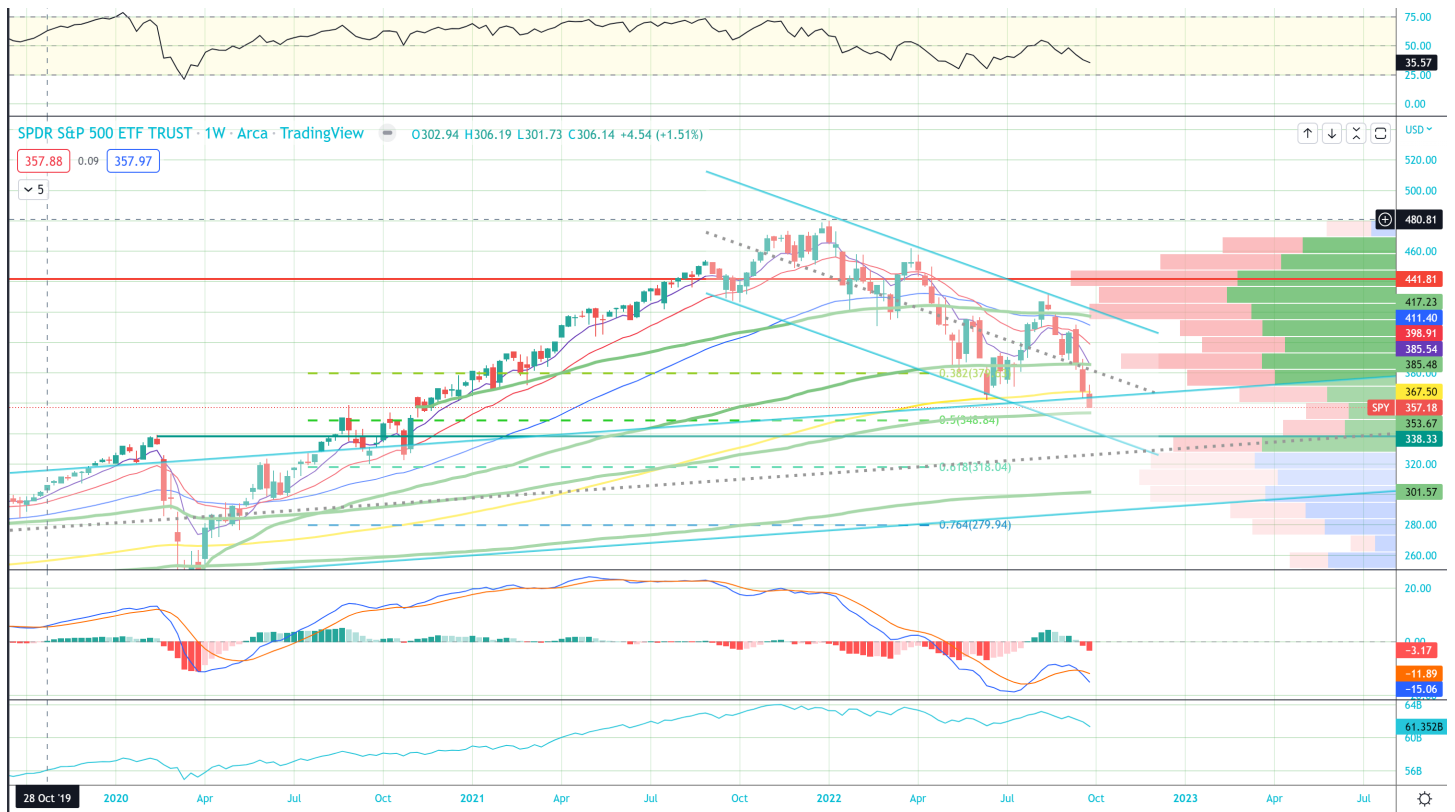




## OptionsHawk Quarterly Market Brief – Q4 2022

### S&P 500 (SPX) Technical Outlook

**Analysis:** The S&P continues to make lower highs and lower lows in this falling channel pattern and in September broke under the VWAP from 2020 lows and its 200-week moving average. The S&P is now in a volume pocket that targets a fill level back to 3380-3400. The 3490 area is an untested VWAP from the 2018 lows. The one positive are developing bullish RSI divergences on both the daily and weekly timeframe on this recent new low move and can result into a snapback move to 3850 or higher but the trend remains lower and moves higher should be sold into particularly considering a period of both contracting multiples due to slower growth and weakening earnings due to a worsening Macro backdrop. The pre-COVID high near 3390 is likely a natural target that aligns with our volume profile but if things turn ugly due to a structural breakdown the 2900-3000 region likely presents a long-term buying opportunity.



### Key Levels

	<u>Support</u>	<u>Resistance</u>
<b>Level 1</b>	3550	3700
<b>Level 2</b>	3490	3830
<b>Level 3</b>	3380	3950
<b>Level 4</b>	3050	4050

## Fundamental Valuation Bands

	2022		Value	2023		Value
	EPS	Multiple	Level	EPS	Multiple	Level
<b>Bull</b>	\$230	17X	3910	\$240	17X	4080
<b>Neutral</b>	\$225	15X	3375	\$235	14X	3290
<b>Bear</b>	\$220	13X	2860	\$215	12X	2580

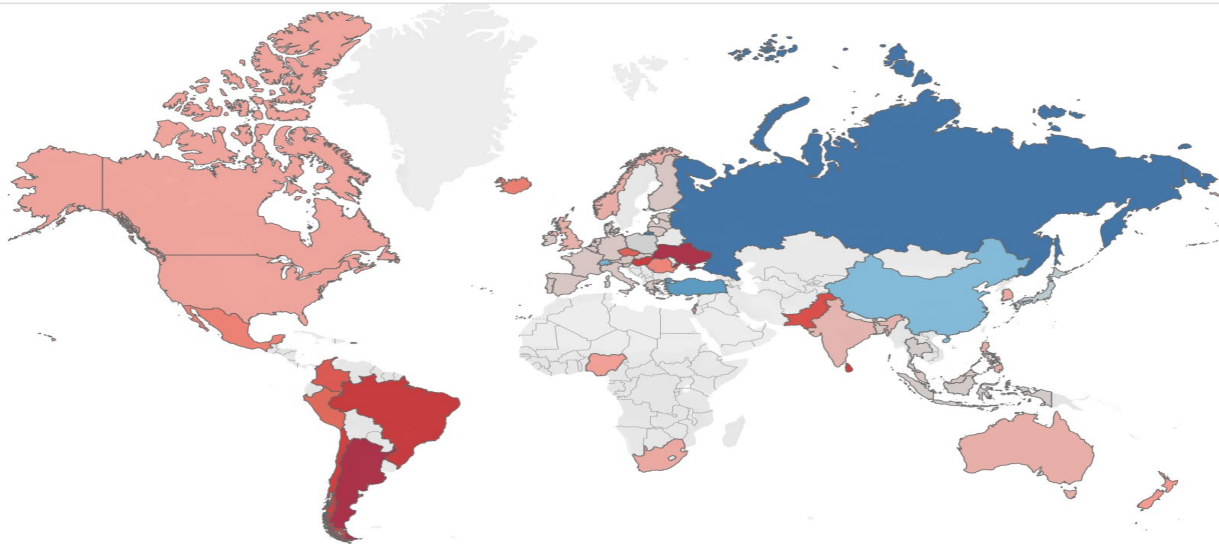
## Market Health/Sentiment Check

Indicator	Level	Implications
Short Term Moving Average Slopes (8,13,21,34)	Falling	Bearish
Long Term Moving Average Slopes (55, 89, 144)	Falling	Bearish
8/21 Week EMA Crossover	Negative	Bearish
NYSE McClellan Oscillator (NYMO)	-65	Oversold
NYSE Summation (NYSI)	-942	Below 8-EMA - Bearish
NYSE A/D (Cumulative)	174928	Below 89-EMA - Bearish
NYSE TRIN 55 MA	1.06	Neutral
NAAIM	12.6	Historic Low Allocations
AAII Sentiment	20% Bullish	Overly Pessimistic
CBOE Equity Put/Call 50 MA	0.684	Overly Bearish
VIX:VXV Ratio	0.99	Overly Fearful

## Macro Catalyst Watch and Review

### Central Banks

Central Banks became more hawkish throughout Q3 with the sticky inflation and European energy crisis riving rate raises around the global while Japan continues to defy the rest of the World with its loose policy.



Magnitude of Easing (-) / Tightening (+) (ppt)

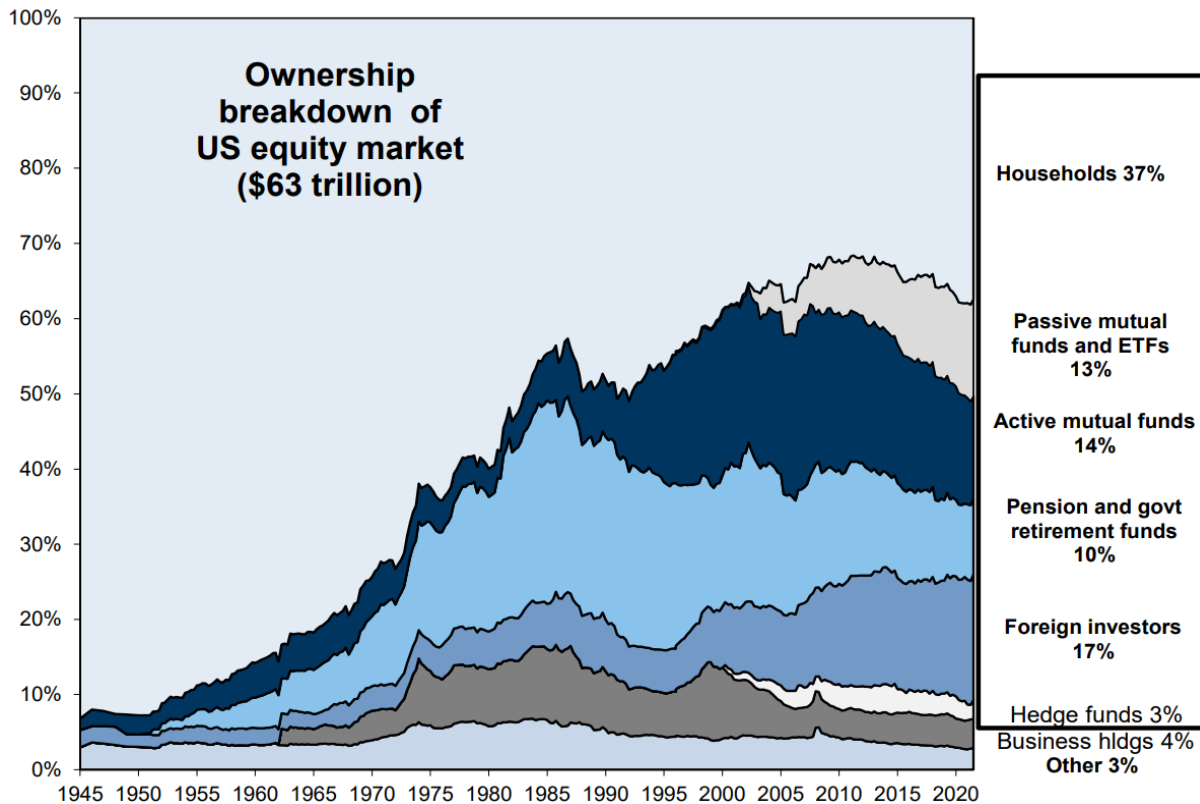
-15.00

15.00

## Bonds & Credit

Along with currencies, Bonds and Credit has been a key driver of equity market weakness the past quarter as global yields have surged on recession fears and tightening financial conditions. Throughout much of the year, the USD cash credit markets have been a source of alpha vs. equities and picked up steam, since mid-August inflection point in equity market risk appetite.

Rising interest rates, slowing growth, and increased unemployment will drive households to continue selling stocks. Corporates will be the largest source of equity demand due to strong buybacks and weak issuance. Foreign investors will be net sellers of US stocks while pension funds will be net buyers.



## Catalyst Watch

Date	Event
11/2	Fed Meeting
11/8	US Mid-Terms
12/14	Fed Meeting

## Bull & Bear Flow Quarterly Leaderboard

OPTIONSHAWK DATABASE AGGREGATE FLOW BIAS QUARTER AHEAD	
BULLISH	DAL, FIVN, PANW, ADBE, SPG, DICE, MRK, PYPL, DDOG, PPE, SBUX, PTON, AVGO, QCOM, DIS, R, GH, EXPE, LVS, SGEN, DIBS, TSM
BEARISH	DE, F, TGT, NKE, COIN, COF, ALLY, BEN, VEEV, DASH, COST, HAS, SQ, ABNB, BA, SQ, PFSI, ZIM, GME, FSR, BX, APO, SSNC, PARA, MPW, DLR, INTC, MSFT, ON, BABA, AKAM, BIDU, PAYX

# Hawk Vision – Technical Set-Ups in Quality Fundamental Stocks (Hawk 350 Universe) with Options Flow

\*\*\* We highlight these set-ups daily in the OptionsHawk Trading Hub\*\*\*

**Revance (RVNC)** a Biotech with positive news in Q3 flagging and looking to work to new highs, 27K Jan. \$30 calls in open interest and April \$30/\$40 call spreads 15,000X.

Revance Therapeutics, Inc., Daily, Nasdaq + Nyse BQT O 12.34 H 13.27 L 12.34 C 12.91 Period +4.62% Market closed



**Aspen Tech (AZPN)** relentless relative strength as a top software play to capitalize on the energy transition theme.

Aspen Technology, Inc., Daily, Nasdaq + Nyse BQT O 235.09 H 240.00 L 235.00 C 238.20 Period +1.32% Market closed

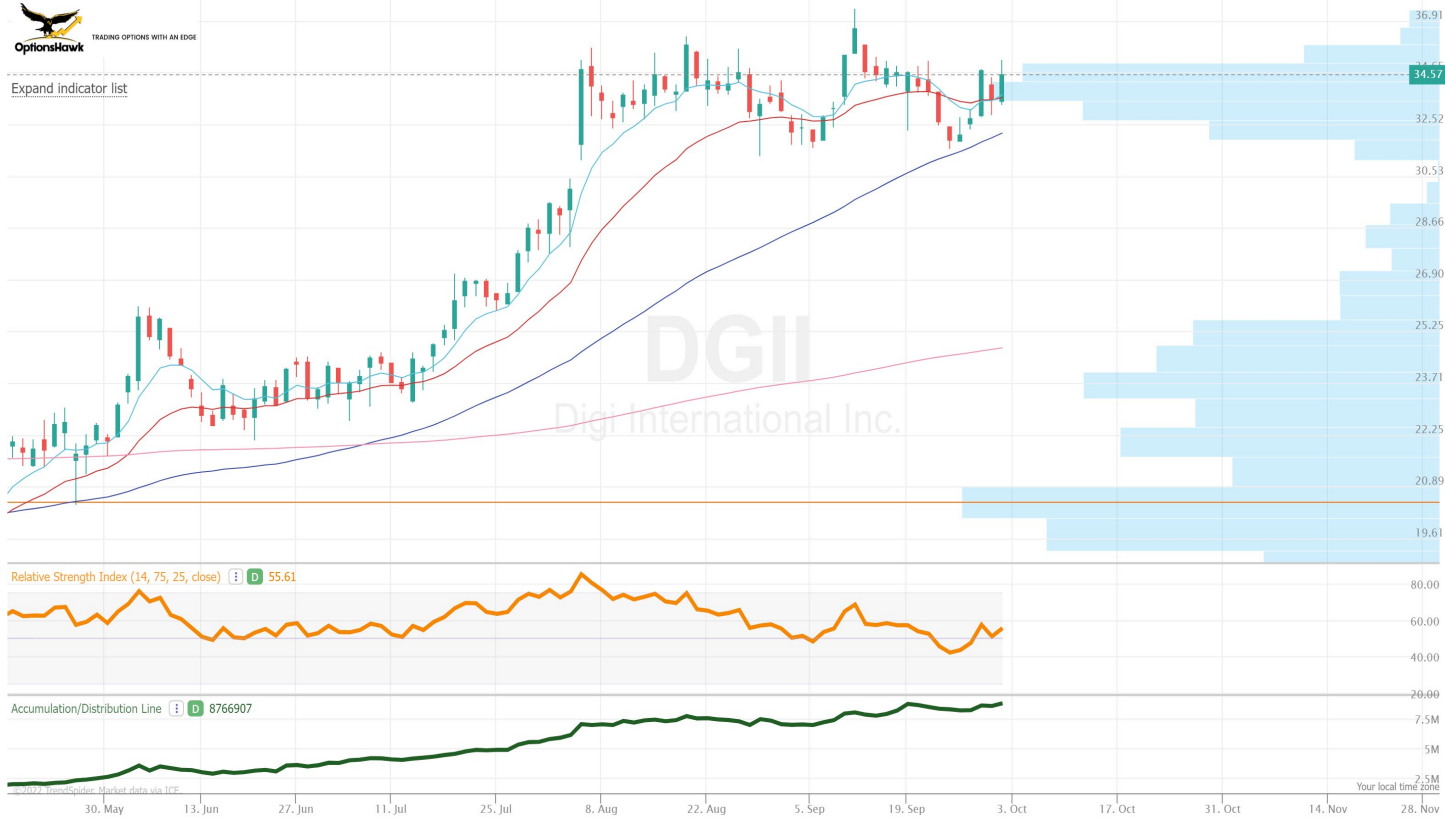


# Digi International (DGII) a favorite small cap for many years flagging and showing impressive relative strength.

Digi International Inc., Daily, Nasdaq + Nyse BQT O 33.49 H 35.18 L 33.31 C 34.57 Period +3.22% Market closed



Expand indicator list



# Wix.com (WIX) now an activist play and has size bull covered risk reversals in January 2023 open interest, continue to act well consolidating below the 200-MA.

Wix.com Ltd., Daily, Nasdaq + Nyse BQT O 79.85 H 82.18 L 78.08 C 78.23 Period -2.03% Market closed



Expand indicator list

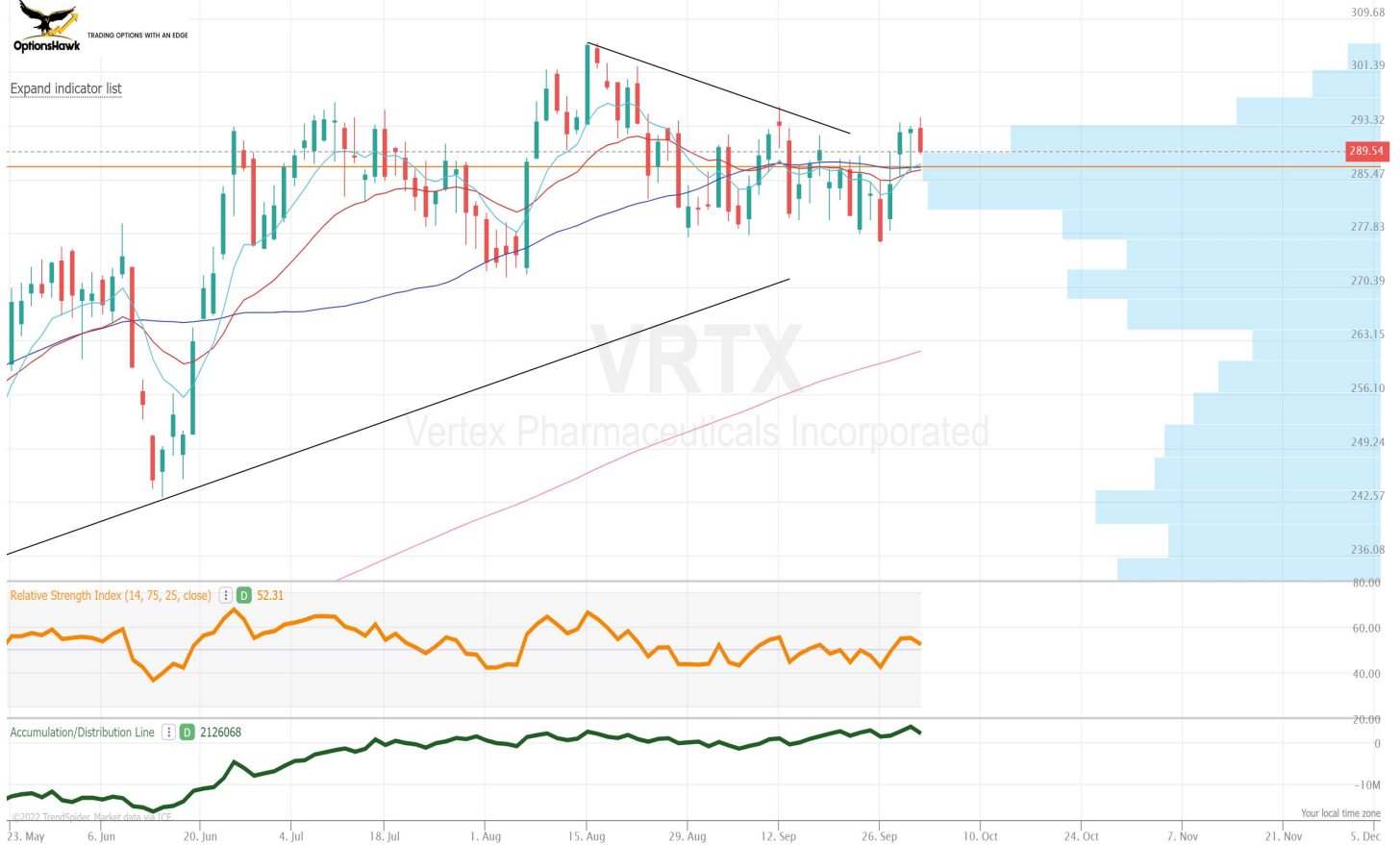


**Vertex (VRTX) top looking large cap and a close above \$293.50 opens up for a trend move to new highs.**

Vertex Pharmaceuticals Incorporated, Daily, Nasdaq + Nyse BQT O 292.96 H 294.62 L 289.17 C 289.54 Period -1.17% Market closed



Expand indicator list



**Prior Quarter Earnings Recap**

<b>Strong Beats</b>	<b>Bullish</b>
Energy - Oil & Gas E&P	RRC, XOM, CVX, DVN, FANG, OXY, PXD
Energy – Refiners	SHEL, PBF, VLO, PSX, LYB, MPC, SUN, DINO
Auto & Trucks	TSLA, PCAR, F, HOG, RACE, CMI
Packaged Goods	GIS, MDLZ, KHC, HSY, K, SJM, GIS
Payments	AXP, V, MA, WEX, GPN, PYPL, FLT
REITS	PLD, FR, ARE, SUI, EGP, AVB, SPG, LSI
Biotech	ARGX, GILD, REGN, BMRN, AMGN, VRTX
Pharma	GSK, SNY, MRK, PFE, ABBV, AZN
Life Science Tools	QGEN, ICLR, TMO, MTD, PKI, RGEN, A
Healthcare Services	THC, HCA, MEDP, ECL, DVA, ENSG,
Equipment & Machinery	IEX, URI, AGCO, GWW, RRX, XYL, WMS, MIDD, PH
Building Materials	OC, FBHS, MLM, WY, BLDR, BCC, BLD, IBP
Trucking & Freight	JBHT, KNX, LSTR, SAIA, R, GXO, XPO
Lodging & Leisure	HLT, MAR, ABNB, EXPE, LYV, H
Back Office Software	PAYC, BILL, WDAY, COUP
Cyber-Security Software	PANW, CRWD, OKTA, S, ZS
Networking Software	FFIV, CALX, ANET, NET, MSI, KEYS
Industrial & Auto Semis	SLAB, ON, MCHP, ADI, WOLF
Data Centers and Towers	EQIX, AMT, SBAC, FYBR

## Quarterly M&A Notable Deal

With Software valuation contracting to multi-year lows we are starting to see both companies and private equity take aim at names that continue to have a long runway for revenue growth in an industry that continues to have bright growth prospects but a market that has punished long-duration names. There have been at least six notable deals in Software since August with two private equity deals in cyber-security as Thomas Bravo bought Ping Identity (PING) for \$2.8B and Vista equity bought KnowBe4 (KNBE) for \$4.47B at 55% and 40% premiums respectively. Avalara (AVLR) is a niche software company that Vista Equity bought in an \$8.4B deal at a 27% premium. MicroFocus (MFGP) was bought by OpenTxt (OTEX) in a \$6B deal at a large premium, Roper (ROP) bought Frontline Education for \$3.725B and then most recent Adobe (ADBE) with a massive \$20B deal for Figma paying more than 50X Sales. This kind of action makes it worthwhile screening for “baby with the bathwater” names tossed aside by the market due to the overall backdrop but now at attractive valuations considering a long-term growth opportunity.

First, let’s look at characteristics of recent deals comparing some key metrics, specifically looking at the private equity buys of AVLR, KNBE and PING. The deal multiples took place at 7.5-10X EV/Sales in companies with positive FCF margins and gross margins above 70%. Incremental revenue/spend ratios were also above 1X and an average forward revenue CAGR of 25%.

If we screen across companies in these industries with less than \$10B market caps with similar metrics, we get a healthy set of potential candidates.

Tickers	Company Name	Mkt. Cap	EV to Sales	FCF Margin	Revenue CAGR FY0 to FY2
SPT	Sprout Social Inc	3,163	11.7x	7.39%	33%
QLYS	Qualys Inc	5,425	10.1x	42.85%	18%
PCOR	Procore Technologies Inc	6,947	9.3x	1.77%	29%
ESMT	EngageSmart Inc	3,031	9.3x	9.20%	32%
MNDY	Monday.Com Ltd	5,385	9.1x	0.84%	48%
DV	DoubleVerify Holdings Inc	4,299	9.1x	22.04%	30%
CYBR	Cyberark Software Ltd	5,949	8.9x	13.09%	21%
DT	Dynatrace Inc	9,543	8.2x	25.09%	22%
APPF	AppFolio Inc	3,492	7.3x	0.74%	24%
BL	Blackline Inc	3,468	7.3x	13.35%	22%
COUP	Coupa Software Inc	4,718	7.2x	21.27%	17%
YOU	Clear Secure Inc	3,451	7.2x	16.04%	45%
WK	Workiva Inc	3,322	6.1x	10.40%	20%
JAMF	Jamf Holding Corp	2,677	6.0x	15.12%	26%
FRSH	Freshworks Inc	4,054	5.8x	0.63%	29%
AGYS	Agilysys, Inc.	1,187	5.8x	16.77%	17%
AYX	Alteryx Inc	3,996	5.8x	5.67%	31%
TENB	Tenable Holdings Inc	3,874	5.5x	16.67%	23%
FROG	JFrog Ltd	1,915	5.3x	11.16%	31%
SEMR	SEMrush Holdings Inc	1,534	5.1x	10.63%	29%
RPD	Rapid7 Inc	2,689	4.8x	6.55%	25%
ETWO	E2open Parent Holdings Inc	1,851	4.6x	4.55%	33%
OLO	Olo Inc	1,278	4.5x	9.65%	22%
CVT	Cvent Holding Corp	2,684	4.4x	14.75%	20%
IS	Ironsource Ltd	3,618	4.2x	22.50%	32%
EVCM	EverCommerce Inc	2,068	4.0x	4.63%	22%
INTA	Intapp Inc	1,099	3.2x	3.47%	18%

In the group of names trading less than 5X EV/Sales, **Rapid7 (RPD)** stands out as a clear next target in cyber-security at this multiple with a 25% growth CAGR and strongly positive FCF margins. **Cvent (CVT)** also stands out as cheap at 4.4X with strong metrics as a niche software provider.

Next, let us look at names in the 5-7X group considering the potential for 10X+ takeout multiples. **Tenable (TENB)** is yet another cyber-security name that screens cheap with strong metrics as a potential takeout target. **SEMrush (SEMR)** at 5X with 10% FCF margins and a 29% growth CAGR is also an attractive target in marketing software. **JFrog (FROG)** really stands out at 5.3X in the hot DevOps segment with strong FCF margins and 30%+ growth.

Lastly, if we consider names in the 7-10X multiple range where a deal is less likely unless it comes from a company willing to pay up for a strong asset **Clear Secure (YOU)** stands out in the hot area of identity software and trades 7.2X with a 40% growth CAGR and strong FCF margins. Three more cyber-security names show up in this grouping with **Cyberark (CYBR)**, **Double Verify (DV)** and **Qualys (QLYS)**. **Engage Smart (ESMT)** is a customer engagement software play that screens solid while **Dynatrace (DT)** a key player in DevOps. **Blackline (BL)** one that really stands out as a niche financial software provider at 7.3X with strong metrics.

### Small Cap of the Quarter

**Montauk Renewables (MNTK)** a new small cap to hit my screens with shares +66% YTD.

MNTK is a renewable energy company specializing in the recovery and processing of biogas from landfills and other non-fossil fuel sources for beneficial use as a replacement to fossil fuels. MNTK is one of the largest U.S. producers of RNG, having participated in the industry for over 30 years and operates a portfolio of 12 RNG and three Renewable Electricity projects through self-development, partnerships, and acquisitions that span six states and have grown our revenues from \$33.8 million in 2014 to \$148.1 million in 2021. Its revenues are generated from the sale of RNG and Renewable Electricity under termed agreements, along with the Environmental Attributes that are derived from these products.

Demand for RNG produced from biogas remains strong due to increasing public policy initiatives focused on reducing greenhouse gas emissions, including methane, as well as continued public and private sector interest in the development of additional renewable energy sources to offset traditional fossil fuels. RNG has the same chemical composition as natural gas from fossil sources, but has unique Environmental Attributes assigned to it through government incentive programs due to its origin from low-carbon, renewable sources. When used as a transportation fuel or to produce electricity, RNG can generate additional revenue streams through the generation and sale of Environmental Attributes under various programs, including the national renewable fuels standard and state-level California LCFS. RNG is priced in-line with the wholesale natural gas market, based on Henry Hub pricing, with regional variation according to demand.

MNTK has a market cap of \$2.59B and trades 34.8X Earnings, 22.5X FY23 EBITDA and 55X FCF. MNTK revenues grew 47.6% in 2021 and seen growing 48.4% in 2022. Bloomberg reported in early August that Montauk is exploring a potential sale as major oil companies look at alternative energy companies. South African businessman John Copelyn is its biggest shareholder with a roughly 40% stake.



## International Stock of the Quarter

**Greenvolt Energias (GVOLT:PL)** is an intriguing international stock with the Eurozone energy crisis in focus. GreenVolt has designed and implements a differentiating strategy in the energy sector. Through renewable energy production from residual biomass, GreenVolt is actively contributing to the creation of a forest residue market in Portugal, which provides a financial incentive for small inland forest owners to clear their forests. As regards renewable energy production through solar and wind sources, GreenVolt is currently present in several European countries in the development of large-scale projects, while also operating in the distributed solar-based generation segment, aimed at self-consumption.

The genesis of GreenVolt is residual renewable biomass, a market segment where the company has a track record of over 15 years, being a market leader in Portugal and a reference operator in Europe. Residual biomass is a renewable fuel that makes sense to use in electricity production. It generates very positive externalities for the communities where the industrial plants are located and for the country as a whole: on the one hand, it creates incentives for cleaning up the forests by developing local biomass markets and, on the other hand, by contributing towards more appropriate forestry practices it is considered a powerful mitigating agent against the seasonal forest fires that ravage Portugal every summer. In addition to biomass, GreenVolt is present in the more traditional market segment of renewable energy - solar and wind - but has chosen to operate primarily in the most upstream part of the value chain: project development. This area of operation, less capital intensive, but very demanding in terms of know-how and expertise, covers all activities from the design of a project to its authorization or construction.

Distributed energy generation is an area with a high growth potential for GreenVolt. Portugal has one of the highest solar irradiation levels in Europe and one of the lowest penetration rates of distributed energy generation, so it makes perfect sense to invest in this sector through photovoltaic solar sources, essentially aimed at self-consumption, using a set of very abundant and practically unused spaces: rooftops.

Greenvolt revenues grew 41% in 2020, seen growing 62.8% in 2021, 45% in 2022 and 28.5% in 2023. Greenvolt is also EBITDA positive and sees a path to \$400M EBITDA in 2025 while having a market cap of \$1.4B.

## IPO Watch

**Amprius Tech (AMPX)** recently came public via SPAC in a growing industry of lithium-ion batteries where technology is progressing rapidly.

AMPX is producing a 100% silicon anode battery with superior performance including high energy density, high power density, faster charge rates (80% in under six minutes) and a wide operating temperature. Silicon Anode has 10X the capacity of graphite. AMPX intends to have high-volume manufacturing facilities in Georgia and Texas. AMPX sees a \$116.5B TAM across Aviation markets like Unmanned Aerial (UAS) and Air Transport as well as EV's. AMPX already has an established partnership with Airbus. AMPX is early-stage without any real financial estimates currently and carries a \$1B market cap but in a year lacking many IPOs a name worth watching in the right industry if the technology gains greater adoption.

## Performance Metric

## Graphite Anode Battery Cells<sup>(1)</sup>



Anode Capacity (mAh/g) <sup>(1)(2)</sup>	<b>335-355</b>	<b>1,500-2,500</b>
Specific Energy (Wh/kg)	<b>~215-285</b>	<b>360-500</b>
Energy Density (Wh/L)	<b>~530-715</b>	<b>890-1,400</b>
Charging Time to 80%	<b>30 minutes</b>	<b>&lt;6 minutes<sup>(4)</sup></b>
Rate Capability/Power	<b>Up to 10C</b>	<b>Up to 10C</b>
Cycle Life	<b>500-1,000 cycles</b>	<b>200-1,200 cycles</b>
Operating Temperature	<b>-20 to 60°C</b>	<b>-30 to 55°C</b>

## Quarterly Insider Notable Activity

Trade Date	Ticker	Company Name	Insider Name	Title	Price	Qty	ΔOwn	Value
9/7/2022	ASAN	Asana, Inc.	Moskovitz Dustin A.	Pres, CEO, Chair, 10%	\$18.16	19,273,127	80%	\$349,999,986
8/4/2022	XOM	Exxon Mobil Corp	Ubben Jeffrey W	Dir	\$88.45	1,000,000	216%	\$88,445,292
9/14/2022	PLPC	Preformed Line Products Co	Ruhlman Robert G	Dir, 10%	\$44.40	810,400	211%	\$35,981,760
9/20/2022	MEDP	Medpace Holdings, Inc.	Troendle August J.	CEO, 10%	\$158.39	188,238	3%	\$29,814,076
9/1/2022	ASH	Ashland Inc.	Sandler Ricky C	See Remarks	\$100.20	224,156	3%	\$22,460,431
8/9/2022	HUBG	Hub Group, Inc.	Yeager David P	COB, CEO	\$104.99	156,820	41%	\$16,464,532
9/30/2022	DAVE	Dave Inc./De	Wilk Jason	CEO	\$10.01	1,532,232	New	\$15,329,981
8/11/2022	CINC	Cincor Pharma, Inc.	Healy James	Dir, 10%	\$30.00	506,000	9%	\$15,180,000
9/16/2022	BRZE	Braze, Inc.	Jacobson Matthew	Dir, 10%	\$35.01	414,137	5%	\$14,498,626
9/16/2022	BRZE	Braze, Inc.	Pepper Douglas A	Dir	\$35.01	414,137	5%	\$14,498,626
7/13/2022	MSM	Msc Industrial Direct Co Inc	Jacobson Mitchell	Dir, 10%	\$72.25	200,000	276%	\$14,450,000
8/12/2022	SIX	Six Flags Entertainment Corp	Ruchim Arik W	Dir, 10%	\$23.82	525,000	6%	\$12,504,580
8/19/2022	SIX	Six Flags Entertainment Corp	Ruchim Arik W	Dir, 10%	\$23.23	500,000	5%	\$11,612,950
7/22/2022	HSAQ	Health Sciences Acquisitions Corp 2	Wong Roderick	CEO	\$10.01	1,000,000	New	\$10,010,000
9/15/2022	NLOK	Nortonlifelock Inc.	Vlcek Ondrej	Pres	\$21.91	456,475	15%	\$9,999,998
8/10/2022	TDW	Tidewater Inc	Robotti Robert	Dir	\$17.85	560,224	27%	\$9,999,998
8/9/2022	TDW	Tidewater Inc	Robotti Robert	Dir	\$17.85	560,224	27%	\$9,999,998
8/1/2022	GWRS	Global Water Resources, Inc.	Levine Jonathan L	Dir	\$13.50	541,000	6%	\$7,303,500
9/8/2022	DEI	Douglas Emmett Inc	Wang Shirley	Dir	\$21.17	284,000	New	\$6,012,280
9/14/2022	SRPT	Sarepta Therapeutics, Inc.	Chambers Michael Andrew	Dir	\$104.43	57,100	45%	\$5,963,124
9/15/2022	SBUX	Starbucks Corp	Hobson Melody L	Dir	\$92.58	54,750	8%	\$5,068,536
8/3/2022	PINS	Pinterest, Inc.	Ready William J	CEO	\$22.47	222,551	New	\$5,000,009
7/22/2022	RVMD	Revolution Medicines, Inc.	Schroeder Thilo	Dir	\$20.00	250,000	6%	\$5,000,000
8/19/2022	SRPT	Sarepta Therapeutics, Inc.	Chambers Michael Andrew	Dir	\$108.28	46,170	58%	\$4,999,230
9/20/2022	BRP	Brp Group, Inc.	Baldwin Lowry	COB, 10%	\$28.87	172,000	100%	\$4,965,640
8/9/2022	HUBG	Hub Group, Inc.	Yeager David P	COB, CEO	\$104.99	46,879	88%	\$4,921,826
8/15/2022	FOX	Fox Corp	Murdoch Lachlan K	Exec Chair, CEO	\$36.50	126,773	18%	\$4,627,215
7/27/2022	HCCI	Heritage-Crystal Clean, Inc.	Recatto Brian	Pres, CEO	\$27.00	150,000	22%	\$4,050,000
8/19/2022	DISH	Dish Network Corp	Defranco James	Dir	\$18.12	191,735	3%	\$3,473,809
8/9/2022	HUBG	Hub Group, Inc.	Yeager Phillip D	Pres, COO	\$104.99	28,339	13%	\$2,975,312
8/18/2022	DISH	Dish Network Corp	Defranco James	Dir	\$18.11	163,637	3%	\$2,963,466
8/5/2022	PSN	Parsons Corp	Ball George L.	CFO	\$41.50	70,000	25%	\$2,905,000
7/18/2022	MOND	Mondee Holdings, Inc.	Fintiklis Orestes	Dir	\$10.00	260,000	4%	\$2,600,000
9/8/2022	SWK	Stanley Black & Decker, Inc.	Manning Robert J	Dir	\$85.50	30,000	New	\$2,565,000

Trade Date	Ticker	Company Name	Insider Name	Title	Price	Qty	ΔOwn	Value
7/22/2022	TCBI	Texas Capital Bancshares Inc/tx	Stallings Robert W	Dir	\$54.71	44,430	31%	\$2,430,712
8/1/2022	RILY	B. Riley Financial, Inc.	Paulson Randall E	Dir	\$52.21	40,000	22%	\$2,088,379
8/12/2022	SAVA	Cassava Sciences Inc	Robertson Sanford	Dir	\$20.69	100,000	11%	\$2,069,000
8/9/2022	CIVI	Civitas Resources, Inc.	Doyle M. Christopher	Pres, CEO	\$59.66	33,623	60%	\$2,005,797
10/20/2020	EAR	Eargo, Inc.	Wu David James	Dir	\$18.00	111,111	8%	\$1,999,998
8/10/2022	QTRX	Quanterix Corp	Meister Paul M	Dir	\$8.53	234,304	>999%	\$1,998,314
8/30/2022	SEAS	Seaworld Entertainment, Inc.	Adams Michelle F	See Remarks	\$51.03	39,000	107%	\$1,990,170
8/4/2022	TRU	Transunion	Cartwright Christopher A	Pres, CEO	\$79.42	25,000	12%	\$1,985,450
9/1/2022	BKNG	Booking Holdings Inc.	Mylod Robert J Jr	Dir	\$1,803.65	1,000	39%	\$1,803,651
7/25/2022	UAL	United Airlines Holdings, Inc.	Shapiro Edward	Dir	\$35.74	50,000	50%	\$1,787,023
9/16/2022	EP	Empire Petroleum Corp	Mulacek Phil E	Dir, 10%	\$11.83	138,135	4%	\$1,633,968
8/1/2022	GWRS	Global Water Resources, Inc.	Cohn Andrew M.	Dir	\$13.50	111,000	6%	\$1,498,500
8/2/2022	SWK	Stanley Black & Decker, Inc.	Ayers Andrea J.	Dir	\$95.69	15,500	401%	\$1,483,142
8/2/2022	SWK	Stanley Black & Decker, Inc.	Ayers Andrea J.	Dir	\$95.69	15,500	401%	\$1,483,142
8/5/2022	PSN	Parsons Corp	Ball George L.	Dir	\$41.50	35,000	12%	\$1,452,500
9/15/2022	APG	Api Group Corp	Malkin Anthony E	Dir	\$15.15	92,145	706%	\$1,396,200
8/10/2022	JANL	Janel Corp	Van Kesteren Gerard	Dir	\$45.00	30,112	62%	\$1,355,040
7/14/2022	ET	Energy Transfer LP	Brannon Richard D	Dir	\$9.69	137,680	27%	\$1,334,660
8/30/2022	WEST	Westrock Coffee Co	Ford Joe T	Dir	\$12.15	107,000	3%	\$1,300,050
8/10/2022	QTRX	Quanterix Corp	Walt David R	Dir	\$8.62	150,000	12%	\$1,293,495
9/14/2022	SPOK	Spok Holdings, Inc	Stein Todd J	Dir	\$7.31	176,602	13%	\$1,290,800
7/25/2022	JEF	Jefferies Financial Group Inc.	Jones Thomas W	Dir	\$31.21	40,000	251%	\$1,248,444
8/31/2022	RILY	B. Riley Financial, Inc.	Paulson Randall E	Dir	\$49.76	25,000	11%	\$1,243,898
8/16/2022	TCBI	Texas Capital Bancshares Inc/tx	Stallings Robert W	Dir	\$64.79	19,000	9%	\$1,231,090
7/26/2022	TCBI	Texas Capital Bancshares Inc/tx	Stallings Robert W	Dir	\$55.09	22,000	12%	\$1,212,020
8/12/2022	QTRX	Quanterix Corp	Toloue Masoud	Pres, CEO	\$10.43	105,000	130%	\$1,095,150
8/8/2022	GHL	Greenhill & Co Inc	Bok Scott L	COB, CEO, 10%	\$8.87	119,979	5%	\$1,064,466
8/18/2022	RPAY	Repay Holdings Corp	Kight Peter J	Dir	\$9.75	108,577	8%	\$1,058,270
8/3/2022	WWD	Woodward, Inc.	Donovan Paul	Dir	\$94.49	11,100	902%	\$1,048,796
8/30/2022	WWD	Woodward, Inc.	Hess David P	Dir	\$93.93	11,000	250%	\$1,033,230
7/25/2022	CAG	Conagra Brands Inc.	Chirico Emanuel	Dir	\$34.06	30,000	278%	\$1,021,800
7/13/2022	PLAY	Dave & Buster'S Entertainment, Inc.	Morris Christopher Daniel	CEO	\$30.54	33,400	226%	\$1,020,096
9/16/2022	SPOK	Spok Holdings, Inc	Stein Todd J	Dir	\$7.29	139,704	9%	\$1,017,981
8/4/2022	MTCH	Match Group, Inc.	Kim Bernard Jin	CEO	\$63.58	16,000	>999%	\$1,017,280
7/1/2022	NEE	Nextera Energy Inc	Ketchum John W	Pres, CEO	\$78.33	12,909	10%	\$1,011,162
9/2/2022	HOG	Harley-Davidson, Inc.	Zeitj Jochen	Pres, CEO	\$38.94	25,750	5%	\$1,002,628
8/18/2022	HOMB	Home Bancshares Inc	Lieblong Alex R	Dir	\$25.04	40,000	7%	\$1,001,766
8/18/2022	HOMB	Home Bancshares Inc	Lieblong Alex R	Dir	\$25.04	40,000	7%	\$1,001,766
9/22/2022	MBIN	Merchants Bancorp	O'Brien Patrick D.	Dir	\$25.00	40,000	11%	\$1,000,000
9/6/2022	PVH	Pvh Corp. /de/	Larsson Stefan	CEO	\$53.94	18,540	16%	\$1,000,000
8/17/2022	MSBI	Midland States Bancorp, Inc.	McDaniel Jerry L.	Dir	\$25.00	40,000	27%	\$1,000,000

Trade Date	Ticker	Company Name	Insider Name	Title	Price	Qty	ΔOwn	Value
7/22/2022	RVMD	Revolution Medicines, Inc.	Kim Lorence H.	Dir	\$20.00	50,000	476%	\$1,000,000
7/15/2022	GOSS	Gossamer Bio, Inc.	Hasnain Faheem	Pres, CEO	\$7.21	138,696	4%	\$999,998
8/5/2022	FSLR	First Solar, Inc.	Antoun Georges	Chief Commercial Officer	\$100.53	9,946	36%	\$999,871
8/8/2022	HCAT	Health Catalyst, Inc.	Burton Daniel D.	CEO	\$10.99	90,750	15%	\$996,970
8/8/2022	KKR	Kkr & Co. Inc.	Cohler Matt	Dir	\$52.99	18,710	27%	\$991,485
8/29/2022	FCX	Freeport-McMoran Inc	Lance Ryan Michael	Dir	\$31.88	31,000	368%	\$988,314
8/15/2022	GHL	Greenhill & Co Inc	Bok Scott L	COB, CEO, 10%	\$8.89	110,430	4%	\$981,557
8/10/2022	RNR	Renaissancere Holdings Ltd	Gray Brian Gerald John	Dir	\$130.62	7,500	47%	\$979,650
9/16/2022	CRK	Comstock Resources Inc	Allison M Jay	COB, CEO	\$19.50	50,000	3%	\$975,000
8/5/2022	PKOH	Park Ohio Holdings Corp	Crawford Edward F	Dir	\$19.38	50,000	6%	\$969,116
8/3/2022	PRG	Prog Holdings, Inc.	Doman Curtis Linn	Chief Innovation Officer-PROG	\$19.25	50,000	23%	\$962,500
8/29/2022	BKNG	Booking Holdings Inc.	Mylod Robert J Jr	Dir	\$1,912.36	500	24%	\$956,183
9/22/2022	ADBE	Adobe Inc.	Durn Daniel	EVP, CFO	\$288.11	3,250	57%	\$936,358
9/15/2022	SBUX	Starbucks Corp	Allison Richard E Jr	Dir	\$92.53	10,000	73%	\$925,320
9/8/2022	CRK	Comstock Resources Inc	Turner Jim L	Dir	\$18.34	50,000	23%	\$917,195
9/13/2022	MATV	Mativ Holdings, Inc.	Keenan Jeffrey	Dir	\$24.44	36,698	17%	\$897,007
8/23/2022	SAVA	Cassava Sciences Inc	Barry Richard	Dir	\$23.79	36,159	24%	\$860,223
9/9/2022	RDFN	Redfin Corp	Slavet James	Dir	\$8.40	100,000	98%	\$840,430
7/22/2022	NIC	Nicolet Bankshares Inc	Dykema John Nicholas	Dir	\$78.99	9,586	24%	\$757,198
8/10/2022	QTRX	Quanterix Corp	Madaus Martin D	Dir	\$8.43	89,667	49%	\$755,543
8/19/2022	KSS	Kohls Corp	Boneparth Peter	Dir	\$30.01	25,000	55%	\$750,130
9/14/2022	LNKB	Linkbancorp, Inc.	Koppenhaver David H	Dir	\$7.50	100,000	52%	\$750,000
9/14/2022	LNKB	Linkbancorp, Inc.	Parmer George	Dir	\$7.68	90,000	18%	\$691,100
8/29/2022	SPFI	South Plains Financial, Inc.	Valles Noe G	Dir	\$26.57	25,000	29%	\$664,250
7/5/2022	BRK.A	Berkshire Hathaway Inc	Olson Ronald L	Dir	\$274.35	2,410	10%	\$661,183
8/10/2022	UNVR	Univar Solutions Inc.	Alexos Nicholas W	EVP, CFO	\$26.19	25,000	6%	\$654,665
8/2/2022	RILY	B. Riley Financial, Inc.	Paulson Randall E	Dir	\$52.33	12,500	6%	\$654,174
8/26/2022	KW	Kennedy-Wilson Holdings, Inc.	Zax Stanley R	Dir	\$18.15	35,000	8%	\$635,250
8/29/2022	CABO	Cable One, Inc.	Gayner Thomas Sinnickson	Dir	\$1,177.75	500	4%	\$588,875
9/1/2022	CKX	Ckx Lands, Inc.	Stream William Gray	Pres	\$11.10	52,280	45%	\$580,308
8/12/2022	CRGY	Crescent Energy Co	Simon Karen Jo	Dir	\$16.20	35,000	240%	\$567,000
9/15/2022	DLR	Digital Realty Trust, Inc.	Stein A William	CEO	\$113.22	5,000	100%	\$566,100
5/31/2022	VPG	Vishay Precision Group, Inc.	Cummins Wes	Dir	\$34.72	16,300	5%	\$566,016
9/6/2022	CABO	Cable One, Inc.	Gayner Thomas Sinnickson	Dir	\$1,106.44	500	4%	\$553,220
9/12/2022	CABO	Cable One, Inc.	Gayner Thomas Sinnickson	Dir	\$1,094.74	500	4%	\$547,370
8/12/2022	MATV	Mativ Holdings, Inc.	Schertell Julie	Pres, CEO	\$24.10	21,600	221%	\$520,560
8/15/2022	KDP	Keurig Dr Pepper Inc.	Milikin Maurice Anthony	Chief Supply Chain Officer	\$39.85	12,979	17%	\$517,213
8/12/2022	MATV	Mativ Holdings, Inc.	Schertell Julie	Pres, CEO	\$23.93	21,600	15%	\$516,845
8/22/2022	KDP	Keurig Dr Pepper Inc.	Milikin Maurice Anthony	Chief Supply Chain Officer	\$39.66	12,979	14%	\$514,747
9/1/2022	PRMW	Primo Water Corp /cn/	Harrington Thomas	CEO	\$13.07	39,000	6%	\$509,691
8/16/2022	RM	Regional Management Corp.	Bancroft Philip V	Dir	\$39.14	13,000	361%	\$508,768

### Q3 Seasonality Outlook

Over the last 10 years of data, we can see a strong tendency for outperformance in Q4 for Financials +6.28%, Semiconductors +5.93%, Transports +4.38%, and Industrials +4.08%. Financials have stood out mostly in October and November while Utilities show the strongest October returns. Tech and Small Caps have led strong November performance with the IWM up +3.7% during the month and Semi's up an impressive +5% for November the past decade. The market tends to see broad based sector strength in November with the SPY and QQQ up 9 of the last 10 years. December tends to be a more mixed month with more blue-chip staple names in the Dow outperforming while Gold also shows strength into year end. Of the sector laggards, in October weakness is seen in Oil and Bonds with negative average returns the past 10 years while November sees bearish bias in Utilities -1.1% and gold lower by -3.2%. Looking at December the laggards appear to be Energy -2%, Transports -1.3%, and Discretionary, Industrials and Communications all with minor negative returns. Overall, Q4 returns show bullish bias and are led by Nasdaq tech stocks and Russell small caps. The weakest groups on average for the quarter have been the Energy sector negative by -0.31% as Oil itself has an average drop of -8.3% and Communications with flat returns.

10 years of data	Sector Seasonality for Q4							
		October		November		December		Q4
Ticker	Sector	% Up	Avg Return	% Up	Avg Return	% Up	Avg Return	Avg Return
XLK	Technology	60%	1.27%	80%	2.70%	60%	-0.21%	3.76%
XLV	Healthcare	50%	0.75%	80%	2.77%	60%	0.08%	3.60%
XLY	Consumer Discretionary	50%	1.12%	90%	3.19%	50%	-0.75%	3.56%
XLF	Financials	80%	2.20%	80%	3.91%	80%	0.17%	6.28%
XLC	Communication Services	50%	0.28%	50%	0.73%	40%	-0.83%	0.18%
XLI	Industrials	60%	0.92%	90%	3.92%	40%	-0.76%	4.08%
XLP	Consumer Staples	50%	1.34%	70%	1.66%	60%	0.29%	3.29%
IYR	Real Estate	50%	1.50%	40%	0.58%	50%	0.19%	2.27%
XLB	Materials	40%	1.01%	90%	2.68%	60%	-0.07%	3.62%
XLE	Energy	40%	-0.23%	60%	1.96%	40%	-2.04%	-0.31%
XLU	Utilities	90%	2.87%	30%	-1.12%	50%	0.54%	2.29%
SPY	S&P 500	60%	1.16%	90%	2.54%	60%	-0.27%	3.43%
QQQ	Nasdaq 100	60%	1.46%	90%	2.59%	50%	-0.54%	3.51%
IWM	Russell 2000	70%	0.42%	80%	3.69%	60%	-0.31%	3.80%
DIA	Dow Jones	60%	0.87%	80%	2.53%	70%	0.29%	3.69%
TLT	Bonds	30%	-0.66%	60%	0.18%	40%	0.15%	-0.33%
GLD	Gold	50%	-0.02%	10%	-3.17%	50%	1.04%	-2.15%
USO	Oil	20%	-3.61%	50%	-3.74%	70%	-0.93%	-8.28%
IYT	Transports	60%	1.47%	80%	4.16%	50%	-1.25%	4.38%
SMH	Semiconductors	60%	1.57%	80%	5.02%	40%	-0.66%	5.93%

\*Note: XLC was created 2018, so data was used from VOX Communications ETF

## Sector Seasonal Trade Setups

Q4 Seasonal trends start to see a lot of sectors with bullish bias going into year end and this has been especially true during midterm election years that start out weaker like 2022. Bank stocks and broker/dealers are one of the stronger trends that start to see bullish bias in early October and go into early May, average 10-year returns are +18% in that timeframe. Consumer Discretionary is also a standout from October into early June with 10-year average gains of +16.4% and Transports show strong seasonality from this October through April timeframe being up on average +14% over the past decade. Industrials and Materials also show standout double digit gains going into year end and into Spring. Lastly, the Semi stocks have a window of strength that has been prevalent between the end of October into early December with 10-year average returns near +10%.

Sector Index Seasonality Table (Full Quarter Trends)			Seasonality		Average % Return		
Ticker	Sector Index	Trade Bias	Start	Finish	15-year	10-year	5-year
BKX, KBE	Banking	Long	Early Oct	Early May	12.8%	18.0%	19.3%
XLY	Consumer Discretionary	Long	Early Oct	Early June	14.1%	16.4%	12.8%
XLP	Consumer Staples	Long	Early Oct	Early June	7.9%	9.4%	5.9%
XLV	Healthcare	Long	Early Oct	Early May	9.9%	11.8%	7.7%
XLI	Industrials	Long	End Oct	Mid May	11.0%	10.9%	11.0%
XLB	Materials	Long	Early Oct	Early May	14.3%	13.6%	10.7%
SMH	Semiconductors	Long	End Oct	Early Dec	8.9%	9.7%	12.0%
IYT	Transports	Long	Early Oct	Early May	14.4%	14.0%	9.4%

## Midterm Election Year Seasonality

Almost all bear markets have begun and ended in the two years after Presidential elections. This makes the Midterm election year an interesting time for weakness which is generally created by some sort of crisis over the years. This year there is a lot happening on the Macro front with soaring yields and inflation, also the Russia/Ukraine conflict and an overall hangover from the past two years of frothy stock market returns. In the last 15 election cycles since 1961, 9 of the 18 bear markets have bottomed in the midterm year and often those lows have been made in the 3rd quarter as the summer ends. Overall, the 3rd quarter is the weakest of the year seasonally looking at the SPX since 1949 has shown an average return of just +0.9% with the return during Midterm years just +0.5%. This lackluster market performance is even more clear in the higher beta Nasdaq index. Since 1971, the Nasdaq during Q3 has had an average return of -3.5% during Midterm years. This weakness is what sets up the market to rebound and often surge after the November elections pass. The rally that begins off the Midterm lows has historically been impressive averaging about 47% gains in the Dow since 1914 from its Midterm low to its high in the following pre-election year. This would imply the market finding a meaningful low sometime before the November midterm elections and trading higher into Spring of 2023.

## Fourth Quarter Market Strength in Midterm Election Years

Looking at market performance on a quarterly basis shows several interesting patterns. Fourth quarter market gains have been magical, providing the greatest and most consistent gains over the years. This is most evident during midterm election years like the current one. The market's sweet spot of the 4 year Presidential cycle begins in the fourth quarter of the midterm year. The best two quarter span runs from the fourth quarter of midterm year through the first quarter of the following year, averaging 14.4% returns for the S&P and an impressive 20% return for the Nasdaq. Pre-election year Q2 is strong as well, the third best quarter of the cycle which creates a solid trend from the start of Q4 midterm year to the pre-election year Q2. As we see the markets into new lows to end Q3, it could be intriguing if a meaningful low and reversal can occur early in Q4 for a run higher as the historical trends suggest.

## Sector ETF Quarterly Watch

**Regional Banking (KBE)** shows strong seasonal bullish bias starting in October and going into Early May with the last 5 years seeing average returns of +19.3% and the last 10 years seeing average returns of +18% during that time frame. The market weakness this year can make things tricky but if a bottom occurs in the broad market early in Q4 looking for the seasonal tendencies to lead the upside is likely the best spot to focus on. KBE is still hanging above its 2022 summer lows even as the market is making new lows slightly. The ETF is right at a key support level near 43 which is the VPOC going back to the start of 2020 and the largest volume node as shown on the chart. Looking at the weekly chart a falling wedge pattern can be seen in these levels so the risk reward sets up well for a hold of support near 42-44 and potential reversal higher into year end if markets stabilize. The KBE sector ETF is equally weighted and has 101 holdings with the top 10 holdings accounting for just 14.8% of the fund assets. The ETF has most of its exposure to midcaps with 59% concentration and large caps being just 25% while small caps at about 16.5%. The top 15 holdings are FHN, PNFP, VOYA, FCNCA, CFR, MTB, WBS, PB, HBAN, WTFC, RF, PNC, RDN, TFC, SNV.



**Disclaimer:**

**Not Investment Advice or Recommendation**

Any descriptions "to buy", "to sell", "long", "short" or any other trade related terminology should not be seen as a recommendation. The Author may or may not take positions in any of the names mentioned, and is not obligated to disclose positions, nor position sizes.

Content is for informational and educational purposes only. You alone will need to evaluate the merits and risks associated with the use of this content. Decisions based on information provided are your sole responsibility, and before making any decision on the basis of this information, you should consider (with or without the assistance of a financial and/or securities adviser) whether the information is appropriate in light of your particular investment needs, objectives and financial circumstances. Investors should seek financial advice regarding the suitability of investing in any securities or following any investment strategies.

No reference to any specific security constitutes a recommendation to buy, sell or hold that security or any other security. Nothing constitutes investment advice or offers any opinion with respect to the suitability of any security, and the views expressed on this website should not be taken as advice to buy, sell or hold any security. In preparing the information contained in this website, we have not taken into account the investment needs, objectives and financial circumstances of any particular investor. This information has no regard to the specific investment objectives, financial situation and particular needs of any specific recipient of this information and investments discussed may not be suitable for all investors.