PitchBook

PitchBook 3Q 2017 Fintech Analyst Note: Blockchain

An update on ICOs and VC investment in the blockchain

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Key Takeaways

» Regulatory statements in China and the US have yet to temper market enthusiasm for the red-hot cryptocurrency and ICO market. Regulatory action against secondary exchanges in China may put short-term downward pressure on an overheated market, but will ultimately prove bullish.

» SEC recognition that some tokens are securities and some are not is a sensible approach that will encourage the best ideas to continue in a sandbox, while less-innovative projects will face more scrutiny.

» VC investment in blockchain companies has remained relatively flat, even as the ICO market has exploded.

» Only half of valuation step-ups in blockchain companies have outpaced the price increase of bitcoin in the same time period—though that doesn't account for survivorship bias.

Regulatory Update: China

What do the recent regulatory statements in China mean for the future of crypto?

Regulatory statements in China and the US have yet to temper market enthusiasm for the red-hot cryptocurrency and ICO market. Regulatory action against secondary exchanges in China may put short-term downward pressure on an overheated market, but will ultimately prove bullish.

2017 will be forever be the year that cryptocurrencies and blockchain became mainstream “investments.” Bitcoin has exploded north of $4,000—though recently fallen back—while ethereum has tested the $400 level. This growth in popularity has caught the interest of regulators in the largest crypto markets of the US and China. Meanwhile, jurisdictions such as Switzerland have decided to double down on their banking privacy laws in order to create a sandbox for the space. The SEC ruled that the DAO (distributed autonomous organization) project from 2015 was in fact a security as participants benefited from the efforts of others with a reasonable expectation of profit. A few weeks later the People’s Bank of China (PBOC) ruled that ICOs were illegal due to the threat they pose to capital controls as part of a broader crackdown on risky investments. Days later, the PBOC began shutting down secondary exchanges and taking actions against peer-to-peer transactions.

China and other Asian markets have long been drivers of crypto market price action. As of late 2016, 90% of global bitcoin/fiat conversion took place in CNY. A confluence of the cheap electricity and computer hardware required for bitcoin mining and a cultural predilection for saving have propelled the world’s second largest economy into an important driver of the billions flowing into crypto assets.

However, China’s influence in the crypto trading space has significantly waned in 2017 as interest has exploded amongst Japanese, US and Korean traders. While governmental actions by the Chinese are likely to drive down prices in crypto assets in the short term, this is far from the sort of nail-in-the-coffin situation that similar actions may have created even a year ago. Furthermore, this type of unilateral market interference illustrates a primary use case for cryptocurrencies as a means to circumvent authoritarianism. In the long term, this is a bullish signal for cryptocurrencies and blockchain technology as the technology has promising features in regards to facilitating capital flows around the reach of authoritarian regimes. What doesn’t kill bitcoin makes it stronger as it was created with the inevitability of a government crackdown in mind.

Regulatory Update: United States

How will SEC enforcement shape the development of the technology?

SEC recognition that some tokens are securities and some are not is a sensible approach that will encourage the best ideas to continue in a sandbox, while less-innovative projects will face more scrutiny

In the US, the SEC has struck a middle ground so far in regards to how they view ICO legality. In June, the SEC released a statement on the legality of the infamous DAO that was hacked over a year ago to the tune of 3.6 million ether ($60 million at the time, $1 billion at today's prices). The SEC opined that some tokens are securities, but others are not. The difference depends on whether the coin passes the Howey Test*. This ruling generally favors usage tokens. Critics have compared usage tokens to the Wright brothers selling air miles to fund their prototypes at Kitty Hawk, but are not considered securities. Tokens that represent a share of a platform's profits are securities.

*Howey Test—definition of a security, which was established by the US Supreme Court case SEC v. Howey. The case created a Howey Test with three criteria to be met in order to be considered a security:

1. An investment of money
2. in a common enterprise
3. with an expectation of profits predominantly from the efforts of others.

We believe that this ruling encourages capital to flow into the best projects. Usage coins require investors to actually use the product, and encourages development teams to take advantage of the most exciting advantages of crypto projects including network effects and security. Usage tokens also align the interests of the founding team and the users since they will typically allocate a portion of the tokens to themselves and advisors.

On the flip side, the SECs opinion may in some cases make completely useless tokens more valuable than certain legitimate projects—a project called Jesus Coin raised over $1 million based on a joke. Since investors have no reasonable expectation of profit since ownership confers no value, the token is completely legal. As a Bloomberg reporter noted, a parallel example may be that US dollars are more useful as currency than mackerel tins, because you can't eat dollars.

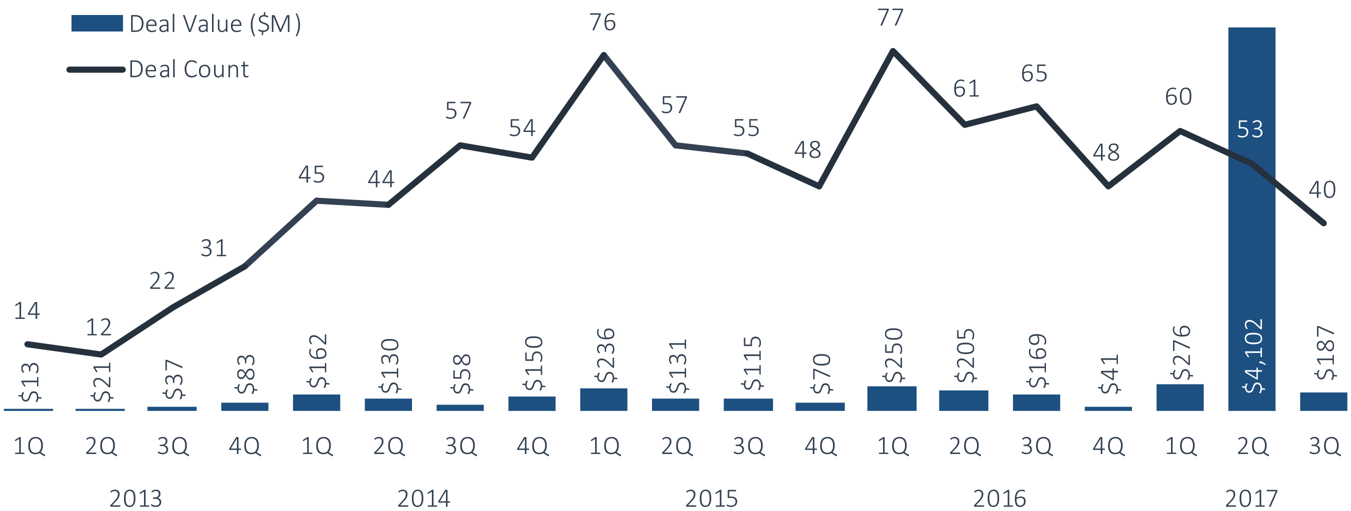
However, the best long-term value tokens are those that act as multi-sided platforms*. Ethereum is an example of this as it unlocks considerable long-term value enabling users to create their own smart contracts and transact with each other. The challenge for startups in the blockchain space will be to create moats around their businesses. The platforms that ultimately win out are those that allow users to unlock value with strong network effects, i.e. the more users the platform has, the more valuable the service.

*Multi-sided Platform—technologies, products or services that create value primarily by enabling direct interactions between two or more customer or participant groups.

Blockchain investment data

Equity investments in blockchain companies have remained effectively flat, even as the ICO market has exploded

Equity investments in blockchain industry companies



Source: PitchBook
*As of 9/12017

The elephant in the room driving equity investment into blockchain startups is the C$4.8 billion ($3.6 billion) tie-up between financial infrastructure firm D+H and Misys, sponsored by Vista Equity Partners. Excluding this mega-deal, private investment into blockchain companies has remained fairly consistent in spite of record interest and acceptance of the technology. There are two major drivers of this trend. First, much of the investment into blockchain technology has occurred on corporate balance sheets. Many banks and large enterprises have formed blockchain working groups to strategize how to leverage the technology as a way to architect internal data structures, and how best to position themselves as thought leaders in the space. Initially, much of this was done merely to allow executives to tell their boards that they were exploring the technology. The second driver has been the popularity of ICOs. Companies can raise millions of dollars with little more than a team page and a whitepaper hosted on a website. This method of funding has shifted power into founder's hands, but has also closed them off from the expertise and networks of the VC industry.

Would VCs be better off buying bitcoin?

Only half of equity valuation step-ups of blockchain companies have outpaced the price increase of bitcoin in the same time period, even accounting for the survivorship bias of successful companies sticking around long enough to raise additional funding.

One of the major appeals of bitcoin and other cryptocurrencies is that they allow investors of all sizes to have exposure to venture-like returns without the lockups or regulatory frictions. To examine, we evaluated PitchBook valuation step-up data for 32 VC deals involving investments in blockchain industry companies. Only 16 of the 32 follow-on financings produced valuations that rose at a higher pace than the price of bitcoin during the same period. Furthermore, these companies represent the most attractive business models of the industry, as evident by the fact that VCs were willing to invest in multiple rounds of funding. It's also worth noting that none of these step-up rounds involved an exit for investors, as all of these rounds are simply follow-on VC deals rather than corporate acquisitions or IPOs. This phenomenon has driven a number of VCs to form cryptocurrency hedge funds that combine the technology analysis and moonshot bets of VC investing, with the trading desks, risk management protocols and cybersecurity of institutional hedge funds. A press release from August listed 70 such funds, most of them opening this year.

Company	First round date	First round amount ($M)	First round post-val ($M)	Second round date	Second round amount ($M)	Second round post-val ($M)	Step-up multiple	BTC multiple
Abra	3/5/2015	$2.23	$12.96	9/10/2015	$12.00	$30.38	2.34x	0.87x
BitPay	3/5/2013	$0.70	$4.38	5/16/2013	$2.00	$19.00	4.34x	2.93x
BitPay	5/16/2013	$2.00	$21.00	5/13/2014	$30.10	$130.00	6.19x	3.70x
BTCJam	2/10/2014	$1.22	$6.06	3/24/2014	$6.10	$15.96	2.63x	0.86x
Chain	8/20/2014	$9.50	$36.08	9/9/2015	$30.00	$100.00	2.77x	0.47x
Coinbase	12/12/2013	$25.00	$150.00	1/20/2015	$75.00	$415.00	2.77x	0.24x
Elliptic	7/16/2014	$2.14	$6.40	3/20/2016	$4.48	$8.37	1.31x	0.67x
OB1	7/5/2016	$1.50	$11.28	12/13/2016	$3.00	$14.50	1.29x	1.16x
PeerNova	3/25/2015	$12.70	$55.00	9/30/2015	$9.75	$57.70	1.05x	0.96x
PokitDok	6/4/2013	$4.34	$12.29	12/29/2015	$38.10	$50.00	4.07x	3.56x
Ripple	4/1/2015	$38.50	$128.33	3/15/2016	$55.00	$355.00	2.77x	1.68x
Symbiont	6/9/2015	$1.25	$8.38	1/12/2016	$7.00	$63.00	7.52x	1.89x
Tembusu Terminals	3/12/2014	$0.24	$8.10	1/29/2015	$0.89	$7.21	1.79x	0.37x

Select Company Profiles

Location: **San Francisco, CA** |
Year Founded: **2014** | Capital Raised to Date: **$43.9M**
First Funding Date: **March 2013**| First Funding Amount: **$4.4M**
Latest Funding Date: **September 2015** | Latest Funding Amount: **$30.0M** |
Latest Funding Post-Valuation: $**130.0M**

Description: ICOs and corporate partnerships have garnered the most headlines of late. Meanwhile, Chain has quietly been building out private blockchain infrastructure for a number of high profile Fortune 500 clients. The company built an internal B2B transaction for Visa, as well as blockchain exchange projects for the Australian Stock Exchange and Nasdaq Private Markets. This spring, the company hired Tom Jessop, formerly a Goldman Sachs Managing Director for business technology development, to spur further growth.

Location: **Shanghai, China** |
Year Founded: **2014** | Capital Raised to Date: **$1.5**
First Funding Date: **August 2017** | First Funding Amount: **$1.5M**|
Latest Funding Post-Valuation: **N/A**

Description: Onchain is the Shanghai based creator of the cryptocurrency NEO. Commonly referred to as the "ethereum of China," the cryptocurrency is a rebrand of the company's previous project Antshares, which launched in 2014. The new offering is about as close to the Howey Test textbook definition of a security as tokens represent shares of project profits. While compared to ethereum, the protocol uses fiat currency (Yuan, USD, etc.) as "gas" to power smart contracts rather than the tokens themselves.

Location: **Osaka, Japan** |
Year Founded: **2014** | Capital Raised to Date: **$21.57M**
First Funding Date: **March 2015** | First Funding Amount: **$840,000**
Latest Funding Date: **September 2017** | Latest Funding Amount: $14.57**M** |
Latest Funding Post-Valuation: **N/A**

Description: The Japanese company has developed several business lines to service the growing cryptocurrency ecosystem in Japan. Tech Bureau created a permissioned blockchain solution for banks and large enterprises called Mijin. The company also offers services for companies seeking to carry out their own initial coin offering (ICO). Lastly, they operate a major cryptocurrency exchange. The company has received three rounds of venture funding, most recently from publicly listed technology investor JAFCO (TKS: 8595).

Location: **Seattle, WA** |
Year Founded: **2017** | Capital Raised to Date: **N/A**
ICO Date: **August 29 to September 28, 2017** | ICO Cap Amount: **$10M** |

Description: The Seattle-based company has raised $5 million of tokens called "Rhocs" in a private presale structured legally like an angel round. The cooperative will use the proceeds to build software to support both public blockchains (cryptocurrencies) and private blockchains (business data), and have them interact securely. The company plans to develop a Turing-complete blockchain architecture (like ethereum) that will handle as many transactions as Visa (40,000 per second, compared to ethereum's 15 and bitcoin's 7 per second).

TradeBlock

Location: **New York, NY** |
Year Founded: **2013** | Capital Raised to Date: **$2.78M**
First Funding Date: N/A | First Funding Amount: **N/A**
Latest Funding Date: **June 2014** | Latest Funding Amount: $2.78**M** |
Latest Funding Post-Valuation: **$9.25M**

Description: The company's platform allows institutional traders to access cryptocurrency markets, a growing trend with 70 and counting institutional crypto hedge funds popping up so far this year. The company also provides data services to consolidate information from the many disparate exchanges, as well as sell-side research covering the space.