned by Artisan Partners Holdings LP.

© 2023 Artisan Partners. All rights reserved.

A R T I S A N



P A R T N E R S