

## Twitter Thread by Patrick McKenzie



**Patrick McKenzie**

@patio11



**Torn between "I think losing \$100 million when someone beats you at security research is pretty much exactly what you signed up for doing yield farming" and "Maaaaaaaybe not the future of finance you were expecting, huh."**

How to put this in regular finance terms...

Suppose hypothetically you have an account at a brokerage with some valuable asset in it. You take a margin loan against that asset to fund your normal spending, or pay a tax bill, or maybe buy something at another brokerage.

For reasons known only to the brokerage, they don't denominate your loan in dollars. They denominate it in shares of a money market fund, which are worth \$1 +/- epsilon and basically never deviate from that.

And you think "Hmm, I have a large equity cushion against this loan."

One day, a computer system at the brokerage reports, sorta-kinda erroneously, that the value of the money market fund is actually \$1.30 per share. The equity cushion is gone. Your valuable asset is sold, at timing you didn't choose, at wrong price, to pay an inflated phantom debt

And your recourse is... probably tweeting at patio11 saying he finds too much joy in this.

Which I don't; I just feel like this is why you don't trust a CPU built out of redstone to build reliable financial infrastructure on top of.

"Hey patio11 could this happen in traditional finance?"

Ill-timed liquidations can and do, but attacking someone doing something not-risky to force a liquidation is harder, because of many built in safeguards.

One, you can actually borrow in your unit of account (e.g. dollars), and \$1 = \$1, so you can't convince a brokerage that a \$100k debt is actually \$130k.

Two, if you regulated financial institution has a goof in your data feeds causes you to mechanically disadvantage retail...

... your most likely outcome is having an internal meeting and saying "Which do we dislike more, covering their losses out of our equity OR getting our knuckles rapped by the regulators, paying a fine, then covering the losses with our own equity?" and choose door #1.

Three, it is enormously hard to pervert the most popular real markets in the world and that is a game you actually don't want to win, because the first prize is frequently go-directly-to-jail.

This is not the consensus viewpoint among engineers, who do not have good calibration.

Like if you somehow did security research against e.g. the monthly Treasury auction and somehow caused it to invert expectations around reality, that would plausibly have \$X0 billion in consequences and you could make out like a bandit.

And also literally everyone you had talked to for the last several years would be taken out for tea by friendly serious federal agents.

("Do you really think that would happen?")

For the treasury auction? Oh heck yes I do. Expect a turf war between the money people and the terrorism people over who gets to lead the investigation.)

Crypto enthusiasts would probably suggest me to disagree with them on this, and I actually do not at all:

The financial system is in part of broader systems of state control. Seriously attacking it at scale would be treated indistinguishably from "kinetic" war.

"So is the state going to seriously come after crypto people then?"

While they flatter themselves into thinking they materially challenge the government, following their own logic pretty closely, if this were actually true their conferences would attract precision munitions.