Balancing the Bull: Financing Rates Under Pressure and the Role of FICC Repo

Grant Johnsey
Head of Client Solutions,
Banking & Markets,
Americas

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The S&P 500 Index has posted back to back 25+% returns for only the fourth time in 100 years (source: Creative Planning), thus fueling optimism for continued earnings growth and higher valuations in U.S. equities. Beneath this euphoria, however, lies a less obvious consequence: rising financing costs.

S&P 500: Total Returns (1928 - 2024 - As of 12/4/24)

Year	Return	Year	Return	Year	Return	Year	Return	Year	Return
1928	43.8%	1948	5.7%	1968	10.8%	1988	16.6%	2008	-37.0%
1929	-8.3%	1949	18.3%	1969	-8.2%	1989	31.7%	2009	26.5%
1930	-25.1%	1950	30.8%	1970	3.6%	1990	-3.1%	2010	15.1%
1931	-43.8%	1951	23.7%	1971	14.2%	1991	30.5%	2011	2.1%
1932	-8.6%	1952	18.2%	1972	18.8%	1992	7.6%	2012	16.0%
1933	50.0%	1953	-1.2%	1973	-14.3%	1993	10.1%	2013	32.4%
1934	-1.2%	**1954**	**52.6%**	1974	-25.9%	1994	1.3%	2014	13.7%
1935	**46.7%**	**1955**	**32.6%**	1975	37.0%	1995	37.6%	2015	1.4%
1936	**31.9%**	1956	7.4%	1976	23.8%	1996	23.0%	2016	12.0%
1937	-35.3%	1957	-10.5%	1977	-7.0%	**1997**	**33.4%**	2017	21.8%
1938	29.3%	1958	43.7%	1978	6.5%	**1998**	**28.6%**	2018	-4.4%
1939	-1.1%	1959	12.1%	1979	18.5%	1999	21.0%	2019	31.5%
1940	-10.7%	1960	0.3%	1980	31.7%	2000	-9.1%	2020	18.4%
1941	-12.8%	1961	26.6%	1981	-4.7%	2001	-11.9%	2021	28.7%
1942	19.2%	1962	-8.8%	1982	20.4%	2002	-22.1%	2022	-18.1%
1943	25.1%	1963	22.6%	1983	22.3%	2003	28.7%	**2023**	**26.3%**
1944	19.0%	1964	16.4%	1984	6.1%	2004	10.9%	**2024**	**29.2%**
1945	35.8%	1965	12.4%	1985	31.2%	2005	4.9%		
1946	-8.4%	1966	-10.0%	1986	18.5%	2006	15.8%		
1947	5.2%	1967	23.8%	1987	5.8%	2007	5.5%		

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Graphic 1: S&P 500 Total Returns (1928 – 2024); Source: Creative Planning

As bullish sentiment grows, volumes in equity futures and options are also increasing. Market makers and dealers filling these bullish derivative positions must hedge themselves along the way. And the mechanics of this hedging amplify financing pressures.

The Mechanics of Call Options

To understand the current market dynamics, let's first examine the mechanics of call option writing. Approximately 90% of options traded in the U.S. are facilitated by market makers and dealers (source: Northern Trust options trading desk). These liquidity providers, usually associated with large

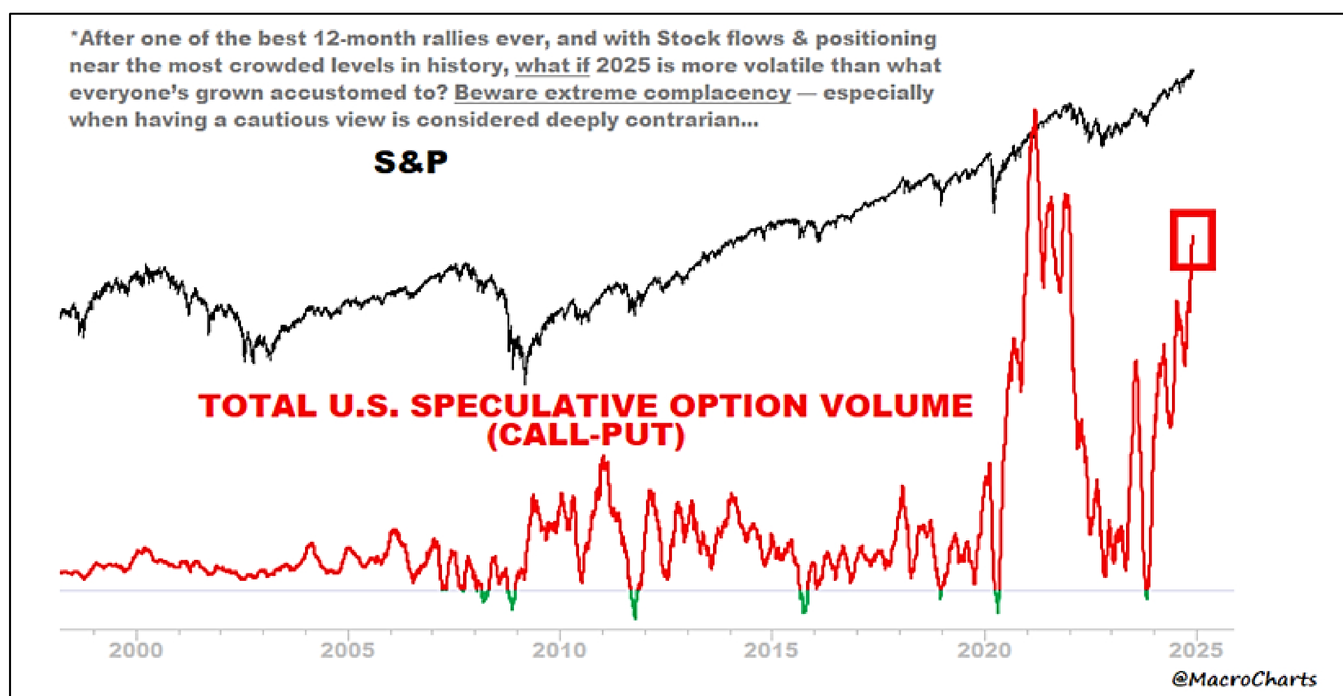
investment banks, are using firm capital to write call options for their customers. For example, an investor who buys an S&P 500 Index or SPY ETF call option to express a bullish sentiment will likely have their trade filled by a dealer. The resulting positions of the call trade are an investor with a bullish call position to buy the S&P 500 Index at a point in the future, and a dealer who is left with a short position in the Index. If the call option is exercised, the dealer will have to make delivery of the underlying equities. The dealer therefore needs to repeatedly hedge themselves by purchasing the underlying constituents of the index as they write and sell these S&P 500 call options to their customers.

More demand for call options means increasing levels of equities need to be purchased as a hedge. Each new call needs a delta hedge to manage risk. Unless and until dealers and market makers elect to flatten or reduce their overall equity inventory by writing fewer calls, their balance sheet will swell with the equities needed for hedging. Yet dealers cannot simply net off the long and short equity positions resulting from selling and hedging call options. Instead, the resulting long equity position held by the dealer as a hedge must be financed, especially if they wish to write more calls.

A Market Out of Balance

Currently, dealers are facing unprecedented demand from investors for bullish exposure, not just in the options market but futures and other OTC derivatives, requiring them to purchase equities for delta hedging. The result is a large amount of equity collateral in U.S. markets looking for financing.

Turning again to the options market as an illustration, the demand for bullish exposure can be evident. The current volume of call options being written to purchase additional equities far exceeds the demand for put options. The Northern Trust options trading desk is seeing historically high demand for call options at present. “The ratio of calls to puts has been trending sharply higher this year,” says Cory Finke, Senior Options Trader at Northern Trust. “Our clients have shown increasing confidence in bullish market conditions, signaling a potentially stronger outlook for the market.” The graphic below from MacroCharts highlights the recent skew towards call volume compared to puts. The ratio of call-to-put options is historically high and nearly matches the post-Covid rally in 2020-21.



Graphic 2: Total U.S. Speculative Option Volume; Source: MacroCharts

Behind the vast majority of all these calls being written in the U.S. equity market today is a dealer with equity collateral that needs to be financed. The same situation applies to buying equity futures as well. Regardless of what instrument investors are using to build bullish positions, dealers inevitably need to hold the underlying stocks for a delta hedge to manage their risk. Therefore, Delta One desks are competing for increased financing, which is outstripping balance sheet capacity.

In addition to the sheer volume of equity collateral that needs to be written, the dollar value is also significant. Thanks to the strong rally, equity values have risen sharply. And therefore, equity repo demand is even higher than the last time the options market was similarly skewed towards calls over puts. The need for equity financing from broker dealers is evident in this graphic from the Federal Reserve Bank of New York. U.S. primary dealer volumes have been steadily increasing over the past year. Equity repo volumes have doubled since the lows in 2023. Total equity repo volume has exceeded the post-Covid peak in part because dollar values are markedly higher.

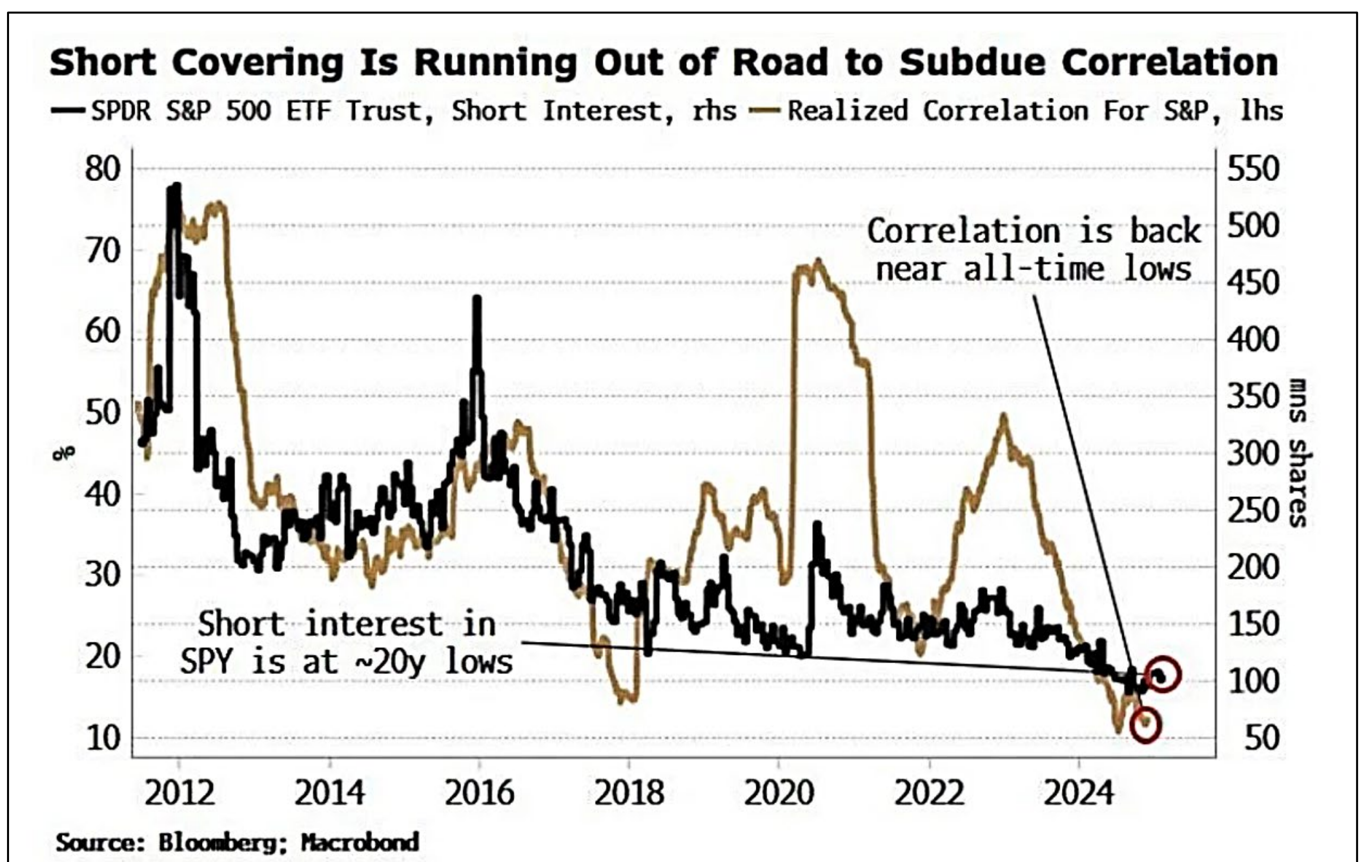
Graphic 3: Equity Repo Volume; Source: Federal Reserve Bank of New York

While equity collateral is abundant, demand for equity collateral is ebbing, further exacerbating financing costs. One method of financing this hedge is lending equities to borrowers, such as hedge funds through prime brokerage service offerings. Lending equities can help free up financing or--at a minimum--offset some of the financing costs. Higher demand to borrow equities in turn lowers the

overall cost of financing. When market demand to borrow equities is strong, the financing costs to borrow cash against a basket of S&P 500 general collateral equities are lower.

However, the inverse is also true: when borrower demand for equities is lower, higher rebates must be paid to entice borrowers to lend cash versus equity collateral. The cost of financing runs higher as a direct result.

This low demand situation for equity borrowing is where we find ourselves today. As a result of strong market returns and high earnings growth expectations headed into 2025, fewer investors are short selling equities to profit from sell-offs. Short interest in U.S. stocks is historically low as a result. According to Bloomberg, short interest in the S&P 500 Index as a percentage of market cap is in the lowest quintile historically speaking. Low short interest means less demand to borrow equities, which pushes the repo rate lower, thereby increasing financing costs.

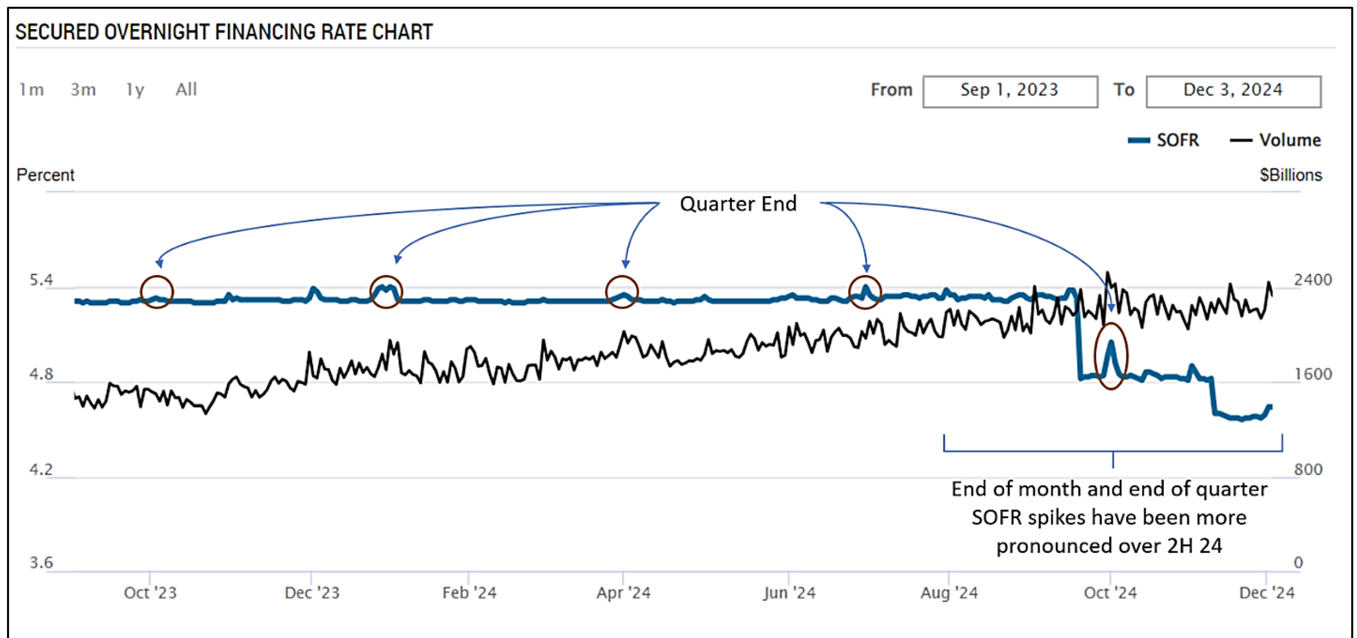


Graphic 4: Short Covering Is Running Out of Road to Subdue Correlation; Source: Bloomberg

The SOFR Squeeze

The scenario unfolding – investors clamoring for bullish exposure, dealers accommodating this demand, and rising U.S. equity valuations coupled with falling volatility – creates a perfect storm of pressure on financing costs. The bullish market dynamics have led to excess equity collateral combined with declining stock loan demand. And these stressors are beginning to show up in the Secured Overnight Financing Rate (SOFR). Spikes in SOFR at month- and quarter-ends are becoming more pronounced as dealers seek to optimize their balance sheets. As dealers enter into repurchase agreements, they typically receive Treasuries, which are then subsequently repo'd to cash. Through this cycle, increasing levels of equity and Treasury collateral are being brought to the financing market which is in turn pushing financing costs higher.

The graphic from the Federal Reserve Bank of New York illustrates how SOFR jumps a tad at quarter-end, as dealers pare back balance sheet exposure for quarterly reporting. Recently, SOFR has also been rising markedly higher at month-end, as evidenced at the end of October and November 2024. And the spike at 3Q24 was the biggest recorded in SOFR over quarter end. With balance sheet capacity further constrained, the year-end spike in 2024 could be even more pronounced than observed at the end of 2023.



Graphic 5: Secured Overnight Financing Rate (SOFR) Chart; Source: Federal Reserve Bank of New York

Centrally Cleared Repo

In this challenging environment, centrally cleared repos through the Fixed Income Clearing Corporation (FICC)[1] are gaining favor, as highlighted in the SOFR graph from the Federal Reserve Bank of New York. Centrally cleared repos offer significant balance sheet efficiencies and reduced capital costs compared to bilateral agreements. Trades cleared by FICC can be netted, thereby reducing the capital needed to be held against it. The benefit of lower capital requirements should be increased balance sheet capacity, as U.S. regulators offer more favorable balance sheet treatment for repurchase agreements centrally cleared by FICC.

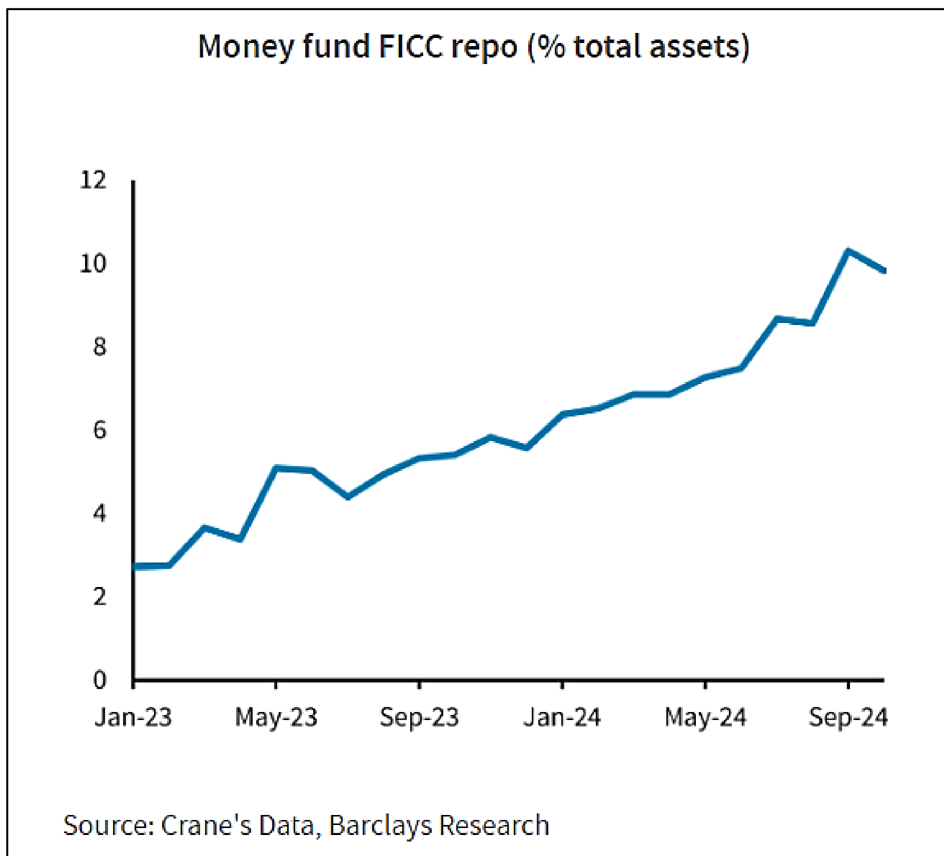
Reviewing the past year, spikes in SOFR at quarter-ends are noticeable, typically jumping around 7-8 bps higher. Now that more collateral is being pledged for borrowing, reducing balance sheet capacity, these jumps are more pronounced, including over month end periods as well. It is likely that investors may see another pop in SOFR at the end of the 2024 calendar year, as is usually the case. The question remains if the pop in rates will be markedly higher than prior years given the higher costs of financing.

[1] Northern Trust's FICC repo program currently sponsors entities (i.e., corporate entities, funds, insurance companies) domiciled in the U.S., Cayman Islands, and Ireland on behalf of institutional clients classified as Qualified Institutional Buyers (QIBs) as defined by SEC Rule 144A. Investment Managers to the sponsored entity can also be located in the UK and Hong Kong subject to meeting other eligibility requirements.

Navigating Liquidity

The bullish fervor driving U.S. equity markets is exacting a hidden toll on financing costs, creating a complex web of demand pressures, repo rate dynamics, and hedging requirements. Investors should keep an eye on financing market trends and SOFR spikes, particularly at year-end.

Either way, FICC repo sponsorship remains an effective way to access liquidity, if you are long collateral, or earn returns on cash with lowered counterparty risk through central clearing and FICC's AAA credit rating. These benefits are why FICC cleared repo volumes continue to hit record highs and also why, as the graphic below highlights, money market fund managers are shifting their exposure into FICC repo.



Graphic 6: Money Fund FICC Repo (% total assets); Source: Crane's Data, Barclays Research

While FICC-cleared repos offer a viable solution to balance sheet constraints, the broader stressors on financing costs underscore the delicate balance between market optimism and operational realities.

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