

Book The End of Money

Counterfeiters, Preachers, Techies, Dreamers – and the Coming Cashless Society

David Wolman Da Capo Press, 2012 Listen now

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Recommendation

Thanks to credit cards, PayPal, online bill paying and other developments, cash is becoming increasingly passé. *Wired* editor David Wolman examines all aspects of money to explain why physical currency may be a concept whose time has passed. Though the end of cash may not seem likely at present, *BooksInShort* recommends his take on electronic currency to all those who seek a better understanding of the future direction of money.

Take-Aways

- Using forms of money as a means of exchange is an ancient concept. In the past, people used feathers and tobacco as currency.
- In circa AD 800, the Chinese were the first to print paper money.
- Banknotes and coins remain the most common forms of legal tender.
- · Cash is simple to use, widely acceptable and fully "fungible."
- Inflation can devalue cash, and criminals can steal it.
- Some people seek to retire cash in favor of electronic money.
- Traditionalists detest this idea, as do some religious individuals who equate electronic money with Armageddon.
- Electronic money is already popular in the form of credit cards.
- "Cash is the enemy of the poor." Many of the world's poor are unable to open bank accounts and, thus, have no way to save. Electronic money can help defeat
 poverty.
- Poor people in underdeveloped nations use smartphones as personal, mobile banks.

Summary

Money Makes the World Go 'Round

Money can take the form of checks, credit cards, computer bits, gift cards and even Disney Dollars. Its most common form is cash: banknotes and coins representing the currency of sovereign nations. Cash has some specific problems. It costs governments money to manufacture money. The US penny and US nickel cost more to manufacture than they are worth. Dollar bills are less expensive to manufacture than coins, but they have a limited shelf life, and thus end up costing more money to produce.

"In an era when books, movies, music and newsprint are transmuting from atoms to bits, money remains irritatingly analog."

However, because it costs less than \$5 to print a five-dollar bill and far less than \$20 to print a twenty-dollar bill – this difference between value and manufacturing cost is known as seigniorage – governments profit when they manufacture money. Many coins today are largely useless because inflation devalues them. Some economists and other knowledgeable observers question whether governments should bother minting coins.

"Economists understand that money is a fiction, and that the entire financial system rests on the head of this socially constructed pin."

Advocates of electronic or digital money would like to get rid of all physical currency. They believe it has outlived its usefulness. Cash critics say hard currency is obsolete for several reasons: Many people do not trust national currencies. Innovative alternative payment methods are now available. Government debt makes people question the viability of currency.

Religion and Paper Money

Considering the end of physical currency enrages some outlying thinkers, such as Glenn Guest, the minister at Shiloh Baptist Church in Danielsville, Georgia. He believes Satan is behind such modern-day suggestions. Guest preaches that signs in the biblical Book of Revelation indicate that Jesus will soon return to Earth and that eliminating hard currency is one such omen. In his book, *Steps Toward the Mark of the Beast*, Guest claims that in the "end of days" to come, the devil will try to take over commerce.

"Pennies, nickels and dimes can barely be described as money anymore. Legally they are, sure, but they don't exactly circulate."

Guest believes that the devil will want to substitute traceable digital transactions, all of which will be "knowable to Satan," for untraceable cash business. The minister points with alarm to the possibility that surgically implanted microchips could replace credit cards for personal commerce. Indeed, Hitachi technicians are currently designing biometric devices that register the "three-dimension pattern of veins within every person's fingertip." People will be able simply to touch their fingers to special vending machines or registers to make purchases. Guest says the US has been on the wrong path about money ever since it abandoned the gold standard and because the dollar's value is no longer pegged to the value of gold, the dollar possesses no real worth.

China's Paper Money

The Chinese produced paper money perhaps as far back as AD 800. During the Yuan Dynasty, starting in the early 13th century, the emperor substituted paper money for coins. His currency took the form of small pieces of paper — made from mulberry trees — which officials stamped to denote specific numbers of coins held in Chinese vaults. Fully redeemable and easy to exchange, the paper money caught on immediately. The death sentences the emperor handed out to those who refused to accept his new paper currency accelerated its widespread acceptance.

"A few years ago, the cost of making a penny peaked at 1.8 cents per cent, and nine cents for a nickel."

Paper money circulated throughout China, whose citizens had no reason to worry about its utility. Each note stated that its value would be good "for all eternity." This new currency enhanced commerce and trade across China. It flabbergasted Venetian merchant and adventurer Marco Polo. When he described paper money in his famous travelogue, he concluded, "For, tell it how I might, you never would be satisfied that I was keeping within truth and reason!"

"Fungibility"

Money enables trade and makes it efficient. In humankind's early history, money took many different forms: "feathers, shells, coconuts, butter, salt, whale teeth, logs, cacao seeds, tobacco, dried fish, livestock and slabs of rock as big as a car."

"More than half of the bank deposits in Latin America are denominated in US dollars."

Without money, people would have to build their own homes, grow their own food, create their own clothes and perform every conceivable task for which they now pay. Money allows people to specialize and to pay others to do what they don't know how to do. The minting of coins began more than two millennia ago in Lydia in ancient Greece. Thanks to coins, people could trade easily with each other. Coins eventually became a standard feature in societies across the globe.

"Unless people start using greenbacks as handkerchiefs...whatever germs do reside on cash or coins should die a quick death."

They offer complete fungibility – that is, they are fully interchangeable and exchangeable. Coins, which usually include the images of past or present rulers, also provide a tangible testament to the power of the state that issues them.

Dictionaries define money in the dullest of terms: "medium of exchange, unit of account, store of value and method of deferred payment." Yet throughout history, people all over the world have been strongly passionate about money. People treasure cash and will do almost anything to protect it. A penny no longer has real value, but seeing one on the sidewalk provides a subconscious, emotional rush — until your conscious intellect reminds you that the penny is nearly worthless and that you needn't bend down to pick it up. Cash has tremendous visceral power.

Money and American History

During the US's prerevolutionary period, the Massachusetts Bay Colony issued banknotes called "bills of credit," which essentially certified fungibility: "Here, just use this. It's real money. We'll sort out redeemability later." Subsequently, America's Continental Congress determined that the new federal government could not provide paper money for its citizens. One delegate declared that paper money was "as alarming as the Mark of the Beast."

"Centralized currencies were developed and perfected by monarchs centuries ago to prevent peer-to-peer transactions."

During the US Civil War, the federal government issued new paper bills – known as greenbacks – worth \$450 million. After the war, Supreme Court Justice Salmon P.

Chase ruled that the greenbacks were illegal. Ironically, Chase served as Treasury Department secretary during the war, which means he was in direct charge of issuing the greenbacks in the first place. Later, another Supreme Court decision reversed the anti-greenbacks ruling.

The Gold Standard

During the 19th century, many US private banks printed and distributed their own banknotes. Some banks backed their notes with gold bullion or coins, but others did not, including "wildcat" banks that offered little stability. In 1933, President Franklin D. Roosevelt "called in the public's gold supply." In 1944, representatives of the world's free nations announced that the US dollar would become the world's "de facto currency" and set the dollar's value against the value of gold – at \$35 an ounce. They ordered that, in the future, other nations could no longer fix their currencies to gold but must instead value their money in relation to the dollar.

"Almost overnight the phone has evolved from one-trick pony - connecting two voices - into a Swiss Army knife of do-good power."

In 1971, President Richard Nixon ruled that the value of the dollar would no longer depend on the price of gold. As a result, individual nations began to measure their currencies' worth against each other's money. At the same time, the dollar remained the world's most important currency. With the elimination of the gold standard, the idea of cash finally became an abstraction. From that point on, governments set the value of their currencies by mandate or fiat.

"Without anchoring money to something tangible, the value of paper and cheap coins is no more real than a unicorn."

Today, many countries are giving up independent currencies. Panama, El Salvador, Ecuador and East Timor use the US dollar as their money. In many other countries, including Cambodia and Uruguay, people are as comfortable using the dollar as they are using their own national currencies. For many modern nations, the idea of having a national currency seems like a gilded anachronism. "Spontaneous dollarization" is now on the march.

The Digital Money Forum

Dave Birch, a self-declared "anti-cash maniac," is the organizer and master of ceremonies of the Digital Money Forum, an annual event attended by professionals from banking, international development, telecommunications and other industries. He and his confireres advocate retiring hard currency in favor of electronic money.

"In the aisles of the global supermarket of goods, most items are priced in US dollars."

Birch points out that a huge percentage of coins do not circulate. For example, the US Mint has produced around "half a trillion coins over the past generation," yet the mint estimates that 200 billion of those coins are not in circulation. Birch says governments spend fortunes to "transport, store, secure, examine, reissue, shred and print" money. Robberies at banks and ATMs also point to the inefficiency of hard cash. Checks are equally problematic.

"Physical money is most harmful to the billions of people who have so little of it."

Bills and coins are the preferred currency of gangsters and criminals. "Cash is the blood in the veins of crime," says the chief of the Stockholm Police Department. Cash crimes include printing fake money, or counterfeiting, a major vulnerability of physical money. One Los Angeles man produced \$7 million in counterfeit dollar bills on an inkjet printer. United States government officials and other money experts believe that the North Koreans manufacture fake yet incredibly authentic-looking \$100 bills, or "supernotes." The North Korean government earns between \$500 million and \$1 billion annually from its counterfeiting activities. The US's overall counterfeiting problem is so serious that the Secret Service seized \$177 million in fake currency in 2009, up from \$113 million in 2005.

"Governments - notorious deficit spenders - have a dismal track record as guardians of money's worth."

Bernard von NotHaus was not a classic counterfeiter. Until the Secret Service and the FBI shut him down, von NotHaus minted an alternative US dollar, which he termed the "Liberty Dollar," and a "10-dollar silver piece." Von NotHaus, who hoped to create a private currency as an alternative to official US money, also printed and sold T-shirts reading, "The US Mint Can Bite Me." In 2011, US federal courts convicted him of "conspiracy and counterfeiting."

Credit Cards and PayPal

Americans own 610 million credit cards, or approximately two cards for every man, woman and child. The total debt on these cards is \$850 billion, representing an enormous number of noncash transactions. Credit cards are easy to use and provide detailed records. For the American public, credit cards are the preferred cash alternative. However, compared to developments like PayPal – now with a smartphone app – credit cards are somewhat old-fashioned. Soon, smartphones will be able to handle payments: You'll just tap your phone to a cash register's reader to make a purchase.

How Smartphones Lift the Poor into Modern Economics

The opportunity to conduct financial transactions via smartphones offers great promise for helping poor people across the globe improve their lives. Banks in developing nations make it difficult for the poor to establish bank accounts, so they have few ways to save money. Now, a smartphone can act as a "mini-bank branch," allowing people to save and spend electronically.

"Money has value because it's universally accepted, and it's universally accepted because it has value."

Cellphones are ubiquitous in developing countries, where the "mobile money revolution" based on electronic transactions changes people's lives for the better. Thanks to cellphones and electronic money, poor people worldwide have a mechanism to pull themselves out of poverty; they no longer need physical money. "Cash is the enemy of the poor," says Ignacio Mas, deputy director of the Bill and Melinda Gates Foundation's Financial Services for the Poor program.

Today's smart-money bet is that new technologies will emerge to advance the demise of cash; perhaps advanced cellphones or something more futuristic and sophisticated, like miniature, wearable computer chips. These devices will function as wallets and as local banking branches and payment devices. They will convert

currencies. The result will be widespread digital money.

Mas hypothesizes about the "smart banknote," an electronic display that will look like paper currency, an "e-paper" device enabling the user to assign value, like an electronic check. His research team says this advance may occur within the next 10 to 15 years.

About the Author

David Wolman is a contributing editor for *Wired*. A former Fulbright journalism scholar in Japan, he has written for *The New York Times*, *The Wall Street Journal*, *Time* and *Nature*.