

Blue Ocean ATS — Trading & Risk Insights

AS_OF_DATE: 2026-08-17 | Lookback: 30 calendar days (2026-06-30 → 2026-08-17) | Universe: 7,433 symbols with BO+US overlap (from 13,374 Blue Ocean names)

Section A — ADV by Shares (ranked by US ADV shares descending)

Min BO ADV: 1,000 shares | Min US ADV: 100,000 shares | Top 10 shown

Symbol	Name	BO ADV (shares)	US ADV (shares)	BO/US Ratio	BO Days	US Days
SOXS	Direxion Daily Semiconductor Bear 3X ETF	10,214,072	261,704,098	0.0390	32	34
BITO	ProShares Bitcoin ETF	56,407	226,468,958	0.0002	33	34
NVDA	Nvidia Corp	473,827	126,841,065	0.0037	33	34
INTC	Intel Corp	956,206	114,667,711	0.0083	33	34
MSTU	T-Rex 2X Long MSTR Daily Target ETF	813,867	105,102,264	0.0077	33	34
EOSER	Eos Energy Enterprises, Inc. Right	5,871	103,255,839	0.0001	8	11
AAL	American Airlines Group Inc.	17,454	102,086,909	0.0002	33	34
SPCX	Space Exploration Technologies Corp. Class A	650,080	98,309,850	0.0066	33	34
ONDS	Ondas Inc. Common Stock	145,681	97,693,686	0.0015	33	34
NOK	Nokia Corporation	599,931	87,838,206	0.0068	33	34

Section B — ADV by Notional (ranked by US ADV notional descending)

Min BO ADV notional: \$50,000 | Min US ADV notional: \$5,000,000 | Top 10 shown

Symbol	Name	BO ADV (USD)	US ADV (USD)	BO/US Ratio	BO Days	US Days
MU	Micron Technology, Inc.	716.6M	40.6B	0.0177	33	34
SPY	State Street SPDR S&P 500 ETF Trust	74.4M	35.7B	0.0021	33	34
QQQ	Invesco QQQ Trust, Series 1	201.9M	27.6B	0.0073	33	34
NVDA	Nvidia Corp	97.2M	26.1B	0.0037	33	34
SNDK	Sandisk Corporation Common Stock	493.4M	23.0B	0.0215	33	34
AAPL	Apple Inc.	28.8M	16.6B	0.0017	33	34
MSFT	Microsoft Corp	39.4M	15.7B	0.0025	33	34
TSLA	Tesla, Inc. Common Stock	68.6M	14.3B	0.0048	33	34
AMD	Advanced Micro Devices	77.0M	14.3B	0.0054	33	34
SPCX	Space Exploration Technologies Corp. Class A	85.5M	13.0B	0.0066	33	34

Section C1 — Variance: Shares Universe (ranked by |Mean| Var % descending)

Symb ol	Name	Mean Var %	l	Meanl	Var %	Std Var %	Max Gap %	% Days +	Days
EOSE R	Eos Energy Enterprises, Inc. Right	+55.69%	68.07%	53.90%	121.07%	83%	6		
SOXS	Direxion Daily Semiconductor Bear 3X ETF	-0.02%	8.78%	10.81%	24.44%	50%	26		
MSTU	T-Rex 2X Long MSTR Daily Target ETF	-0.88%	5.12%	6.30%	13.23%	37%	27		
ONDS	Ondas Inc. Common Stock	-1.04%	4.13%	5.37%	14.41%	37%	27		
INTC	Intel Corp	+0.02%	4.13%	5.08%	9.38%	41%	27		
SPCX	Space Exploration Technologies Corp. Class A	+0.73%	3.70%	4.53%	9.65%	67%	27		
NOK	Nokia Corporation	+0.50%	3.26%	4.10%	9.60%	56%	27		
NVDA	Nvidia Corp	+0.01%	1.90%	2.61%	7.37%	52%	27		
AAL	American Airlines Group Inc.	+0.69%	1.77%	2.08%	4.58%	59%	27		
BITO	ProShares Bitcoin ETF	-0.14%	1.19%	1.46%	2.56%	52%	27		

Section C2 — Variance: Notional Universe (ranked by |Mean| Var % descending)

Symb ol	Name	Mean Var %	l	Meanl	Var %	Std Var %	Max Gap %	% Days +	Days
SNDK	Sandisk Corporation Common Stock	+0.74%	7.36%	9.29%	21.06%	52%	27		
MU	Micron Technology, Inc.	+0.57%	4.79%	6.27%	15.90%	44%	27		
SPCX	Space Exploration Technologies Corp. Class A	+0.73%	3.70%	4.53%	9.65%	67%	27		
AMD	Advanced Micro Devices	+0.32%	3.48%	4.59%	10.81%	44%	27		
TSLA	Tesla, Inc. Common Stock	-0.09%	2.48%	3.07%	6.76%	48%	27		
NVDA	Nvidia Corp	+0.01%	1.90%	2.61%	7.37%	52%	27		
MSFT	Microsoft Corp	-0.51%	1.52%	1.93%	5.98%	37%	27		
AAPL	Apple Inc.	-0.08%	1.50%	2.08%	7.10%	44%	27		
QQQ	Invesco QQQ Trust, Series 1	+0.02%	1.08%	1.37%	2.67%	59%	27		
SPY	State Street SPDR S&P 500 ETF Trust	-0.05%	0.53%	0.71%	1.75%	48%	27		

Key Insights

1. SOXS dominates the shares universe overnight by a wide margin — semiconductor hedging is the primary overnight use case

SOXS (3x leveraged semiconductor bear ETF) has a BO/US ratio of **3.90%** — 5–20× higher than every other name in the shares universe. With 10.2M average daily Blue Ocean shares against 261.7M on the US tape, no other name comes close. BITO (0.02%), AAL (0.02%), and EOSER (0.01%) barely register.

This isn't random. The overnight session runs from ~8 PM to 4 AM ET, which is daytime in South Korea, Taiwan, and Japan — precisely the hours when semiconductor sector news flows (TSMC monthly sales, Samsung memory pricing, Korean earnings). Participants using SOXS overnight are almost certainly hedging semiconductor exposure against Asia-sourced events that will reprice US chip names at the open. The fact that mean variance for SOXS is only -0.02% (essentially zero) across 26 days tells you this hedging demand is balanced — it does not systematically overpay or underpay. But the std of 10.81% and max gap of 24.44% confirm that when the semiconductor overnight news is material, the gap is large.

The time series is particularly revealing: SOXS variance oscillated between roughly -15% and $+15\%$ for most of the lookback, then produced a single outlier spike of approximately $+25\%$ around 2026-08-01 — the largest positive single-day variance event of any non-EOSER name in C1. A $+25\%$ variance means the US open was 25% above Blue Ocean's close: overnight participants dramatically underpriced the next session's move on that day. The distribution confirms this spike as an isolated event — one lone bar at the right tail — rather than a pattern. The rest of SOXS's distribution is roughly symmetric, with equal weight in the positive and negative tails between $\pm 10\text{--}25\%$.

2. The notional universe is semiconductor-heavy for the same reason — but the dominance is concentrated in memory

The top two notional names are **MU (\$716.6M BO ADV)** and **SNDK (\$493.4M)**, both memory semiconductor companies. Together they account for over \$1.2B of the roughly \$1.9B total BO notional across the top 5 names. **NVDA** ranks 4th at \$97.2M.

This sector concentration — three of the top five names are in semiconductor/memory — reflects the same Asia time-zone dynamic as SOXS. But the mechanism here is directional positioning rather than hedging: market participants are taking outright overnight positions in memory names that react to Asia news before the US open. SNDK's 2.15% BO/US notional ratio is the highest in the notional universe, and **MU's 1.77%** is the second-highest, both comfortably above the mega-cap ETFs (SPY 0.21%, QQQ 0.73%).

3. SNDK and MU show the widest variance in the notional universe — high overnight participation does not imply tight pricing

Despite being the top two names by overnight notional, SNDK and MU have the most unpredictable BO close-to-US open pricing in the notional universe:

- **SNDK**: std 9.29%, max gap 21.06% — the US open deviates by over 20% from Blue Ocean's close on at least one day in the lookback window
- **MU**: std 6.27%, max gap 15.90%

Compare these against **AAPL** (std 2.08%, max 7.10%) or **MSFT** (std 1.93%, max 5.98%), which have far lighter overnight participation (BO/US ratios of 0.17% and 0.25% respectively). The interpretation: participants trading MU and SNDK overnight are responding to real information (Asia memory pricing, TSMC production data, Samsung announcements), and that information often predicts a different price than where the US session ultimately opens once the full US order flow is incorporated. Blue Ocean's close is a *signal* for these names, but a noisy one.

The time series and distributions make the character of this noise visible. **MU's** daily variance series oscillated aggressively through early July, posting swings of $+8\%$ and -10% within the same week, then compressed to near-flat from mid-July through early August before the series swings back in August. The distribution is the widest of any notional name: bars spread from roughly -15% to $+15\%$, with heavier weight in the $+5\text{--}15\%$ range than in the symmetric downside — a slightly right-skewed distribution. **SNDK** shows a similar pattern but with an even more pronounced positive skew: multiple days at $+10\text{--}20\%$, a cluster near zero, and a left tail reaching

–15%. This asymmetry (more upside variance days than downside) is consistent with SNDK reacting to positive Asia news that gets confirmed or amplified at the US open more often than it gets reversed.

For a trader using Blue Ocean prices as a reference point for pre-open positioning in SNDK or MU, the practical implication is that the BO close should be treated as a directional indicator, not a precise price anchor. A 10% overnight move in SNDK may be 50% corrected at the US open — or it may be confirmed. The distribution's positive skew at least suggests the directional bet has historically paid off more often than it has reversed.

4. EOSER is a statistical artifact and should be excluded from comparative analysis

EOSER (Eos Energy Enterprises Rights) shows a mean variance of **+55.69%** and a max gap of **121.07%** — figures that dwarf every other name in the study. But this is not a tradeable signal. EOSER is a rights offering, not a common stock. With only 6 matched BO-US days (8 BO trading days total vs 34 for other names), the data reflects the anomalous pricing mechanics of a rights instrument that expires and reprices discontinuously. The fact that it passed the ADV shares screen at all reflects its high US share volume from rights exercise mechanics, not genuine overnight equity liquidity. Any analysis comparing EOSER variance to SOXS or NVDA is not meaningful.

5. SPCX is the only name in both universes — and shows a persistent directional bias with a distinct two-phase structure

*SPCX (SpaceX Class A) is the only name other than NVDA to appear in both the shares and notional universe. Its variance profile is consistent across both sections: mean +0.73%, |mean| 3.70%, std 4.53%, and critically, **67% of days positive** — the US opens above Blue Ocean's close on two-thirds of trading days.*

A 67% positive rate over 27 days is statistically notable. For the other names, positive rates cluster between 44–59%. A persistent positive mean variance (+0.73%) combined with a 67% positive rate suggests that overnight sellers of SPCX are consistently accepting a discount to where the US regular session will open — either by necessity (liquidity constraints, margin calls, portfolio rebalancing that cannot wait) or by design (informational disadvantage).

The time series makes the temporal structure visible and adds an important nuance. SPCX variance was *strongly and consistently positive* for the entire first half of the lookback window (July 1 through approximately July 19), with nearly every day showing blue fill: readings clustered between +2% and +9%, with one day reaching nearly +10%. Then from around July 19 onward, the series becomes more mixed — positive days still outnumber negative but the swings include several orange-fill days down to –5% to –7%. The distribution histogram reflects this two-phase structure: a large cluster of bars between 0% and +10% (the first phase), and a secondary cluster between –5% and 0% (the second phase), with the mean dashed line sitting at +0.73% well into the positive zone.

This regime shift around mid-July warrants investigation: was there a news catalyst, a change in the liquidity provider structure, or a shift in SPCX's institutional ownership base? For now, the 67% positive rate is the headline, but the recent trend toward mean reversion suggests the bias may be weakening. Future runs will clarify whether July's strong positive phase was structural or transitory.

6. BITO is the most tightly priced name in the shares universe — Bitcoin's 24/7 market eliminates the information gap

BITO (ProShares Bitcoin ETF) has the tightest variance of any name in the shares universe: std **1.46%**, max gap **2.56%**, mean –0.14%. This stands out given Bitcoin's reputation for volatility. The explanation is structural: Bitcoin trades 24 hours a day on global exchanges, so the Blue Ocean session is not an information gap — it is

simply one more slice of a continuously priced market. The US open price for BITO is anchored to the global BTC price at 9:30 AM, which was directly accessible throughout the Blue Ocean session. There is no information asymmetry between the overnight and the open, so variance is predictably tight.

The time series and distribution make this visually unmistakable: BITO's variance line is the flattest in C1, oscillating in a tight band between -2.5% and $+2.5\%$ for the entire lookback. The distribution is a narrow spike centred on zero — virtually all mass lies within $\pm 1\%$, with the mean line at -0.14% barely distinguishable from zero. On the shared y-axis, BITO's distribution appears as a thin sliver compared to SOXS or MSTU: that visual contrast is the entire story about what continuous global pricing does to the overnight gap problem.

7. SPY and QQQ show near-zero mean variance — US equity index prices are efficiently priced overnight

SPY: mean -0.05% , std 0.71% , max 1.75% . QQQ: mean $+0.02\%$, std 1.37% , max 2.67% . Both show signed mean variance within rounding error of zero across 27 matched days.

This is the expected result for the two most liquid US equity ETFs. Market makers and arbitrageurs continuously align Blue Ocean's overnight prices for SPY and QQQ with futures (ES, NQ), which trade overnight on CME. The Blue Ocean close for SPY is therefore a reliable anchor for the US open — not because participants are particularly careful about pricing, but because index arbitrage forces it. SPY's variance being roughly half of QQQ's reflects the broader, smoother composition of the S&P 500 vs the more tech-concentrated Nasdaq 100, where overnight semiconductor and mega-cap tech news creates more residual uncertainty.

On the shared y-axis, both time series are visually indistinguishable from the zero line when placed alongside SNDK, MU, or SOXS — this contrast is the most important visual takeaway from the C2 charts. SPY's distribution is the tightest in C2: an extremely narrow spike centred on zero, with essentially no bars beyond $\pm 1.5\%$. QQQ is slightly wider (a few bars out to $\pm 2.5\%$) but still in the same order of magnitude. The single notable exception in SPY's time series is one spike down to approximately -1.5% around 2026-07-30, visible as a brief orange excursion — the only day in the lookback where futures-driven arbitrage failed to fully close the gap before the US open.

8. A late-July regime shift is visible across multiple names — variance compressed sharply around 2026-07-28

Examining the time series charts for C2 side-by-side reveals a cross-name pattern: **MU, SNDK, AMD, QQQ, and NVDA** all show markedly elevated variance volatility in the July 1–22 window, followed by a visible compression from roughly July 28 onward. MU's series goes from swings of $\pm 8\text{--}10\%$ in early July to values consistently within $\pm 2\%$ from late July through mid-August. SNDK shows a similar contraction. AMD, which had several $\pm 5\text{--}8\%$ days in July, also flattens noticeably.

This simultaneous compression across unrelated names strongly suggests a macro or market-structure driver rather than company-specific news. The most likely candidates are: (a) the July 22–29 window encompassing the FOMC meeting, which often compresses cross-asset volatility as positioning is squared; or (b) a liquidity provider change at Blue Ocean or in the overnight market-making ecosystem. The effect is also visible in the C1 shares universe: MSTU and ONDS both show their largest variance readings concentrated in early July, with a calmer second half.

For risk management purposes, the early-July period was the higher-risk environment for overnight reference pricing. The late-July compression is a better model of typical Blue Ocean behaviour in calmer macro regimes. If this pattern repeats, variance in the July 1–22 style windows should inform larger pre-open price uncertainty bands than variance in the July 28+ window.

9. MSFT shows a downward-skewed distribution — one of the few names where Blue Ocean systematically overprices the open

MSFT has a mean variance of -0.51% and a distinctly left-skewed distribution in C2: the histogram has clear mass between -5% and -1% , with the mean line well below zero and the bulk of positive days clustered tightly near zero. Only a handful of days show positive variance above $+1\%$. The time series confirms this: the majority of orange-fill days (US opened below BO close) are clustered throughout, with one pronounced dip to approximately -6% around 2026-07-22.

This is the opposite of SPCX's pattern. Where SPCX overnight sellers are accepting a discount to the US open, MSFT overnight buyers are paying a premium — Blue Ocean prices MSFT higher overnight than the US open confirms. A potential explanation: MSFT is sensitive to macro sentiment (risk-off flows during overnight sessions elevate its price) but less sensitive to the specific Asia-hours information that the US open recalibrates. For a participant trading MSFT overnight, buying at the Blue Ocean close and selling at the US open has, on average, been a losing strategy over this period.

Implications

Overnight Execution

- **MU and SNDK** are the most economically significant overnight names, but their variance (std $\sim 6\text{--}9\%$) means execution in Blue Ocean carries substantial reference price risk relative to the US open. Participants who can wait for the US open face lower implementation shortfall on average. The time series shows this risk was especially concentrated in the July 1–22 window; the late-July compression period is a more representative baseline for calmer macro environments.
- **SPCX** shows a consistent overnight discount to the US open ($+0.73\%$ mean, 67% positive days), but the time series reveals this bias was driven almost entirely by the July 1–19 period. Since mid-July the series has been more balanced. A buyer should monitor whether the positive bias re-establishes or continues to fade.
- **BITO and SPY** are the most safely priced overnight instruments in their respective universes — their distributions are narrow spikes on zero, confirming Blue Ocean close is a reliable pre-open reference.
- **MSFT** is the one name where overnight buyers are systematically overpaying relative to the US open (mean -0.51% , left-skewed distribution). Overnight execution in MSFT favours sellers over buyers.

Hedging

- **SOXS at 3.90% BO/US ratio** confirms that the semiconductor sector bear ETF is the primary overnight hedging vehicle for semiconductor risk. The near-zero mean variance (-0.02%) means the hedge is, on average, fairly priced at the US open.
- The isolated $+25\%$ variance spike in SOXS around 2026-08-01 is the key tail-risk event in C1: on that day the hedge dramatically underestimated the next session's move. Participants should size SOXS overnight hedges with explicit tail scenarios, not just std-based bands.

Market-Structure Monitoring

- The late-July variance compression visible across MU, SNDK, AMD, QQQ, and NVDA (Insight 8) is a candidate for systematic monitoring. If cross-name variance compression recurs on a predictable calendar schedule (FOMC windows, options expiry), it represents a regime that systematically reduces overnight reference price risk — tradeable information for execution timing.
- The semiconductor sector's dominance of Blue Ocean — both in share count (SOXS) and notional (MU, SNDK, NVDA) — suggests Blue Ocean ATS is functioning as an Asia-hours semiconductor risk transfer venue.
- The universe-level mean variance being close to zero for most names (9 out of 10 in the notional universe have signed mean between -0.51% and $+0.74\%$) supports the hypothesis that Blue Ocean prices are

broadly unbiased predictors of the US open on average. The distributions confirm this: for most names, the bulk of the histogram mass sits within $\pm 2\%$ of zero. SNDK and MU are the clear exceptions, with fat tails in both directions.

- EOSER's presence in the shares universe is a data quality flag — the screen as configured does not filter rights offerings, warrants, or similar non-standard instruments. A `SEC_TYPE = 'Equity'` filter (applied in `fetch_equity_universe` in the earnings notebook but not currently in the Blue Ocean notebook) would cleanly remove these.