

The image features a dark blue square in the top left corner containing the text "K&L GATES" in white, sans-serif, uppercase letters. The background of the slide is a complex, abstract graphic. It includes a world map composed of blue dots, overlaid with orange and yellow bar charts and line graphs. A specific data point on one of the graphs is labeled "+11,00.00". The overall color palette is dominated by dark blues, oranges, and yellows, creating a high-tech, financial aesthetic.

K&L GATES

2018 INVESTMENT MANAGEMENT CONFERENCE  
Chicago November 13, 2018

# Crypto, FinTech and Blockchain

Rick Giovannelli, Partner, Charlotte, NC  
Jennifer Crowder, Partner, Washington, DC

# WELL, THAT WAS TERRIFYING

But, which is more terrifying:

- Crypto Regulation, or
- Crypto Asset Prices?

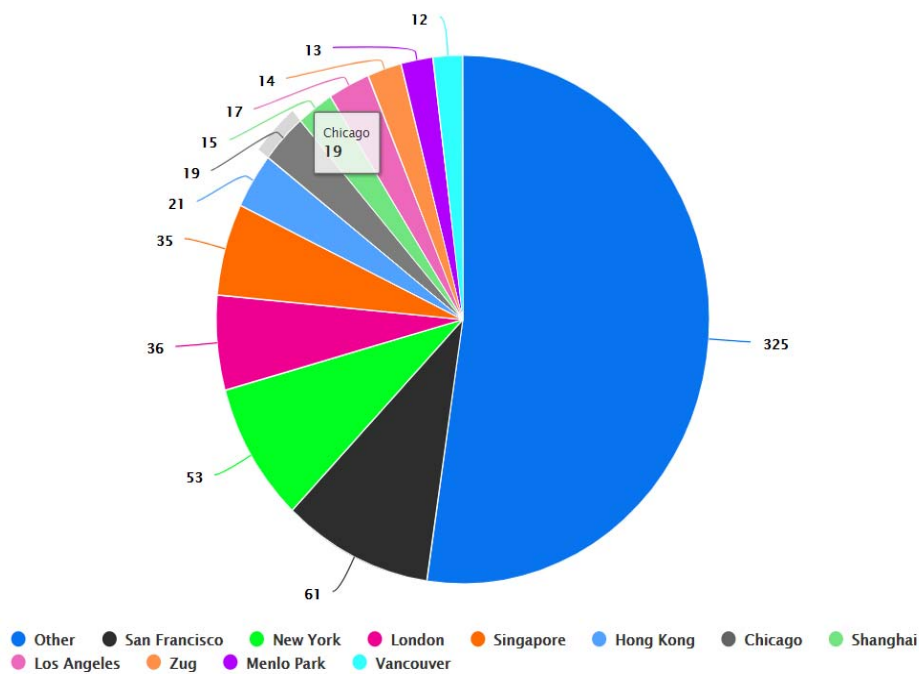


# Crypto Fund AUM: We Ain't Scared



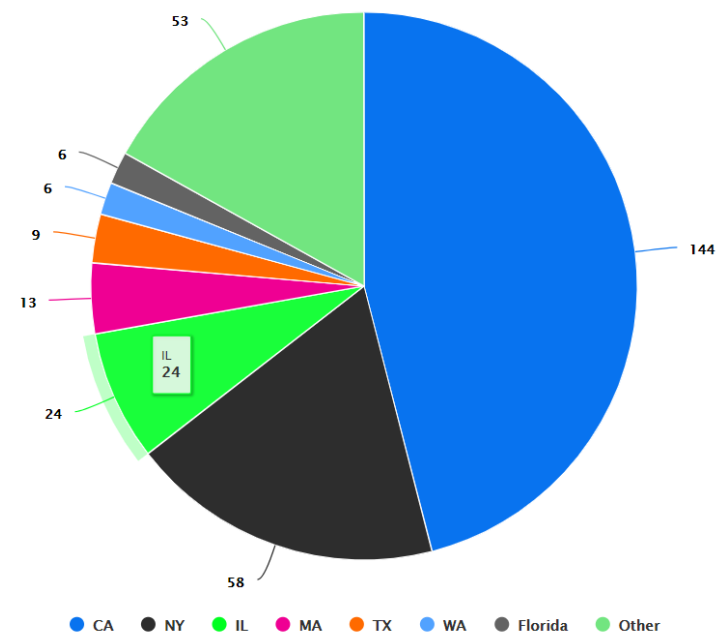
# Hello, Neighbor – Chicago as a Crypto Hub

Crypto Funds by City



Crypto Fund I

Crypto Funds by State





# Overview of Crypto Market Dynamics





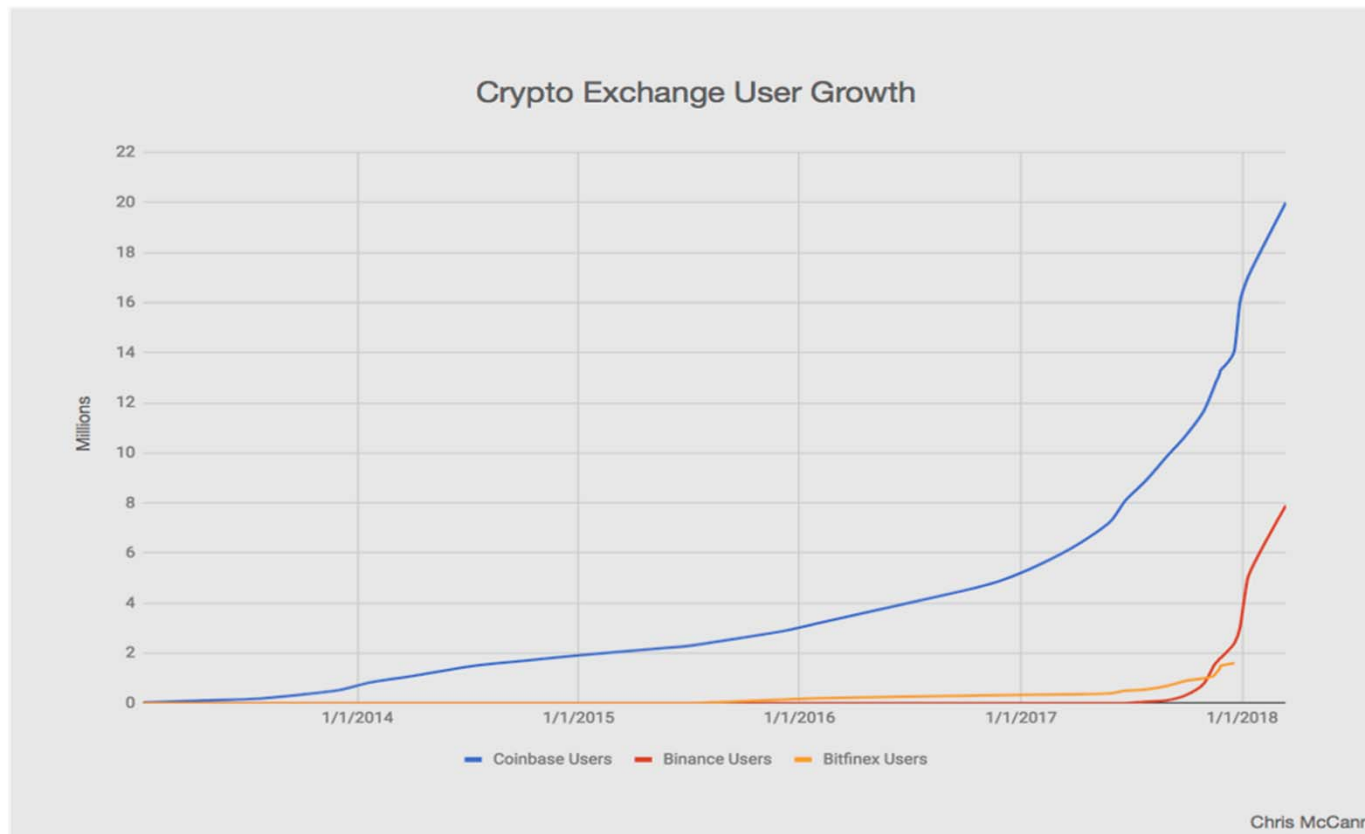
# Crypto is Not Just Bitcoin

Cryptocurrencies ▾ Exchanges ▾ Watchlist					
#	Name	Symbol	Market Cap	Price	Circulating Sup
1	Bitcoin	BTC	\$111,380,557,655	\$8,411.73	17,388,000
2	Ethereum	ETH	\$21,750,755,544	\$210.95	103,108,000
3	XRP	XRP	\$20,270,225,928	\$0.504165	40,205,508,700
4	Bitcoin Cash	BCH	\$9,538,057,398	\$548.60	17,449,000
5	EOS	EOS	\$4,922,724,938	\$5.43	906,245,100
6	Stellar	XLM	\$4,879,534,180	\$0.257529	18,947,524,400
7	Litecoin	LTC	\$3,085,520,883	\$52.22	59,092,000
8	Cardano	ADA	\$1,941,981,182	\$0.074902	25,927,070,500
9	Tether	USDT	\$1,771,324,877	\$0.997131	1,776,421,700
10	Monero	XMR	\$1,770,553,374	\$108.93	16,557,000
11	TRON	TRX	\$1,519,584,188	\$0.023112	65,748,111,600
12	Dash	DASH	\$1,353,137,290	\$160.41	8,435,000
13	IOTA	MIOTA	\$1,328,308,037	\$0.477889	2,779,530,200
14	Binance Coin	BNB	\$1,254,683,494	\$9.59	130,799,300
15	NEO	NEO	\$1,048,831,175	\$18.11	65,000,000
16	Ethereum Classic	ETC	\$1,008,528,970	\$9.50	105,917,000
17	NEM	XEM	\$831,230,255	\$0.092359	8,999,999,900
18	Tezos	XTZ	\$790,798,681	\$1.30	607,489,000
19	Zcash	ZEC	\$704,145,297	\$135.37	5,201,000
20	VeChain	VET	\$587,481,360	\$0.010233	55,454,734,800

#	Name	Symbol	Market Cap	Price	Circulating Supply	Volume (24h)
21	Bitcoin Gold	BTG	\$513,258,116	\$29.61	17,334,711	\$3,927,181
22	Maker	MKR	\$478,093,087	\$656.52	728,228 *	\$317,065
23	OmiseGO	OMG	\$468,891,942	\$3.34	140,245,398 *	\$23,713,269
24	0x	ZRX	\$390,789,856	\$0.715693	546,029,782 *	\$9,372,301
25	Dogecoin	DOGE	\$363,882,374	\$0.003112	116,917,975,233	\$17,235,320
26	Decred	DCR	\$354,638,871	\$40.35	8,788,052	\$1,613,437
27	Qtum	QTUM	\$349,250,115	\$3.92	89,024,592 *	\$112,209,851
28	Ontology	ONT	\$338,013,109	\$1.63	207,016,949 *	\$24,246,478
29	Lisk	LSK	\$309,670,730	\$2.77	111,994,995 *	\$4,507,153
30	Basic Attenti...	BAT	\$279,804,812	\$0.279805	1,000,000,000 *	\$36,983,790
31	Zilliqa	ZIL	\$274,537,827	\$0.034742	7,902,143,771 *	\$8,482,208
32	Aeternity	AE	\$271,264,379	\$1.16	233,020,472 *	\$5,333,490
33	Bitcoin Diamond	BCD	\$266,383,916	\$1.73	153,756,875	\$1,116,756
34	BitShares	BTS	\$252,617,622	\$0.094589	2,670,690,000 *	\$3,223,309
35	Nano	NANO	\$248,094,382	\$1.86	133,248,289 *	\$3,420,603
36	Bytecoin	BCN	\$240,535,591	\$0.001307	184,066,828,814	\$429,927
37	ICON	ICX	\$230,284,010	\$0.594387	387,431,340 *	\$10,181,458
38	Siacoin	SC	\$229,508,855	\$0.006091	37,679,831,499	\$3,753,696
39	DigiByte	DGB	\$224,309,361	\$0.020329	11,033,983,155	\$1,710,222
40	Pundi X	NPXS	\$216,886,011	\$0.001521	142,603,994,148 *	\$15,397,186



# More Investors are Trading Crypto



# More Regulation, Volume Up, Volatility Down: Crypto is a ... Maturing Asset (Class)?

We're seeing more institutional movement into this area. And **with more institutional movement, we should see more maturation** of this market, but there is still a long way to go.

-- Chris Giancarlo, CFTC Chair, AKA "Crypto Dad"

## A New Signal Of Maturing Cryptocurrency Markets: Corporate And Foundation Investment Arms



**Jonathan Chester** Contributor   
Entrepreneurs

Forbes, Aug 20, 2018

**AIP** Chaos: An Interdisciplinary  
Journal of Nonlinear Science



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Home > Chaos: An Interdisciplinary Journal of Nonlinear Science > Volume 28, Issue 7 > 10.1063/1.5036517

Published Online: 17 July 2018 Accepted: June 2018

**Bitcoin market route to maturity? Evidence from return fluctuations, temporal correlations and multiscaling effects**

**FORTUNE**

## How Crypto Will Grow Into an Institutional Asset Class

By SALIL DESHPANDE September 12, 2018

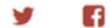


# Crypto? Really? Maturing?



With its volatility on the decline, is Bitcoin fading away or just maturing?

By VILDANA HAJRIC  
BLOOMBERG | OCT 05, 2018

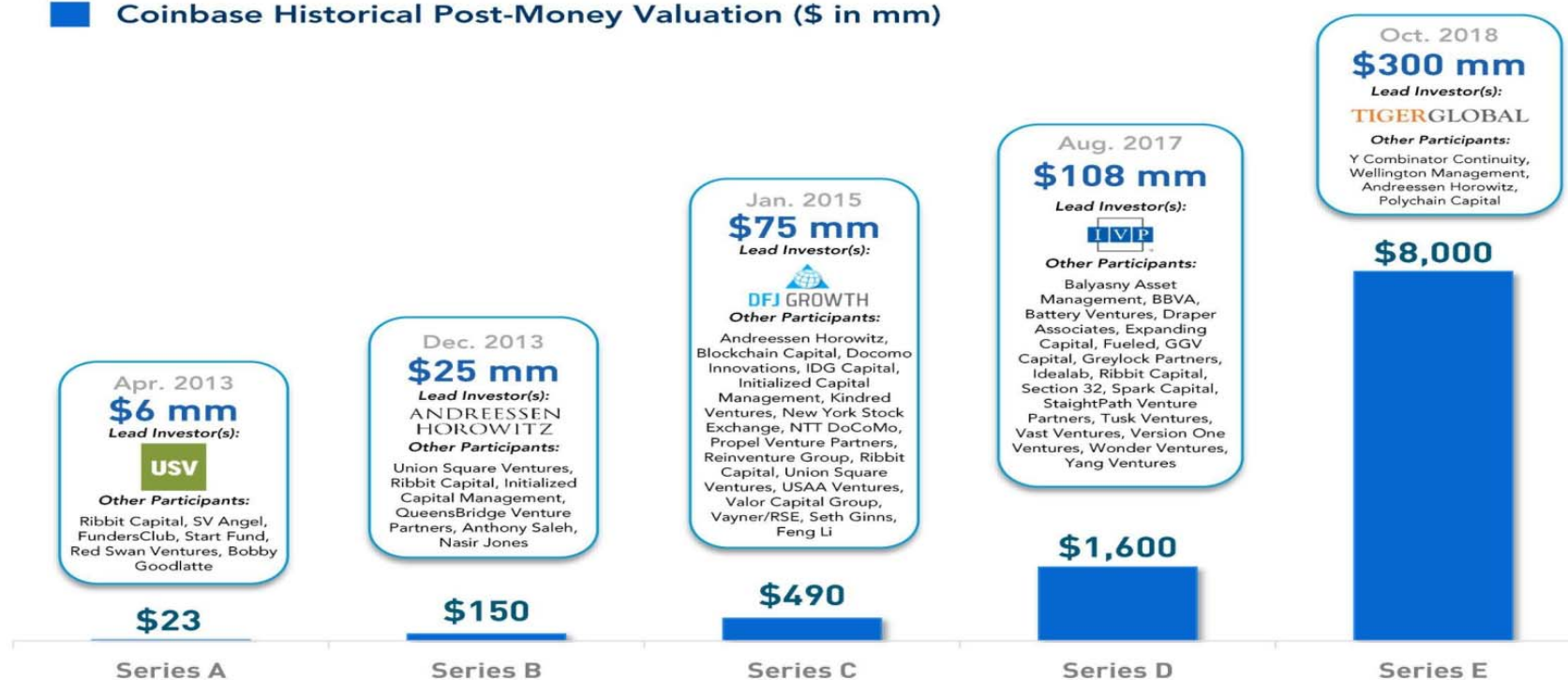


- Maybe that's the wrong question?
- Consumers adopting crypto for payments
- Institutional investors
  - Avoid investing directly in crypto itself
  - Betting heavily on crypto use cases and service providers



# CRYPTO EXCHANGE VALUATION

## Coinbase Historical Post-Money Valuation (\$ in mm)

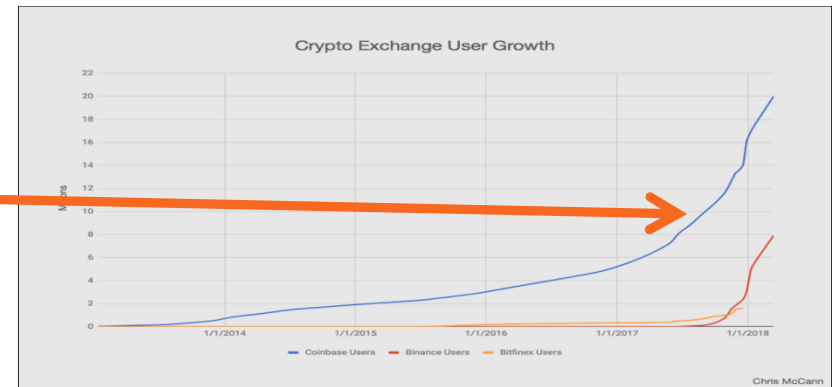


Source: FT Partners' Proprietary Transaction Database, PitchBook

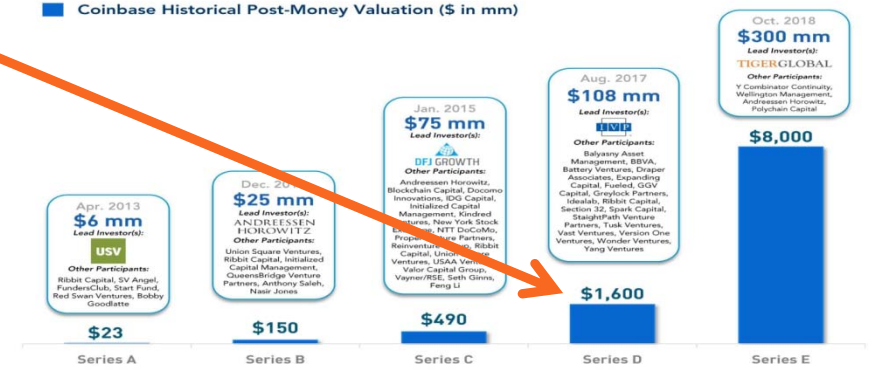
5


# INVESTORS TRACKING ADOPTION OF ASSET CLASS, NOT PRICE OF UNDERLYING ASSETS

Bitcoin · \$6,348.73 Bitcoin Cash · \$545.28 Ethereum · \$210.17 Litecoin · \$51.85 1H 24H 1W 1M 1Y ALL




■ Coinbase Historical Post-Money Valuation (\$ in mm)



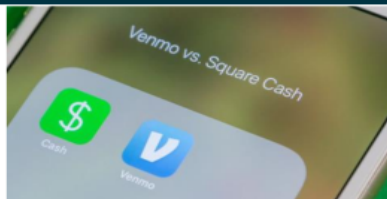
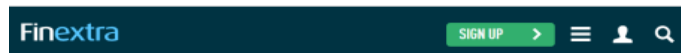


# Retail and Consumer Investment and Applications





# CONSUMERS ARE USING CRYPTO



## Square overtakes Venmo as Cash app cryptocurrency play bears fruit

15 August 2018

9 8 1

Square's push into the cryptocurrency market is leading to a surge in downloads for the firm's Cash app, surpassing PayPal's popular Venmo mobile money service for the first time.

Cumulative downloads for the Cash App now total 33.5 million, exceeding Venmo's 32.9 million for the first time ever, according to data from Sensor Tower and Nomura.

Square's service grew three times faster than its competitor from PayPal in July, just one month after the firm secured a virtual currency license from the New York State Department of Financial Services (NYDFS).

Nomura Instinet analyst Dan Dolev says: "If the Cash App continues to grow rapidly, the business could reach or even exceed \$100 million in sales by 2020, even without deeper active user penetration. With impressive user growth and ongoing decoupling from Bitcoin, we believe Square's monetization efforts are increasingly bearing fruit."

The payments company fully launched the ability to buy and sell bitcoin in its Cash app in January. While revenues from trading in bitcoin hit an impressive \$34 million in the first three months, the cost of buying bitcoin to run the service amounted to £33.9 million.

Undeterred by the miniscule returns and bearish sentiment in bitcoin trading, Square is actively working to raise its game in the cryptocurrency markets, tweeting yesterday that it had secured approval to operate the service in all 50 US states.

Red, white, and bitcoin. Now you can use Cash App to buy bitcoin in all 50 states.  
pic.twitter.com/D4fhVRz7WL

— Cash App (@CashApp) August 13, 2018

4,880 views | Sep 10, 2018, 11:05pm

## Forbes Should Your Company Accept Bitcoin And Other Cryptocurrency

or

and how to help startups succeed.



ALTCOINS October 30, 2018 • Daily Node Staff

## New Ad From Ripple Mocks Slow Speed of Banks As XRP Platform Launches Instant Crypto Payments Via Text



Ripple just released a new advertisement showing how slow it can be to move money in the digital age.

According to the ad, the current financial system is so outdated, banks could better serve their customers by hopping on a plane to transport cash from one place to another.

It's faster to get on a plane and fly money across borders than it is to send it as a digital payment. @Ripple is changing that. Learn more: <https://t.co/IWuGHcp3Tu>  
pic.twitter.com/RAxEks9qxv





## BLOCKCHAIN PAYMENT USE CASES *OTHER THAN CRYPTOCURRENCIES*

- Financial services
  - Cross-border payments
    - Ripple, Amex, **Veem**, and Santander Bank's "Payment Corridor"
  - Secure institutional payments
    - UBS developing a proof-of-concept for the "Utility Settlement Coin"



# BLOCKCHAIN TOKEN USE CASES *OTHER THAN CRYPTOCURRENCIES*

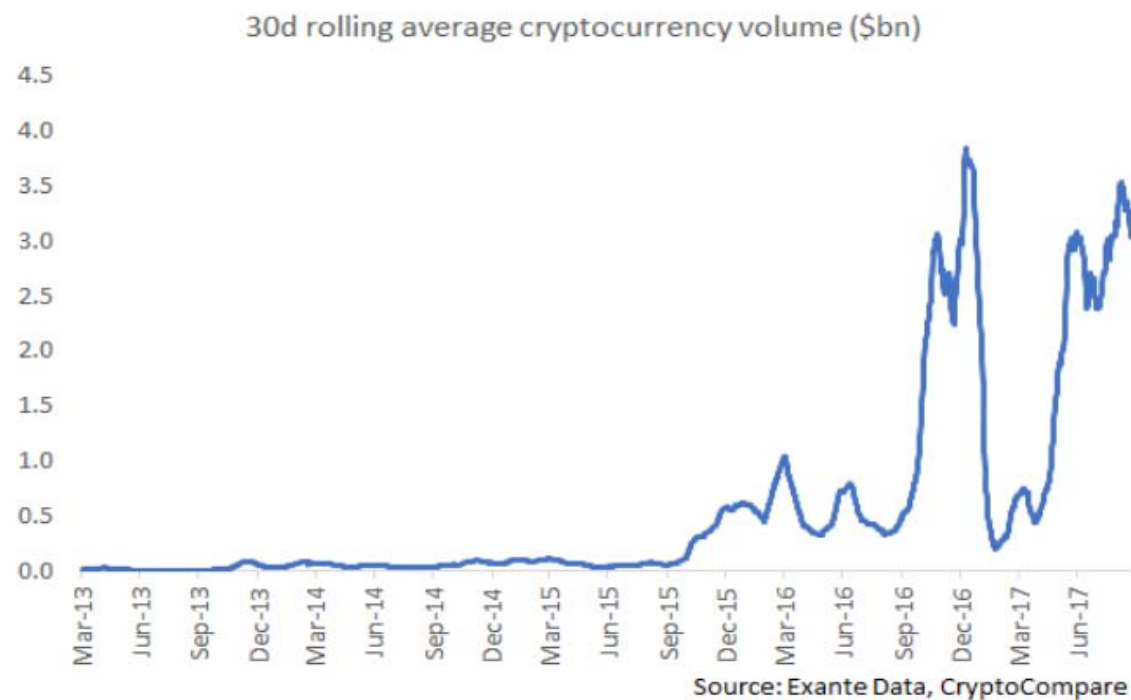
- Real Estate
  - Tokenization of land titles



- Energy
  - Pilot program to tokenize renewable energy certificates



# CRYPTOCURRENCY USE CASES



Cryptocurrency trading volume is up. What is cryptocurrency being used for?

## Cryptocurrency Acceptance at the POS

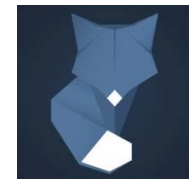
### ■ Coinbase

- Used by Overstock.com since 2014 to accept Bitcoin
- Also used to send, receive, buy and sell

The Coinbase logo, featuring the word "coinbase" in white lowercase letters on a blue rectangular background.

### ■ ShapeShift

- Digital asset exchange (i.e., crypto converter)
- Used by Overstock.com to accept crypto (in addition to Bitcoin)



### ■ bitpay

- Used by retailer to accept Bitcoin
- Retailer can transfer \$ to bank account or store

The Bitpay logo, featuring the word "bitpay" in white lowercase letters on a dark blue rectangular background.The Bitcoin logo, featuring an orange circle with a white Bitcoin symbol (₿) inside, followed by the word "bitcoin" in a bold, black, sans-serif font.

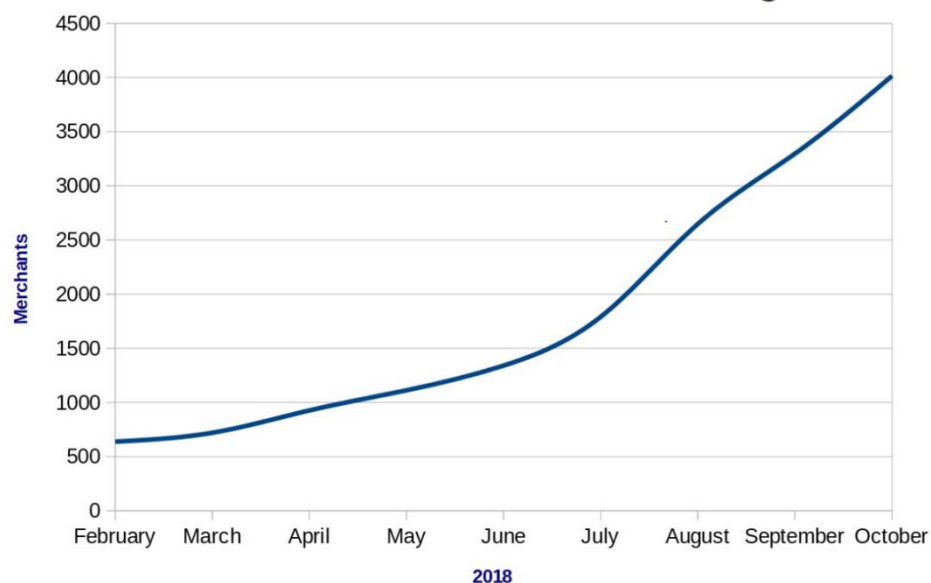
# Cryptocurrency Acceptance at the POS

## ■ Dash

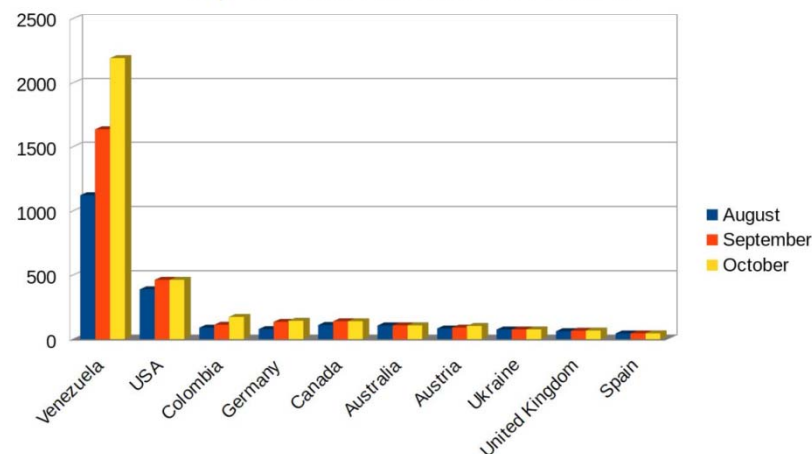
- Direct P2P payments and merchant acceptance
- User friendly with cryptography in the background
- Buy with cash or other cryptocurrencies



Global Discover Dash Merchant Listings



Top 10 Dash Merchant Locations



[discoverdash.com/stats](https://discoverdash.com/stats)



# Cryptocurrency for the Unbanked - Microfinance

- Africa
  - Devaluation of local currency leads to opportunity
  - Lack of regulation adds to opportunity
  - Non-taxation bolsters opportunity
    - Registration is required, but not taxable
  - Access is 24/7, worldwide for digital wallets



# Cryptocurrency as a Charitable Donation

**Digital currency donations to charities increased to \$70M in 2017, up from \$7M in 2016.**

Donate Bitcoins



**FORTUNE**

TECH • BITCOIN

## Bitcoin Charity Donations Soared 10-Fold Last Year, Fidelity Says

By **JEFF JOHN ROBERTS** February 14, 2018

\*\*\*\*\*

Donors contributed nearly \$70 million in Bitcoin and other digital currencies to their favorite causes last year through Fidelity Charitable, according to a [new report](#) by the organization, an independent charitable arm of the Fidelity investment bank.

This amounts to a nearly ten-fold increase from the \$7 million that people donated last year, says Fidelity Charitable, which helps support more than 255,000 non-profits. The report didn't, however, break out individual recipients or specify how much of the \$70 million was in Bitcoin versus other digital currencies like Ethereum.

**Forbes**

2,169 views | May 14, 2018, 07:00pm

## Nonprofits, It Is Past Time To Start Accepting Cryptocurrency Donations



**MAKE A DONATION**

## Retail Use of Cryptocurrency

- HTC Smart Phones

- Target Audience: The blockchain community.
- Advantage: Improved security and privacy.



HTC

HTC's "blockchain phone," the Exodus 1. The phone can only be bought with cryptocurrency.

- Price: The Exodus 1 is available for pre-order at a price of 0.15 bitcoins or 4.78 ether tokens, which is approximately \$960.

# Commercial Use of Tokens

## ■ Populous

- Global invoice trading platform
- PPT – Populous Platform Token
- Auction model
  - Business can sell invoices to receive funds instead of waiting for the customer to pay
  - Buyers can purchase the invoice and then collect the invoice amount plus interest on the due date
- Used by over 40,000 businesses in the UK





# Commercial Use of Tokens

## ■ ShipChain

- Developed a business case, followed with ICO
- Blockchain-based transport and logistics solution
- SHIP Tokens are required to perform transactions on the platform
- South Carolina issued a cease and desist



Bloomberg

Cryptocurrencies

## Blockchain Is About to Revolutionize the Shipping Industry

By [Kyunghee Park](#)

April 18, 2018, 10:01 AM CDT Updated on April 18, 2018, 11:42 PM CDT





## The Intersection of State Money Transmitter Licensing (MTL) Laws & Cryptocurrency

- Can't we just register to do business in the state and call it a day?
- With an online-only presence, we don't need a license, correct?
- Can't we launch a pilot or only launch in a few states and then get our licenses later?



# The Intersection of MTL Laws & Cryptocurrency

- MTL laws protect consumers
- Typically regulate nonbank entities that:
  - Receive and hold consumer funds, or
  - Issue or sell payment instruments (including stored value).
- MTL laws usually require:
  - Minimum capitalization and bonding;
  - Fingerprinting, background checks and financial info on owners;
  - AML compliance program; and
  - Reporting requirements & being subject to audit by state regulators.
- MTL laws have been said to stifle payment innovation when compared to the EU “passporting” system.



# The Intersection of MTL Laws & Cryptocurrency



- Money Transmitter Licensing (state level)
  - 49 states (plus D.C.) have enacted MTL laws
  - 27 states affirmatively do or do not regulate cryptocurrency
  - Licensing triggers
    - Receiving cryptocurrency for transmission
    - Engaging in transmission or exchange involving cryptocurrency & fiat
    - Issuing or selling cryptocurrency
    - Exercising control or custody over cryptocurrency



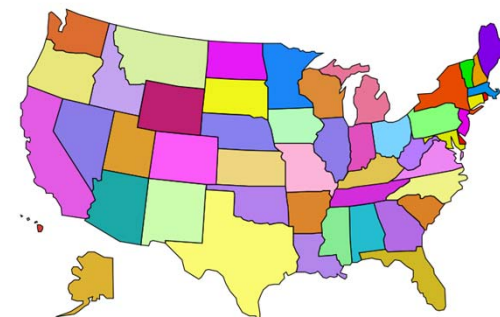
## Is it possible to comply without a license?

- Short answer: Yes, **IF** a program is structured so that an exemption applies or a license is not required
- Exemption examples:
  - Agent of a bank (or other exempt entities)
  - Agent of a licensed money transmitter
  - Agent of the payee
  - Engaging in exempt activities



## Challenges

- Partnering with a bank or licensee = oversight & cost
- Nationwide solution
- To license or not to license
  - Investment
  - Time to market
- States are active with inquiries and enforcement actions





## Recent MTL Developments

- New law in South Carolina – only Montana left
- Eighteen states now expressly include some cryptocurrency activity as requiring a money transmitter or similar license: AL, CO, CT, GA, HI, ID, IL, KS, LA, NM, NY, NC, OR, PA, TN, TX, VT, WA (although some only if fiat involved)



# Regulatory Sandboxes

- Arizona announces first U.S. “Sandbox”
  - Up to 10,000
  - Duration of 10 years
  - Max. Loans: \$15,000 individual/\$50,000 aggregate
  - Max. Money Transmission products or services: \$2,500 individual/\$25,000 aggregate
  - Some limits subject to increase upon showing of adequate capitalization & risk management
  - Consumer disclosures
- Illinois considering it
  - Up to 5,000
  - 12-month test period (possible 6-month extension)
  - No transaction limits



## Taking a Look at: What is the use case?

- Key questions:
  - Due diligence
  - Business plan
  - Financial backing
  - Legitimacy





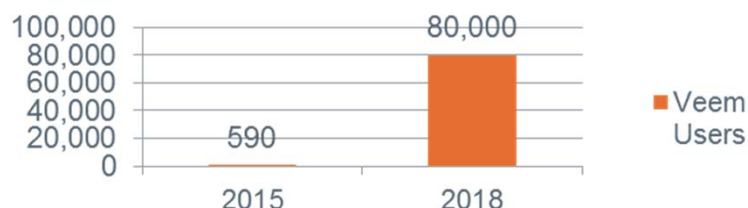
# Crypto Business: Investment Case Study



## Crypto Payments: Case Study - Veem



Instead of relying on a series of correspondents to move money between different jurisdictions around the world, **Veem, uses bitcoin to directly connect its clients' bank accounts with suppliers and customers.** -- *Forbes*



“Whatever you do in life, at the end of the day there’s a payment. **Payment technology is at the core of what people do** and their livelihood.” - Marwan Forzely, Veem CEO





## Crypto INVESTMENT: Case Study - Veem



**Goldman Sachs'** Principal Strategic Investment Group **is strategically backing blockchain companies** that have the potential to improve service for the bank's clients, ... . But fellow Veem investor **GV ... has a much more profit-driven motive ...** Veem could be the first bitcoin startup to go public.

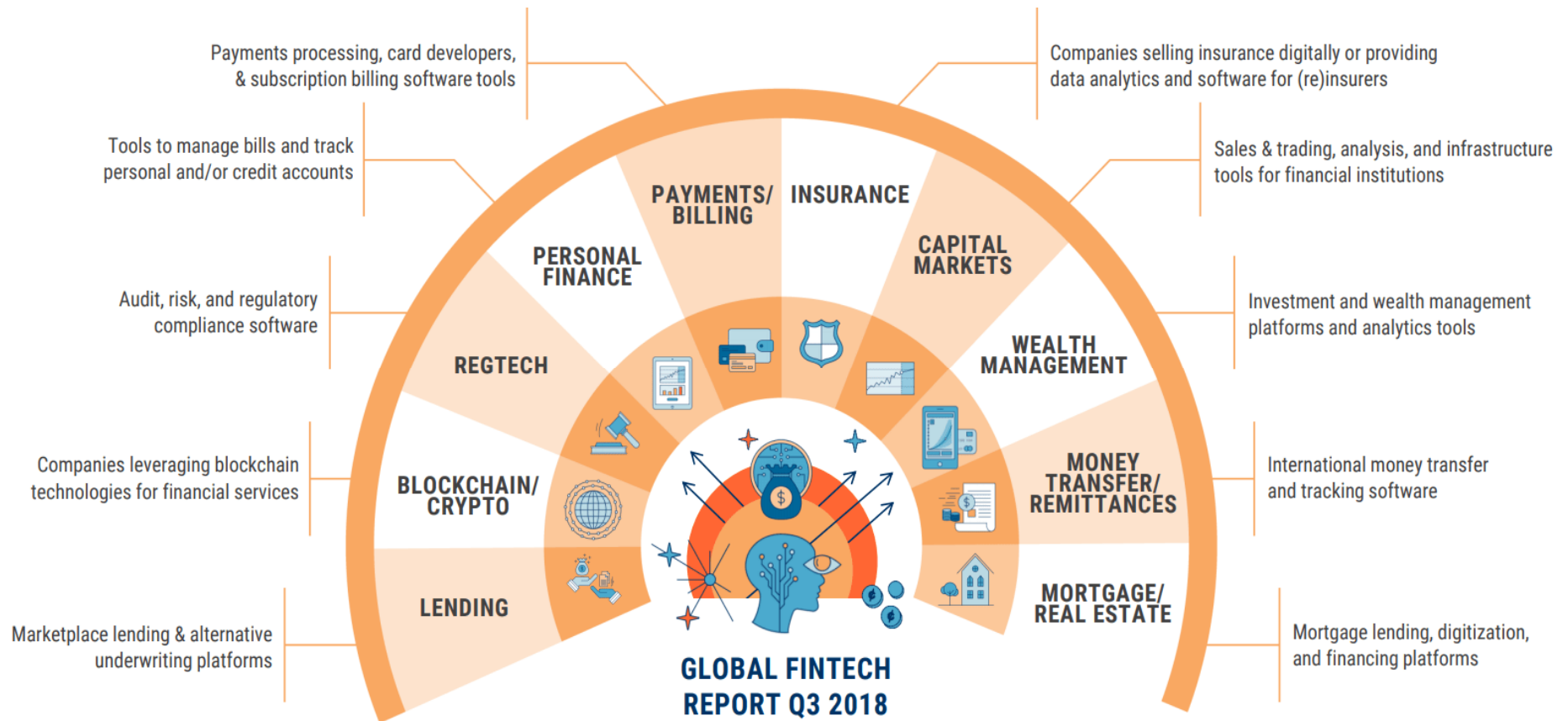
Veem has raised \$25 million to cut intermediary banks out of the payment process altogether. -- *Forbes*





It's Not Just Crypto

# Disruptive Fintech is More than Crypto



# Hello, Neighbor – Chicago as a Fintech Hub

## WealthTech – Landscape

### U.S. WealthTech Geographic Distribution

FINANCIAL  
TECHNOLOGY  
PARTNERS



Note: This map only reflects U.S. companies included in the previous landscape. Several companies do not provide address information and were excluded from this map.





# Fintech is Disrupting Everything ... Including IM

## WealthTech – Landscape

### Industry Landscape – Selected Category Examples

FINANCIAL  
TECHNOLOGY  
PARTNERS

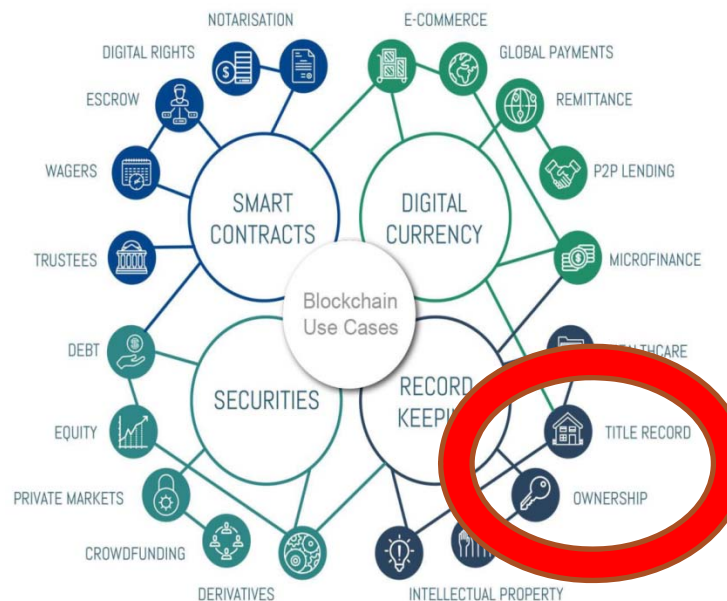


# Blockchain ... as a Service (BaaS) ?

- Blockchain: A “Distributed Ledger Technology”

- Ledger:

- “a book or other collection of financial accounts of a particular type”
- Accounting
  - Audit records
  - Supply Chain Management
- “Stock” ledgers
  - Fractional ownership
  - Securitization
  - Tokenization



# Blockchain as Ownership Ledger for Alt. Assets

Q Search

Bloomberg

Markets

## Blockchain Tested for Making Mortgage Securities Easier to Track

By [Matthew Leising](#)

January 18, 2018, 6:00 AM EST

- ▶ Credit Suisse, Wells Fargo, Western Asset among firms in trial
- ▶ Distributed ledger technology used to simplify securitization

Most Read

Nov 06, 2018 • [Press Releases](#)



## DTCC Enters Test Phase on Distributed Ledger Project for Credit Derivatives with MarkitSERV & 15 Leading Global Banks

With development complete, firm advances to next phase in its journey to launch its re-platformed Trade Information Warehouse (TIW)



# Blockchain and Really Alternative Assets



304 Troutman Street,  
Brooklyn, NY

<https://www.meridio.co/>



"A 'decentralized art gallery'  
(the works are scattered,  
but exhibited together  
online) that 'democratizes'  
investment in art"  
-NY Times

"14 Small Electric Chairs"  
– Andy Warhol

<https://www.maecenas.co/>

Fractional Ownership in  
"Best performing asset class  
of the last decade"  
**Collectible Exotic Cars**



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<https://bitcar.io/>

# The Obligatory Commercial ...

## K&L GATES: COUNSEL TO THE GLOBAL FINTECH INDUSTRY<sup>SM</sup>



### REPRESENTATIVE FINTECH CLIENTS AND DEALS

#### Broad FinTech Transactional Experience

Our corporate and transactional attorneys regularly participate in transactions throughout the lifecycle of fintech companies from inception and seed financings, through subsequent rounds of growth equity and debt financing through an IPO or a liquidity event via a sale to a strategic or financial buyer.

We represent virtually every type of participant in these transactions, including the companies themselves, their founders, venture capital and other growth equity funds, private equity buyers, lenders, strategic venturing and corporate development groups of leading national banks and other financial services companies as well as corporate acquirers.

More than **\$50 BILLION**  
has been invested in almost  
**2,500 FinTech companies**  
since 2010,  
as these  
innovators  
redefine the  
way in which we **store,**  
**save, borrow, invest, move,**  
**spend, and protect money.**







Questions? Drinks?

K&L GATES