



SIFMA Insights

October Market Metrics and Trends

A Look at Monthly Volatility and Equity and Listed Options Volumes

November 2022

Monthly Metrics

- Volatility (VIX): Monthly average 30.01; +9.5% M/M, +67.9% Y/Y
- S&P 500 (Price): Monthly average 3,726.05; -3.2% M/M, -16.5% Y/Y
- Performance (month/year): best = energy +24.8%/energy +63.2%; worst = comms -0.1%/comms -39.5%
- Equity ADV (billion shares): Monthly average 11.5; +0.8% M/M, +10.5% Y/Y
- Options ADV (million contracts): Monthly average 42.5; -0.5% M/M, +10.2% Y/Y

Monthly Highlight

- Sector performance varies by index; Nasdaq hardest hit, -29.8% YTD and the lowest October pop at +3.9%
- Given different index constructions: methodologies (price versus market cap weighted), number of constituents (ranging from 30 to 3,762), and market caps (<\$10T to >\$30T)
- And differences in sector weights: technology the largest weight in the SPX and Nasdaq, but 48.1% in the Nasdaq versus 26.3% in the SPX
- And differences in top 10 constituents: SPX 30.7%, DJIA 71.1%, Nasdaq 28.5%; exposed to 6 sectors for SPX & DJIA, 4 for Nasdaq; AAPL & MSFT common to all indexes

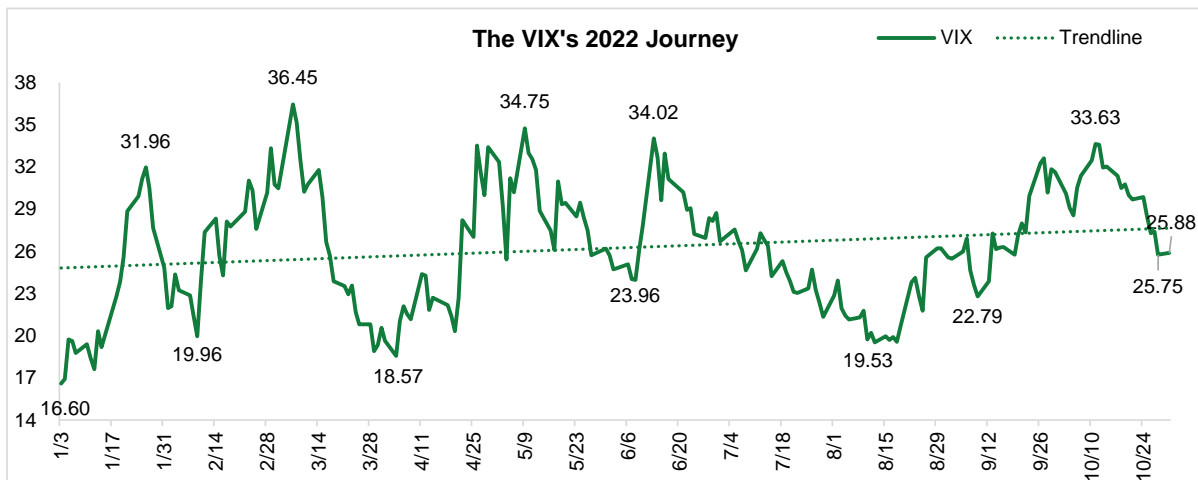
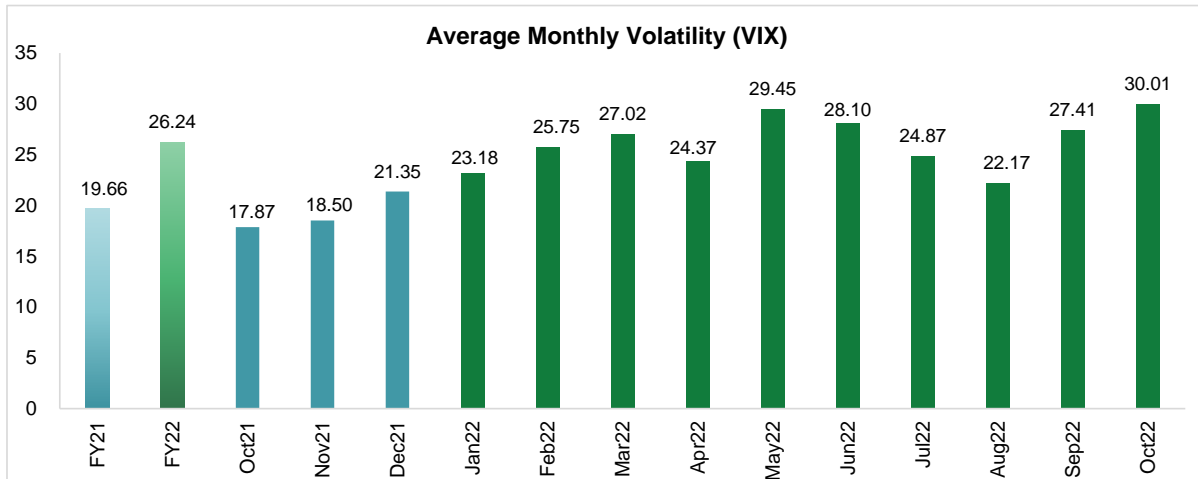


Monthly Market Metrics

In this section, we highlight the monthly market trends for volatility, price, and volumes.

Volatility (VIX)

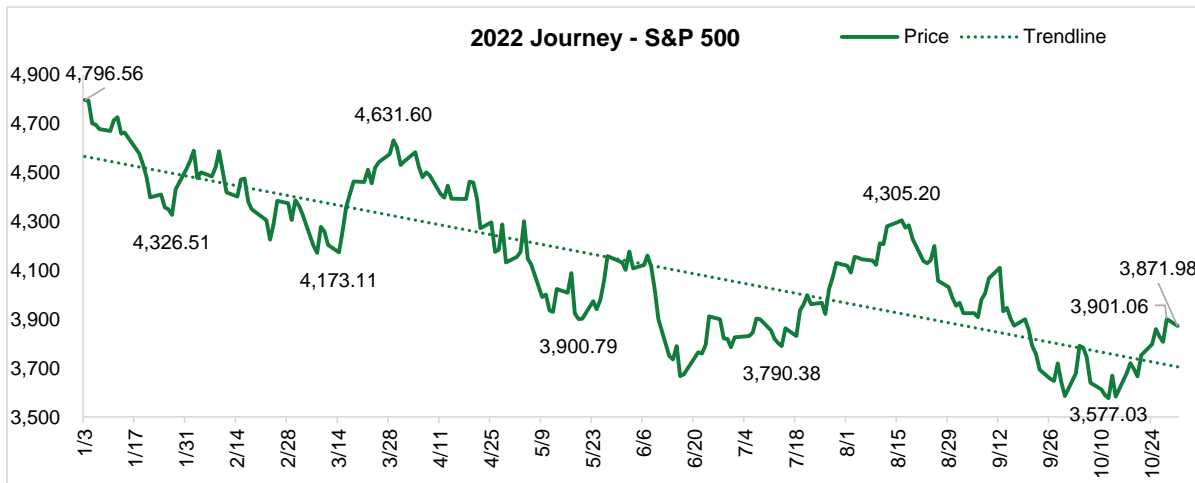
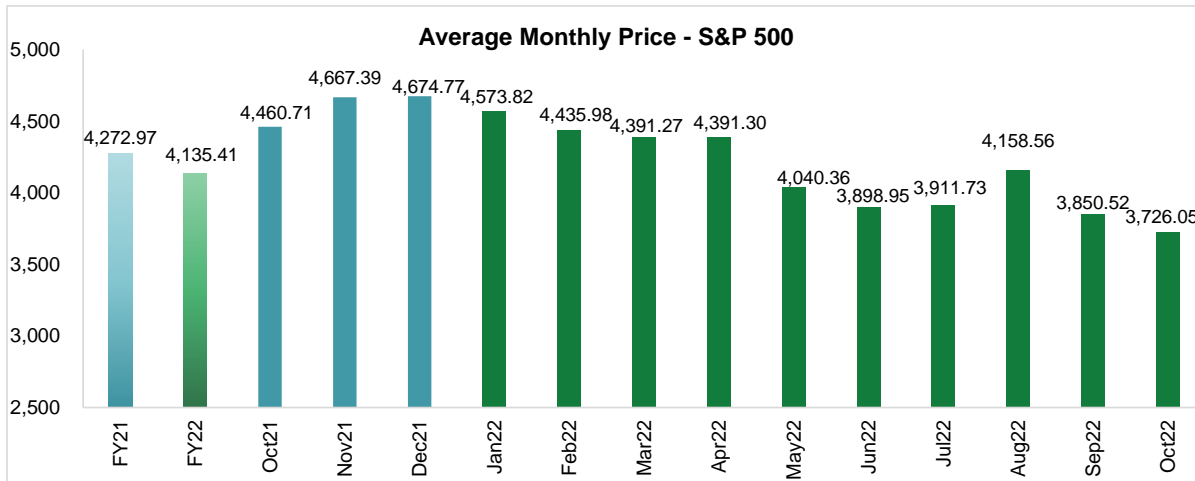
- Monthly average 30.01
 - +9.5% M/M
 - +67.9% Y/Y
 - +80.8% from the start of the year
- Monthly peak on the 11th at 33.63, troughed on the 28th at 25.75



Source: Bloomberg, SIFMA estimates

S&P 500 Index: Price

- Monthly average 3,726.05
 - -3.2 M/M
 - -16.5% Y/Y
 - -22.3% from the start of the year
- Monthly peak on the 28th at 3,901.06, troughed on the 12th at 3,577.03

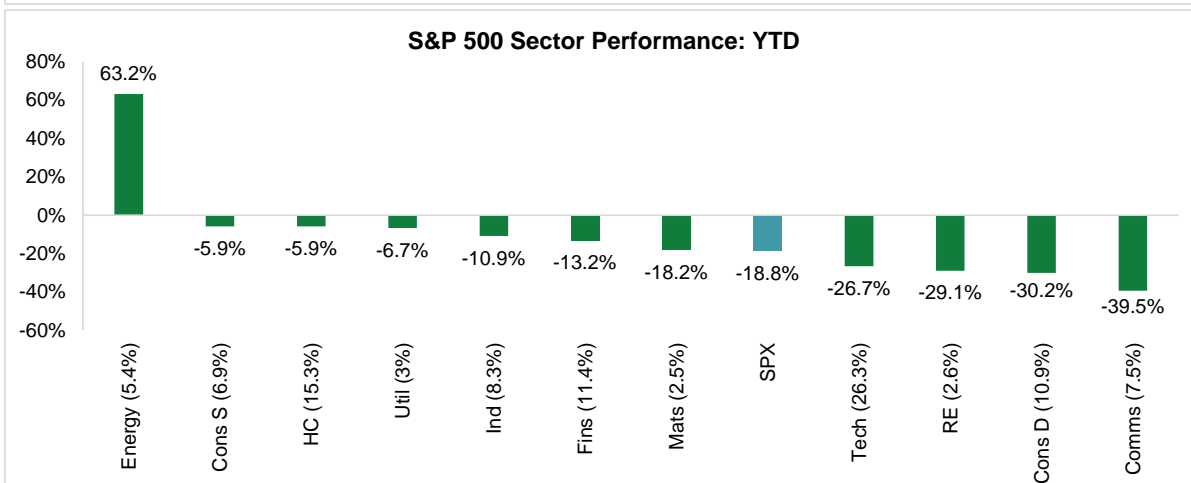
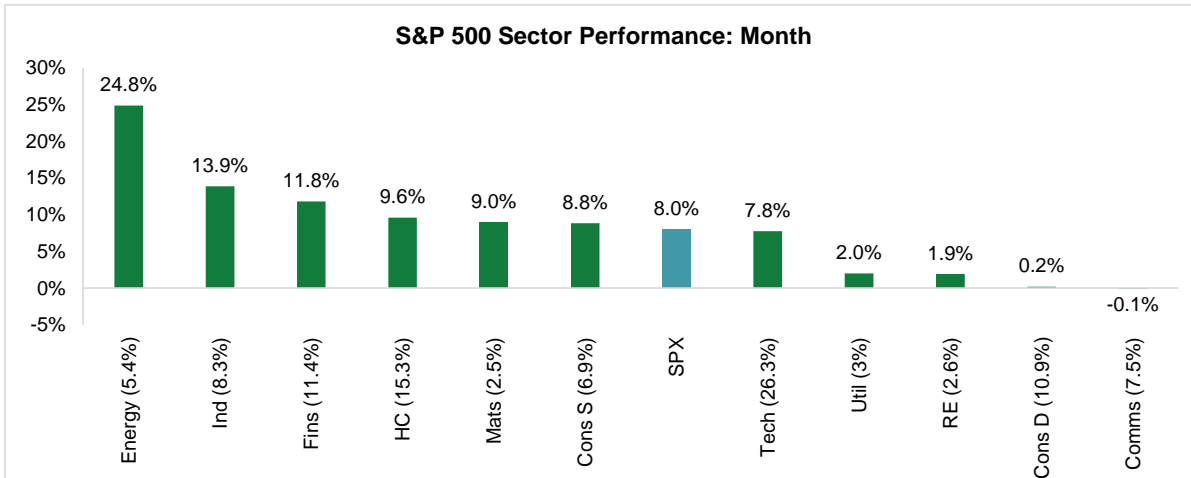


Source: Bloomberg, SIFMA estimates

S&P 500 Index: Sector Breakout

Looking at market performance by sector, we highlight the following:

- Best performing sectors
 - Month = energy at +24.8% and industrials at +13.9%
 - YTD = energy at +63.2% and consumer staples at -5.9%
- Worst performing sectors
 - Month = communications at -0.1% and consumer discretionary at +0.2%
 - YTD = communications at -39.5% and consumer discretionary at -30.2%

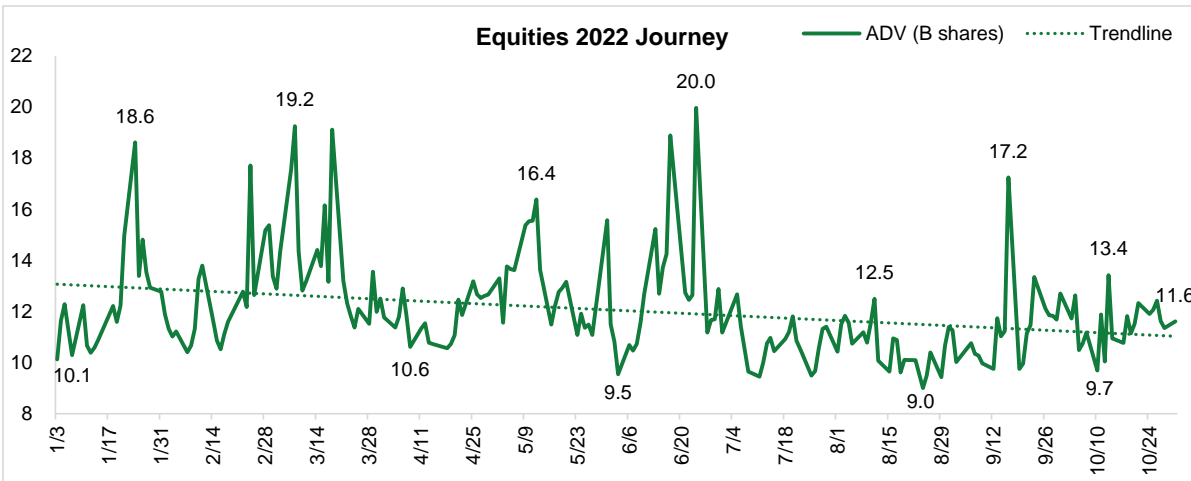
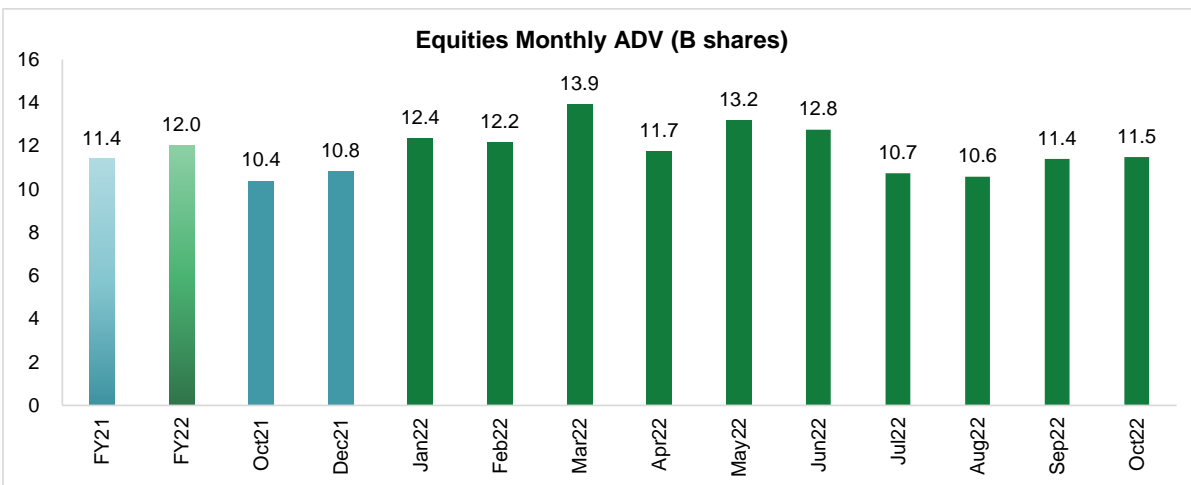


Source: Bloomberg, SIFMA estimates

Note: Parenthesis indicate sector weight in the index. Cons S = consumer staples, HC = healthcare, Mats = materials, RE = real estate, Ind = industrials, Fins = financials, Tech = technology, Cons D = consumer discretionary, Comms = telecommunications, Util = utilities

Equity Volumes (ADV)

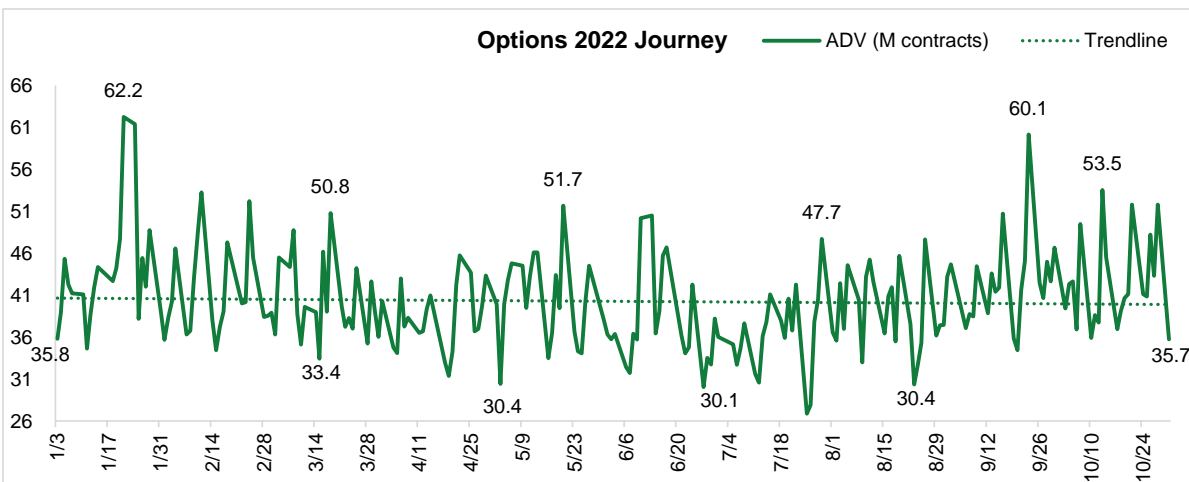
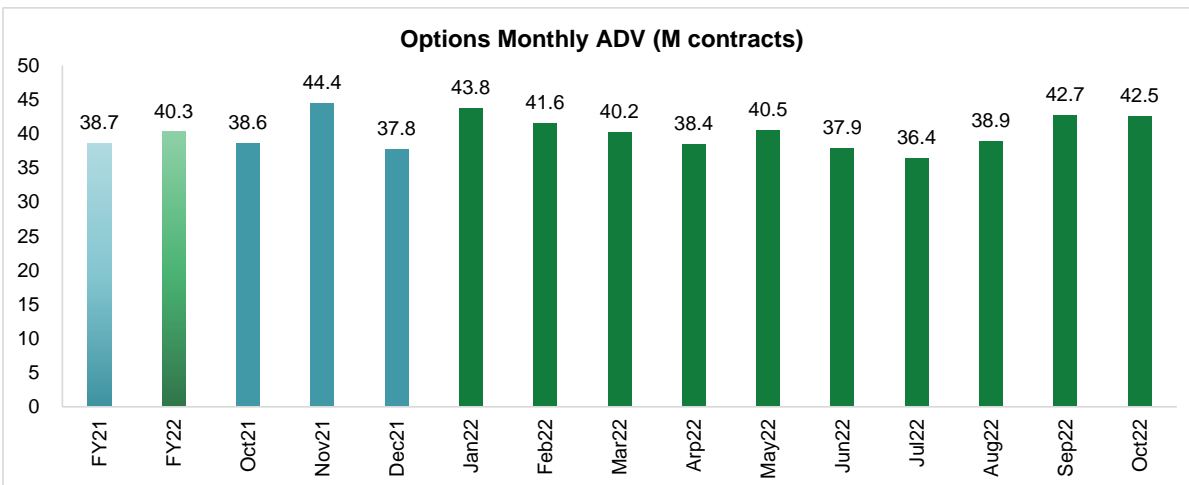
- Monthly average 11.5 billion shares
 - +0.8% M/M
 - +10.5% Y/Y
 - +13.5% from the start of the year
- Monthly peak on the 13th at 13.4 billion shares, troughed on the 10th at 9.7 billion shares
- Monthly average off exchange trading 42.1%; +0.4 pps M/M, -2.1 pps Y/Y



Source: Cboe Global Markets, SIFMA estimates

Multi-Listed Options Volumes (ADV)

- Monthly average 42.5 million contracts
 - -0.5% M/M
 - +10.2% Y/Y
 - +18.8% from the start of the year
- Monthly peak on the 13th at 53.5 million contracts, troughed on the 31st at 35.7 million contracts
- Monthly equity options 38.9 million contracts (-0.9% M/M, +6.6% Y/Y), index options 3.6 million contracts (+3.9% M/M, +74.0% Y/Y)



Source: Cboe Global Markets, SIFMA estimates

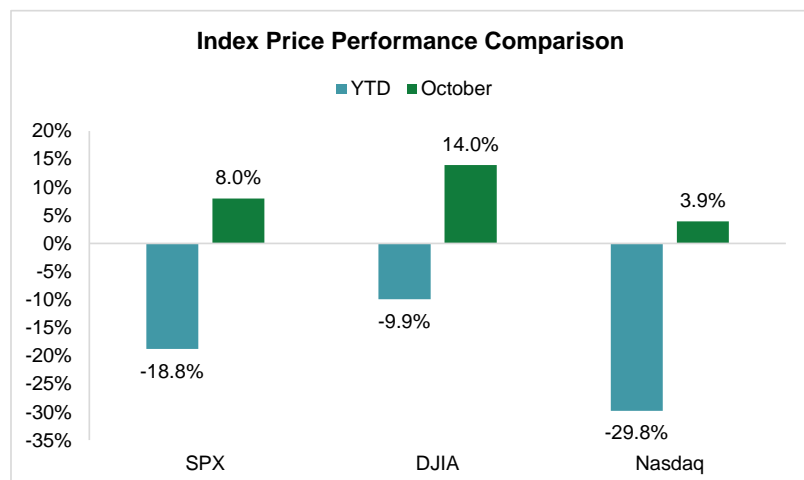
Monthly Highlight

In this section we drill down into an interesting trend that market participants are following.

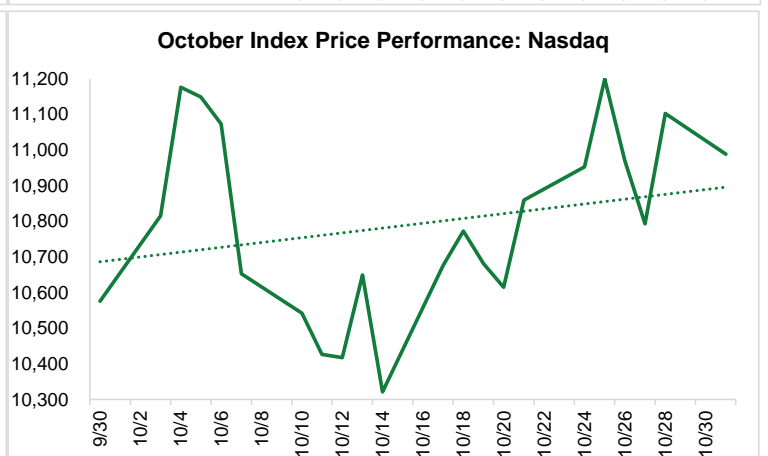
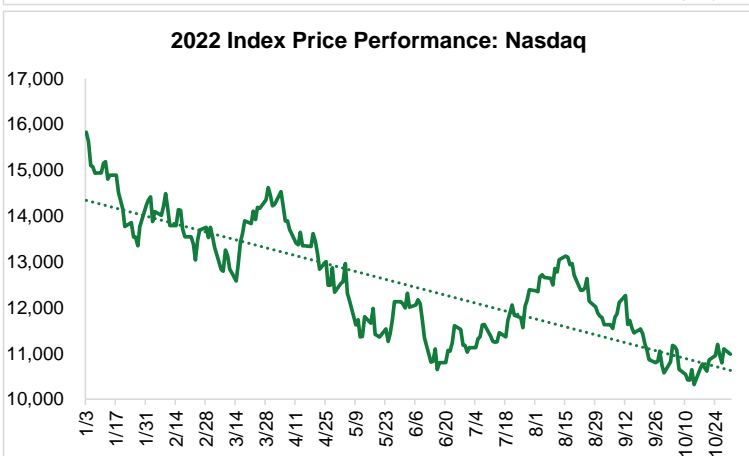
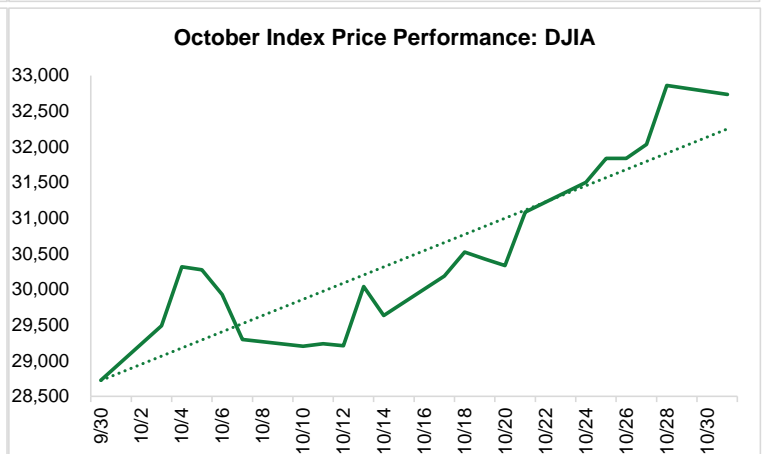
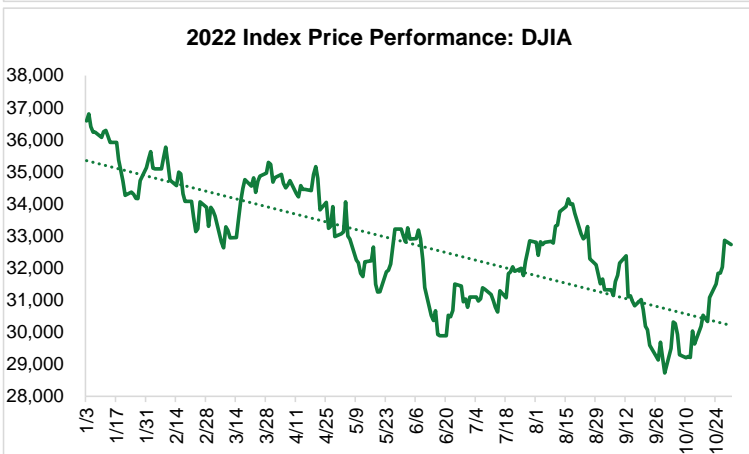
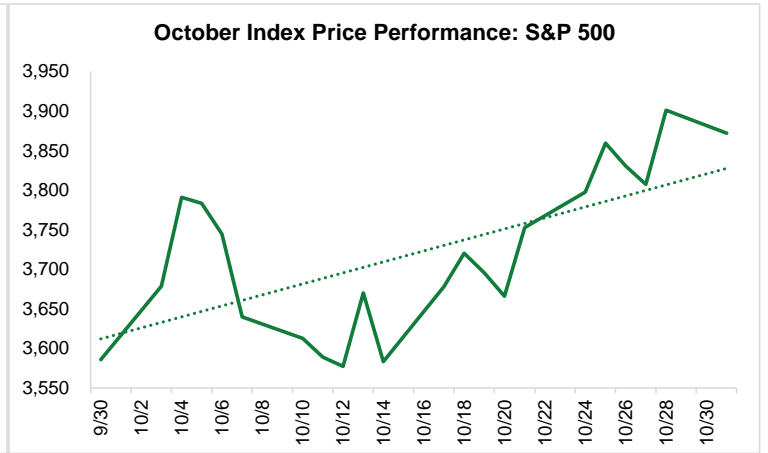
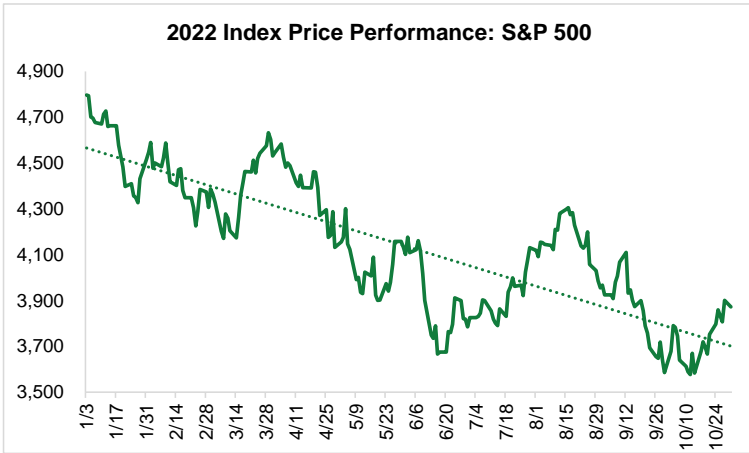
Sector Price Performance Varies by Index

While the first section of this note focuses on the S&P 500 as representative of the market, we remind readers that there are several broad-based market indexes for the U.S. cash equities markets. The three main indexes all have different constructions and, as such, have performed differently this year:

- S&P 500 (SPX) – in the middle of indexes, -18.8% YTD and +8.0% for October
- Dow Jones Industrial Average (DJIA) – smallest annual decline at -9.9% and largest October pop at +14.0%
- Nasdaq Composite (Nasdaq) – down the most for the year at -29.8% and also saw the lowest October pop, +3.9%



Source: Bloomberg, SIFMA estimates



Source: Bloomberg, SIFMA estimates

Different Index Construction

The variance across price performance for the indices is driven by differences in index construction. We highlight the following:

- DJIA is the only price weighted index
- Nasdaq has the most constituents (stocks) as it consists of the entire universe of Nasdaq only listed stocks, while the DJIA has only 30 stocks
- The SPX has the largest market cap at \$34.3 trillion, versus only \$9.9 trillion in the DJIA
- The Nasdaq is the most skewed to technology stocks at 48.1% of the total; the top sector in the DJIA is healthcare, 22.2%
- AAPL and MSFT are the only two stocks common to all three indexes' top 10 lists

	SPX		DJIA		Nasdaq	
Weighting	Float-adj mc		Price		Market cap	
# Constituents	503		30		3,762	
Market Cap (\$T)	34.3		9.9		30.6	
Sector Weightings	% Total	Rank	% Total	Rank	% Total	Rank
Top 3	52.5%		55.0%		77.1%	
Top 5	71.4%		74.1%		86.2%	
Technology	26.3%	1	19.5%	2	48.1%	1
Healthcare	15.3%	2	22.2%	1	9.5%	3
Consumer Discretionary	10.9%	4	13.3%	5	19.5%	2
Financials	11.4%	3	16.2%	3	5.3%	5
Communications	7.5%	6	2.9%	8	3.8%	6
Industrials	8.3%	5	13.9%	4	6.1%	4
Consumer Staples	6.9%	7	7.5%	6	3.6%	7
Energy	5.4%	8	3.6%	7	1.4%	8
Utilities	3.0%	9	na		1.1%	10
Real Estate	2.6%	10	na		1.1%	9
Materials	2.5%	11	0.9%	9	0.5%	11
Top 10 Stocks						
	AAPL		AAPL		AAPL	
	MSFT		MSFT		MSFT	
	AMZN		UNH		AMZN	
	TSLA		JNJ		TSLA	
	GOOGL		V		GOOG	
	BRK.B		WMT		GOOGL	
	UNH		JPM		META	
	GOOG		CVX		NVDA	
	XOM		PG		PEP	
	JNJ		HD		COST	

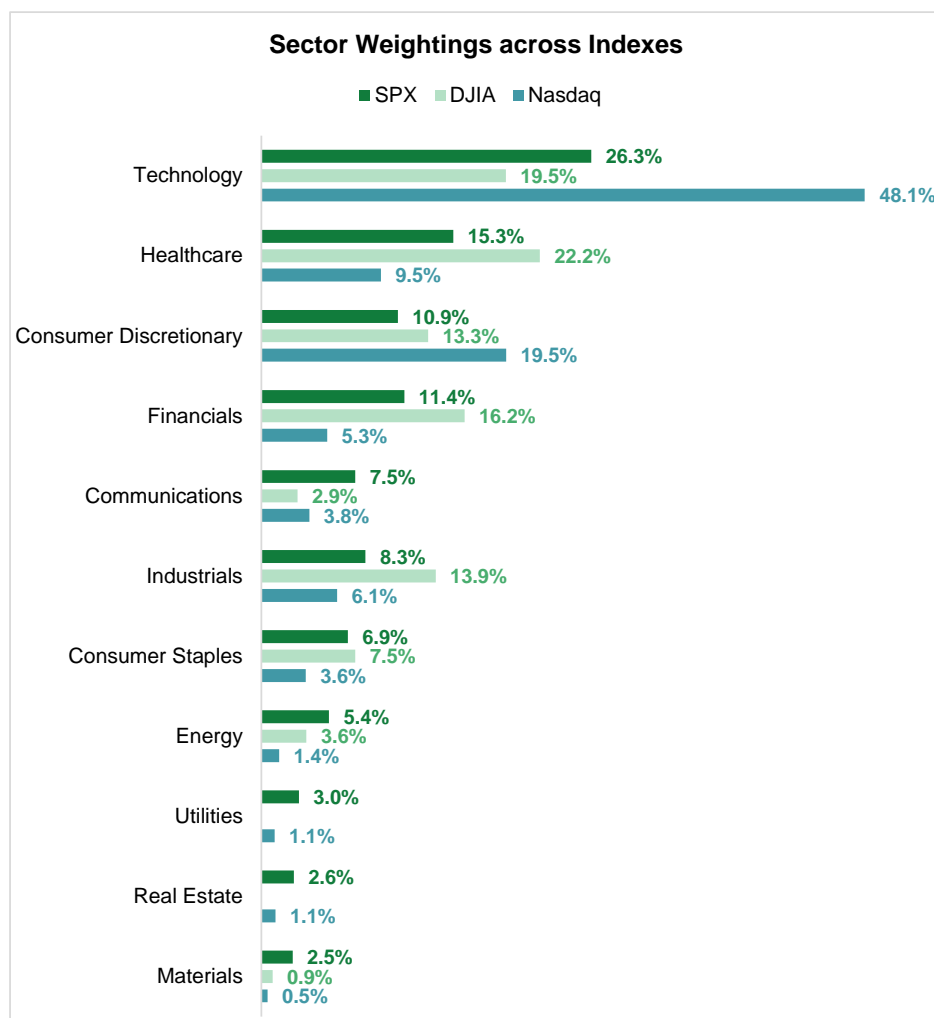
Source: Bloomberg, index provider websites, SIFMA estimates

Note: As of 10/31/22, except Nasdaq stock list as of 9/30/22 (list may have changed since this date). mc = market cap. AAPL = Apple, MSFT = Microsoft, AMZN = Amazon, TSLA = Tesla, GOOGL/GOOG = Alphabet (formerly Google, GOOG has no voting rights), BRK.B = Berkshire Hathaway, UNH = United Health, XOM = Exxon, JNJ = Johnson & Johnson, V = Visa, WMT = Walmart, JPM = JP Morgan, CVX = Chevron, PG = Procter & Gamble, HD = Home Depot, META = Meta Platforms (formerly Facebook), NVDA = NVIDIA, PEP = PepsiCo, COST = Costco

Differences in Sector Weights

A key difference in index construction is sector weights, as various sectors will react differently to the macroeconomic environment. Given the rising interest rate environment – higher rates can result in lower stock valuations – technology is most exposed to the Fed’s rate hikes. This should put downward pressure on indexes heavily exposed to this sector. Conversely, as the energy sector continues to outperform given higher commodity prices and the Russia/Ukraine war, the higher the weight to this sector will benefit that index. Although, we note that the energy sector still represents only a small percentage of any index. We highlight the following in sector weights:

- Technology the largest weight in the SPX and Nasdaq, but 48.1% in the Nasdaq versus 26.3% in the SPX
- Healthcare the largest weighted sector in the DJIA, 22.2%, versus only 9.5% in the Nasdaq
- Nasdaq most exposed to consumer discretionary (19.5%), negatively impacted by economic recessions
- SPX most exposed to energy, but only 5.4%
- DJIA has no exposure to utilities or real estate



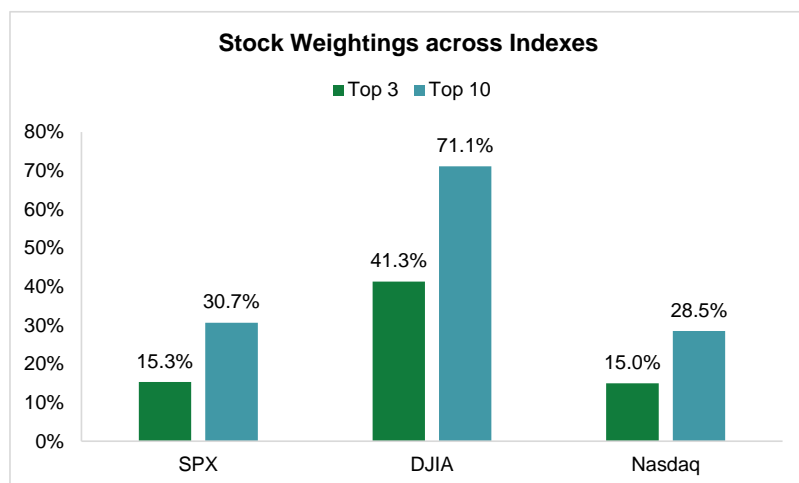
Source: Bloomberg, index provider websites, SIFMA estimates

Differences in Top 10 Constituents

Finally, we look at differences in the top 10 stock lists across indexes. Just as various sectors will react differently to the macroeconomic environment, so will individual stocks. In addition to rising interest rates, a principal factor for individual stocks in today's inflationary environment is the company's ability to pass through higher prices to consumers. The balance of stock weightings in an index will also drive its price performance, whether it is more balanced or more dominated by mega caps.

We begin by looking at how concentrated each index is at the top, based on market cap:

- SPX – T3 represent 15.3%, T10 was 30.7%
- DJIA – T3 represent 41.3%, T10 was 71.1% (granted there are only 30 stocks, i.e. a smaller denominator to divide by)
- Nasdaq – T3 represent 15.0%, T10 was 28.5%
- The SPX and Nasdaq are most similar in stock weightings at the top of the index, despite Nasdaq having 7.5x as many stocks in its index



Source: Bloomberg, index provider websites, SIFMA estimates

Next, we show sector exposure in the top 10 constituents for each index. If a sector is covered in the top 10 list, it will be highlighted in green:

- SPX – 6 sectors represented, or 54.5% of total sectors (11 total)
- DJIA – 6 sectors represented, or 54.5% of total sectors
- Nasdaq – 4 sectors represented, or 36.4% of total sectors
- Technology and consumer discretionary are the only sectors common in the T10 for all indexes

	SPX	DJIA	Nasdaq
Technology	Yes	Yes	Yes
Healthcare	Yes	Yes	No
Consumer Discretionary	Yes	Yes	Yes
Financials	Yes	Yes	No
Communications	Yes	No	Yes
Industrials	No	No	No
Consumer Staples	No	Yes	No
Energy	Yes	Yes	No
Utilities	No	No	No
Real Estate	No	No	No
Materials	No	No	No

Source: Index provider websites, SIFMA estimates

Next, we show the weightings of the top 10 stocks in each index, highlighting the following:

- Apple (AAPL) on top for all at 7-8% in the SPX and Nasdaq but 23.5% in the DJIA, as the DJIA total market cap <\$10 trillion versus around \$30 trillion each for the other indexes
- Similar story with Microsoft (MSFT), 5-6% in the SPX and Nasdaq versus 17.8% in the DJIA
- Only SPX and DJIA exposed to energy; SPX has Exxon (XOM) at 1.2%, DJIA has Chevron (CVX) at 3.3%
- We note that similar sector exposure does not represent equal exposure to macroeconomic factors; for example consumer discretionary – Tesla (TSLA) in the SPX versus Home Depot (HD) in the DJIA

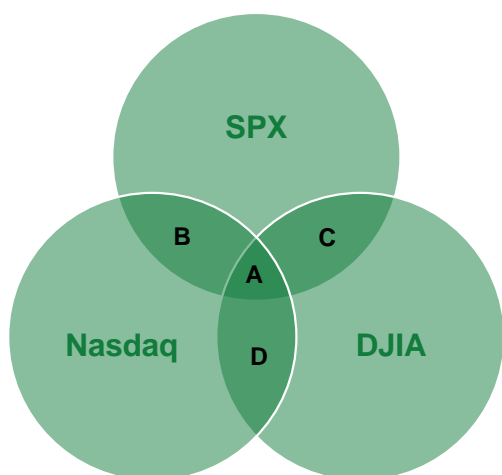
Ticker	Sector	SPX	DJIA	Nasdaq
Top 3		15.3%	41.3%	15.0%
Top 10		30.7%	71.1%	28.5%
AAPL	Tech	6.8%	23.5%	7.6%
MSFT	Tech	5.2%	17.8%	5.8%
AMZN	Cons D	3.4%		1.6%
TSLA	Cons D	2.0%		1.4%
GOOGL	Comms	3.8%		4.2%
BRK.B	Financials	1.8%		
UNH	Healthcare	1.4%	4.9%	
GOOG	Comms	3.8%		4.2%
XOM	Energy	1.2%		
JNJ	Healthcare	1.3%	4.4%	
V	Financials		4.1%	
WMT	Con S		3.7%	
JPM	Financials		3.4%	
CVX	Energy		3.3%	
PG	Con S		3.1%	
HD	Cons D		2.9%	
META	Comms			1.1%
NVDA	Tech			1.0%
PEP	Con S			0.8%
COST	Con S			0.7%

Source: Bloomberg, index provider websites, SIFMA estimates

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Finally, we compare similar names in the top 10 lists across indexes, highlighting the following:

- A, common to all: AAPL, MSFT
- B, common to SPX & Nasdaq: AAPL, MSFT, AMZN, TSLA, GOOGL, GOOG
- C, common to SPX & DJIA: AAPL, MSFT, UNH, JNJ
- D, common to Nasdaq & DJIA: AAPL, MSFT
- Unique names (in one index but not in either of the other two)
 - SPX – 2, or 20% of the top 10 list
 - DJIA – 6, or 60% of the top 10 list
 - Nasdaq – 4, or 40% of the top 10 list



Source: Bloomberg, index provider websites, SIFMA estimates

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