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## PERSPECTIVES by Glenn Gottlieb

Company Name	Ticker Symbol	Price		Enterprise Value (\$M)	Valuation Multiples		Exp. Rev Growth Rate 2022 - 2023E	Price Change				
		Current Price	% Within 52 Week Range		EV / LTM Revenue	EV / 2023E Revenue		1 Week	1 Month	Jan 2, 2023	Since Coinbase Direct Listing	Since Inception
<b>Architect Crypto Public Company Index (c)</b>												
Price		\$35.40						\$31.52	\$23.43	\$11.78	\$100.00	
% Change								12.3%	51.1%	200.5%	-64.6%	
<b>Traditional Indices</b>												
S&P 500		\$4,604						0%	5%	20%		
NASDAQ		14,404						1%	6%	39%		
Dow Jones		36,248						0%	6%	9%		
<b>Marquee Crypto Assets</b>												
Bitcoin	BTC	\$44,593.60	124%	\$873,504	--	--	--	15%	25%	169%	-29%	--
Ethereum	ETH	2,372.70	121%	285,455	--	--	--	14%	25%	45%	-3%	--
DeFi Index (a)	DPI	89.62	55%	53	--	--	--	-1%	11%	55%	-82%	--
<b>Crypto Investment Platforms</b>												
Coinbase	COIN	\$146.62	99%	\$32,577	11.7	11.4	10%	10%	66%	336%	-55%	-55%
Galaxy Digital (b)	GLXY	7.11	56%	2,483	10.1	7.5	7%	7%	27%	143%	-80%	667%
Bakkt	BKKT	1.77	51%	441	1.3	0.1	6807%	-6%	177%	53%	-87%	-82%
Coinshares (b)	CNSRF	3.64	61%	262	4.3	2.6	-6%	-6%	-21%	1%	-69%	-65%
Bitcoin Depot	BTM	2.94	61%	182	0.3	0.2	32%	32%	14%	--	--	-21%
<b>Bitcoin Network Operators</b>												
Marathon	MARA	\$16.78	82%	\$4,123	35.2	10.9	222%	22%	96%	394%	-61%	-68%
Riot	RIOT	15.83	72%	3,010	11.9	9.2	27%	15%	54%	370%	-68%	486%
Core Scientific	CORZQ	0.70	56%	1,220	0.3	0.5	10%	75%	9%	900%	--%	-93%
Cipher Mining	CIFR	2.91	51%	723	92.7	5.5	1579%	-1%	-18%	355%	-72%	-71%
Northern Data	NB2	30.68	86%	845	--	3.0	-45%	17%	6%	442%	-74%	65%
Bitfarms	BITF	2.59	99%	1,105	21.0	--	-12%	56%	131%	502%	-40%	177%
Bitdeer	BTDR	6.23	29%	551	1.7	--	--	25%	-16%	-27%	--%	-27%
TeraWulf	WULF	1.83	37%	518	11.6	--	--	34%	89%	158%	-81%	-82%
Hut 8	HUT	10.25	34%	711	4.7	4.7	-45%	352%	356%	1150%	56%	294%
Hive	HIVE	4.20	52%	346	2.5	2.5	-25%	21%	31%	175%	-76%	200%
Canaan	CAN	1.42	0%	167	--	3.0	-49%	-11%	-18%	-27%	-90%	-84%
Argo	ARBK	1.86	53%	166	1.8	2.4	29%	50%	68%	60%	--%	18%
<b>Crypto Influenced</b>												
PayPal	PYPL	\$58.94	23%	\$64,146	2.3	2.2	8%	-1%	7%	-21%	-78%	
Block	SQ	69.17	59%	41,528	2.4	2.1	14%	6%	32%	7%	-73%	438%
Microstrategy	MSTR	599.39	100%	10,330	20.7	20.3	2%	14%	26%	313%	-19%	474%
Robinhood	HOOD	11.73	73%	4,428	3.3	2.4	38%	26%	40%	45%	--%	-69%

(a) DeFi Pulse Index (includes top 14 DeFi tokens)  
 (b) Due to disproportionate cash balances, we are displaying market cap as a substitute for enterprise value  
 (c) Architect Crypto Public Company Index is a price weighted average across the three sector subsectors in the crypto public companies snapshot. A discount to Microstrategy's share price of 85% has been added to dilute effect on index. There is a 45% weight to Crypto Investment Platforms, 45% to Bitcoin Network Operators, and 10% to Crypto Influenced groups.

### News on Macro Economic Data

The headline number in today's employment report seemed to reinforce strength in the US economy. The report showed the addition of 199,000 non-farm jobs. However, upon further inspection, the numbers point to a fundamental weakness. 25% of the gains came from the ending of the UAW and SAG strikes, 38% was health care, 25% was government, and 8% came from social services. Including education, approximately 35%+ of job gains represent "non-GDP growth jobs" requiring sustained growth in government spending at a time when government spending needs to decline. Additionally, consumer surveys suggest that 31% are working overtime or have taken a second job.

These numbers suggest very little growth in GDP-focused industries, and in fact, show job losses in key industries. Adding to this, JP Morgan released a bearish report for 2024 in which they suggest that, aside from the top 1%, all other segments will fall below the level of liquid assets they had, adjusted for inflation, in March of 2020. And they expect a 23% fall in the S&P by mid-2024.

The seemingly dim picture of the macro environment should please the Fed, and perhaps point to possible rate declines sometime in 2024.

### Crypto Public Company Activity

"Not your keys, not your coins" has been a refrain from the beginning of the crypto industry. Self-custody, holding your own keys and storing your crypto in your own hardware device that is offline, provides complete security that crypto assets cannot be stolen electronically or lost due to exchange risk. However, there have been numerous examples of users losing either their private key or access to the storage device resulting in complete loss of funds. As of a September report from Chainalysis, about 25% of bitcoins are believed to be lost forever due to lost private keys, with about 70% of that representing early investors.

Due to those experiences and the added convenience, a migration to custodial wallets/centralized custody has been popular and provided by exchanges. However, if the exchange ceases to operate, or is hacked, customers lose access to their funds, as customers of FTX and others discovered.

Despite the fact that users would have greater control, pay less in fees, have a higher level of security, and more privacy, they remain wary of self-custody. This could be mitigated with a better user experience and a greater ability to recover assets if keys and/or devices are lost.

Enter Block's recent announcement of Bitkey Bitcoin Wallet, the main elements of which are a mobile app, hardware device, and recovery tools. The app and hardware device serve as two of the necessary three keys to access the wallet, and the third key is stored with Bitkey. The key stored with Bitkey is also used to recover the wallet if the phone and/or hardware device are lost or stolen.

There are many benefits to Block's Bitkey wallet, but it seems the most important is ensuring that the benefits of self-custody are provided in a user-friendly manner with a reliable recovery path.

Bitkey is expected to ship in early 2024.