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The Psychology Of Panic: What Toilet Paper Hoarding Teaches Us About Silicon Valley Bank's Failure

Something curious happened during the early months of the COVID-19 pandemic: people across the country began hoarding toilet paper. From February to March of 2020, toilet paper sales jumped 700 percent. Crazy, right? Why would anyone need hundreds of rolls of toilet paper? And why hoard toilet paper rather than, say, more things useful to survival like cans of beans or jugs of water?

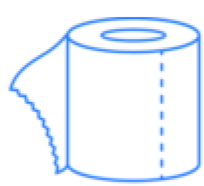
Who knows what triggered the massive surge in toilet paper purchases, but once people started buying it in quantity, that led to a panic. Why? Because if you see lots of people buying lots of toilet paper, it makes perfect sense to think that might lead to even more people buying more toilet paper, which in turn could lead to a toilet paper shortage. So, what to do? Go stock up on toilet paper.

Of course, at a system level, stockpiling toilet paper was nuts. But at the individual level, it was perfectly rational because no one wanted to be left behind (pun intended) without any toilet paper.

When I first heard about it, I thought hoarding toilet paper was bonkers. Then when I went to the drug store to pick up a prescription a few months into the pandemic, I saw only a few lonely packages of toilet paper on what looked to be a gapingly empty shelf, and I bought them, even though we had plenty at home. I knew I was being part of the problem, but I didn't want our household to run out. I sort of panicked.

Hoarding toilet paper is a spot-on illustration of how complex social systems work, as I explain in my soon-to-be-released book *The Uncertainty Solution: How to Invest With Confidence in the Face of the Unknown*. The small actions of individuals can cause broad, disproportionate, and often irrational outcomes for the system. Individual decisions combine to cause unpredictable system-wide effects. It's me watching you; you watching me; me watching you watching me, and so on, multiplied by the millions.

Importantly, if everyone had kept their heads and bought their normal amount of toilet paper, everything would have been fine – supply would have kept up with demand, and there wouldn't have been a shortage. The same thing is true of banks – if everyone thinks everything is fine, it is. Only when there's a concern do things take a bad turn.



Bank Runs: The New Toilet Paper Hoarding

What makes the banking system work is that depositors have confidence that their money is safe and that they can get it back at any time. This is usually true – but not always. Banks keep only so much liquidity around to satisfy depositors' demands. As of 1Q 2022, US banks had about 14% of their assets in cash; the other 86% was invested in loans, bonds, and other longer-term investments.

So, if there are rumors or concerns about the stability of a bank, depositors may withdraw their cash because of the fear that their bank may not have enough money to meet demand. This can cascade into a "bank run," which happens when a large number of bank depositors try to withdraw their funds simultaneously due to concerns about the bank's financial stability or liquidity. This can create a self-fulfilling prophecy, as the rush of withdrawals can deplete the bank's reserves and lead to its failure. It's like a crowd inside a theater – if too many try to exit quickly, it can cause panic as people try to push through a limited number of doors.

That's what happened with Silicon Valley Bank – a large number of depositors tried to withdraw their funds at the same time ($42 Billion on March 9th alone!). Writing in *Bloomberg*, Matt Levine explained, "It was individually rational for each depositor to take its money out and avoid exposure to SVB, but the collective result was quite bad for SVB and the banking system and the VCs and startups themselves. Silicon Valley Bank's Silicon Valley customers, it turned out, were individually rational but unable to act cooperatively in a mutually beneficial way; in the prisoners' dilemma of a bank run, they all chose to defect."

Similarly, after crypto-focused Silvergate Bank failed, depositors moved to protect themselves by withdrawing cash from Signature Bank, which also catered to crypto firms (notably, however, unlike Silvergate, Signature didn't make loans to crypto firms or take cryptocurrency as collateral, so the concerns were likely unfounded). Rumors of instability sparked a run on Signature Bank, and its regulators took it over. Again, individual actions, while arguably rational, caused an outcome that was unpredictable in the days and weeks leading up to the failure – just like the system-wide chaos caused by individual decisions to hoard toilet paper.

Where We Are Now

The failures of Silicon Valley Bank and Signature Bank have made depositors jittery: the week after SVB's failure, Bank of America, JP Morgan Chase, Citigroup, and Wells Fargo received record inflows as depositors moved their cash from smaller banks to the safety of banks considered "too big to fail." Likewise, brokerage firms have also been beneficiaries of cash withdrawals from regional and community banks. For example, Charles Schwab recorded nearly $17 Billion in inflows in the week after SVB's failure (presumably, most went into position-traded money market funds).

The current (mini?) banking crisis presents individuals and businesses with deposit account balances over the $250,000 FDIC insurance limit in smaller banks with a dilemma:

(a) Move excess cash from your bank to a too-big-to-fail bank or into a money market fund at a broker. [i] By doing so, you'll reduce your risk – a rational step – but you'll be adding to the fragility of the banking system, just like buying extra toilet paper during the pandemic led to supply shortages. While this is being "part of the problem," it is not the responsibility of individual depositors to set aside their own interests to shore up the banking system – just like it wasn't incumbent on me to pass up the package of toilet paper sitting on a shelf in April of 2020.

(b) Keep your money at your bank and take on risk. But probably only a bit as the Federal Reserve, FDIC, and Treasury Department signaled that they'd take care of depositors with accounts over $250,000 by making uninsured depositors whole at SVB and Signature Bank. Plus, James Bullard, President of the St. Louis Federal Reserve, related in a speech on March 24th that regulators have ample tools to contain financial stress banks are experiencing. By staying put, you'll be part of the solution. But that's cold comfort if everyone else panics and your deposits get stuck in a failed bank.

What should a depositor with cash over $250,000 in a small or medium-sized bank do? It's a tough call. Act in your self-interest but be part of the problem? Or take on (a bit?) of risk and be part of the solution? There's no clear best answer and each depositor will have decide for themselves.

[i] Of course, there are other options to shore up the security of your cash, including splitting your deposits among accounts with different ownership to fall within the $250k FDIC limit or using programs like ICS and CDARS that some banks offer that spread deposits among multiple banks.