Amicus Letter by Dr Nicholas Weaver

To:
United States Bankruptcy Court, SDNY
Chief Judge Martin Glenn
Re: In re Celsius Network LLC, Case No. 22-10964 (MG),

From:
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Dear Honorable Judge Glenn,

I am writing this amicus letter as an expert in the cryptocurrency space, with nearly a decade of experience in the technology and criminality that infests it. My CV is available at https://www1.icsi.berkeley.edu/~nweaver/cv.html, and my non-technical writings on the subject are mostly available at https://www.lawfareblog.com/contributors/nweaver.

I hold no cryptocurrencies and do not have any economic interest in the Celsius bankruptcy proceedings.

However, I can't stand idly by when there appears to be a significant deception being perpetrated on the court by the management of Celsius. The cryptocurrency lending/borrowing side is clearly insolvent and quite possibly an explicit Ponzi scheme (and certainly an investor in major and obvious Ponzi schemes like the Anchor protocol[1]).

In an attempt to postpone liquidation, Celsius has tried to claim to the court that their cryptocurrency mining business has the potential to be substantially profitable. Unfortunately Celsius's own filings and basic economic analysis of the cryptocurrency mining space shows this, at best, to be wishful thinking. And, at worst, a fraud on the court.

In August, Celsius's filings [Docket 447] reported they will spend $18 million on "hosting", which is not hosting in the traditional sense but the cost of the cryptocurrency mining operation. Strangely enough, they did not report how much Bitcoin they expect to produce during this time but assumed that total revenue, including from the cryptocurrency mining and interest on outstanding loans, would be just $20M.

[1] The Terra/Luna collapse was really a collapsing Ponzi scheme.
The Anchor protocol promised 20% annual returns for "lending" the Terra stablecoin to the protocol, but the only payments were from the protocol itself creating new Terra: effectively paying the returns through others investing in the scheme. One method Celsius used to produce their claimed 18% yield from customer funds was to convert the funds to UST for investment in Anchor, pocketing the 2% and effectively acting as a Ponzi pass-through fund.
Celsius knew, or should have known, how Anchor worked; the mechanism was public knowledge.

They did, however, report producing 432.30 Bitcoins in July. At current market price of roughly $23,000/BTC, this yields $10M of value. Assuming the July hosting cost was roughly the same as August, this meant the cryptocurrency mining business lost $8M in July in direct costs, not even including the costs of equipment!

It becomes natural to ask why Celsius's filing did not include the August Bitcoin production estimates in the budget and coin report, because if they included them it would be plain that the cryptocurrency mining business is not viable.

Similarly, the declaration of Alex Mashinsky [Docket 23] further reinforces that the business for cryptocurrency mining is not currently viable. Even if the eventual built-out mining systems produce the promised 15,000 BTC without any increase in the hosting costs, this is just $28M/month gross income, which is less than Celsius is currently spending a month despite cutting expenses due to bankruptcy.

The only way the cryptocurrency mining business could theoretically turn a profit and justify Celsius remaining an ongoing concern is if the price of Bitcoin substantially increased. But even then the economics of cryptocurrency mining are a problem.

There are two costs which dominate the Bitcoin mining industry: the cost of the machines and the cost of electricity. But apart from the capital cost for the machines, there is very little barrier to entry.

The economics of Bitcoin mining are such that when more mining comes online this doesn't increase the amount of Bitcoin produced. Instead the amount created, roughly 900 Bitcoin a day, are probabilistically distributed amongst all miners based on each miner's proportion of total mining capacity.

If there is available profit to be had the number of miners simply increases until they effectively squeeze out all available profit, a classic "Red Queen's Race". This is why Bitcoin consumes an obscene amount of energy: improvements in Bitcoin mining efficiency only result in more mining.

So the only way to make a long term viable mining business is to have some innate advantage over the competition, either cheaper electricity, cheaper mining machines, or both.

Celsius has no advantage in purchasing the machines, since they are presumably buying the same equipment as other miners, have no in-house design experience, and claim no significant advantage except for having already spent a large amount of money on mining systems that are not yet online and listed as assets (so could presumably be sold at close to cost to others).

Similarly Celsius reports spending $.06-$.08/kWh or more while competition such as Riot Blockhain reportedly spend only $.025/kWh (and getting bonuses for deferring power usage), showing that they also lack an advantage in locking in low-cost power contracts.

Cryptocurrency mining overall is a marginal business and Celsius has already shown they are not (and probably can not be) a viable participant in that space. Every day Celsius is allowed to pretend that their mining business is viable is another day of destroyed creditor value.

Sincerely yours

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Researcher at the International Computer Science Institute[2]

/s/Nicholas Weaver

8/21/2022

[2] Title for identification purposes only