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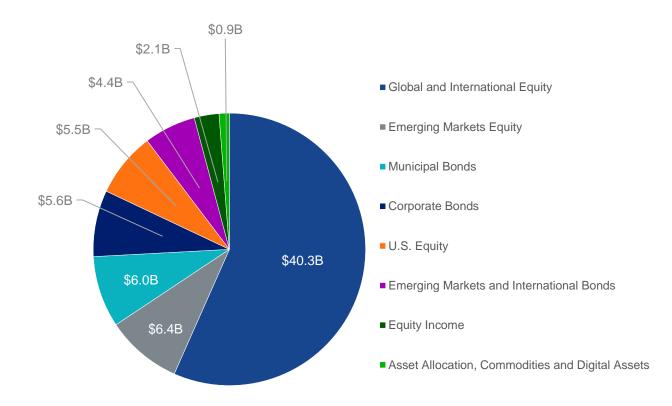
### **Corporate Overview**



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#### Today, VanEck manages approximately \$71.2 billion in assets

- Global headquarters in New York with robust lineups of local funds in Europe and Australia
- 311 full-time staff, including 49 investment professionals; portfolio managers average 24 years of experience
- Lead portfolio managers all have direct experience in the sectors and regions in which they invest
- Institutional and wealth management clients
- Active funds and smart beta ETFs have won numerous performance awards



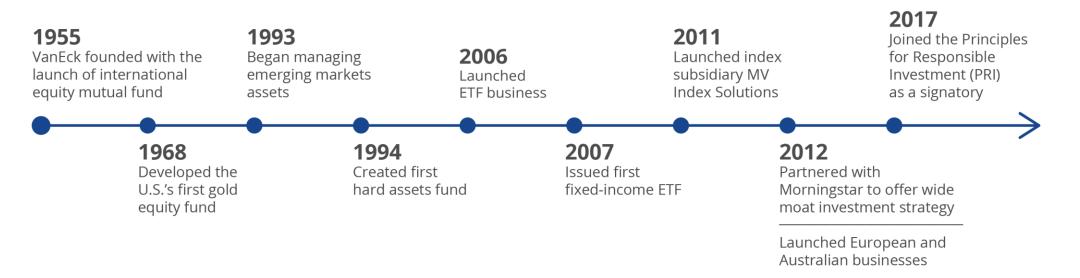
# **Mission and History**



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#### VanEck's mission is to strengthen portfolios by offering forward looking, intelligent solutions

- Transformative Investments: Started offering active strategies in international equities (1955), gold shares (1968), emerging markets (1993); added passive strategies in 2006 and has emerged as top 10 ETF sponsor globally
- **Private Ownership**: As an independent, private firm we can focus on client interests with a long-term perspective
- Accessible Management: We pride ourselves on being available to clients and engaging directly with them



# **VanEck Digital Asset Capabilities**



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VanEck is committed to supporting long-term, structural innovation of digital asset products and market innovation

In early 2017, VanEck determined that digital assets could provide:

- A store of value alternative to existing currencies and gold
- A host of technology solutions that could bring costs down dramatically in the payments and financial investing industries

We have undertaken an array of initiatives to bring investments in these areas to our clients while helping build out the ecosystem

Professional Pricing and Indexing	Regulatory and Institutionalization	Market Structure and Industry Relationships	Research and Media	Experience and Execution Capability
VanEck's subsidiary MV Index Solutions (MVIS) was the first regulated index provider to offer digital asset indices to meet industry benchmarking standards.*	VanEck is advancing the institutionalization of digital assets by closely interfacing with global regulators on digital asset ETPs, indexing, surveillance and other important market issues.	VanEck and MVIS, have access to reputable organizations necessary for the operating of a pooled investment vehicle including indexing, custodians, traders, administration, accounting and other partners.	VanEck regularly publishes professional research and actively participates in forms of mainstream and social media regarding bitcoin and other digital assets.	VanEck is experienced in successfully running an efficient, regulated bitcoin ETP in Europe. As a leading ETF provider, VanEck trades with professional market participants.

<sup>\* &</sup>lt;a href="https://www.mvis-indices.com/news/corporate-news/mvis-and-cryptocompare-launch-digital-assets-crypto-index-series-press-release">https://www.mvis-indices.com/news/corporate-news/mvis-and-cryptocompare-launch-digital-assets-crypto-index-series-press-release</a>

# VanEck Digital Assets Team and Resources



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#### U.S. Business

Experienced team spanning product management, research, trading, global risk, legal and compliance. Additional resources available across VanEck's shared resource departments

#### **Gabor Gurbacs**

Director, Digital Asset Strategy

#### **Matthew Sigel**

Head of Digital Assets Research

### **Kyle DaCruz**

Director, Digital Assets Product

#### **Denis Zinoviev**

Associate Product Manager, Digital Assets Product

#### **Europe Business**

 Product management and trading team manages an ETP registered and traded in Europe

### **MVIS/CryptoCompare**

- MVIS offers digital asset indices to meet industry benchmarking standards
- CryptoCompare is the industry's leading data provider based in London and is a service provider to MVIS

#### **Strategic Investments**

- Shareholder in leading Canadian crypto manager of open-end funds
- Venture capital investments across the crypto opportunity spectrum

# **Digital Assets Leadership**



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#### Global scope of product and market innovation

- VanEck is a leader in digital asset product construction and institutionalization
- Diverse experience across various elements of the burgeoning digital asset market including indexing, product development and regulatory

### **November 2019**

3IQ launched North America's first exchange listed closed-end fund, QBTC. QBTC trades on the Toronto Stock Exchange (TSX) and uses an MVIS index. VanEck is an investor in 3IQ.

### December 2020

VanEck filed an S-1 for a U.S. Bitcoin ETP.

### May 2021

VanEck filed an S-1 for a U.S. Ethereum ETP.

### **November 2017**

VanEck's subsidiary MV Index Solutions (MVIS) and CryptoCompare partnered to launch the world's first digital asset indices that simultaneously meet industry standards, including European Benchmark Regulation requirements and provide high quality pricing.

### November 2020

VanEck launched a 100% physically-backed Bitcoin ETP (VBTC) in Europe with daily liquidity, professional market makers and an ETF-like creation-redemption process. VBTC is traded on Deutsche Boerse Xetra and assets are custodied at Bank Frick, a regulated bank-custodian.

### **April 2021**

VanEck launched the first pure play registered fund in the U.S. invested in equities in the digital assets economy.\*

<sup>\*</sup> The fund does not invest in cryptocurrencies directly or indirectly



**Bitcoin as a Potential Store of Value** 

# **Current Market Conditions Support Bitcoin**



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#### Macro environment and investment case

- Unprecedented generational wealth transfer gives rise to new investment themes such as digital assets\*
- Central bank stimulus and negative yielding bonds create new appeal for assets like bitcoin and gold
- Bitcoin's increasing scarcity may be a driver for bitcoin growth
- Historically, the price of bitcoin has increased following halvings\*\*
  - Halving is defined as a 50% block reward cut to bitcoin production rate. Halvings are programmed into bitcoin and occur roughly every four years



<sup>\*</sup> Source: Cerulli Associates.

Please see important disclosures at the end of this presentation.

<sup>\*\*</sup> Source: Morningstar. Data as of 3/31/2021.

### **Potential Generational Wealth Transfer**



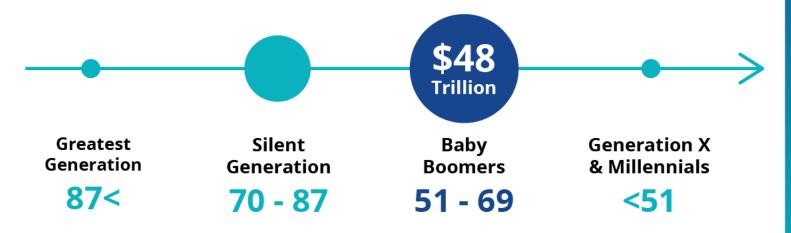
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New investment themes emerge: Bitcoin, digital assets, eSports and innovation



### \$68 Trillion Assets in Motion

Cerulli Associates projects that nearly 45 million U.S. households will transfer a total of \$68.4 trillion in wealth to heirs and charity over the course of the next 25 years.

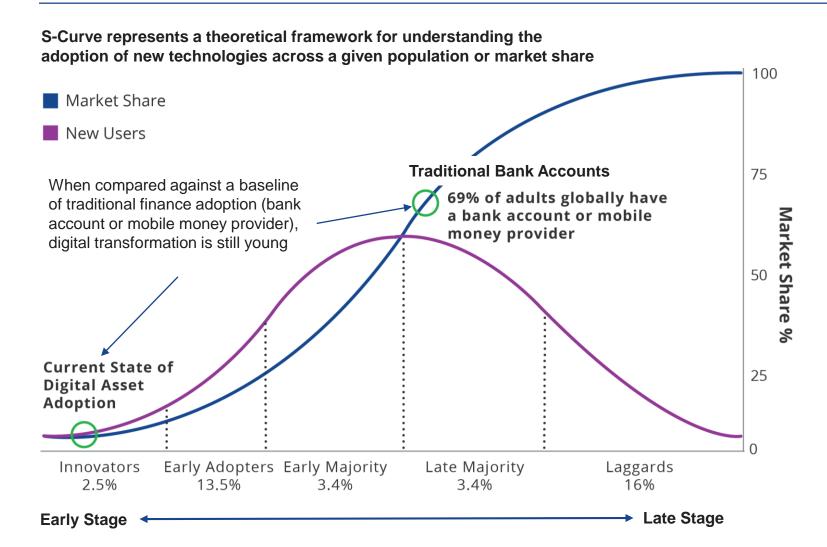


**Greatest Generation** 1901 - 1927 Silent Generation 1928 - 1945 **Baby Boomers** 1946 - 1964 \$68 Trillion Generation X 1965 - 1980 Millennials 1981 - 1996

# Bitcoin/Digital Assets are in the Early Days of Adoption



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### **Digital Transformation Adoption**

- Digital transformation is still in its early stages
- 68m crypto users around the world represents less than 1% of the world's population\*

\* Source: VanEck, Statista as of 3/31/21.

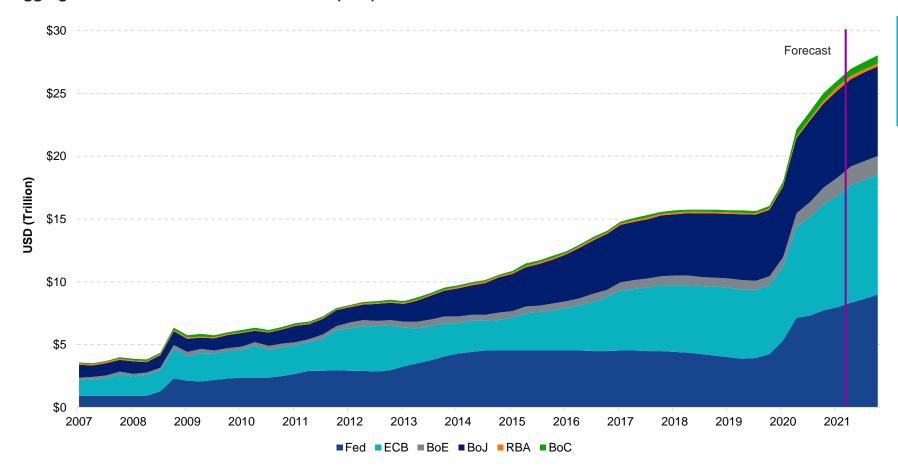
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### Central Bank Balance Sheets have Ballooned Since 2020



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#### Aggregate G-6 central bank balance sheet (\$TN)



#### **Central Bank Expansion**

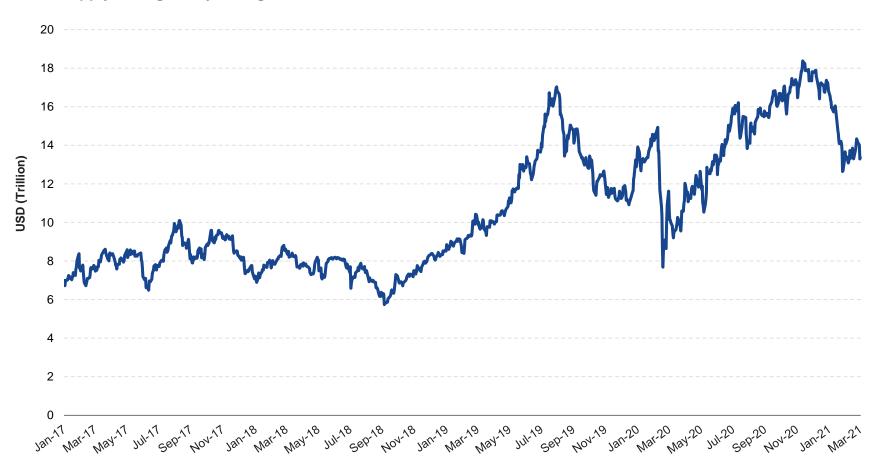
- Expanding central bank balance sheets could potentially lead to a inflationary environment as the money supply increases
- In inflationary environments, scarce assets like commodities, real estate and bitcoin may act as a hedge against loss of purchasing power

### **Negative Yields Make Gold and Bitcoin Look Attractive**



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### Global supply of negative yielding bonds



#### ■ Bloomberg Barclays Global Aggregate Negative-Yielding Debt Index

#### Less than Zero?

A significant portion of the world's investment-grade debt is now sub-zero yielding

Source: Bloomberg. Data as of 3/31/2021.

# **Bitcoin's Environmentally Conscious Impact**

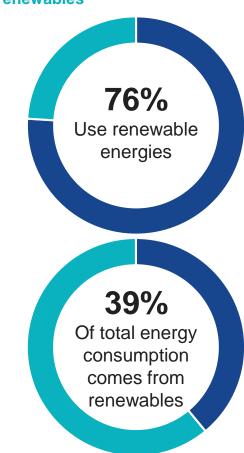


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#### Bitcoin and bitcoin mining is becoming more environmentally conscious

- Bitcoin's energy consumption is a feature, not a bug
  - Energy consumption is necessary to operate the bitcoin network, similar to financial systems and other infrastructure
  - Bitcoin's high energy requirement helps the network maintain its security, reliability and speed.
- Energy cost per transaction is an often quoted but misleading point
  - Energy consumption is not necessarily equivalent to carbon dioxide emissions and environmental pollution
  - One transaction can contain hundreds or thousands of bitcoin payments (batching, second layer settlements)
- Stranded energy and miner mobility
  - Bitcoin miners are mobile and able to relocate to take advantage of cheaper, cleaner or seasonally available excess energy
- Potential catalyst for increasing use of renewables
  - According to the World Economic Forum, bitcoin could become a storage solution for excess renewable energy generated by homes, remote industrial facilities and smart cities
  - There are bitcoin mining companies today that purely focus on environmentally conscious mining

# Bitcoin miners are already using renewables



Source: VanEck, Cambridge Centre for Alternative Finance



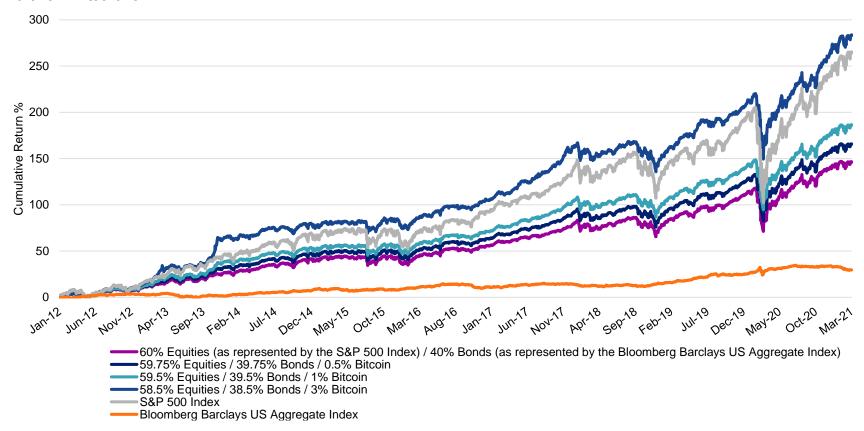
Bitcoin's Role in an Investment Portfolio

# A Small Bitcoin Allocation May Improve Portfolio Upside



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Source: Morningstar. Data as of 3/31/2021. Portfolios are rebalanced monthly. Cumulative return is defined as the total return earned by the hypothetical portfolio over the entire investment time period.

The information presented is shown for illustrative, informational purposes only. The returns shown are model results only and do note represent the results of actual trading of investor assets. Thus, the performance shown or discussed does not reflect the impact that material economic and market factors had or might have had on decision making if actual investor money had been managed. Fees and charges would cause actual performance to be lower than the performance shown. Diversification does not assure a profit nor does it protect against loss of principal. Indices are not securities in which investments can be made.

Please see important disclosures and index descriptions at the end of this presentation.

#### **Asymmetric Return Profile**

A small allocation to bitcoin significantly enhanced the cumulative return of a 60% equity and 40% bonds portfolio allocation mix

### **Bitcoin Historically Outperforms Traditional Asset Classes**



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#### 2/1/2012 - 3/31/2021



	1 Month	3 Months	YTD	1 Year	3 Years	5 Years	Since Inception (2/1/2012 – 3/31/2021)
Bitcoin	35.29	107.86	107.86	816.24	101.97	178.83	180.54
S&P 500	4.38	6.17	6.17	56.35	16.78	16.29	15.18
US Bonds	-1.25	-3.37	-3.37	0.71	4.65	3.10	2.86
Gold	-0.76	-9.47	-9.47	7.45	8.93	6.78	-0.16
ACWI	2.46	4.18	4.18	52.21	10.00	11.07	8.58

#### **Differentiated Performance**

Bitcoin has performed well versus major indices

Most long term periods such as 3 and 5 year have been historically positive for Bitcoin

Source: MVIS. Data as of 3/31/2021. US Bonds is measured by the Bloomberg Barclays US Aggregate Index; Gold is measured by the S&P GSCI Gold Spot Index; ACWI is measured by the MSCI ACWI Index. Returns for periods less than one year are not annualized. It is not possible to invest directly in an index.

Please see important disclosures and index descriptions at the end of this presentation. Past performance is no guarantee of future results.

# Bitcoin Addition has Minimal Impact on Long-Term Volatility



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2/1/2012 - 3/31/2021

	1 Year Return	3 Year Return	5 Year Return	Since Inception Return (Annualized)	Since Inception Return (Cumulative)	Since Inception	on Since Inception Max Drawdown	
S&P 500 Index	56.35	16.78	16.29	15.18	265.23	13.20	-19.60	1.09
Bloomberg Barclays US Aggregate Index	0.71	4.65	3.10	2.86	29.46	3.05	-3.67	0.73
60% Equities / 40% Bonds	31.71	12.24	11.15	10.34	146.47	7.96	-11.54	1.19
59.75% Equities / 39.75% Bonds / 0.5% Bitcoin	33.22	12.73	11.87	11.25	165.82	8.12	-11.65	1.27
59.5% Equities / 39.5% Bonds / 1% Bitcoin	34.74	13.22	12.58	12.17	186.49	8.38	-11.76	1.34
58.5% Equities / 38.5% Bonds / 3% Bitcoin	40.99	15.17	15.48	15.80	283.76	10.18	-12.19	1.43
Bitcoin	816.24	101.97	178.83	180.54	1,278,196.40	182.79	-81.88	0.97

#### Risk Return Profile

Historically, a small allocation to bitcoin minimally impacts portfolio volatility while increasing its Sharpe ratio at a 3% allocation

Source: Morningstar. Data as of 3/31/2021. Portfolios are rebalanced monthly. Returns for periods less than one year are not annualized. Cumulative return is defined as the total return earned by the hypothetical portfolio over the entire investment time period. Annualized Return is defined as the compound rate of return, which, over a certain period of time, would produce a fund's total return over that same period. Std Dev (standard deviation) is defined as the statistical measurement of dispersion about an average, which depicts how widely a portfolio's returns varied over a certain period of time. Max Drawdown is defined as the peak to trough decline during a specific record period of an investment of fund. Usually quotes as the percentage between the peak to the trough. Sharpe Ratio is a risk-adjusted measure, calculated by using standard deviation and excess return to determine reward per unit of risk.

The information presented is shown for illustrative, informational purposes only. The returns shown are model results only and do note represent the results of actual trading of investor assets. Thus, the performance shown or discussed does not reflect the impact that material economic and market factors had or might have had on decision making if actual investor money had been managed. Fees and charges would cause actual performance to be lower than the performance shown. Diversification does not assure a profit nor does it protect against loss of principal. Indices are not securities in which investments can be made.

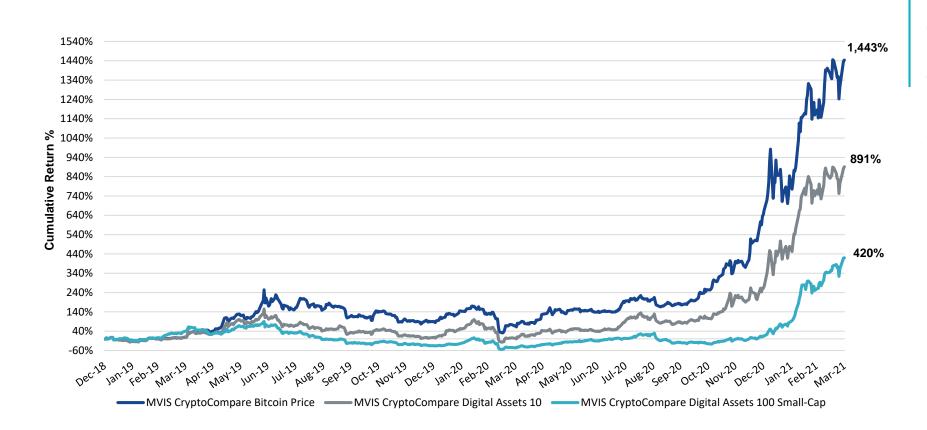
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# **Bitcoin and Large-Caps Decouple From Small-Caps**



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#### 12/31/2018 - 3/31/2021



#### **Differentiated Performance**

As the digital asset industry has matured, Bitcoin decouples from small caps and drives large-cap index performance

Bitcoin to small cap performance difference has been 552% and the large cap to small cap performance difference has been approximately 471% since the start of 2019 as illustrated by the below indices

### **Bitcoin Offers Portfolio Diversification**



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#### 2/1/2012 - 3/31/2021

	S&P 500	US Bonds	Bitcoin	Gold	US Real Estate	Oil	Emerging Market Currencies
S&P 500	-	-0.04	0.16	0.04	0.63	0.55	0.44
US Bonds	-0.04	-	0.00	0.46	0.39	-0.10	0.37
Bitcoin	0.16	0.00	-	-0.06	-0.01	0.09	-0.01
Gold	0.04	0.46	-0.06	-	0.08	0.06	0.42
US Real Estate	0.63	0.39	-0.01	0.08	-	0.29	0.45
Oil	0.55	-0.10	0.09	0.06	0.29	-	0.32
Emerging Market Currencies	0.44	0.37	-0.01	0.42	0.45	0.32	-

#### Correlation

Low correlation with traditional asset classes such as broad market equity indices, bonds and gold

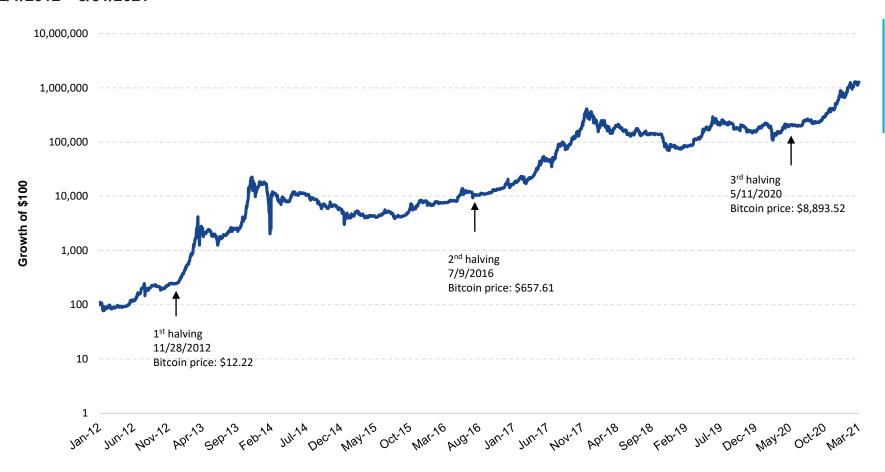
Potential for increased portfolio diversification

# **Bitcoin Halving Illustrates Scarcity-Driven Historical Growth**



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#### 2/1/2012 - 3/31/2021



#### **Halving and Historical Growth**

Halving is defined as a 50% block reward cut to bitcoin production rate. Halvings are programmed into bitcoin and occur roughly every four years (210,000 blocks)

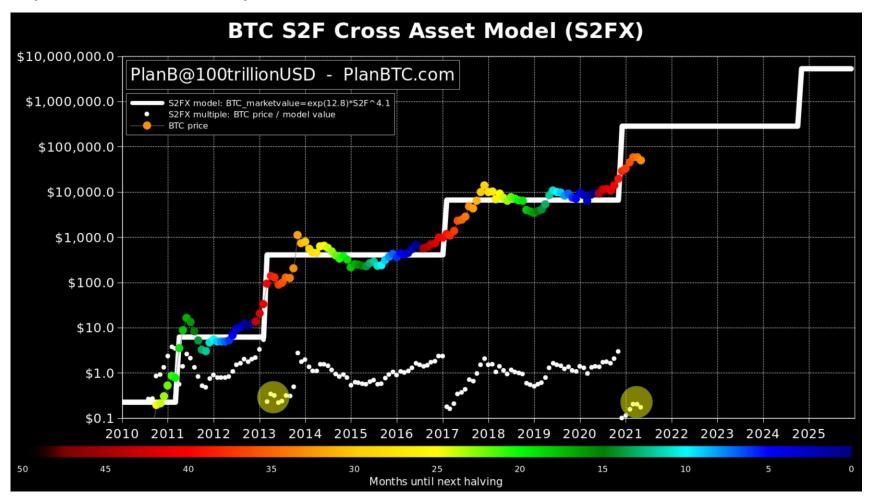
Historically, given the increasing scarcity induced by halvings, the price of bitcoin has increased following halvings over the course of Bitcoin's lifecycle

### Stock to Flow Ratio Illustrates Bitcoin Growth Potential



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#### Why Bitcoin has Value: Scarcity



#### Stock to Flow Details

The stock to flow ratio is defined as the amount of an asset that is held in reserves divided by the amount of that asset produced for a selected time period

The below stock to flow data suggest that bitcoin may have potential to grow based on historical data and scarcity characteristics of bitcoin, gold and silver

### **Bitcoin Market Structure Risks**



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#### Bitcoin risks to consider include:

- Hacking of trading platforms and participants in the life cycle of a trade (usually social engineering)
- Price volatility
- Encryption vulnerability; developments in quantum computing (which would increase success of private key hacking; credit cards more vulnerable nevertheless)
- Novelty/extreme early stage of many applications
- Unintentional coding error
- Can miners and developers "run" the "core" software? (Linux is a good example for successful execution)
- Ecosystem design
- Will payments continue to sustain processing and verification activities?





**Accelerating Bitcoin Adoption** 

# **Strong Momentum in Crypto Adoption**



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#### **Public Companies Buying Bitcoin on their Balance Sheets**

• A number of public and private companies started investing in bitcoin as an alternative to holding cash on their balance sheet. These public companies buy bitcoin on crypto exchanges as no bitcoin ETFs are available to them. Tesla, Square, MicroStrategy, Marathon Patent Group are just a few examples that amassed hundreds of millions to billions of dollars in bitcoin exposure\*

#### **U.S. Approved Bitcoin Product**

The U.S. SEC approved a 1940 Act bitcoin interval fund that invests in bitcoin futures (NYDIG, Stone Ridge Trust VI)\*\*

#### **Public Payments Companies with Tens of Millions of Users Offer Bitcoin**

Paypal launched a new service enabling bitcoin and digital asset buying and selling capability to their network. They service 26 million merchants and 346 million clients globally\*\*\*.
 SoFi, Robinhood and others offer similar solutions and banks seeking to offer bitcoin to compete with fintech offerings to serve their client-base in a regulatory-conscious way

#### **Other Developed Market Regulators Approved Bitcoin ETPs**

Canada, Brazil, Germany and other nations have approved bitcoin ETPs for trading on public markets. U.S. investors are getting bitcoin fund exposure in foreign jurisdictions because regulated U.S. bitcoin ETPs are not available

#### **BTC Available via CFTC Supervised Markets**

CFTC approved CME Bitcoin Futures markets are now of significant size and used for hedging\*\*\*\*

#### **OTC Traded Funds are Growing In Assets and Number**

Investors are getting exposure to bitcoin through pooled investment vehicles that are traded OTC with significant premiums/discounts. Individuals, mutual funds and pension funds
are forced to get access to bitcoin through these highly inefficient vehicles as regulated U.S. bitcoin ETPs are not available

#### **IPOs**

Digital asset companies are increasingly going public. Investors are getting indirect exposure to digital assets in the public markets anyways.

<sup>\*</sup> https://bitcointreasuries.org/

<sup>\*\*</sup> https://www.sec.gov/Archives/edgar/data/1764894/000119312519301050/d693146dn2a.htm

<sup>\*\*\*</sup> Paypal

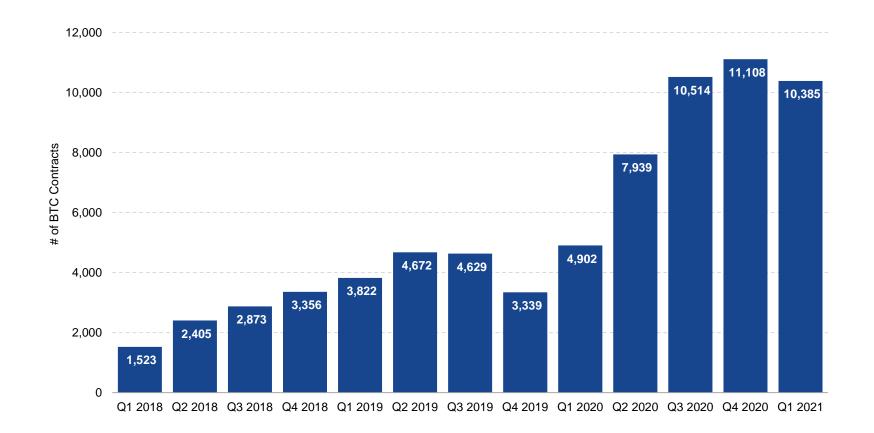
<sup>\*\*\*\*</sup> CME

### **CME Bitcoin Futures Contract Sets New Trading Record**



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#### **CME Bitcoin Futures Average Daily Open Interest**



#### **CME Bitcoin Future Details**

1 CME Bitcoin Futures contract represents the equivalent of 5 bitcoins.

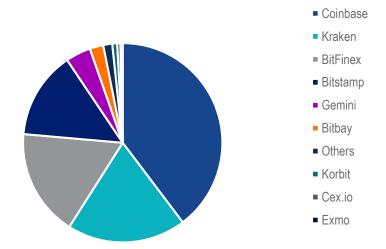
# **Bitcoin Trading is Not Concentrated**



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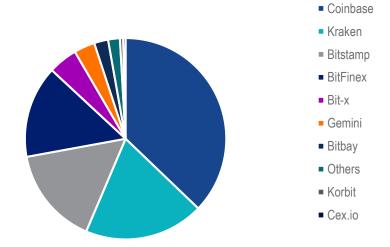
### 1 Month (4/12/2021 - 5/12/2021)

Exchange	Volume (BTC)	Market Share
Coinbase	620K	39.71%
Kraken	301K	19.30%
BitFinex	271K	17.38%
Bitstamp	222K	14.19%
Gemini	63.6K	4.07%
Bitbay	34.5K	2.21%
Others	22.8K	1.46%
Korbit	12.4K	0.79%
Cex.io	8.08K	0.52%
Exmo	5.83K	0.37%



### 6 Month (11/12/2020 - 5/12/2021)

Exchange	Volume (BTC)	Market Share
Coinbase	4.78M	37.16%
Kraken	2.47M	19.24%
Bitstamp	2.02M	15.72%
BitFinex	1.90M	14.80%
Bit-x	602K	4.68%
Gemini	432K	3.36%
Bitbay	289K	2.25%
Others	243K	1.89%
Korbit	66.2K	0.52%
Cex.io	48.4K	0.38%



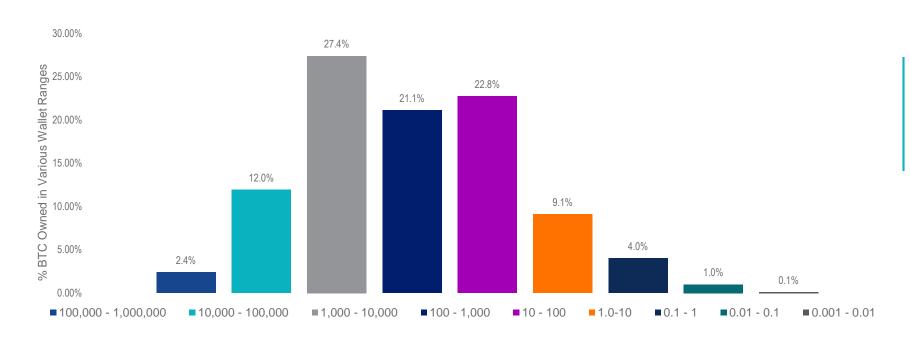
Source: Bitcoinity. Data as of May 2021.

Please see important disclosures and index descriptions at the end of this presentation.

# **Bitcoin Ownership Seems Well Distributed/Not Concentrated**



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Amount BTC Owned	Number of Wallets	Amount Owned	Total % Owned	Cumulative % Owned
100,000 - 1,000,000	3	25,713,370,700	2.4%	2.4%
10,000 - 100,000	84	126,222,996,852	12.0%	14.4%
1,000 - 10,000	2092	289,381,126,100	27.4%	41.8%
100 - 1,000	13996	223,270,061,877	21.1%	62.9%
10 - 100	130817	240,218,527,716	22.8%	85.7%
1.0-10	667010	96,088,969,440	9.1%	94.8%
0.1 - 1	2397747	42,450,808,766	4.0%	98.8%
0.01 - 0.1	5762560	10,522,035,939	1.0%	99.8%
0.001 - 0.01	9398494	2,034,119,572	0.1%	100.0%

Source: Bitcoin Blockchain; as of May 2021.

Please see important disclosures and index descriptions at the end of this presentation.

#### **Additional Considerations**

Multiple wallets per person

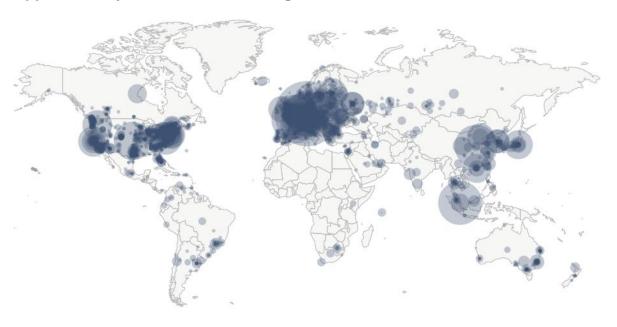
Digital asset exchange wallets represent bitcoin holdings of multiple persons

# **Bitcoin Adoption Continues: Nodes and Users**



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### Approximately 10,000 Bitcoin Mining Nodes and 100,000 Full Nodes



- A full-node is a computer that downloaded and continuously updates a full copy of the Bitcoin-blockchain (You can host your own full node with as little as 200GBs! It's your own mini bank!)
- A mining node is a computer that participates in the verification of transactions on the Bitcoin-blockchain

#### **9399 Nodes**

Top 10 countries with their respective number of reachable nodes are as follows

United States  Germany  n/a*  France	1940 (20.76%) 1816 (19.43%) 1394 (14.91%) 595 (6.37%)
n/a*	1394 (14.91%)
France	595 (6.37%)
Netherlands	407 (4.35%)
Canada	320 (3.42%)
United Kingdom	267 (2.86%)
Russian Federation	232 (2.48%)
China	191 (2.04%)
	156 (1.67%)

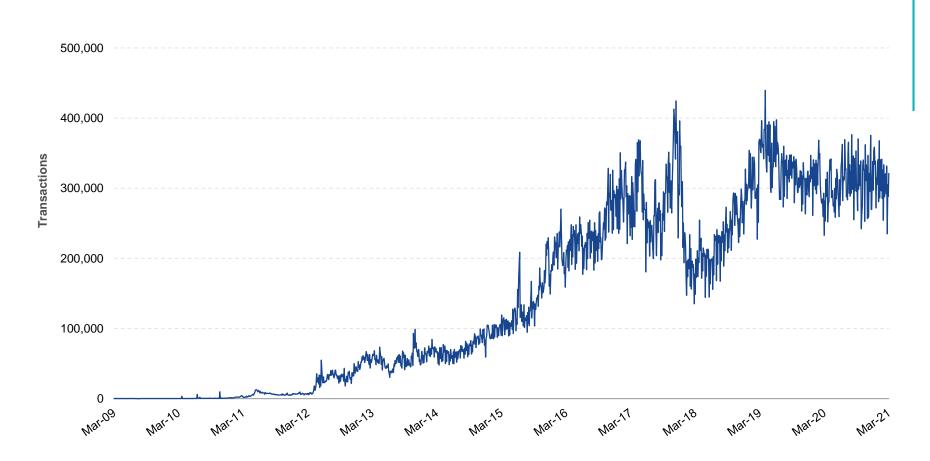
<sup>\*</sup> n/a represents unknown locations, but likely are mining pools. Source: Bitnodes.com. Data as of May 2021.

# **Bitcoin Adoption Continues: On-Chain Transactions**



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### **Daily Confirmed Bitcoin Transactions**



### **Significant Transaction Volume**

Bitcoin transactions cross 300,000 permissionless transactions a day exhibiting significant network value

# **Tracking Bitcoin Adoption Off-Chain**



- A number of applications are being built on Bitcoin and there is a natural evolution taking place
- Sidechains could be the next step in boosting Bitcoin adoption as they allow for scalability and customizations while retaining Bitcoin's security properties
- Built on top of the Bitcoin-blockchain, the Lightning Network pushes the boundaries of Bitcoin payment capabilities with lower costs and faster speeds
- Taking advantage of Bitcoin's trust-minimized features, Microsoft works to build a decentralized identity platform on the Bitcoinblockchain\*

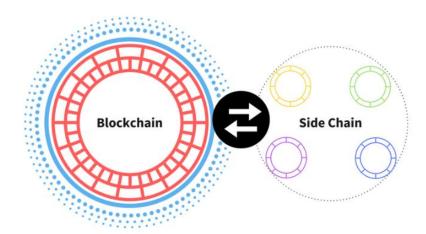


Please see important disclosures and index descriptions at the end of this presentation.

# **Sidechains Supercharge Bitcoin Capabilities**



- Established code base Sidechains are based on Bitcoin-blockchain architecture
- Security Sidechains preserve the most important security properties of the Bitcoin-blockchain
- Scalability Sidechain transactions make verification faster (Example: The Liquid sidechain supports Lightning enabling scalability up to millions of transactions per second
- Privacy Confidential transactions increase privacy for network participants
- Customization Possible to apply investor restrictions on sidechains, Bitcoin is permissionless



# Lightning Network is a Significant Payments Layer on Bitcoin



- The Lightning Network Is a payment-focused layer 2 application built on top of the Bitcoin-blockchain (almost like a sidechain but different)
- Scalability Millions of transactions per second vs Bitcoin (7 tx/sec) and Visa (45,000 tx/sec)\*
- Cost Bitcoin transactions to reduce to fraction of a cent, instead of dollars
- Privacy Retained from Bitcoin network; identity only posted when lightning channel closed
- Importance Decentralized and trust-minimized transactions to compete with established centralized payment networks such as Visa, MasterCard, PayPal, etc...



<sup>\*</sup> Visa. Data as of 08/2017.

# Microsoft Secures Online Identity Using Bitcoin



- What? Decentralized online identity platform; secure trust-minimized login
- Who? Microsoft decides to build it on Bitcoin
- Where? Built on top of the Bitcoin-blockchain (layer 2)
- Why? Online identity is centralized, fragmented and prone to theft
- When? Launched on testnet in May 2019\*



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# Other On Chain Developments to Monitor



- **Taproot:** Soft fork that aims to enhance Bitcoin's privacy measures, smart contract flexibility, and ability to mask complex transactions on the blockchain
- Schnorr Signature Algorithm: A digital signature algorithm well-known for the ability to aggregate multiple signature into a single one, which makes transactions indistinguishable, thus increasing privacy.
- **Simplicity:** Low-level programming language and machine model for blockchain-based smart contracts.



# **No Jargon Bitcoin Content**



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VanEck is committed to communicating with clients clearly about the opportunities and risks associated with bitcoin and other digital assets

### Blog Series:

The Latest on Bitcoin—Without the Jargon

No Jargon Answer to What is Bitcoin?

Why Invest in Bitcoin?

The Investment Case for Bitcoin

Bitcoin Is in a Supply Shortage

Bitcoin Mining and ESG Presentation

The DeFi Threat to Wall Street

Dispatch from the Bitcoin Conference: Meet the Other Maximalists

#### **Podcast Series**

No Jargon Bitcoin - Ep. 1 What is Bitcoin with Pierre Rochard

No Jargon Bitcoin – Ep. 2 Bitcoin's Growing Popularity with Institutions

No Jargon Bitcoin – Ep. 3 How to Trade Bitcoin with Ari Paul

Twitter: Crypto market insights and commentary provided by <a href="mailto:@gaborgurbacs">@gaborgurbacs</a> and <a href="mailto:@vaneck\_us">@vaneck\_us</a>

### **Index Definitions**



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The S&P® 500 Index: a float-adjusted, market-cap-weighted index of 500 leading U.S. companies from across all market sectors. The Bloomberg Barclays U.S. Aggregate Bond TR Index: is a broad-based benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries. government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency). The Bloomberg Barclays EM Local Currency Government TR Index: is a flagship index that measures the performance of local currency Emerging Markets (EM) debt. Classification as an EM is rules-based and reviewed annually using World Bank income group, International Monetary Fund (IMF) country classification and additional considerations such as market size and investability. The MSCI US REIT Index: is a free float-adjusted market capitalization index that is comprised of equity REITs and represents about 99% of the US REIT universe and securities are classified in the Equity REITs Industry (under the Real Estate sector) according to the Global Industry Classification Standard (GICS®). It however excludes Mortgage REIT and selected Specialized REITs. The Brent Crude Oil Spot Price Index represents the average price of trading in the prevailing North Sea 'cash' or forward market in the relevant delivery month as reported and confirmed by industry media. The S&P GSCI Gold Index: Is a sub-index of the S&P GSCI, provides investors with reliable and publicly available benchmark tracking the COMEX gold future. The index is designed to be tradable, readily accessible to market participants, and cost efficient to implement. The MSCI ACWI Index measures the performance of the large and mid cap segments of all country markets. It is free float-adjusted market-capitalization weighted. The MVIS CryptoCompare Bitcoin Index measures the performance of a digital assets portfolio which invests in Bitcoin. The MVIS CryptoCompare Digital Asset 10 Index is a modified market cap-weighted index which tracks the performance of the 10 largest and most liquid digital assets. The MVIS CryptoCompare Digital Asset 100 Small-Cap Index is a market cap-weighted index which tracks the performance of the 50 smallest digital assets in the MVIS CryptoCompare Digital Assets 100 Index. The VanEck Vectors Bitcoin ETN (VBTC) is a fully-collateralized exchange traded note that invests in bitcoin. The note seeks to replicate the value and yield performance of the MVIS CryptoCompare Bitcoin VWAP Close Index (MVBTCV Index). The Bitcoin Fund (QBTC) is a closed-end fund incorporated in PORTFOLIO ALLOCATION Canada. The fund seeks exposure to digital currency bitcoin and the opportunity for long-term capital appreciation

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