

Everyone has a photographic memory, some just don't have film. ~~Steven Wright



Good Wednesday morning,

Futures are essentially flat after yesterday's Nasdaq record. In the latest Reuters snapshot, **S&P 500 futures are +0.10% and Nasdaq-100 futures +0.03%.** European stocks are modestly higher, while Asian technology shares benefited from continued AI enthusiasm. **Oil is providing some relief.** Brent is around **\$98.83**, down about 0.4%, extending the recent retreat as traders assess improving Middle East supply prospects and possible U.S.-Iran diplomacy. Lower oil is helping ease some inflation pressure, although markets remain cautious because previous de-escalation hopes have reversed quickly. **Treasury yields remain the key constraint on equities.** The 10-year yield is holding below the psychologically important **5% level.** Fed officials Tom Barkin and Susan Collins both backed last week's rate increase, reinforcing expectations that the Fed could tighten again if inflation remains stubborn. **The dollar is at a two-month high.** DXY is up about **0.24% to 100.79**; EUR/USD has fallen to roughly **\$1.142**, while USD/JPY is near **157.8**. The primary driver is the market's repricing of additional Fed hikes. The setup is **constructive but increasingly dependent on rates.** Falling oil is helping equities, AI remains a powerful momentum trade, and U.S.-China expectations are providing some support. But a 10-year Treasury yield threatening **5%** alongside a stronger dollar creates a meaningful valuation headwind.

So my hierarchy for today is: **Treasury yields/Fed → AI & semiconductors → oil/Iran → Trump-Xi → dollar → market breadth.** The most important cross-asset tell this morning may be **10Y yields versus Nasdaq.** If yields stay below 5% while oil continues lower, the AI/tech rally has room to breathe; a renewed push through 5% would materially change the intraday setup.

Raise your hand if it's getting harder and harder to tumble out of bed and stumble into the kitchen..

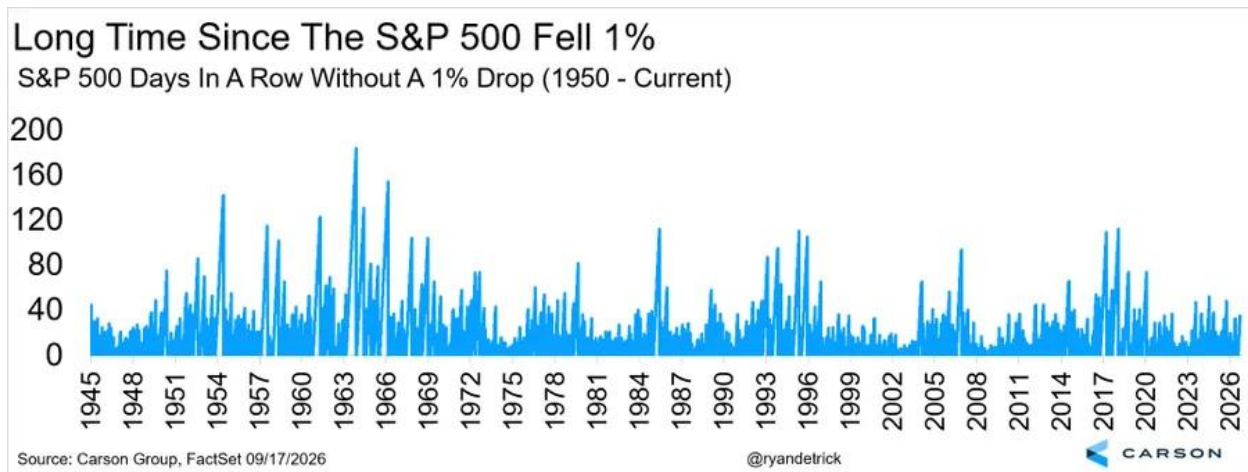


Headlines for Wednesday morning, 23-Sep-26:

- Oil retreats as Middle East supply fears ease.
 - Brent briefly fell below **\$98/barrel** before recovering toward \$100.
 - Reports of possible U.S.-Iran negotiations, along with Saudi Arabia restarting its East-West Pipeline, reduced some of the geopolitical risk premium embedded in crude.
- On a year-over-year basis, diesel now costs about 76% more than a year ago.
 - President Trump calls to ban US diesel exports.
 - US is the world's largest diesel exporter.

- **Treasury yields remain a headwind.**
 - The 10-year Treasury yield remained around **4.9%**, close to levels that have recently pressured equity valuations.
 - Fed officials continue to emphasize inflation risks, leaving traders focused on the possibility of additional monetary tightening.
- U.S.–China summit is the next major event risk.
 - President Trump and China's Xi Jinping are expected to meet Thursday, with trade, AI regulation and geopolitical issues likely to be prominent.
 - Markets are particularly focused on whether the existing trade truce can be extended.
- Gold holds steady as higher-for-longer rate outlook pressures sentiment - Reuters

The S&P 500 hasn't had a single 1% down day in nearly 2 months.



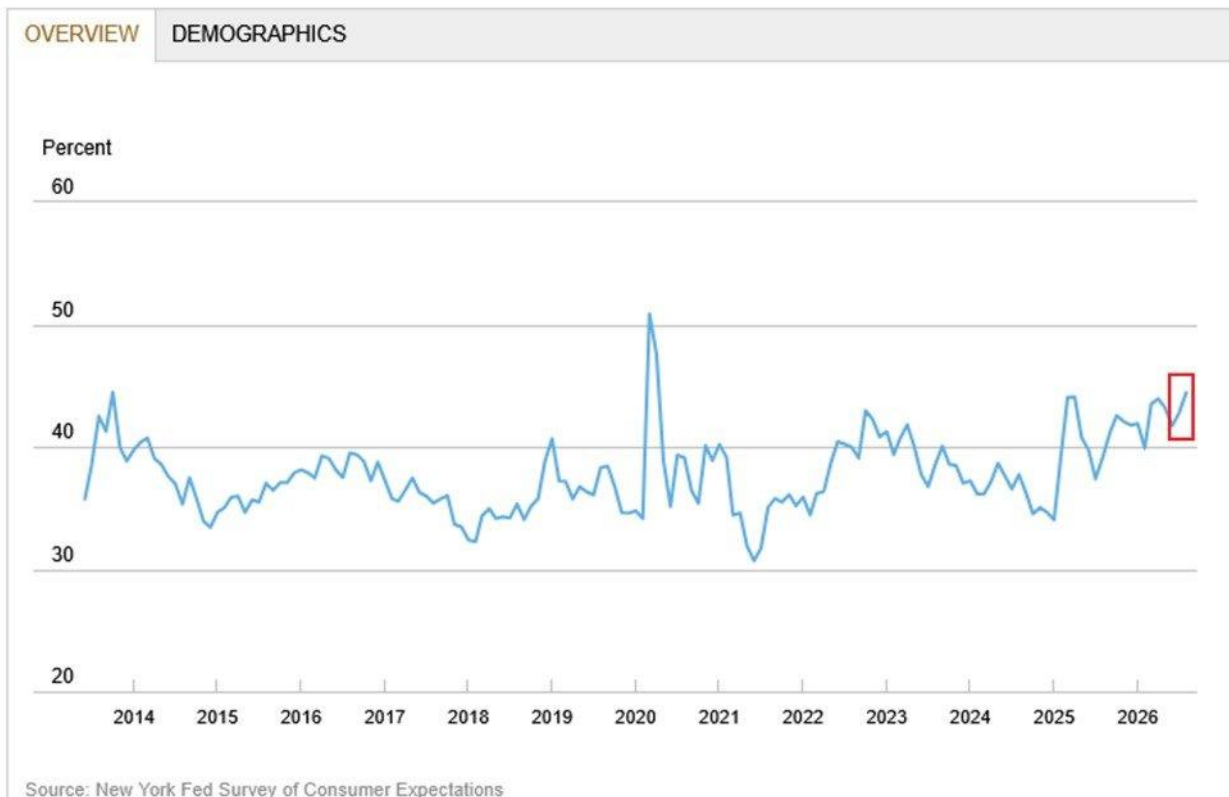
Americans are increasingly worried about their jobs.

- The perceived probability among US consumers that the unemployment rate will be higher in 1-year increased +1.6 percentage points in August, to 44.4%, its highest since April 2020.
- Excluding the 2020 pandemic, this marks the highest reading since the New York Fed Survey of Consumer Expectations began in 2013.
- By comparison, this indicator peaked at 44.1% in April 2025, following uncertainty around tariffs.

- By income, the perceived probability of a rise in unemployment was the highest among those earning over \$100,000, at 50.3%, the 2nd-highest reading on record.
- By comparison, expectations stood at 43.5% among those earning \$50,000-\$100,000, the 2nd-highest reading since March 2025, and 38.0% among those earning under \$50,000, the highest since May.
- Fear of unemployment is rising.

Expectations of higher unemployment

Mean probability that U.S. unemployment rate will be higher one year from now



The S&P Banking Index is at Pre-GFC Highs Again



Crude Oil going for 7 consecutive red days, which would be its longest losing streak since August 2021

Crude Oil WTI Nov '26 (CLX26)

89.85 -0.67 (-0.74%) 19:26 CT [NYMEX]

89.85 x 1 89.87 x 8

CHART for Wed, Sep 23rd, 2026

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U.S. Dollar Index \$DXY hits highest level since July

U.S. Dollar Index (\$DXY)

100.60 +0.18 (+0.18%) 09/22/26 [ICE/US]

CHART for Tue, Sep 22nd, 2026

Notes My Charts Alerts Watch Actions Help



One of the rare ways to be confident and honest in 2026



Cryptocurrency

- \$1,000 invested at every major "Bitcoin is dead" call would be worth:
 - • 2011, Forbes: \$4,922,700
 - • 2014, Warren Buffett: \$127,400
 - • 2017, Jamie Dimon: \$20,700
 - • 2018, Warren Buffett: \$8,800
 - • 2019, Donald Trump: \$7,300
 - • 2022, European Central Bank: \$5,000
 - • 2023, Charlie Munger: \$3,550

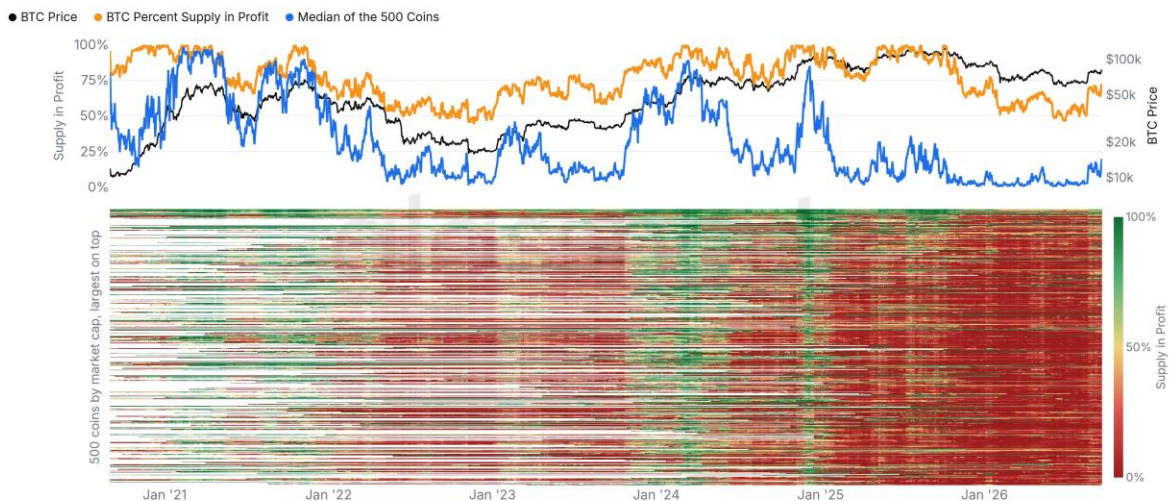
- • 2024, European Central Bank: \$1,700
- Canada's six biggest banks launch joint tokenized deposits project to enable 24/7 blockchain-based payments.
 - • Bank of Montreal
 - • Royal Bank of Canada
 - • Toronto-Dominion Bank
 - • The Bank of Nova Scotia
 - • National Bank of Canada
 - • Canadian Imperial Bank of Commerce

Most altcoin holders are still sitting on losses.

- The median coin has less than a quarter of its supply in profit.
- Global market tops tend to occur once a majority of supply across the entire market is deep in profit.
- That point is still a long way off.

Altcoin Investors Are Still in the Red

Supply in Profit Across the Top 500 Coins, Ranked by Market Cap



PQLN: Post-Quantum Security for the Bitcoin Lightning Network's Off-Chain Surfaces

Ahmet Kurt , Abdul-Salem Beibitkhan , Yacoub Hanna , and Abdullah Aydeger 



Abstract—A cryptographically relevant quantum computer will break the elliptic-curve cryptography behind Bitcoin and its Lightning Network, the most widely used payment channel network. Even a post-quantum consensus upgrade of Bitcoin would not cover Lightning's off-chain surfaces, so its gossip, peer transport, invoices, payment onions, and offers need separate protection. An adversary can already record Lightning's encrypted traffic today and decrypt it once such a computer exists. Lightning can therefore move to post-quantum cryptography now, without waiting for Bitcoin, and stop such harvest-now-decrypt-later attacks along with node impersonation, invoice forgery, and payment deanonymization. In this paper, we propose PQLN, a hybrid post-quantum extension of Lightning that protects all of these surfaces with the lattice-based standards ML-DSA and ML-KEM. PQLN distributes post-quantum node identities through Lightning's gossip, hybridizes the transport handshake, adds post-quantum signatures to invoices, commits post-quantum keys in offers, and makes payment onions hybrid. Since post-quantum material is much larger than its elliptic-curve counterpart, we introduce techniques that fit it into Lightning's existing message formats and size limits. We analyze the security of PQLN against a quantum adversary and implement it in rust-lightning, a major Lightning implementation. Our evaluation with real Lightning nodes shows that PQLN nodes interoperate with unmodified nodes. The added cryptographic operations take at most 0.33 milliseconds, and the main cost is communication, since gossip data grows about tenfold with ML-DSA and about fourfold with the smaller Falcon. To our knowledge, PQLN is the first post-quantum design, implementation, and evaluation for Lightning.

Index Terms—Lightning Network, Bitcoin, post-quantum cryptography, ML-DSA, ML-KEM, payment channel networks.

I. INTRODUCTION

PUBLIC-KEY cryptography in use today rests on the hardness of integer factorization and discrete logarithms, and Shor's algorithm solves both problems in polynomial time on a sufficiently large quantum computer [1]. Recent advances have narrowed the gap between theory and practice, since Google's Willow processor demonstrated a logical qubit whose error rate decreases as more physical qubits are added [2], while estimates of the resources required to break 256-bit elliptic-curve keys continue to fall [3], [4]. Moreover, adversaries can record encrypted traffic today and decrypt it

once a cryptographically relevant quantum computer exists, a strategy known as *harvest-now-decrypt-later* [5], [6]. In response, the National Institute of Standards and Technology (NIST) published its first post-quantum (PQ) cryptography standards in August 2024, including the Module-Lattice-Based Key-Encapsulation Mechanism (ML-KEM) and the Module-Lattice-Based Digital Signature Algorithm (ML-DSA) [7], [8]. NIST also plans to disallow elliptic-curve signatures and key exchange after 2035 [6].

These concerns are especially pressing for cryptocurrencies since they rely on elliptic-curve cryptography to protect high-value digital assets. Bitcoin [9] is the most consequential case because it accounts for more than half of the market capitalization of all cryptocurrencies.¹ Bitcoin authorizes transactions with secp256k1 signatures, and a quantum adversary that observes a public key could use Shor's algorithm to recover the corresponding private key [10]. Indeed, around 6.9 million BTC, more than a third of the circulating supply, reside in outputs with exposed public keys [3]. However, addressing this vulnerability at the Bitcoin base layer is difficult because replacing the underlying cryptography requires a consensus upgrade, and the current PQ proposals remain at an early stage [11].

The Lightning Network (LN) [12] is a second-layer protocol that turns Bitcoin into an instant payment system by moving payments into off-chain channels. At the time of writing, LN is the most widely used payment channel network with around 16,000 nodes and 33,000 public channels holding roughly 3750 BTC.² LN also entered mainstream use when Coinbase enabled Lightning transfers in 2024.³ However, LN's own protocol stack is as quantum-exposed as the base layer. Nodes authenticate gossip with the Elliptic Curve Digital Signature Algorithm (ECDSA), derive the keys of every peer connection from Elliptic Curve Diffie-Hellman (ECDH), sign payment requests with ECDSA and Schnorr signatures, and build payment onions from one ECDH secret per hop. All of these operations rest on the hardness of the elliptic-curve discrete logarithm problem, which Shor's algorithm solves. A quantum adversary can therefore impersonate nodes, decrypt recorded transport sessions, forge payment requests, and deanonymize payments. Despite this exposure, LN has no PQ defense to date, and the only prior examination is a forum analysis that stops short of a design [13].

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¹<https://coinmarketcap.com/charts/bitcoin-dominance/>

²<https://mempool.space/lightning>

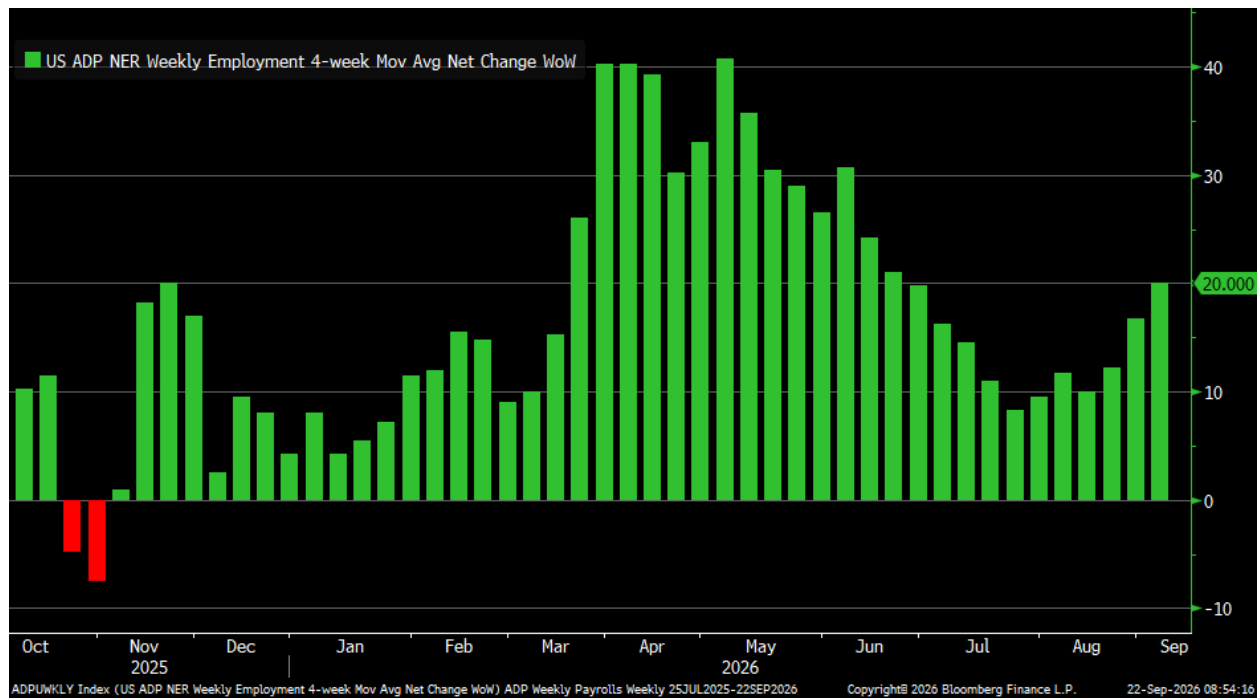
³<https://www.coinbase.com/blog/coinbase-integrates-bitcoins-lightning-network-in-partnership-with>

Going to need another espresso shot to process this...



NER Pulse -Kevin Gordon

- ADP weekly payrolls bounced back again.
- 4w average at +20k in the most recent week, which is the strongest since mid-June.

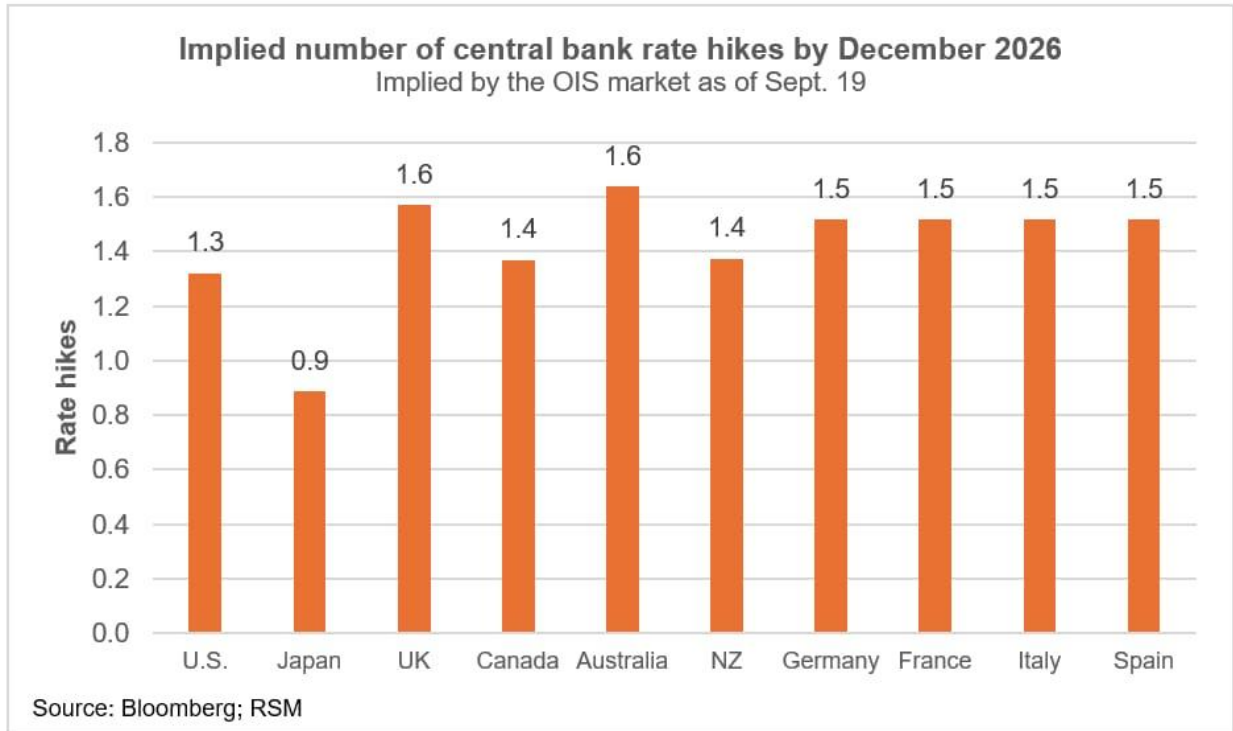


Some teachers are still getting settled back in for the new school year...



Overnight index swaps -Joseph B of RSM

- After the inflation shocks of the Iran war, the OIS markets now expect central banks to hike their policy rates at least one time by the end of the year



VIP Pricing

	LAST	CHANGE	% CHG		LAST	CHANGE	% CHG
.DJI	51,863.69 USD	-185.14	-0.36%	SLV	58.87 USD	-1.86	-3.06%
.IXIC	27,244.278 USD	+122.184	+0.45%	PSLV	21.23 USD	-0.67	-3.06%
.SPX	7,764.64 USD	-0.06	0.00%	AG	19.58 USD	-0.74	-3.64%
@SP.1	7,826.00 USD	-5.75	-0.07%	SPCX	153.60 USD	-1.12	-0.72%
.VIX	14.31 USD	+0.10	+0.70%	LOFD	6.20 USD	+0.12	+1.97%
@CL.1	90.68 USD	+0.16	+0.18%	LOFF	17.61 USD	-0.25	-1.40%
@GC.1	4,345.20 USD	-31.20	-0.71%	SKHY	190.11 USD	-5.26	-2.69%
@SI.1	65.57 USD	-0.96	-1.44%	MU	1,084.93 USD	-11.23	-1.02%
@TY.1	105.9219 USD	-0.0781	-0.07%	SNDK	1,860.80 USD	-26.24	-1.39%
US10Y	4.98%	+0.013	+0.2617%	BITO	11.48 USD	-0.10	-0.86%
US30YFRM	7.17 USD	-0.02	-0.28%	AA	44.21 USD	-0.50	-1.12%
BTC.CM=	85,456.60 USD	-910.21	-1.05%	UNH	372.83 USD	-0.12	-0.03%
ETC.BF=	9.33 USD	+0.09	+1.01%	AI	10.87 USD	+0.02	+0.18%
CAD=	1.409	+0.0029	+0.21%	LLY	1,170.14 USD	UNCH	UNCH
EUR=	1.1411	-0.0036	-0.3145%	RH	131.25 USD	+0.61	+0.47%
GBP=	1.3275	-0.0064	-0.4798%	COIN	197.00 USD	-4.07	-2.02%
JPY=	157.90	+0.53	+0.34%	CRK	13.64 USD	+0.32	+2.42%
AAPL	340.91 USD	+1.16	+0.34%	CVX	203.59 USD	+1.18	+0.58%
AMZN	255.10 USD	+0.12	+0.05%	GLW	158.55 USD	-1.14	-0.71%
BRK.B	505.00 USD	+1.51	+0.30%	SBUX	95.50 USD	+0.39	+0.41%
DEFT	0.58 USD	+0.0026	+0.4495%	MNTN	11.21 USD	-0.15	-1.32%
TSLA	378.10 USD	-0.80	-0.21%	HIMS	30.44 USD	+0.01	+0.03%
META	734.60 USD	-2.00	-0.27%	RIOT	24.50 USD	-0.43	-1.72%
MSFT	502.85 USD	+4.85	+0.97%	DEFI			
GOOGL	350.94 USD	-0.22	-0.06%	XRPI	8.66 USD	+0.05	+0.57%
NVDA	227.60 USD	-1.27	-0.55%	ASTS	62.92 USD	-0.77	-1.21%
QQQ	745.56 USD	-1.90	-0.25%	BRZE	25.42 USD	-0.10	-0.41%
NFLX	72.42 USD	+0.26	+0.36%	DJT	9.33 USD	-0.05	-0.53%
UVXY	16.70 USD	+0.07	+0.42%	GME	23.82 USD	-0.21	-0.87%
XOM	159.85 USD	+1.14	+0.72%	BA	198.05 USD	+0.33	+0.17%

Coin			Price	1h	24h	7d	24h Volume	Market Cap	Last 7 Days						
 Bitcoin BTC	Buy		\$85,501.78	▼ 0.3%	▼ 0.3%	▲ 12.8%	\$40,940,048,519	\$1,717,185,591,599							
 Ethereum ETH	Buy		\$2,722.76	▼ 0.2%	▼ 0.5%	▲ 13.5%	\$16,457,365,919	\$332,249,522,779							
 Tether USDT			\$0.9997	▲ 0.0%	▲ 0.0%	▲ 0.0%	\$78,475,682,171	\$183,418,656,496							
 BNB BNB	Buy		\$778.20	▼ 0.3%	▼ 0.5%	▲ 10.1%	\$1,160,279,313	\$103,557,865,564							
 XRP XRP	Buy		\$1.56	▼ 1.2%	▲ 2.7%	▲ 22.1%	\$7,345,236,787	\$98,279,228,572							
 USDC USDC			\$0.9998	▲ 0.0%	▲ 0.0%	▲ 0.0%	\$21,005,277,020	\$75,086,929,103							
 Solana SOL	Buy		\$116.83	▼ 0.3%	▲ 0.2%	▲ 20.5%	\$4,480,325,620	\$68,570,862,000							
 TRON TRX	Buy		\$0.3426	▼ 0.1%	▼ 1.1%	▲ 2.4%	\$507,823,275	\$32,518,882,906							
 Zcash ZEC	Buy		\$1,616.06	▼ 1.8%	▲ 7.4%	▲ 32.9%	\$2,214,893,910	\$27,365,446,502							
 Figure Heloc FIGR_HELOC	Buy		\$1.03	▲ 0.0%	▲ 1.8%	▲ 2.8%	\$188,637,722	\$23,679,062,804							
Symbol	Price~	Exp Date	Type	Strike	Moneyness	Bid	Latest	Ask	Volume	Open Int	Vol/OI~	Imp Vol	IV	Delta	Last Trade
BB	8.62	12/15/28 (815)	Call	15.00	-74.01%	2.50	2.67	2.79	19,999	117	170.93	82.86%	76.69%	0.5681	09/22/26
LUV	42.08	09/25/26 (3)	Call	44.00	-4.56%	0.13	0.16	0.17	27,140	161	168.57	41.64%	48.04%	0.1588	09/22/26
EXE	87.03	11/20/26 (59)	Put	80.00	-8.08%	1.50	1.60	1.75	19,583	195	100.43	31.39%	32.12%	-0.2322	09/22/26
PSKY	10.11	11/20/26 (59)	Call	11.00	-8.80%	0.65	0.68	0.73	13,942	156	89.37	61.64%	63.33%	0.4222	09/22/26
HD	305.35	09/25/26 (3)	Call	317.50	-3.98%	0.23	0.27	0.35	10,068	114	88.32	26.80%	30.03%	0.0781	09/22/26
MU	1,096.16	09/23/26 (1)	Call	1,085.00	+1.02%	18.45	19.25	19.65	14,053	175	80.30	64.91%	55.45%	0.6445	09/22/26
PSKY	10.11	10/16/26 (24)	Call	10.50	-3.86%	0.43	0.44	0.54	11,210	143	78.39	61.64%	62.49%	0.4401	09/22/26
MU	1,096.16	09/23/26 (1)	Put	1,050.00	-4.21%	1.39	1.42	1.44	12,428	173	71.84	64.91%	61.16%	-0.0865	09/22/26
TSLA	378.90	09/23/26 (1)	Put	377.50	-0.37%	2.64	2.65	2.67	57,032	849	67.18	41.56%	42.08%	-0.4274	09/22/26
MU	1,096.16	09/23/26 (1)	Put	1,060.00	-3.30%	2.37	2.44	2.49	11,268	171	65.89	64.91%	59.77%	-0.1377	09/22/26
DAL	83.92	09/25/26 (3)	Call	87.00	-3.67%	0.30	0.43	0.48	10,049	157	64.01	46.78%	46.22%	0.2020	09/22/26
NRG	102.75	11/20/26 (59)	Call	120.00	-16.79%	3.00	3.22	3.30	10,224	162	63.11	49.49%	52.08%	0.2661	09/22/26
WFC	83.15	10/16/26 (24)	Call	89.00	-7.04%	0.77	0.78	0.88	11,244	180	62.47	31.50%	32.05%	0.2190	09/22/26
POR	47.37	10/16/26 (24)	Call	50.00	-5.55%	0.05	0.15	0.15	7,860	128	61.41	23.23%	16.71%	0.1049	09/22/26
PDSB	0.9100	05/21/27 (241)	Call	0.5000	+45.05%	0.5000	0.6000	0.9000	13,707	241	56.88	207.01%	242.87%	0.9038	09/22/26
MSTR	167.33	10/02/26 (10)	Put	162.50	-2.89%	5.30	5.30	5.50	6,417	113	56.79	71.67%	70.15%	-0.3754	09/22/26
NVDA	228.87	09/23/26 (1)	Put	230.00	+0.49%	2.11	2.13	2.16	26,185	491	53.33	33.20%	31.61%	-0.6124	09/22/26
AMD	623.77	09/23/26 (1)	Put	620.00	-0.60%	5.00	5.00	5.25	7,669	145	52.89	55.04%	52.90%	-0.4068	09/22/26
MTCH	41.71	10/16/26 (24)	Put	40.00	-4.10%	0.70	0.70	0.75	5,469	106	51.59	34.35%	34.36%	-0.2976	09/22/26
MU	1,096.16	09/23/26 (1)	Call	1,090.00	+0.56%	15.50	16.25	16.80	19,171	383	50.05	64.91%	55.97%	0.5833	09/22/26
TSLA	378.90	09/23/26 (1)	Put	380.00	+0.29%	3.90	4.00	4.00	32,260	648	49.78	41.56%	42.79%	-0.5457	09/22/26
AAPL	339.75	09/23/26 (1)	Put	345.00	+1.55%	4.55	5.50	6.40	7,092	147	48.24	23.93%	24.42%	-0.8838	09/22/26

Cheers,

-NOD-

Nathaniel Orr-Depner

<https://www.stickytrades.com/nodlive/>