DIGITAL ASSET LENDING SNAPSHOT

2018 | Q4 insights

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At the end of Q3 2018, we published our first Digital Asset Lending Snapshot, introducing the developing market for OTC digital asset lending. At the time, we had just crossed $500 million in total originations since we launched the lending business in March 2018.

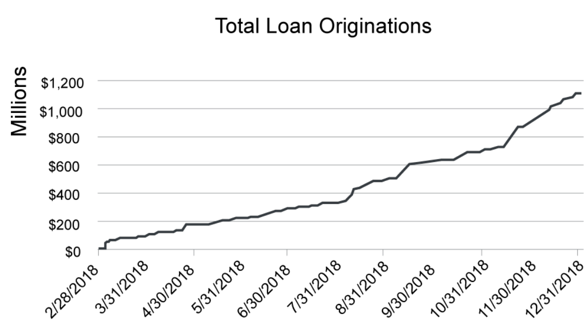
Since then, we've experienced significant growth in our portfolio – we originated an additional $500 million in Q4 alone, bringing our total originations to $1.1 billion in 2018. Thus, Q4 loan originations increased more than 100% in the final three months of 2018 compared to the prior six-month period.

November and December were the most active months to date as we saw new hedge funds and trading firms utilizing "spot" borrow. This growth combined with new business lines (e.g. lending cash for crypto collateral) has driven our loan book to $153M in active loans outstanding, up $20M from Q3, despite a 44% price decline in Bitcoin (BTC).

In addition to the growth in digital currency loans, Genesis also launched fiat currency lending in Q4. Lending USD or other fiat currencies developed in response to demand from our institutional counterparties. Long-term digital currency investors with appreciated assets can borrow cash against their crypto holdings without triggering a taxable event.

As we did last quarter, we'd like to share a more in-depth look at our loan book, highlight a few key trends, and provide more detail about the cash lending business.

Figure 1: Summary Statistics



($ in Millions)	12/31/2018	QoQ Growth
Total Originations	$1,113	101%
Loans	$638	95%
Borrows	$475	110%
Active Loans	$153	17%
BTC Price	$3,679.42	-44%

2018 Asset Composition

Heading into Q4, our loan portfolio was about 60% BTC and 40% alt-coins with XRP constituting nearly 50% of alts. Prior to Q4, 98% of BTC on loan was used exclusively for hedged use cases such as arbitrage, basis capture, and remittance. On November 14th, the price of BTC fell 16% in a single day which jumpstarted a period of increased loan origination as short sellers piled on with unprecedented size. Many long-short hedge funds viewed breaking the $6,000 price floor as an accelerator to $5,000 and into the $4,000 range.

Many of the borrowers during this time period leveraged the synergies between our lending and trading businesses and shorted directly through Genesis, heavily increasing sell-side volume in the latter half of the quarter. Genesis provides capital efficient borrow and short sale settlement, effectively eliminating the need to post full margin to get short exposure by immediately selling the asset. In addition to providing our own execution, Genesis partners with other OTC desks so parties can borrow assets from Genesis, sell assets through another trading firm and have Genesis settle the sale with the other firm on the sellers behalf.

Ethereum (ETH) borrowing more than doubled since Q3 but still only accounts for less than 10% of our loan book, well below the highs seen in Q1 and Q2. The asset price is down over 80% since Q1 and rallies off local bottoms have proved to be swift and relentless, making shorting at the right entry point challenging.

XRP composition since Q3 is down 50%, as the price has been performing well against BTC/USD. XRP/USD is down only about 30% since early November whereas BTC/USD is down nearly 50%.

Bitcoin Cash (BCH) borrowing has dwindled to nearly zero as we called most of our outstanding loans prior to the hard fork on November 15th. Managing forks is a precarious process when lending digital assets, and though we define specific hash rate, liquidity, and market cap parameters for delivering a forked coin, both borrowers and lenders generally prefer avoiding carrying balances through contentious hard forks.

Figure 2: Q1-Q4 Asset Composition

Asset	3/31/2018	6/30/2018	9/30/2018	12/31/2018
Bitcoin (BTC)	49.6%	50.4%	62.6%	74.5%
Bitcoin Cash (BCH)	0.0%	2.8%	3.5%	0.4%
Ethereum (ETH)	42.3%	28.3%	3.7%	8.1%
Ethereum Classic (ETC)	0.0%	4.8%	4.2%	4.8%
XRP (XRP)	0.0%	5.6%	17.8%	8.6%
Litecoin (LTC)	0.0%	2.5%	3.9%	1.3%
Other	8.1%	5.6%	4.7%	2.3%

2018 Quarterly Asset Composition

Taking a closer look at the composition within the quarter, borrow concentration outside the top three (BTC, ETH, and XRP) gradually waned, largely a product of BTC dominating 75% of the book by jumping nearly 10% in just one month, as well as an uptick in ETH short interest.

Figure 3: October-December Asset Composition

Asset	10/31/2018	11/30/2018	12/31/2018
Bitcoin (BTC)	66.3%	75.7%	74.5%
Bitcoin Cash (BCH)	1.3%	0.3%	0.4%
Ethereum (ETH)	3.4%	7.0%	8.1%
Ethereum Classic (ETC)	11.0%	3.4%	4.8%
XRP (XRP)	7.1%	6.0%	8.6%
Litecoin (LTC)	3.6%	2.2%	1.3%
Other	7.4%	5.6%	2.3%

ETH Shorts: It's Hard to Play the Momentum Game

Despite ETH only being 10% of our book, we find the patterns between loan originations and price movements interesting to analyze as a case study in momentum shorting. In Q4, we saw increased short-term borrowing in ETH, mainly due to active hedge funds putting on short positions during waves of volatility in a bear market. Figure 4 below shows daily ETH loan originations (as a % of ETH loans originated over the quarter) mapped against the price of ETH.

In the beginning of the quarter, ETH hovered around $200. Volatility was low and there wasn't much of an opportunity to capture alpha on the short-side. Once the price went below $200 in early November, there was a large spike in "short-interest" as momentum took prices below $175. As shown below, shorts continued to pile on even as prices continued to rapidly decline. Roughly 75% of all ETH loans for the quarter were originated over the period from November 15 to December 15. This indicates a lot of short-term momentum shorting, where borrowers would continue to bet against ETH, even after major declines in price. From December 11-15, we saw about 20% of Q4's ETH originations occur even after a 50% drawdown from the $200 level back in November.

Figure 4: ETH Originations vs. Price

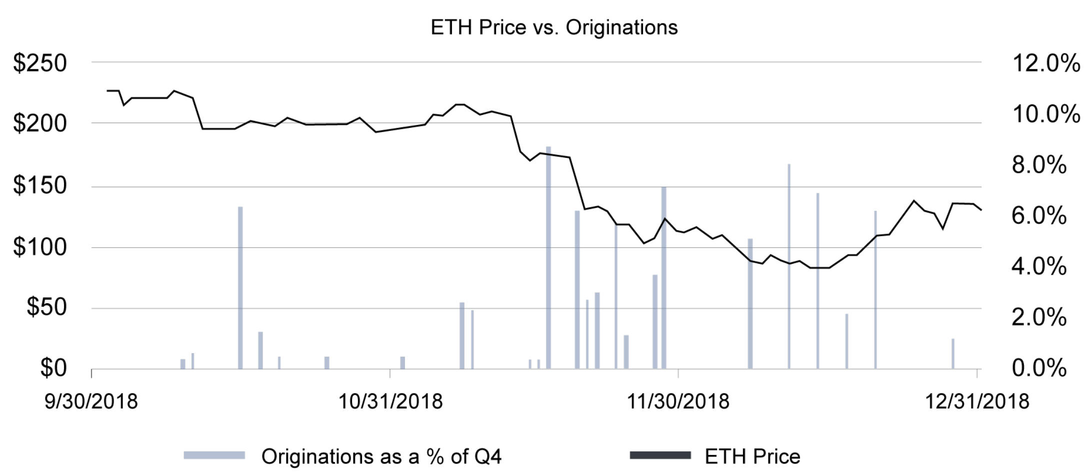


Figure 5 below breaks out the top five largest ETH origination days in Q4 along with the performance of ETH in the seven days before and after the loans were executed. It tells a similar story of momentum trading as in each of the five largest days, the trailing seven day return was -5.0% or lower with the average being -13.1%

across those periods. However, piling into the downward momentum is only profitable with a well-timed exit. Looking at the largest origination days as entry points and assuming a seven day holding period on a position, corresponding returns are mixed. Short-term bearish signals can be difficult to trade in a market that moves as viciously as ETH.

Figure 5: Largest ETH Origination Days and Corresponding Returns

Origination Date	Originations as % of Q4	Trailing 7-Day Return	Following 7-Day Return
11/16/2018	10.7%	-16.9%	-31.1%
12/11/2018	9.8%	-19.9%	7.1%
11/28/2018	8.6%	-6.3%	-17.0%
12/14/2018	8.4%	-9.2%	32.4%
10/15/2018	7.7%	-13.3%	0.6%

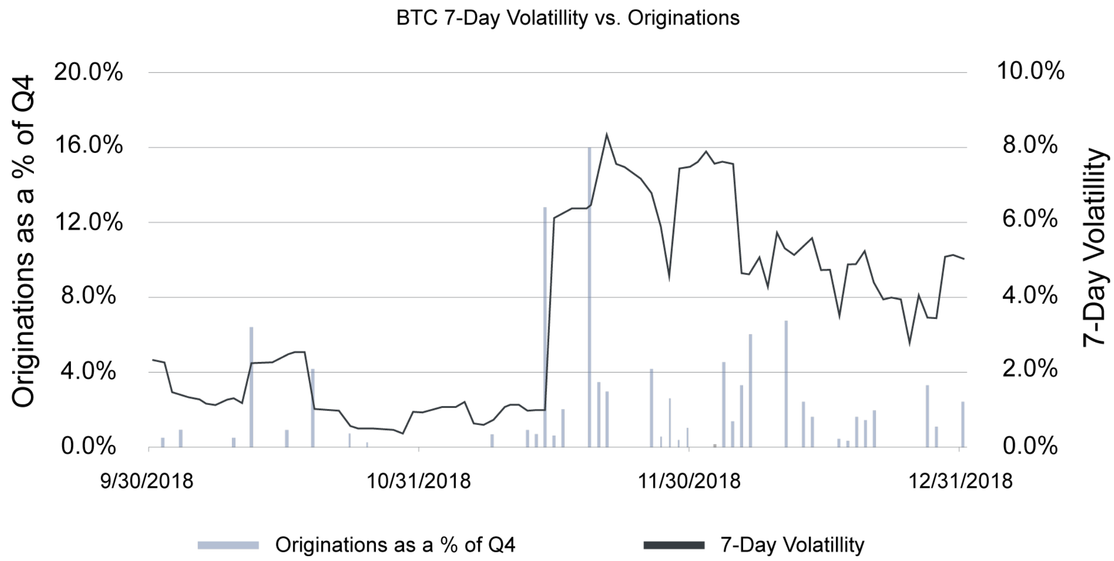
BTC Arbitrage: Basis Loaded

Volatility drives arbitrage opportunities, both in spot and derivative markets. Figure 6 below shows daily BTC loan originations (as a % of BTC loans originated over the quarter) mapped against the standard deviation of trailing seven day returns. It's evident that originations are tied to volatility.

As volatility picked up in the latter half of the quarter, traders engaging in both spot and futures markets found lucrative, risk-free opportunities by trading basis. Basis is the difference between spot and future price, typically expressed as spot minus future. Positive basis is called backwardation, where a spot market is trading at a premium to the future.

If traders have access to short the spot market, they can lock in profits by selling spot short, buying future, and waiting. The net position is entirely hedged and since futures prices converge to spot upon expiry, the maximum hold time of the trade is defined. Using the maximum hold time, traders can calculate an implied rate of return on capital by dividing the basis by the total amount of capital tied in margin on both legs less fees which include trading/exchange fees and of course the interest rate on spot borrow. Our rates on BTC borrow are generally much lower than the gains a trader stands to make engaging in basis during periods of high volatility.

Figure 6: BTC Volatility vs. Originations



Cash Lending

Lastly, in response to client demand to borrow USD against crypto collateral, we launched a cash lending pilot program. The reception has been quite strong and we have decided to officially launch the new fiat currency lending business.

Long-term digital currency investors sitting on appreciated assets can borrow against their crypto holdings to get cash liquidity without triggering a taxable event. Most clients are using the cash to invest, sometimes even in the same asset they posted as collateral. Since all our counterparties are institutional, we can offer attractive loan- to- collateral ratios and price credit risk accurately. We do not believe a "one rate-one LTV" model fits all, unlike other providers, and each individual loan goes through rigorous due diligence. We offer highly tailored solutions to meet unique business needs and work closely with clients to understand use cases, credit profiles, and special situations.

Momentum trading, expedited short settlement, basis trading, and cash lending will all be key drivers of lending growth in 2019 and we're excited to see the market we pioneered continue to mature.