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Bloomberg Intelligence: Crypto Outlook

Crypto Rise, Fossil-Fuel Demise

- Bitcoin, Cryptos Extending Upper Hand vs. Most Assets, the Fed
- Crude Oil \$100 or Bitcoin \$100,000: The Digital Edge vs. Analog
- Cheap Ethereum May Be Changing Game for Crypto; \$6,100 in Sight
- Solana, Terra, Avalanche Lead With Trend Signals Proliferating
- Crypto Platforms Face Souped Up SEC Scrutiny, Policy Risks in 2H



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Most data and outlook as of April 4, 2022

Mike McGlone - BI Senior Commodity Strategist Contributing Analysts: **Jamie Douglas Coutts** (BI Senior Market Structure Analyst)

Nathan R Dean (Government)

Bitcoin, Cryptos Extending Upper Hand vs. Most Assets, the Fed

Performance: Bloomberg Galaxy Cypto Index (BGCI) March +14%, 2022 to April 4: -5% Bloomberg Galaxy DeFi Index (DeFi) March +20%, 2022 to April 4: -23% Bitcoin March +10%, 2022 to April 4: 0% Ethereum March +17%, 2022 to April 4: -5%

(Bloomberg Intelligence) -- The demise of fossil fuels vs. the rise of digital assets may be unstoppable trends. We see Russia's invasion of Ukraine marking another milestone for the merits of cryptos vs. oil and gas from mercurial sources. Trends gaining endurance are Bitcoin and Ethereum joining portfolios and the proliferation of crypto dollars. Despite the Federal Reserve's need to reduce the wealth effect, the top two cryptos still outperform most assets, notably on a riskadjusted basis. The war is enhancing Bitcoin's value as a global digital-reserve asset, while Ethereum evolves into the collateral of the internet.

Discounted cash flow (DCF) analysis shows Ethereum may be undervalued as it approaches an upgrade. Trend signals are positive for layer 1 chains Solana, Terra and Avalanche, but are subject to a receding tide.

Cryptos vs. Macro Headwinds

Bitcoin, Cryptos Are Beating an Ebbing Tide, But Risks

Elevated. Risk assets were ground down some in 1Q, and cryptos are among the most exposed. The war and disruptions in markets like nickel are adding to the narrative that Bitcoin is the most fluid, 24/7 global trading vehicle in history and well on its way to becoming digital collateral.

Cryptos vs. Equities: Outperformance, Declining

Volatility. The potential of the new technology/asset class may be seen in the nearly 800% gain for the Bloomberg Galaxy Crypto Index (BGCI) since the end of 2019 (to April 4) vs. almost 70% for the Nasdaq 100 Stock Index. Outsized performance typically comes with volatility, and our graphic shows the BGCI has twice corrected about 50% from 2021 peaks. What's notable is the crypto index's 90-day volatility has declined to about 2x that of the stock gauge. Down about a half as much as the roughly 8% decline in the Nasdaq 100 (despite 2x the risk) indicates divergent strength for the crypto index.

BI COMD (the commodity dashboard) Note - Click on graphics to get to the Bloomberg terminal

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What Stops Cryptos Outperforming Equities?



Since the BGCI launched in August 2017, 90-day volatility has averaged about 4.4x that of the Nasdaq 100. Cryptos remain a small portion of portfolio allocations, and we sense responsive buyers on dips vs. equity sellers on rallies.

Inflection? Recovering Bitcoin vs. Weak Equities. Bitcoin has shown divergent strength in 2022 and may be on its way to breaching key resistance around its 50-week moving average. Sustaining above \$46,300 for the year, but with the Nasdaq 100 Stock Index still down about 8%, may mark an inflection for the benchmark crypto. Our chart of Bitcoin shows a market seemingly pulled lower by equities in 2022 but coming out ahead toward the end of 1Q. Forces toward reversion lower may be more prevalent in equities.



Bitcoin Buoyancy May Outlast the Stock Market

Every day that the Federal Reserve wakes up to rising asset prices, our take is it becomes more concerned about related inflation and inclined to do something about it. Bitcoin is poised to come out ahead of what may be an overdue mean reversion for risk assets.

Risks Tilting Toward a More Volatile 2022. Bitcoin appears poised to outperform the Nasdaq 100 in most scenarios. The 2022 dip may be done, if the history of the stock market since the inception of Bitcoin in 2009 is any indication. As the world acclimates to Covid-19, the Fed tightens and war in Ukraine extends, our take is that it's unlikely to be that easy. The graphic shows the Nasdaq 100 Stock Index bouncing from revisiting its 100-week moving average for the first time since the 2020 swoon. A shakeout more akin to the financial crisis may be overdue.

This Chart May Define 2022: Can It Be That Easy?



Bitcoin typically trades at about 3x the volatility of the Nasdaq, but it's about unchanged vs. the index's 8% slide to April 4.

Nickel Shows a Better Way Akin to Bitcoin. "It shows good chart" is the traders' mantra that represents how many traditional markets may be falling behind digital assets. Constant price discovery without distortions, limits or centralparty control are attributes of blockchain-based assets like Bitcoin, and the money is migrating to where it's treated best. Our graphic shows the distinct differences in the every day liquidity and price discovery of Bitcoin vs. the LMEtraded nickel future, which trades for fewer hours only on business days. Bitcoin's 60-day average volume from Coinmarketcap is about 4x that of \$6 billion for nickel futures.

Old-guard trading distortions in equity futures in 2020 -- and more recently nickel -- extol the value of nascent crypto technology and assets. Bitcoin is predominant and well on its way to becoming global digital collateral.

Bitcoin: `Good Chart' and Liquidity vs. Nickel



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Bitcoin Value and the War

Crude Oil \$100 or Bitcoin \$100,000: The Digital Edge vs. Analog. West Texas Intermediate crude oil has returned to \$100 a barrel, but its history and the rules of supply and demand elasticity show the price bounce may be as fleeting as in 2008 and 2014, notably vs. newcomer Bitcoin. The crypto has no supply elasticity, and unless demand and adoption trends reverse, \$100,000 appears just a matter of time.

Bitcoin Appears Too Cold vs. Hot Crude Oil. The

dichotomy of the extreme crude-oil premium vs. a relative discount for Bitcoin reached in 1Q may play out in the crypto's favor. Price-potential risks tilt toward reversion for crude-oil, which has been in a bear market since the 2008 peak, has high supply and demand elasticity, and recently stretched the most ever above its 100-week moving average. Bitcoin appears fundamentally and technically an opposite. Our graphic depicts the nascent technology and asset, with no supply elasticity and in early days of adoption, recovering from a rare discount to its 50-week mean.



Bitcoin Favored vs. Crude; Hot-Cold Analysis

If crude does what it has from other similar extremes, notably in 1990 and 2008, it may drop toward \$50 this year. Such reversion would add underpinnings to Bitcoin as it would reduce the need for greater restraint from Federal Reserve.

Is Outperformance Since the Invasion Enduring? The war

may mark another milestone in the value of Bitcoin, already up about 20% since Russia's invasion of Ukraine to April 4, which is around double the gains posted by crude oil. What's also notable from our graphic is the poor performance of the typical go-to store of value during such conflicts -- gold. We're still bullish the metal but see its performance during the war as indicating the diminishing use of the old-guard analog collateral vs. the digital upstart.

Bitcoin's Upper Hand vs. Crude Oil, Gold



The receding tide of risk assets in 2022 facing emboldened, inflation-fighting central banks is what we expect to be a primary drag on crypto prices, but Bitcoin is showing signs of coming out ahead. Despite much higher volatility, the benchmark crypto is about unchanged this year vs. a decline of about 8% for the Nasdaq 100.

Decarbonize or Digitalize: Oil Against Bitcoin. Demand and adoption trends for Bitcoin contrast greatly with those for crude oil and favor the first-born crypto. Representing advancing technology, Bitcoin is gaining traction as a benchmark global digital asset, while oil is being replaced by decarbonization and electrification. There seems to be endurance in the forces that drove the value of a single Bitcoin to just over 600 barrels of oil at the start of 2022 vs. a mere fraction in 2012. Our graphic shows the main reason why the 10-year price change in West Texas Intermediate is about the same.

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Old Guard Fossil Fuel vs. Digital Reserve Asset



North America consumed about 40% more liquid fuel more than it produced in 2012. This year, Department of Energy estimates show the opposite -- supply exceeding demand by 15%. Juxtaposed is the steady decline of Bitcoin supply, set for about 1.7% of the total this year.

Ethereum Undervalued? DCF Model

Cheap Ethereum May Be Changing Game for Crypto; \$6,100 in Sight.

Contributing Analysts Jamie Douglas Coutts, BI Senior Market Structure Analyst

Traditional investors may discover the rules of the game have changed with Ethereum, which is developing into a crossover asset with a unique blend of equity, commodity and monetary characteristics. One of our discounted cashflow models currently arrives at an Ether value of \$6,128, giving it 110% upside from current levels.

Modeling Value Creation for Ether. The upcoming Merge, shifting Ethereum from a proof-of-work model to proof-of-stake, will convert Ether into an equity-like instrument with elegant supply/demand dynamics that could drive significant interest in the asset. Stakers of Ether (owners that validate) will be entitled to a share of future revenue (fees) generated on the network, with EIP-1559 dictating a portion of the fees (about 70%) should be burnt (akin to a buyback) and the rest distributed as a reward (dividend).

Ether's Value-Creation Dynamics (Simplified)



If demand for blockspace and total fees paid increases, stakers will enjoy both higher payouts and reduced issuance, with the opposite also true. Blockchains have no direct costs (only indirect, in the form of token issuance) so revenue represents the bottom line (profit), allowing the use of traditional financial ratios such as P/E multiples. **Ethereum Cash Flows Grow 200% Annually.** Transaction fees for Ethereum, a critical gauge of network value, have grown exponentially despite higher gas fees relative to cheaper alternative Layer 1 platforms, demonstrating the premium that Ethereum blockspace commands in the crypto economy. Transaction-fee cash flow has grown 212% annually on a trend basis since inception with a sharp acceleration in activity on the platform in the past two years.

Ethereum Transaction Fees (U.S. Dollars)



Ethereum generated \$9.8 billion in transaction fees in 2021, a 15x increase on 2020 as DeFi and then NFT activity exploded. The network is on track to generate \$12.7 billion in 2022, a 30% increase. Transaction fees are inclusive of the base fee and priority fee (tip). Although the average gas fee has fallen significantly since the introduction of EIP-1559 in August 2021, demand has picked up to more than offset this.

Conservative Cash-Flow Assumptions Behind Valuation.

The structural trend toward a more decentralized finance, social and gaming economy should, even if only partially realized, underpin a strong period of growth for Ethereum, translating to a higher price in the next 12 months. The network is on track to generate \$12.7 billion in 2022, and our base model projects a 30% annual rise in cash flow over the next three years (vs. the 212% trend) before decay to a terminal growth rate in 2035.

Projected Discounted Cash-Flow (DCF) Assumptions



The cash-flow estimate includes all transaction fees (base fee + priority fee) but our model deliberately excludes staking rewards that will come from transaction fees or new issuance, as we feel this can help avoid any double-counting errors. Bolstering our conservative approach, we also exclude any deflationary burn from the EIP-1559 buyback which is likely to start after the Merge.

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Conservatively, Ether Could Be Worth \$6,100

As visibility improves on the Merge in coming months, Ethereum may close the valuation gap, potentially outperforming other assets in 2022. Our cash-flow model which excludes the staking reward leverages three DCF methodologies to provide a valuation range. Our core scenario for the perpetuity growth method gives an Ether value of \$6,128 (110% upside) and the H-model arrives at \$5,539 (90% upside).

DCF Model

Perpetuity Growth Method - Value per Unit		
Revenue in Year 2035	\$	106,674.54
Discount Rate		10.4%
Perpetuity Growth Rate		2.0%
Terminal Value at 2035	\$ 1	1,301,531.45
		6. B
Present Value of Terminal (@ 10.4% Discount Rate)		361,328.9
(+) Present Value of Free Cash Flows (@ 10.4% Discount Rate)		364,778.5
(=) Current Ethereum Value (Unstaked)		726,107.4
· / ·····		
Shares outstanding - millions		118.47
Estimated Value per Unit (USD) - Unstaked		6,128.88
Current Price (USD)	\$	2,920.07
Estimated Upside - Unstaked		110%
Triangulated DCF Estimate		
Perpetuity Growth Method - Unstaked	\$	6,128.88
Exit Multiple Method (P/E 25x)- Unstaked	\$	9,328.27
Perpetuity Growth Method (H-Model) - Unstaked	\$	5,539.18
Averge DCF Price	\$	6,998.78
Estimated Upside - Unstaked		, 140%

The third DCF methodology is a price/earnings (P/E) exit method (PoS blockchains only have indirect costs in the form of new issuance, turning cash flows into profits). If we apply an exit multiple of 25x, similar to Apple (Ethereum has a much higher growth profile), we arrive at a valuation of \$9,328 (219% upside). Triangulation of the three DCF methods provides an average value of \$6,998, 140% higher than current levels.

Model Risk; Demand, Scaling. Though any delays or bugs in the Merge could have a negative impact, the main risk to revaluation is sub-par aggregate transaction-fee growth. Once the next phase, Sharding, disaggregates the base chain into 64 individual "shards", dramatically increasing Layer 1 blockspace, gas prices are expected to fall commensurately. Conversely, this will unlock the full potential of Layer 2 rollups, which can process an increasing number of transactions at almost zero cost before publishing to the Ethereum chain/s.

Aggregate Monthly Fees vs. L1 & L2 Transaction Costs

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There are early signs that blockspace elasticity could see demand for Ethereum's highly prized blockspace offset the gas-price fall. Layer 2s, Polygon, Arbitrum etc., operational since Q221, have compressed their transaction costs and increased their ecosystem footprints while Ethereum has increased aggregate fees.

Bullish Trend Signals Participation

Solana, Terra, Avalanche Lead With Trend Signals

Proliferating. Positive Bloomberg Intelligence (BI) trend signals for Bitcoin and Ether as well as the outperformance of Layer 1 chains -- a sign of improving technical breadth -- point to a continuation of the rally in crypto assets which started in mid-March.

Bitcoin Trend Signal Flashes Positive

The BI Bitcoin trend signal, introduced in a previous note, points to a major momentum change after five months of depressed price action. The trend signal is a non-optimized technical filter designed to capture inflection points as momentum swings from bearish to bullish while offering a complementary trend-exit signal as momentum wanes.



In the past seven years there have been 30 signals, with a relatively high 66% of them notionally profitable. The system has outperformed the asset, generating a 16x return vs. Bitcoin's 15x. This has come with reduced risk: maximum

Bitcoin Trend Signal and Backtest Results 2015-22

drawdown of 50% vs. 80%. Though macro factors remain unfavorable, and the broader pattern is still a large range of \$30,000-\$70,000, the current rally may have legs similar to the signal of August 2021, which preceded a rally of 65%.

ETH vs. BTC, The Most Important Chart in Crypto. The relative outperformance of Ethereum seems likely to continue as the price action of the ratio between the two assets continues to advance higher within a broad trading range that started in 2021. The Ether/Bitcoin ratio chart has come to encapsulate risk appetite for the broader cryptomarket complex as managers anchor performance against BTC.





Ether flashed a positive BI trend signal one week earlier than Bitcoin (March 23 vs. 29). From a risk-reward standpoint, the ratio has found support along the rising trend line and isn't overbought on any medium-term technical indicator. Ethereum's fundamentals also look strong as the discounted cash-flow value of the unstaked cash flows gives it potential upside to \$6,000 and there may be an unprecedented supply crunch as the asset becomes deflationary in 2H22.

Broadening Participation in Rally. Relative outperformance across Layer 1 tokens in Bloomberg's crypto-asset universe since the mid-March trough is a positive sign of broad participation, despite a bearish macro backdrop and the potential for monetary tightening. Traditionally, crypto assets have underperformed during periods of central-bank balance-sheet contraction, rising yields and U.S. dollar strength. Bitcoin's March performance of plus 8% can be seen as impressive given the dramatic jump in U.S. 10-year yields to 2.34%.

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Alternative L1s such as Solana, Terra and Avalanche have led the broader market recovery, which even after accounting for higher volatility, have posted March monthly returns in the vicinity of 1.5-2x higher than the benchmark asset. This improvement in technical breadth is a healthy sign that risk appetite is returning.

Crypto Exchanges, Brokers Policy Threat

Crypto Platforms Face Souped Up SEC Scrutiny, Policy Risks in 2H

Contributing Analysts Nathan R Dean (Government)

Crypto platforms will remain under enforcement and policy threats in the U.S. in 2H, with a potential, in some cases, for hundreds of millions of dollars in fines and settlements and new regulatory burdens costing firms tens of millions of dollars or more. We believe such burdens favor established firms like Coinbase and FTX over startups and new entrants.

Registration, Enforcement Issues at Play. Cryptocurrency platforms will face greater regulatory scrutiny from the SEC in 2022, whether the industry chooses to work with the agency or not. Chairman Gary Gensler has routinely said most tokens operating today should be considered securities and firms should "register" with the agency as a result. Though that would bring some regulatory clarity, registration also carries new burdens, customer disclosures and ongoing audits, the costs of which could run into the tens of millions of dollars.

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Grayscale Future of Finance (GFOF) ETF Performance



Not registering with the SEC also carries risks. The SEC has implied platforms operating without registration are running afoul of securities laws and there is a potential the agency could move forward with enforcement actions or settlements.

Coinbase, Larger Players Favored in Regulated Industry.

Coinbase, Binance, FTX and Kraken -- among the largest crypto platforms by volume -- may have an easier time dealing with SEC regulation and oversight than smaller startups. Smaller firms with less capital may struggle to absorb the same costs. For example, our estimated costs that come with registration equate to around 1-4% of Coinbase's 2021 net income. Second, greater volume numbers at the larger exchanges could let those firms take on added costs without a substantial hit to margin. Finally, larger firms tend to have compliance, technology and legal expertise that allows for a smoother transition.

Coinbase Price April 1, 2021 - April 4, 2022



SEC 2022 Path Set, 2023 Vision Remains Unknown. This year will likely remain one of regulatory murk for much of the crypto industry. We anticipate SEC Chairman Gary Gensler will continue to call for crypto-related firms to register. A proposal from January, focused on so-called alternative-trading systems (ATSs), could expand the definition of "exchange" to include cryptocurrency and bring some clarity. Firms transacting with tokens deemed securities would be required to reach a higher regulatory standard.

SEC Chairman Gary Gensler



In the interim, we believe the SEC will continue to push ahead with enforcement actions against companies with tokens they believe are dealing in securities. It will also seek settlements with firms that don't provide adequate customer protection, as exampled by BlockFi's \$100 million February settlement.

Biden's Order Won't Change Regulatory Planning.

President Joe Biden's March 9 executive order on digital assets, an important first step in the government's response to cryptocurrencies, is still unlikely to change the financial regulatory focus for the rest of 2022. The order largely asks financial regulators as well as U.S. agencies to develop reports and recommendations on various issues like systemic risk and a central-bank digital currency. These recommendations will then be up to Congress or regulators to implement, neither of which are expected before 2023.

Statement

"We must protect consumers, investors, and businesses in the United States. The unique and varied features of digital assets can pose significant financial risks to consumers, investors, and businesses if appropriate protections are not in place. In the absence of sufficient oversight and standards, firms providing digital asset services may provide inadequate protections for sensitive financial data, custodial and other arrangements relating to customer assets and funds, or disclosures of risks associated with investment."

Joe Biden - President, United States of America

Executive Order on Ensuring Responsible Development of Digital Assets, March 9, 2022

We note, however, there's a heavy emphasis on investor protections in the order. Though that term is vague, we believe an emphasis on investor protection can also equate to heavier regulatory burdens for companies like Coinbase, Binance and FTX that deal with retail clients.

Crypto Dollar, CBDC Analysis to Continue. As use of digital assets as currency grows globally, the Federal Reserve will likely continue to study -- rather than launch -- crypto dollars and a central bank digital dollar over the next several years. The Fed has said it won't launch a CBDC unless Congress approves, and while Republicans and Democrats will push new legislative ideas about stablecoins and cryptocurrency in general in 2022, they'll likely struggle to agree on a new regulatory path for the industry. We expect more momentum for a larger comprehensive bill on cryptocurrency regulation to occur after the 2022 elections.

Key Points:

Key concerns highlighted by the PWG report include risks to stablecoin users and runs, payment system risk and concerns about systemic risk.

The Fed, while not immediately moving forward to adopt a CBDC, is likely to adopt punitive capital rules proposed by the Bank for International Settlements, keeping bank crypto exposures to a minimum.

Additional Reading:

President's Working Group on Financial Markets Report and Recommendations on Stablecoins, Nov. 1, 2021

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Standard	Ŧ								🖸 Cry	otocurrency Monitor
	I	ndex	Last	Net Chg	ቼ Chg	Open	Yest Close	2D Chart	30D Rng	Time
	1) 8	GCI Bloomberg Galaxy	2526.28	-14.56	-0.57%	2526.28	2526.28	-		04/04
Bid/Ask Data ONetwork			Data (Supplied by Mosaic)						Base	USD -
		oins	Last	Net Chg	ዬ Chg	Circ Supply	Market Cap	Coin Volume	USD Volume	
		litcoin	46643.96	+332.21	0.72%	19.00M	885.98B	18.10k	833.01	1 06:34
	12) E	thereum	3516.755	+6.793	0.19%	120.25M	422.90B	182.51k	634.81	1 06:34
	130 X		0.8252	+0.0011	0.13%	50.49B	41.67B	45.85M		1 06:34
		itecoin	126.220	+2.163	1.74%	70.00M	8.84B			1 06:34
		litcoin Cash	377.53	+5.96	1.60%	19.03M	7.18B		9.05	1 06:34
	16) E	thereum Classic	46.208	-0.309	-0.66%	134.01M				1 06:34
	17) M	lonero	226.665	+3.050	1.36%	18.10M	4.10B		1.58	1 06:34
	18) E	05	2.8469	+0.0133	0.47%	951.31M			16.31	1 06:34
	19) Z	cash	176.810	+3.710	2.14%	14.10M	2.50B	12.79k		1 06:34
	20) D		132.471	+0.195	0.15%	10.67M	1.41B	10.01k	1.32	1 06:34
	2D More Coins and Sources DAS <go> »</go>									
		utures	Last	Net Chg	Volume	Open		2D Chart	30D Rng	Time
		ME Bitcoin	46835	+750	1244	46600	46085 ~~~			00.27
		ME Ether	3528.00	+22.00	632.00	3530.50	3506.00 ~~~			06:29
	Cryptocurrency News More »									
	410							BFW 0	5:37	
	42)							BN 0	0:00	
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	411)							. BLG 0	6:32	
	409)									6:32
	406)	Buy Bitcoin Sell Gold: A Trading Opportunity							6:30	
	404)		s NFTs for Companies, Raises \$6 Million W5J						DJ 0	6:30
	403)		eed Funding Values Novel, an NFT Provider, at \$21 Million WSJ						DJ 0	6:30
	402)	*Novel Commerce, NFT Provider for Companies, Raises \$6 Million WSJ							6:30	
	390) MT5 Forex: FX.co 🛪 Stablecoins' decreasing share in crypto market capitalization may negatively a							6:28		
	397)	Elon Musk reveals 'single	most annoyi	ng problem	with Twi	tter			IND 0	6:28
(6:30am NY A	ril 5)									

(6:30am NY, April 5)

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