Growing Fears of Asset Bubbles

Causes, Market Implications, Consequences and Hedging Strategies

February 2021

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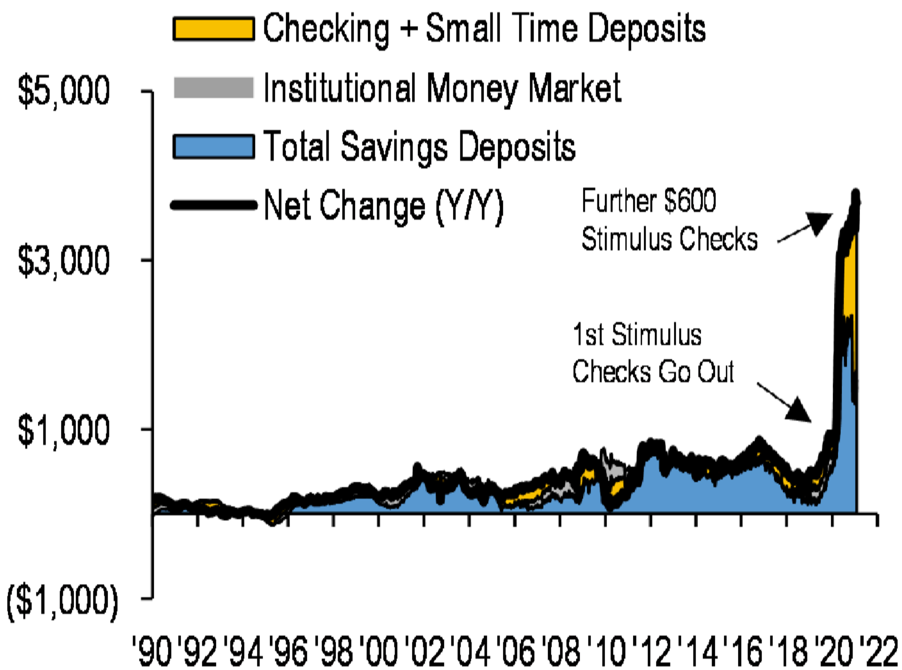
Growing concerns about potential asset bubbles

- **Excessive speculation in certain market segments is sparking asset bubbles, but the overall bullish trend for the S&P 500 remains intact.** Our equity strategists reiterate their target for the S&P 500 to reach 4,400 later this year.
- **US households' equity allocation has risen to record highs, surpassing previous high in early 2000 at the peak of the dotcom bubble**. Household liquidity is high with record cash reserves (savings of ~$11.3T, checking of ~$4.8T) and healthy consumer balance sheet with debt service ratio at 40yr low. Consumer leverage relative to disposable income is at ~9%, with historically low delinquency rates for consumer loans.
- **Active retail participation growth is a secular trend that is not close to exhausted given fast-growing millennial cohort at a spending inflection point with household formation hitting a record 5 million.** Lockdowns and a scarcity of substitutes to spend cash has contributed to higher-than-usual retail stock market participation.
- **What "gamefication" volatility has demonstrated is how quickly this retail impulse can propagate via social media platforms, which in turn shows the importance of using social media platforms in gauging retail flows.** The riskiest and most shorted areas of the equity market are seeing renewed interest by retail, supported by liquidity and social media. Retail investors have historically been attracted to consumer products / service companies with broad brand awareness, new-tech IPOs, and high social media chatter / rising volumes.
- **Institutional investors could cover (painful) equity shorts via debt-for-equity swaps with companies**. Investors could cover challenging shorts by purchasing distressed bonds and swapping them for new shares in the company to monetize the disconnect between intrinsic value and securities prices to improve their capital structures. These actions could have a modest positive impact on lower-rated credit.
- **Bitcoin price has spiked to way above its near-term fair value range based on mining costs and risk capital equivalence.** We calculate the long-term theoretical bitcoin price at $146k to match the total private sector investment in gold via ETFs or bars and coins.
- **Crypto assets continue to rank as the poorest hedge for major drawdowns in Equities,** with questionable diversification benefits at prices so far above production costs, while correlations with cyclical assets are rising as crypto ownership is mainstreamed.
- **The near record premium for VIX is a potential bubble that is now disconnected to underlying short term S&P 500 realized volatility at ~400-500% above the 'fair value'**, reflecting a bubble of fear from investors looking to hedge or profit from a hypothetical market selloff.

US consumers are flush with cash and consumer debt service is at a 40-year low

US Consumer Flush with Cash

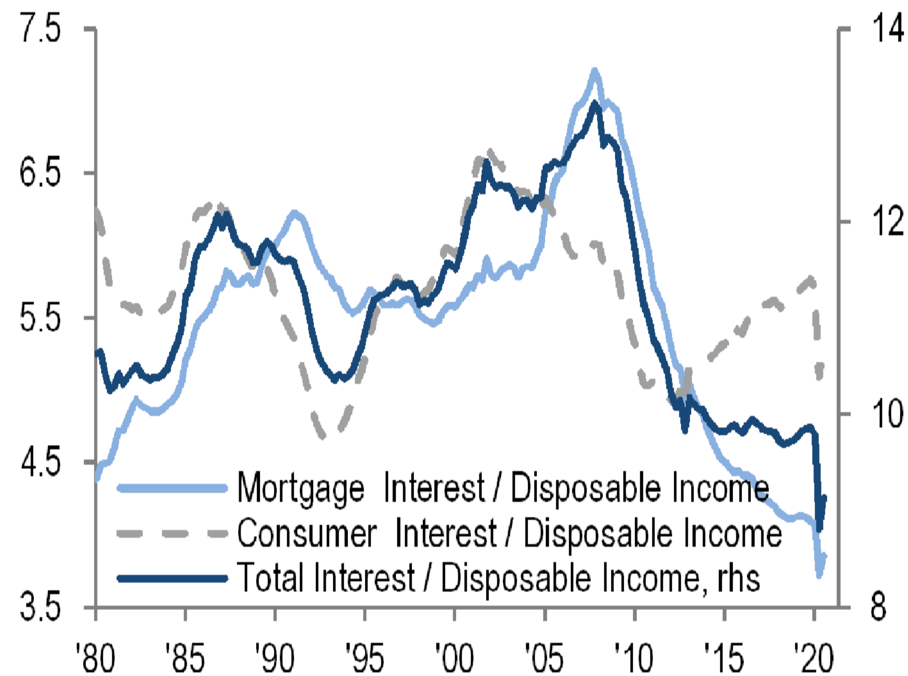
Since 1990, $ in Billions, 12M Change



Source: J.P. Morgan US Equity Strategy & Global Quantitative Research, Federal Reserve

US Consumer Debt Service Ratio Near 40 Year Low

Interest Expense vs. Disposable Income (%)



Source: J.P. Morgan US Equity Strategy & Global Quantitative Research, Bloomberg Finance L.P., Federal Reserve, CRFB

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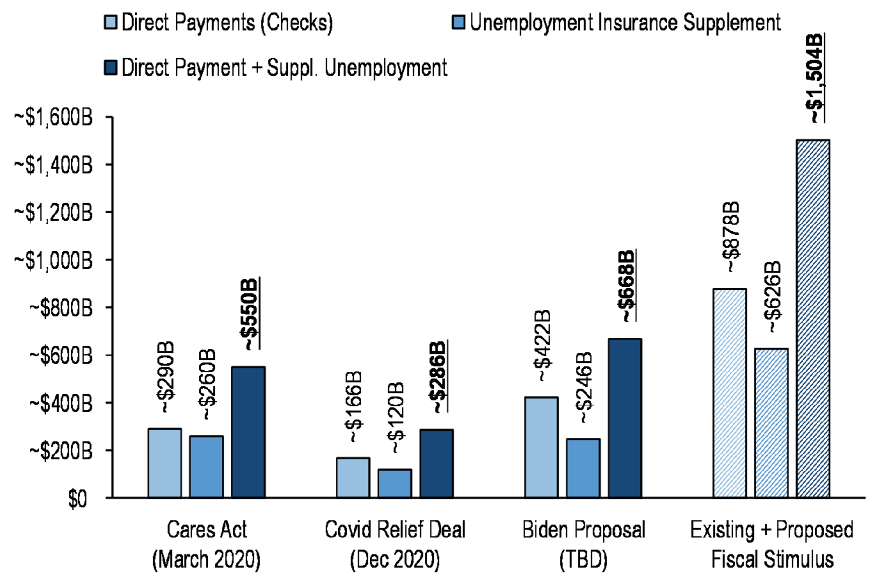
Additional stimulus likely to fuel greater retail participation and supports mortgage refinancing

~$700B of Additional Direct Stimulus (Direct Payments + Supplemental Unemployment) Proposed

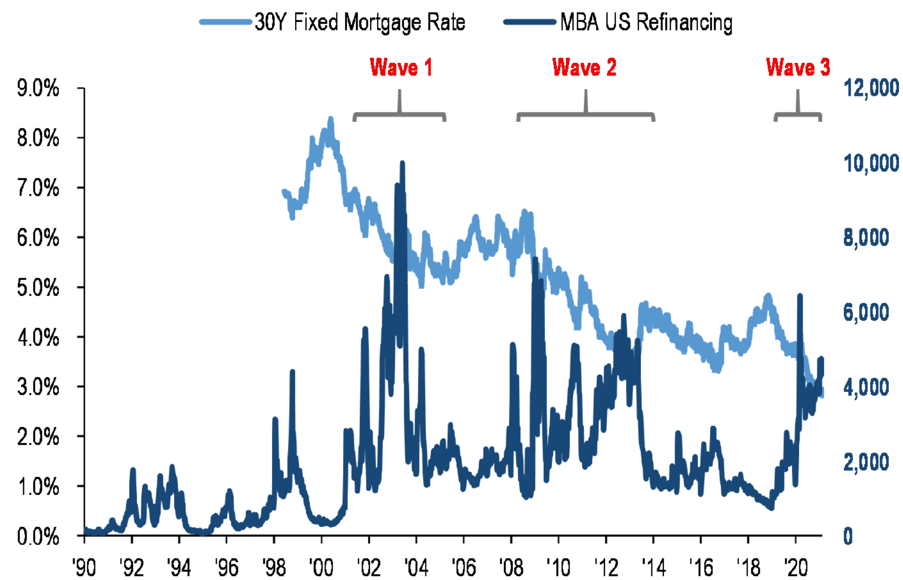
Fiscal Stimulus Passed and Proposed, $ in Billions



Source: J.P. Morgan US Equity Strategy and Global Quantitative Research, CRFB

Mortgage Rates Near Record Lows Supporting Refis

Since 1990



Source: J.P. Morgan US Equity Strategy and Global Quantitative Research, Bloomberg Finance L.P

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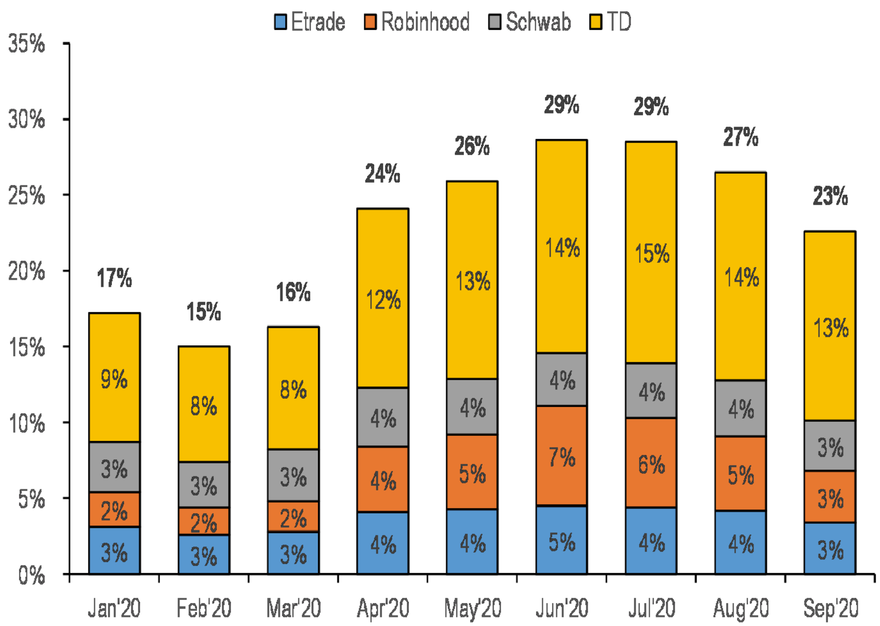
Retail brokerage volume hits record high as trading costs decline

Retail Brokerage Volume Hit Record ~29% in June/July

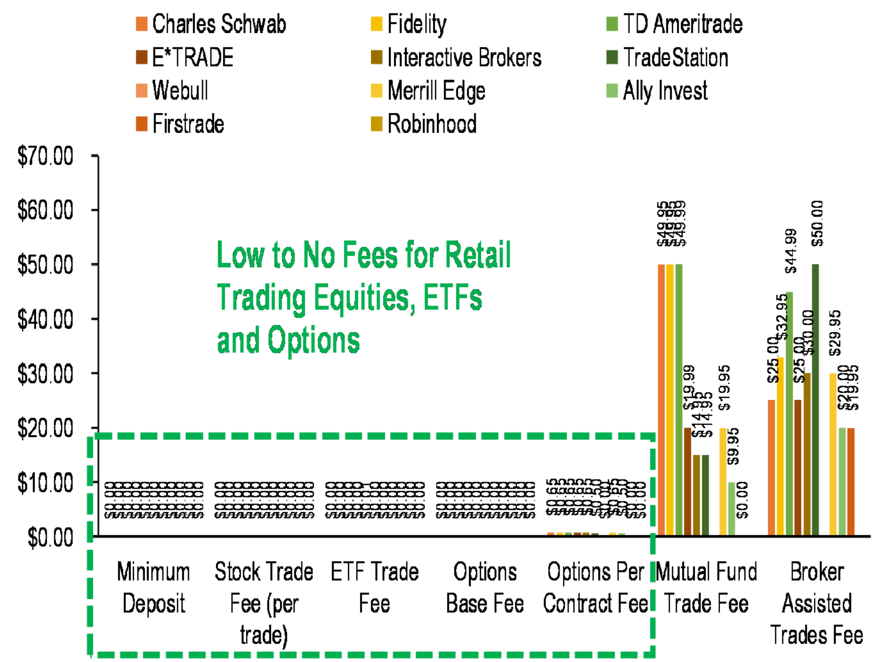
Source Flow by Retail Brokerage, % of Overall US Equity Market Volume (Stock + ETF)



Source: J.P. Morgan US Equity Strategy & Global Quantitative Research, FINRA

Retail Trading Friction Costs Incredibly Low

Trading Costs Across Retail Brokers and Advisors



Source: J.P. Morgan US Equity Strategy & Global Quantitative Research, IBES

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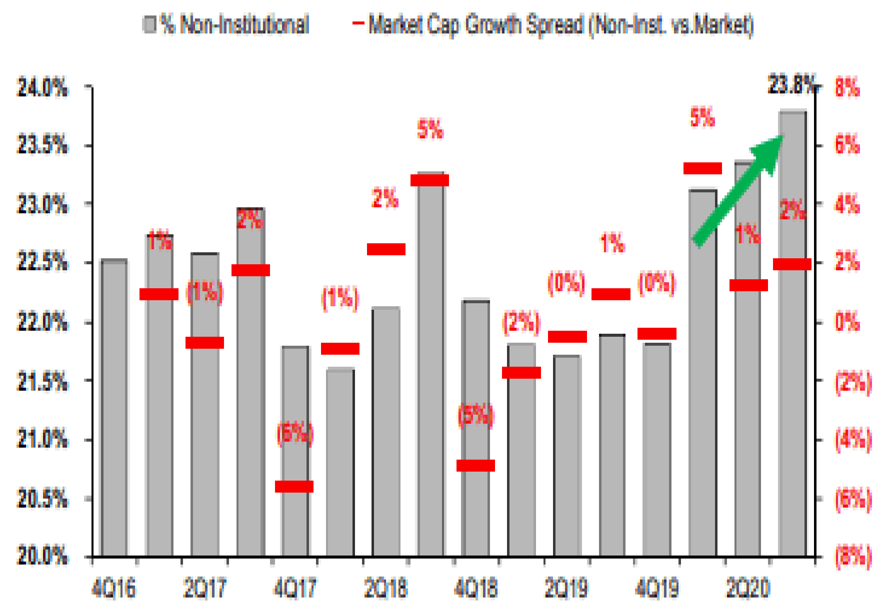
Rise of Fintech in COVID-19 story as US Big Tech market cap increased by $4.2trn over 2018-20, while big banks' market cap shrunk by $340bn, and non-institutional ownership at all-time-high

Non-Institutional Ownership at All Time High

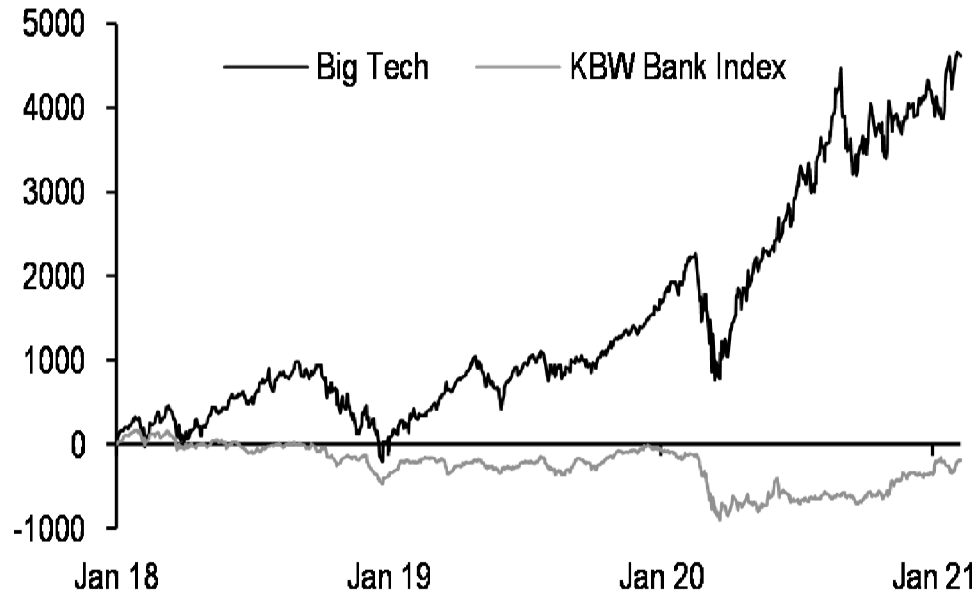
S&P 1500, 13-F Filings, as of 3Q20



Source: J.P. Morgan US Equity Strategy & Global Quantitative Research, Factset

US Big Tech market cap increased by $4.2trn over 2018-20, while big banks' market cap shrunk by $340bn

Cumulative change in market capitalization for US Big Tech companies* and KBW Bank Index from 1/1/2018; $bn



- Sum of the market capitalization for AAPL, AMZN, Alphabet Inc., FB, and MSFT

Source: Bloomberg Finance L.P., J.P. Morgan

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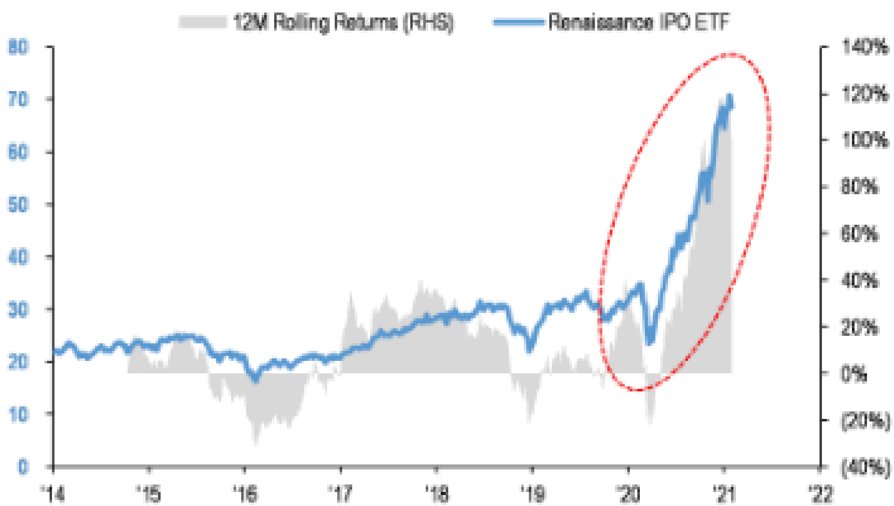
Strong IPO gains and SPAC outperformance vs market

Strong IPO Gains vs. Past 5 Years

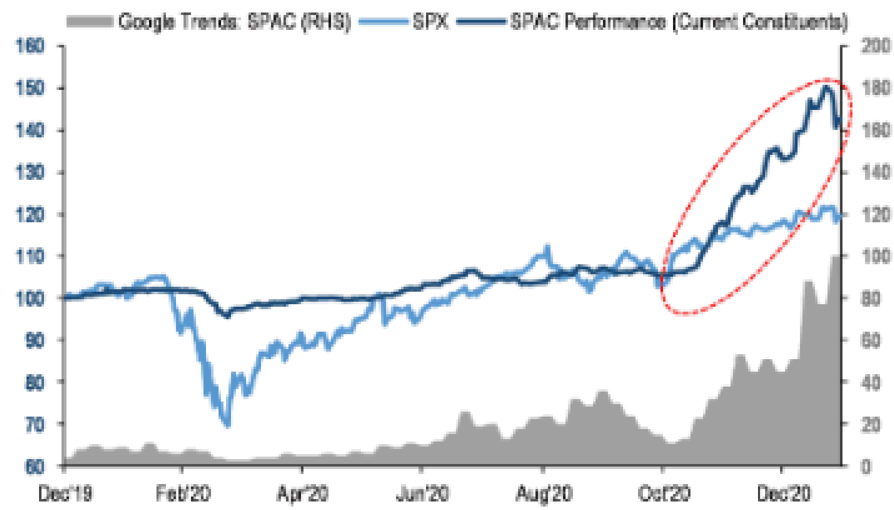
Since 2014



Source: J.P. Morgan US Equity Strategy & Global Quantitative Research, Bloomberg L.P.

SPAC Performance vs. Market

Returns Rebased to 100



Source: J.P. Morgan US Equity Strategy & Global Quantitative Research, Bloomberg L.P.

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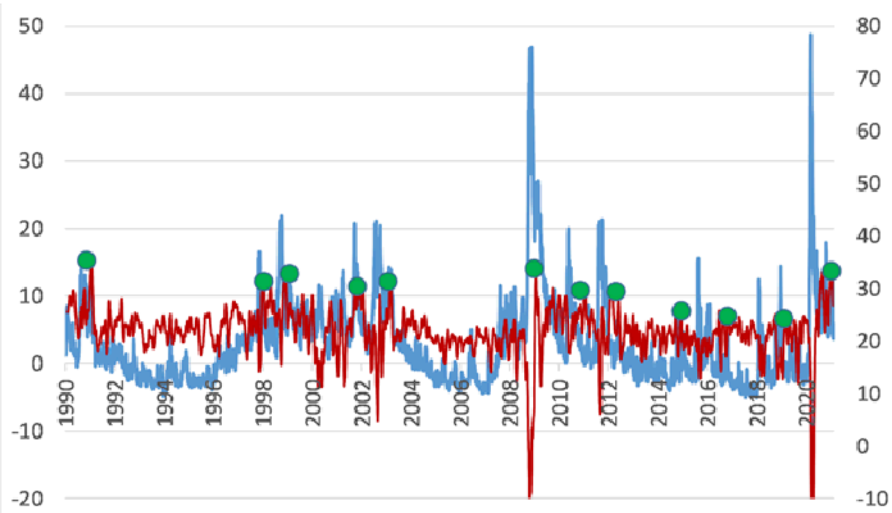
Near record premium for VIX is a potential bubble that is now disconnected to underlying short term S&P 500 realized volatility at ~400-500% above the 'fair value'

VIX (blue) and its spread to S&P 500 2-week realized volatility (red)



Source: J.P. Morgan Quantitative and Derivatives Strategy

Backtest of VIX and market moves subsequent to elevated VIX-SPX realized spread levels

	90th %tile		95th %tile	
	1M	3M	1M	3M
VIX	-2.6	-5.6	-6.5	-11.4
Hit Rate	75%	79%	75%	89%
SPX	2.4%	7.7%	5.0%	12.4%
Hit Rate	69%	88%	62%	87%

Source: J.P. Morgan Quantitative and Derivatives Strategy

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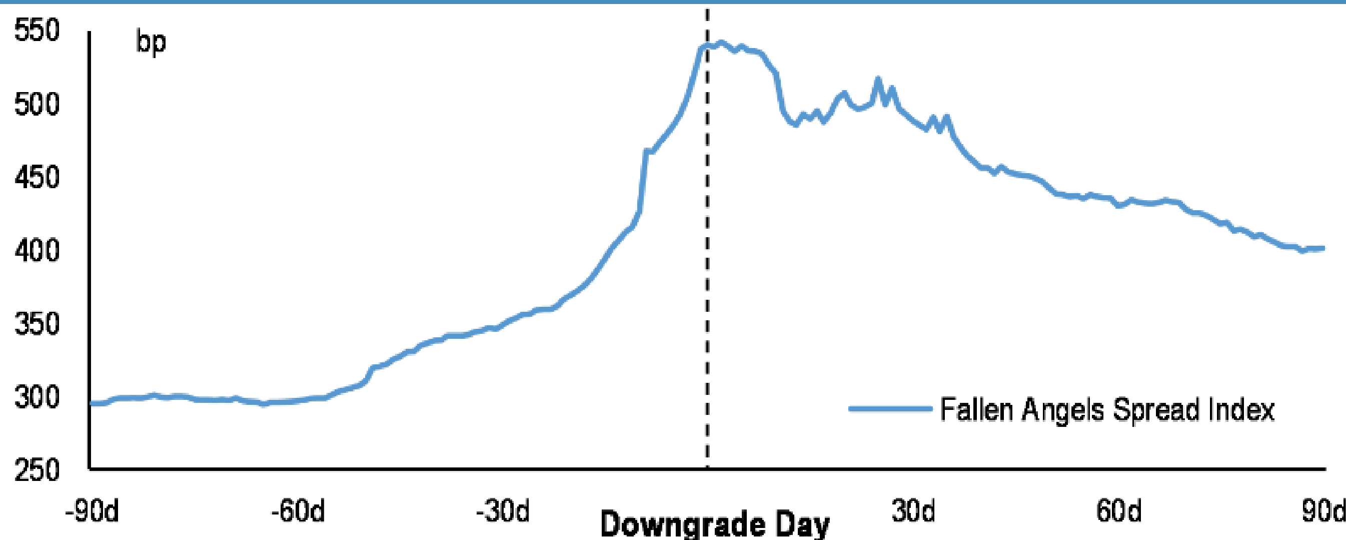
Credit markets are not likely in a bubble, and US High Grade spreads could go a lot tighter as spreads are currently trading within the 10th percentile of their 20 year range

Fallen angels tend to widen ahead of their downgrade and then rally afterwards, 2016-2020



Source: J.P Morgan

JULI spread is near its tightest level of the past 20 years

Source: J.P Morgan, as of 1/20/2021

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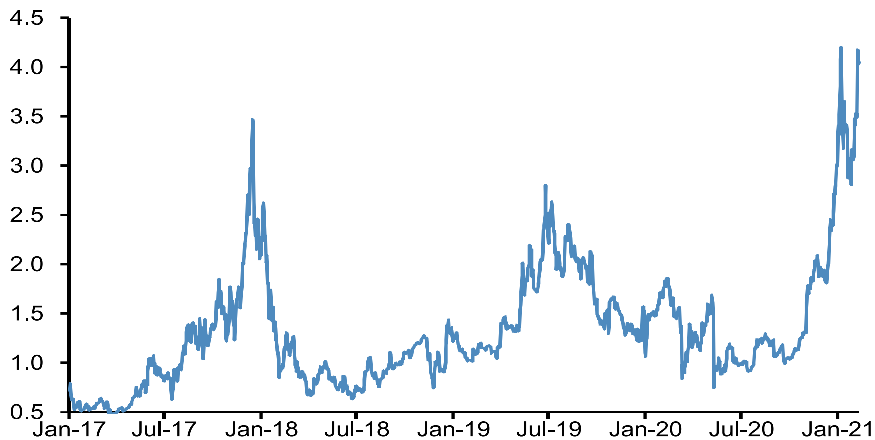
Current Bitcoin prices are well above our near-term fair value estimates, but over the long term, our theoretical price target of $146k is based on Bitcoin market cap matching the total private sector investment in gold

Ratio of Bitcoin market price to intrinsic value

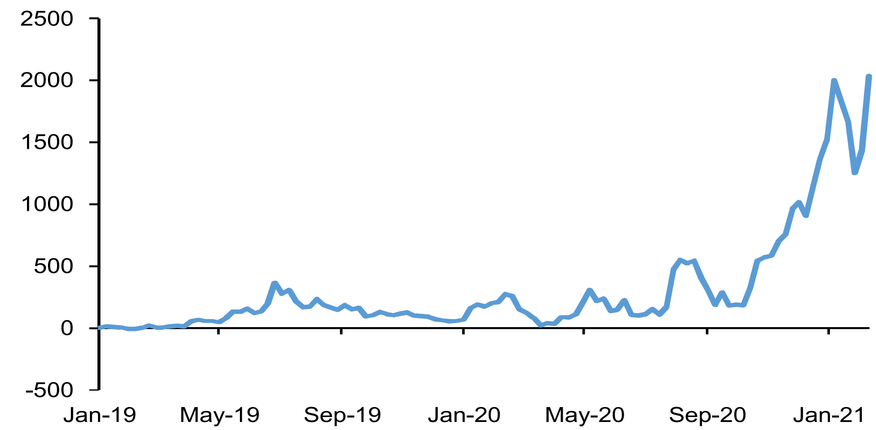
Intrinsic value estimated using the cost of production approach following Hayes (2018)



Source: Bitinfocharts.com, J.P. Morgan

Our Bitcoin position proxy based on open interest in CME Bitcoin futures contracts

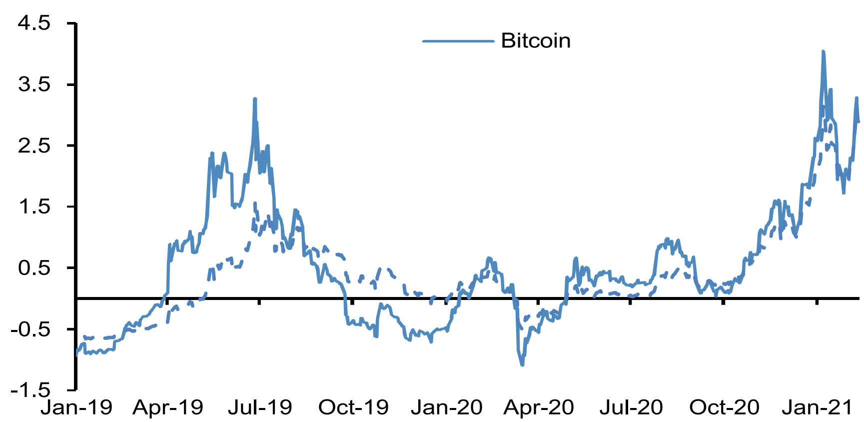
$mn. Last obs. for 10th Feb 2021.



Source: J.P. Morgan

Momentum signals for Bitcoin

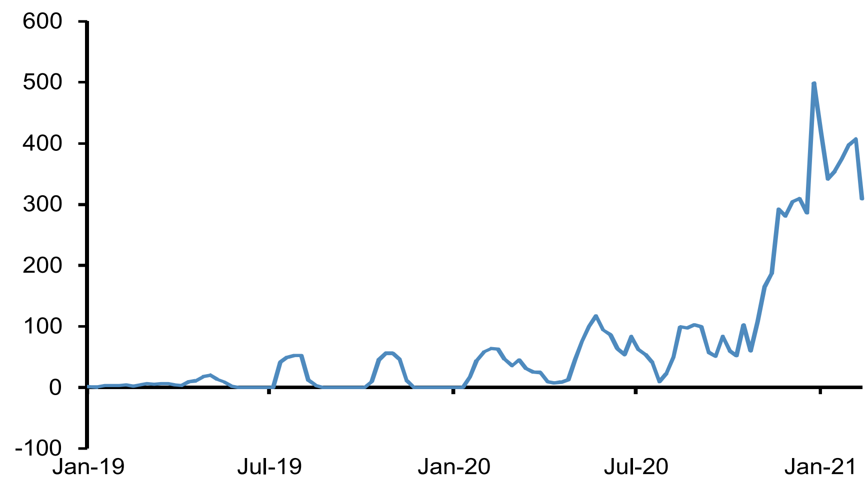
z-score of the momentum signal in our Trend Following Strategy framework shown in Tables A5 and A6 in the Appendix of the Flows & Liquidity publication. Solid lines are for the shorter-term and dotted lines for longer-term momentum.



Source: Bloomberg Finance L.P., J.P. Morgan

Grayscale Bitcoin Trust flow

$mn, 4-week rolling average flows



Source: Bloomberg Finance L.P., J.P. Morgan

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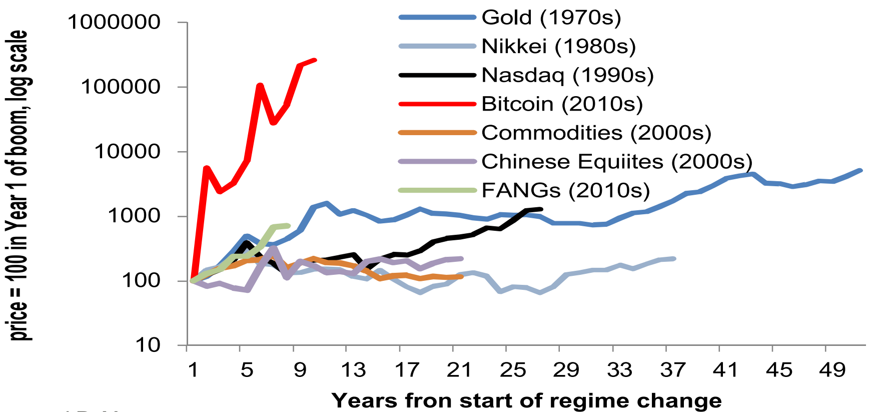
Despite their extraordinary standalone volatility, crypto assets still raise the long-term efficiency of a multi-asset Equity and FICC portfolios due to extraordinarily-high historical returns and lower cross-asset correlations…

The hype cycle – Bitcoin ascent has been steeper than any other financial innovation or asset bubble of the past 50 years

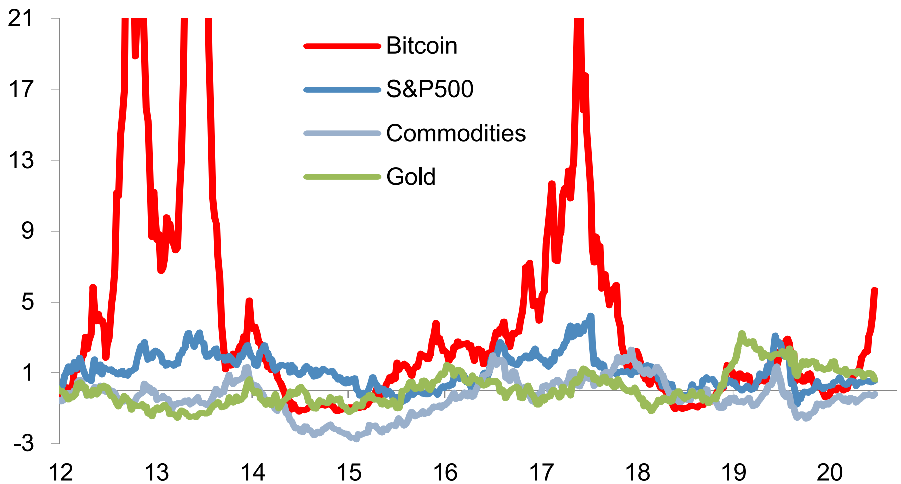
Asset values indexed to 100 in Year 1 of regime change, chosen approximately as 1970 for gold, 1985 for Nikkei, 1995 for Nasdaq, 2001 for Chinese Equities & Commodities, 2012 for Bitcoin and 2014 for FANGs.



Source: J.P. Morgan

Cryptocurrencies' risk-adjusted returns have usually beaten Gold, except for 2019-20

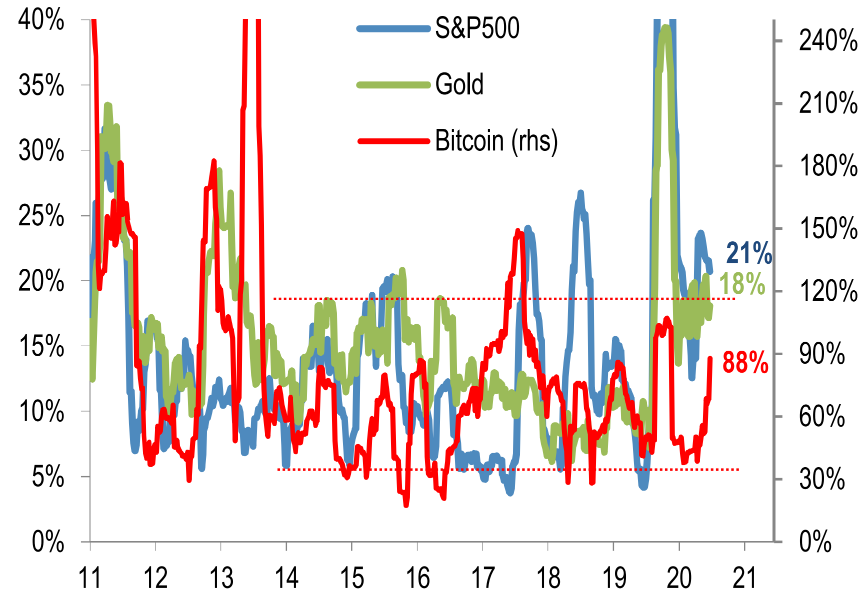
Rolling 12-mo returns divided by rolling 1Y realized volatility



Source: J.P. Morgan

Cryptocurrency volatility has not trended lower over the past several years – it remains about four times more volatile than Equities or Gold

3M realized volatility on BTC, S&P500 and Gold



Source: J.P. Morgan, Bloomberg Finance L.P.

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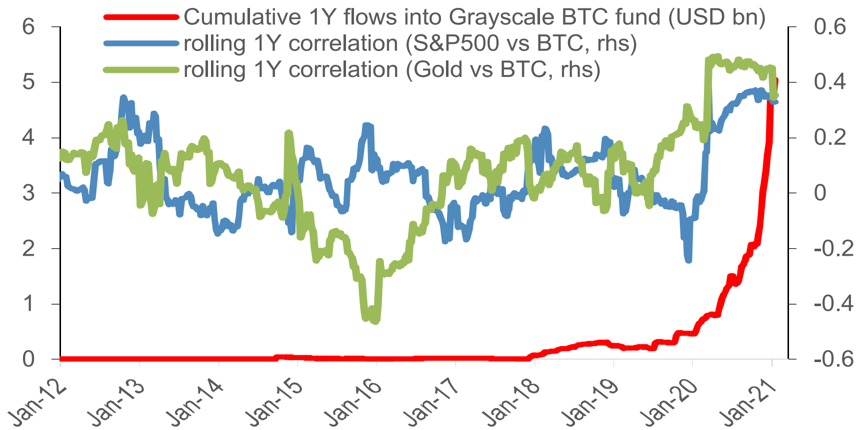
…however, mainstreaming is reducing the diversification benefits of crypto assets and leading to failure during a crisis

The rise in cryptos' correlation with other asset classes over the past year coincides with its mainstreaming via products such as the Grayscale BTC Fund

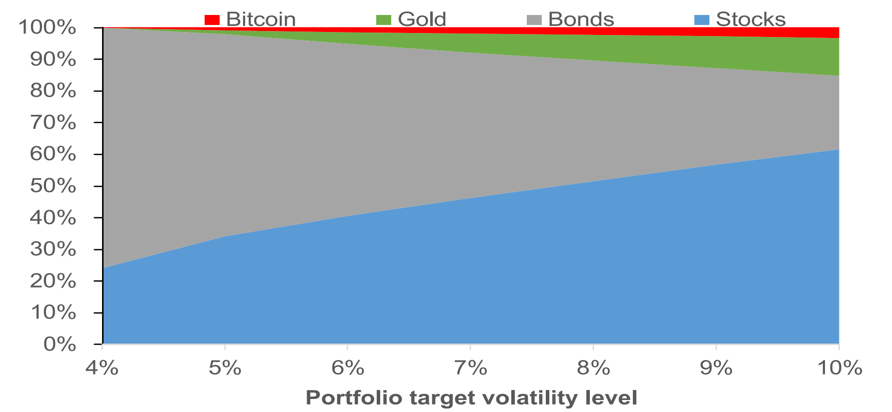
Rolling 1Y correlation of BTC daily returns with S&P500 and Gold versus cumulative 1Y inflows into Grayscale BTC Fund



Source: J.P. Morgan

Based on cross-asset correlations over the past five years, the optimal portfolio's allocation to crypto is 0% to 2.5% for portfolio volatility targets of 4% to 10%

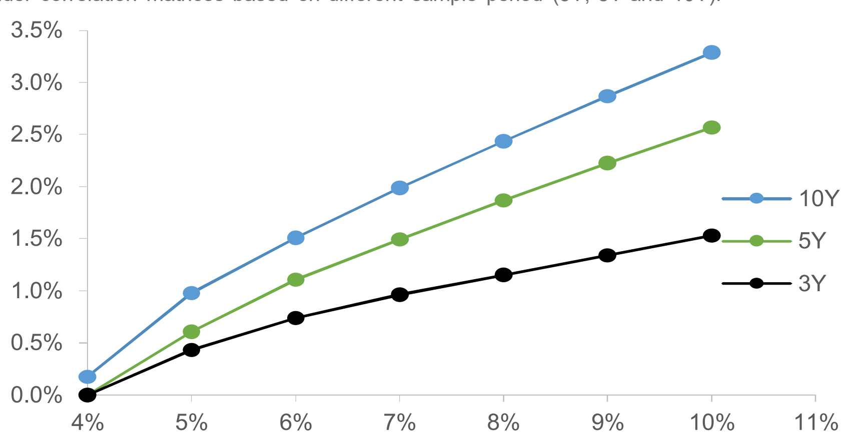
Optimal allocation to US Equities, US Treasuries, Gold and BTC for an unconstrained portfolio for different levels of target volatility. The optimization is a standard Markovitz framework applied to expected return assumptions and 5Y historical volatilities and correlations.



Source: J.P. Morgan

But if the past three years of rising cross-asset correlations are indicative of mainstreaming's impact, the optimal allocation drops by half

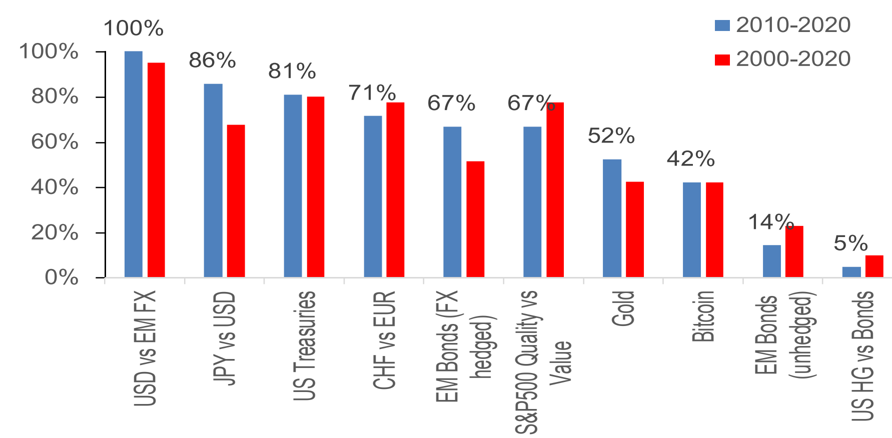
Optimal allocation to BTC for an unconstrained portfolio for different levels of target volatility under correlation matrices based on different sample period (3Y, 5Y and 10Y).



Source: J.P. Morgan

USD vs EM FX, JPY vs USD and US Treasuries have hedged Equities more reliably than other asset classes

Success rate for various defensive assets during MSCI ACWI peak-to-trough drawdowns of at least 5%. 2000-20 and 2010-2020 sample periods.

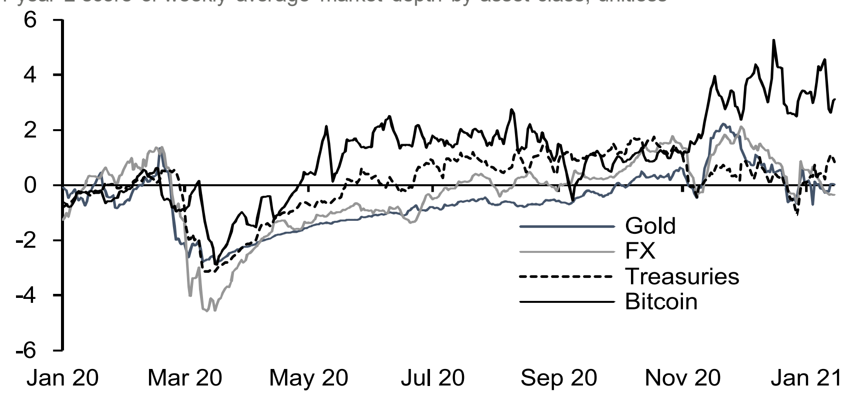


Source: J.P. Morgan

Given that most Bitcoin trading occurs against USDT, a stablecoin, a sudden loss of confidence in USDT would likely generate a severe liquidity shock to Bitcoin markets

Bitcoin market depth dropped less and recovered faster than several more traditional asset classes, and has since improved further as prices rose

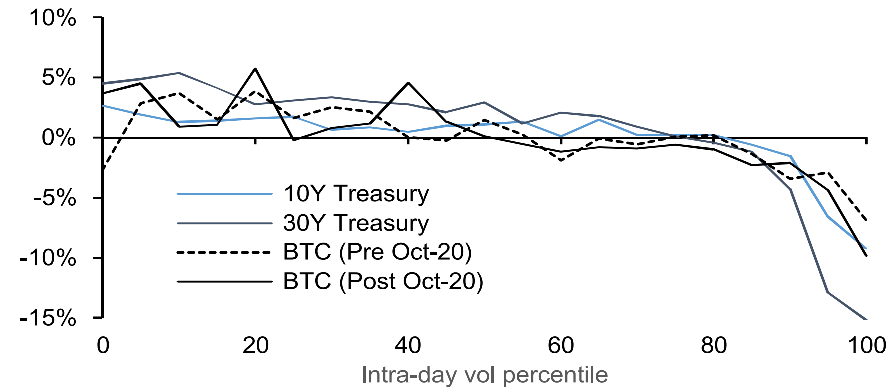
1-year z-score of weekly average market depth by asset class; unitless



Note: Bitcoin market depth from Coinbase USD pairs.
Source: J.P. Morgan, CME, BrokerTec, bitcoinity.com

As with other markets, Bitcoin liquidity tends to disappear quickly during times of stress, and that has grown even more true in recent months

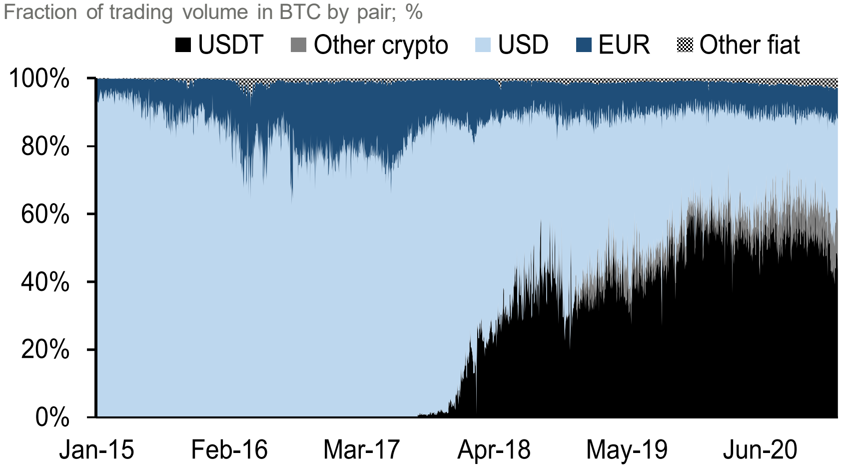
Expected drop in the fraction of market depth attributable to HFT activity for 10- and 30-year Treasuries, as well as BTC prior and post 10/1/2020; %



Source: J.P. Morgan, NYDIG, BrokerTec

Most Bitcoin trading occurs relative to stablecoins, particularly USDT which is issued by Tether Ltd. and pegged to the US dollar

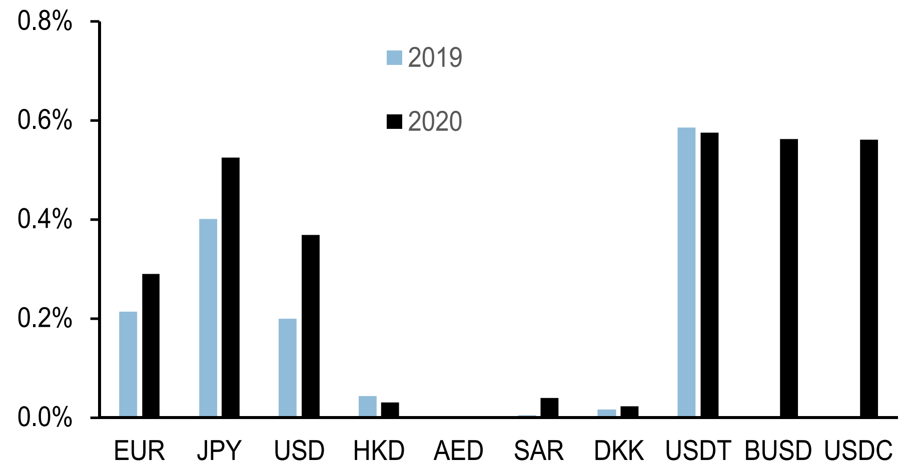
Fraction of trading volume in BTC by pair; %



Note: Includes activity on Binance, Coinbase, Bitstamp, Kraken, Gemini and Bitfinex.
Source: J.P. Morgan, NYDIG

USDT shows considerably greater volatility than pegged fiat currencies, though noticeably less than USDC and others that offer greater disclosure and are subject to US law

Standard deviation of daily changes by year; %



Note: HKD, AED and SAR are pegged to USD, and DKK is pegged to EUR.
Source: J.P. Morgan, coinmarketcap.com

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