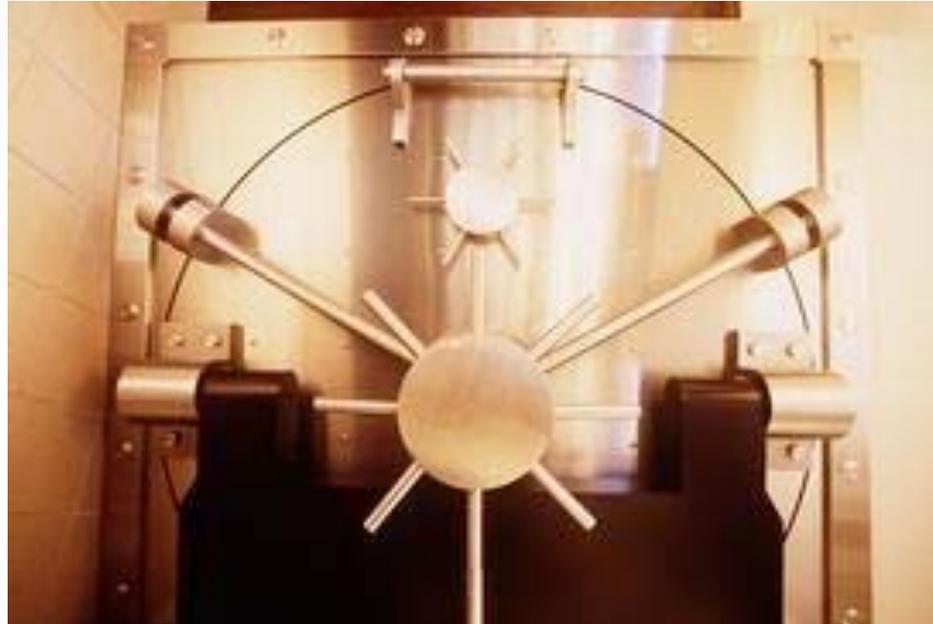


The Death of Cash



The Loss of Anonymity and Other Dangers of Modern Financial Systems

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Agenda

- Introduction
- Bold Claims
- Why “*THEY*” Hate Cash
- Utopian and Dystopian Versions of the Cash Free Society
- CTRs and SARs
- Other Regulations Regarding Cash
- The Liquidity Danger
- Exceptions
- Alternatives

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- Infosec consultant to the Banking industry.
- 19 years of experience building and managing networks.

The Death of Cash

- **Synopsis and Preview of my next book “*THE DEATH OF CASH*” due out in 2009.**
- **How government forces, strong crypto and globalization of financial systems will conspire to eliminate cash from our economy.**
- **Why this is a BAD thing?**
- **Evaluation of pros and cons of next generation financial systems.**

Bold claims

Cash, as a store of financial value will be dead in the US within 20 years.

- **Old Theory: The government will outlaw cash, then only the criminals will have cash.**
- **New Theory: Cash will die a natural death; we will willingly abandon it for more convenient financial tools.**

Why?

- **Credit/debit is convenient.**
- **Credit/debit seems more modern, techy.**
- **Credit/debit is easy to spend.**
- **Credit/debit is being pushed relentlessly by everyone from the government to banks to big business.**

Why is this a *BAD* thing?

- **Loss of anonymity.**
- **Loss of control to government, banks, big business.**
- **Bad for your financial health.**
- **Bad for national security?...**

What is cash?



- **Paper Money**
- **Coinage** – Some coins cost more to produce than they are actually worth (1c=1.23c, 5c= 5.73c).
- **Checks** – Treated the same as cash, since they are hard to track, hard to verify, and not really a part of the global electronic financial network. That may change with the Check21 law. In the near future, all checks will required to be converted to electronic images, electronically rendered and then destroyed. Good bye Float!

Why the government hates cash

- **It's dirty (germs, coke, bird flu).**
- **Expensive to make, wears out quickly.**
- **Relatively easy to counterfeit (even though the govt. is one ahead in the game).**
- **Most importantly, anonymous (hard to track!).**

Why banks hate cash

- **Hard to handle, easy to steal.**
- **They have to track it differently, lots of special requirements and regulation.**
- **They don't make anything on the handling of it.**
- **In fact, they have to pay for the clearing of paper checks.**

Why Banks hate cash

- **Most of all, banks make money on every debit card transaction.**
- **Each bank gets some, plus the intermediary network; the businesses pay the fees, raising your prices to compensate.**
- **This amounts to about a 1-3% weight on our economy.**
- **All for giving us access to our “money”.**

Why Big Business hates cash

- **Again, cash and checks are expensive to handle.**
- **People tend to spend more when they use a card. You don't run out of "card" in your wallet.**
- **E-transactions create credit card profiles and credit bureau reports and make for useful marketing tools.**

The Debit/Credit Society

- **We are going through a transformation from a hard asset culture (gold standard, coins worth money) to a debit/credit culture**
- **Your net worth is carried on a electronic balance sheet on a server somewhere.**
- **What happens to your net-worth if those systems are down or hacked?**

The Sub-Prime Economy?

- **This is blurring the line between what you own and what you owe**
Example: check bouncing protection (which is really just a high interest loan), Home Equity lines of credit.
- **Moving us as individuals towards the model of high finance, highly leveraged, nobody really knows who owns what.**
- **We see how that worked out for them (the mortgage crisis, the SL&L bailout, etc)**

The Wonderful Gift Cards

■ Why Gift cards suck..

- Cant be used universally (usually tied to a store)
- They expire
- Sometimes have “fees” for every use
- The phantom revenue
- Purchases made with gift cards usually exceed the value of the card
- Many cards are never redeemed.



■ Why they don't suck..

- Easy to buy, no thought required (remember “it’s the thought that counts”?)
- Good for online purchases (itunes, second life money.. And pron!)

Industry PR campaign against cash

- **The Visa and MC ad campaign's goal is to vilify cash and move everyone to a credit/debit lifestyle.**
- **Is paying with cash really harder than swiping your card, entering your pin, selecting cash back, ok'ing the transaction total, etc?**
- **The whole point is to make cards cool, cash uncool and collect a small % of every transaction.**
- **Why is Microsoft looking into its own e-payment system? It knows a good business when it sees one!**

The New Monopoly

- The new version of the famous board game has done away with play money.
- Now you use a card to swipe for your Real estate purchases.
- Same thing with “LIFE” and several others
- In real “life”, our children won’t know what cash is.



The Utopian version of the Cash Free Society

- No more petty crime.
- No more organized crime.
- No more terrorism.
- No more tax returns.



The Dystopian version

- **The government can follow you anywhere. Imagine trying to move about with out cash. No gas, no hotels, no purchases of any kind.**
- **Marketing companies have an exact profile on you.**
- **The IRS doesn't go away, it just has had more direct access to your money.**
- **Organized crime evolves to becomes the “banker” of the underground, providing a facility for illegal transactions**



US Code Title 18, Part 1, Chapter 95

- Do you realize that it is *illegal* to transport over \$10,000 in cash into or out of the US without declaring it?
- It is considered money laundering and is punishable by up to a \$500,000 fine and/or 20 years in jail.

Cash Transaction Reports

- **The Banks have been deputized by the government to catch criminals by monitoring the cash supply**
- **The Patriot Act and the Bank Secrecy Act requires banks to report “suspicious” transactions.**
- **What counts as “suspicious”? Any cash transaction over \$10,000 *must* be reported in a Cash Transaction Report (CTR).**
- **This also applies to many cash businesses (car dealerships, casinos, etc) for transactions under \$10K.**

More on CTRs

- **But, in reality, the actual amount they track is around \$3,000.**
- **This unpublished limit is used to catch those using multiple transactions to stay under official limit.**
- **Banks use special software to track cash deposits across time and at multiple branches, etc.**

SAR s

- **Not the Asian Flu**
- **Banks are also required by law to file a Suspicious Activity Report (SAR) on any kind of cash or financial transaction that they deem suspicious for ANY REASON. Even those under the limits.**
- **They can't get in trouble for filing, but they can if they miss something.**
- **Since the onus is on the banks to file, they tend to err on side of filing rather than not.**

Financial profiling

- **What counts as suspicious?**
- **It is totally arbitrary**
- **I like to go to Las Vegas. If I withdraw a large amount of cash to play with, does that make me a criminal?**
- **If I don't like the government knowing where I travel by air, does that make me a terrorist?**
- **Using cash to buy an airline ticket is a “flag”, along with one-way tickets, for HLS dept reports**

Catching Eloit Spitzer

- Do you remember the fate of our erstwhile governor of NY and former star prosecutor of corruption caught using high dollar call girls?
- How was he caught?
- Laid low (no pun intended) by a SAR which was filed on him as he wire transferred money to pay for his prostitutes!



Why Strong Crypto is *not* our friend (in this case)

- **The eventual e-currency system will probably be implemented using some form of strong crypto.**
- **Imagine something like a smart card with your whole personal net-worth on it. Your Personal Credit Meter.**
- **Imagine using nothing but E-dollars.**
- **Modern Crypto is based on tough math problems...We all know what computers are getting faster and faster at doing (not just playing video games).**

Why Strong Crypto is *not* our friend (in this case)

- **Breakthroughs in technology could undermine the whole financial system. Example: Quantum Computing.**
- **That's not counting other hacking , cracking and other e-mischief.**
- **Imagine the web without SSL...**
- **Its a lot easier to steal a zillion 0 and 1s than a huge bunch of cash.**

The coming Liquidity Crisis

- **A cash free society is also a danger to national security. How?**
- **Our economic transaction networks are becoming more and more vulnerable to an electronic outage as we depend less and less on hard cash.**
- **The cashless society may make for convenience and smoother transaction processes, but it does not weather crisis well.**
- **No matter if the crisis is accidental or intentional.**

Liquidity Crisis example

- **On August 5th, 2007, a large portion of Wells Fargo Bank's system went down.**
- **Most branches had no access to their core system and lost most bank functionality. They were crippled.**
- **They were unable to cash checks unless they knew you and even then only for small amounts.**

The new Liquidity Crisis

- **Of course, ATM + debit cards didn't work, either.**
- **Checks Bounced, Bill Payments weren't sent**
- **There was no way of overriding this because of built-in "safeguards".**
- **This meant:**
 - **No gas**
 - **No groceries**
 - **No restaurant meals**
 - **No hotel check in or plane flights...**
 - **Or anything else normally paid for with a debit card.**
- **Welcome to the Cashless Society!**

The new Liquidity Crisis

- During regional disasters, it may impossible to use debit and credit cards, due to lines being down.
- It may also be impossible to get cash, since ATM machines might be unable to “phone home”. Even if they are up, they will soon run out of cash.
- During Hurricane Rita, a total non-disaster for the Houston area, ATM machines near me were soon empty.
- I live in an interior suburban neighborhood, not near any major route.



Liquidity Terrorists

- Imagine a concerted attack on 2 or 3 of our largest banks.
- A large portion of the US would be unable to transact business.
- Take away our consumerism...**MASS PANIC!**



Use of cash is declining sharply

- **Non-cash payments exceeded cash in 2007, for the first time.**
- **Use of checks is also declining sharply.**
- **Debit/Credit cards are now the dominant forms of payment in the U.S.**

Exceptions: Where Cash is still King

- **Vegas, baby! (not for long...)**
- **Border areas.**
- **Anywhere there is a large immigrant population.**
- **Why? Because they want to remain under the radar of the government (another reason the government hates cash!).**

What this means for the Future...

- **Your financial life will be reduced to a set of numbers stored in a computer somewhere**
- **More emphasis on this “personal financial algorithm” rather than common sense and experience.**
- **Why? It helps big corporations and financial institutions avoid law suits and use low cost employees rather than experienced professionals who will be making major decisions about your life.**

What this means to you...

- **There is already a single e-number that has a huge influence on your life..**
- **Your credit score.**
- **Think about the things that can be provided or denied you based on this:**
 - **Housing**
 - **Automobiles**
 - **Access to credit**
 - **Employment (yes, many corporations use credit reports now as a factor in hiring)**

What can you do?

- **Use cash wherever you can, whenever you can, while you still can. You may find you spend less!**
- **I'm not saying forgo the e-economy; that's pretty much impossible at this point unless you living in a shack.**
- **Just try using cash more often. Leave less of an e-trail of yourself.**
- **In a climate where calling a foreign country or being an large stakes gambler can make you a “person of interest”, try to sculpt your e-profile to only the positive and benign things.**

What can you do?

- **Keep a cash stash for emergencies, \$1-10K (don't get or use it all at once or you may trigger a CTR).**
- **Keep alternative value stores for a rainy day (gold, vintage X-men comics, whatever..).**
- **Use alternate methods of payment (PayPal, e-gold, barter).**
- **Lindens?? Risky!**

Questions / Comments?

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This presentation may be downloaded at:

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