

CHAPTER ONE

INTRODUCTION AND OVERVIEW

A sudden loud noise wakes you from a deep sleep. What was that? You reach for your bedside lamp but it won't turn on. Suddenly your bed is shaking. Earthquake! Your lamp dances across the bedside table and falls off, crashing on the floor. You clutch the sheets and wait for the quaking to stop. Then you slip out of bed and walk carefully to the bathroom to splash water on your face and wake up fully.

A dribble of water comes out of the faucet and then stops. Looking out the window you see your neighbor's house has a huge crack. Part of the roof is hanging over their front door. You pull on some clothes, thinking fast as you feel another tremor shake the floor. No electricity, no water, more quakes coming – you need to get out of here!

In the dark you quickly collect your phone, computer, wallet, and keys. What else do you need? You grab your medications, and some warmer clothes, just in case. Wishing for coffee, you grab some juice and leftover dinner from the refrigerator. You back your car out of the driveway, listening to the news on the radio. The earthquake destroyed the city near you and many roads are impassable. Which way should you go?

Two houses away you see your elderly neighbor waving frantically from her front steps. You roll down your window and ask how she is. Her house is badly damaged and she begs you to take her with you away from this dangerous place. You agree and she rolls a small suitcase to your car and climbs in.

You drive to the route recommended by the radio broadcast. Along both sides of the road you see fallen trees, cracked buildings, and dazed people. The streetlights and traffic lights are out but there aren't many cars of the road yet. You hope you can make it to the next city where your sister lives.

After driving for about an hour you need to get gasoline. Up ahead you see a service station and pull into the line of cars waiting for the pumps. Thank heavens they are still working! You leave your neighbor with the car and go in to the convenience store to buy some food and coffee. At the checkout you present your credit card only to be told, "Cash only. The phones are out and the credit card machine is down."

Shocked, you stumble back to the car to tell your neighbor you can't buy anything. Not even gasoline! She says, "I have cash. My daughter told me two weeks ago I should always have some for an emergency so I got some. And I think this qualifies as an emergency!"

Thank goodness you brought her along! You thought she would be a drain but here she is saving the day. You fill the gasoline tank and buy sandwiches, fruit, and bottled water, along with that coffee you need so badly. Now you can make it to your sister's house. What would you have done without cash?

You haven't used cash in months. You either use your phone for electronic payments, or tap a credit card on a keypad. But the earthquake has knocked out the telecommunications that electronic payments require.

So many people have, like you, shifted to relying on electronic payments. But when a huge hurricane, raging wildfire, towering tsunami, or colossal solar storm knocks out electricity or telecommunications, electronic payments don't work. When a hacker takes control of central computer systems, your credit cards, debit cards, and Bitcoin can no longer be accepted in payment for food, transportation, or services. That's when cash is a lifesaver. Cash works when your phone runs out of battery, or your phone falls out of your pocket into the toilet, which happens more often than you think. Cash even works when it's soaking wet. In today's electronic payment world having cash gives you resilience.¹

SHIFT AWAY FROM CASH

The world has seen a dramatic change in just a few years in how people use and conceive of money. Until the end of the 1900s people primarily used coins and paper money. Then, beginning in the early 2000s, people started abandoning paper money and switching to electronic forms of payment like credit cards, debit cards, cryptocurrency, and mobile payments.

The switch is not happening at the same rate everywhere. It depends on which country you live in. Places like China and Sweden are currently almost entirely cashless. Sweden has abandoned paper money to such a large extent that the Swedish government passed legislation forcing banks to handle cash. China has so thoroughly adopted mobile payments that some tourists try to get a Chinese cell phone number to effectively pay for purchases when visiting the country.

Other places in the world have not abandoned cash. Japan is still a cash-dependent society, where making large purchases with paper money

is normal. If you want to purchase a home or apartment in Argentina, most transactions are done in cash. However, because Argentina's economy and currency are unstable, most sellers want the funds in US paper money. Around the world many rural communities, often located far from banks, still primarily use cash for transactions.

The abandonment of cash is both generational and based on income. Older individuals who grew up using cash still use it at a much higher rate than younger people. Poor people are using cash more often than the rich.

Although the rush away from cash is happening at different speeds around the world, it is clear that paper money is being abandoned from all directions. Restaurants, stores, and even many types of transportation are steadily preventing customers from using cash. For example, airlines used to accept cash to purchase in-flight food and drink. Today no major airline accepts cash for in-flight purchases. Not only do airlines no longer accept cash to buy a snack while flying but also it is difficult to pay for a plane ticket with cash. Decades ago many airlines had ticket offices located in major cities that accepted cash. Today many of those offices are shut and customers are directed to buy a ticket on the internet using a debit or credit card.

WHY THE SHIFT?

The shift is happening because there are many powerful groups pushing to get rid of cash.

Credit card companies like Visa, Mastercard, and American Express; financial service companies like PayPal, Afterpay, and Klarna; and a host of smaller financial startups want you to use electronic payments instead of cash because they get a small cut of every purchase. Although the percentage each takes is not large, a small percentage times billions of purchases adds up to huge amounts of money.

Banks and stores want you to use electronic payments because they know people who use electronic payments overspend. Stores are in business to sell. Encouraging people to overspend is a simple way of boosting sales. Cash, for reasons discussed later in the book, restrains people's spending, and electronic payments do not. Banks encourage overspending because after overspending, people borrow money, on which banks make billions each year in interest payments.

Companies selling on the internet also don't want you to use cash. It is impossible to hand paper money through a computer or phone screen to them. Instead, getting your financial information like a credit card or bank account number is far more efficient for them. Giant internet retailers want the online shopping experience to be as fast and frictionless as possible. Storing your financial information in their database enables them to offer one-click shopping. This sounds wonderful, but heavy internet shoppers need to ask themselves – how often do packages show up and you don't remember what you ordered?

Last, governments and the world's central banks, which print and distribute paper money, are also encouraging the trend away from cash. Many government officials believe most cash is used by criminals to hide their activities. The idea that eliminating cash will boost tax receipts, reduce crime, and eliminate corruption is demolished later in this book, but not all public policy decisions are based on facts or data. Central bankers dislike paper money because it reduces their ability to control a country's macro economy.

KEY QUESTION – IS THE SHIFT GOOD?

The shift to electronic payments is wonderful for credit card companies, banks, high-tech companies, and governments. However, what is good for them is not necessarily good for either you or society. Every large-scale

societal shift has both good and bad points. People and companies benefiting from electronic payments are trumpeting the positives and ignoring the negatives.

This book shows the overlooked power for individuals and society of continuing to use paper money. The book's goal is to puncture the fairy-tale world presented by the world's largest banks, high-tech companies, and governments by showing that keeping and using "old-fashioned" cash has many positive aspects, ranging from improving a country's self-defense to helping individuals spend less.

The book is needed for three reasons. First, because of immense profits many types of businesses have a strong incentive to convince you that using paper money is bad and electronic payments are good. Next time you take a flight, count how many ads there are for credit cards and other cash alternatives. There are giant billboards, leaflets in the plane's seat pockets, flight crew announcements, and even small ads snuck into places like napkins and baggage carts. Then try counting the number of ads trying to convince you to use paper money. There are none. No advertising is pushing back against this tidal wave of persuasion.

Second, people's financial literacy is low and falling. FINRA (Financial Industry Regulatory Authority), a US organization responsible for protecting investors, found the typical American could only answer half of its basic financial questions correctly, down from 60% a dozen years ago. Reduced knowledge combined with increasingly complex payment choices enables businesses to take advantage of consumers. Cash, with no bells, whistles, or fine print protects consumers better than any watchdog agency.²

The last and most important reason for this book is that humans over-react. We quickly declare revolutionary new things are better than the old. Often the old is discarded. However, over time the flaws and problems of the revolutionary new product or idea show up and people reconsider what they have lost.

One of the simplest examples is social media. When social media first started, people hailed it as a revolution whose use would enable people to

reconnect; find new friends; deepen relationships; provide access to unfiltered, unbiased news; and boost democracy. Today social media is blamed for almost every type of social ill from alienation to bullying, the rise of hate speech, and fringe groups.

After the overreaction, the world often sees the value of older technologies. While writing this book I have been amazed at the resurgence in old technologies, like manual typewriters and even fountain pens. All were considered obsolete until recently. Now they are coming back. The revival is occurring because now consumers understand that although digital technologies have many advantages, they also have unexpected problems and faults.³

The problem with overreaction is that once the old methods are discarded it is very costly to bring them back. One of my favorite examples of an old technology experiencing a startling resurgence is vinyl records. Recording Industry Association of America (RIAA) figures show vinyl records were king of the recorded music industry until the end of the 1970s. Record sales plummeted in the 1980s, first with the advent of compact discs and then with portable MP3 players. The promise of these digital technologies led me to sell my top-of-the-line record player and an extensive record collection built up over decades. By 2005 new vinyl records were almost extinct with total sales of just \$14 million.

However, since that low, US vinyl album sales have been rejuvenated as people recognize their benefits. In 2023, record sales were \$1.4 billion, which is 100 times larger than sales about two decades earlier. I am now tempted to switch back to vinyl because today's digital music files just don't have the same dynamism and life of records. However, because all of my equipment and music is gone it will cost me a small fortune to rebuild.

It is the same with cash. If society stops using paper money then cash registers, ATMs, coin counting machines, safes, armored cars, and even many bank branches will disappear. Bringing them back will be very costly once people understand what is lost by eliminating cash. If society does not

overreact and uses both electronic money and “old-fashioned” cash simultaneously then we can maintain the resiliency and benefits paper money provide.

Digital technologies promise a utopian future. The world’s experience with digital money has shown it has advantages, like speed and convenience. However, with these benefits come a loss of privacy, higher costs, and a total reliance on a network of computers, telecommunications equipment, and electricity, among many other concerns.

Is cash perfect? No, but neither are electronic payments and money. Let me be clear, this book does *not* argue that we should abandon electronic money. I use credit cards at times, pay some bills online, and occasionally use my cell phone to send money. But I also use paper money.

The goal of this book is to convince you to not abandon cash. The book’s message is simple: use cash as well as electronic money when making payments and saving. Doing this will provide many powerful benefits to both you and society.

THE SYNOPSIS: A DOZEN REASONS CASH IS POWERFUL

Life is busy. There is never enough time to do everything we want. Reading books is no exception. I personally read bits and pieces of nonfiction books and do not always read books from cover to cover. For those of you who also jump around when reading a book, here are my personal favorite dozen reasons why cash is powerful. There are far more than a dozen reasons in this book, but this is a quick synopsis and guide.

For those who read straight through, this book contains six parts. The first section lays out the facts and figures of the transition from using cash

to a cashless society. The second part discusses why using cash benefits society, the third explains the benefits for individuals, and the fourth shows how cash helps the vulnerable. The fifth section explains why cash is not causing crime, but instead is a symptom of criminal activity. The sixth section explains how cash provides limits on government's control, and the conclusion provides some simple ideas for boosting cash use. For straight-through readers the following reasons provide a preview.

The Dozen Reasons Why Paper Money Is Powerful for You and Society

1. *Cash works all the time.* The cashless society is dependent on electricity, communications, and computers. For cashless transactions to work, the electrical grid must provide stable uninterrupted power, the telecommunication network must transfer all messages seamlessly, and computers and their data must be secure. When any one of these three parts is broken, cashless transactions do not happen, but cash still works. Chapter 4 details how cashless payments work and shows how cashless transactions depend on three fragile pieces of technology.
2. *Cash reduces problems caused by major natural disasters.* Mother Nature is hitting the world with increasingly frequent and costly catastrophes. Natural disasters are the very moment when people are most desperate to spend money. In the face of impending hurricanes, typhoons, fires, and earthquakes people are trying to flee or buy supplies. After a natural disaster many people are frantically spending money rebuilding their homes and lives. During and after natural disasters, cashless transactions work poorly or not at all. Paper money, however, does work because it does not need power, connections, or computers. Chapter 5 delves into the problems of cashless societies facing increasing natural disasters.

3. *Cash protects a country from external enemies.* War has been a concern for thousands of years. One common method when waging war is to soften up an enemy's population. In previous generations this was done with tactics like naval blockades, starving cities into submission, and bombarding military and civilian targets. In a cashless society a simpler and more effective method is to deny people access to their money and the ability to spend it. Destroying the ability to move electronic money around in a cashless society grinds an economy to a halt by making it impossible to buy food, pay for medical care, or use transportation. A current example is Russia's repeated bombing of Ukraine's electrical grid. No electricity in Ukraine makes cashless transactions impossible. By using cash, Ukraine is thwarting Russia's intentions. Chapter 6 looks into how cash boosts national defense.
4. *Cash protects society from rogue individuals and criminal groups.* It is not just enemy nations that sap a country's resilience. Hackers and criminals have broken into networks that run our banking, transportation, health, communication, and other crucial infrastructures. Because electronic payments are dependent on computer systems, threats that shut down or compromise the massive databases holding our financial data can cripple a country's economy. As an example of why shifting to a cashless society makes a nation more vulnerable, just imagine the following: your bank and all the other financial institutions where you keep money have all accounts locked by ransomware. You might have lots of money in those accounts. However, until all the financial institutions come back online, you are broke. How will you make purchases if you do not have cash? Chapter 6 has details.
5. *Cash helps people spend less money.* Cash helps control impulse spending because we experience a tiny amount of regret on giving up paper money. Tapping a card, waving a phone, or clicking on a

link does not feel like spending real money, so we spend more. Cash also provides a hard budget. When there is no more paper money in your pocket you are forced to stop spending. Cashless methods break this hard budget and enable more spending to happen. Businesses love this feature, which is why so many accept a variety of payments. Chapter 7 looks at spending in more detail.

6. *Cash gives you privacy.* Cash is an anonymous means of payment. The cashless society generates a large amount of data with every transaction. It is clear people don't want to be associated with illegal purchases. No one wants a permanent record of buying illegal drugs like heroin or spending money on prostitutes or escort services. However, spending privacy goes well beyond purchasing illegal products or services. Not everyone wants others to know they are using weight loss products, coloring their hair, or buying lottery tickets. Privacy is covered in Chapter 9.
7. *Cash reduces the price you pay.* Cash hides both what you bought and how much you paid, but every cashless transaction generates data. One of the most valuable aspects of this information is the ability to create custom ads and prices for each customer. Some customers are willing to pay more, but currently don't have to. Your buying patterns can enable businesses to charge you higher prices. Pricing is covered in Chapter 10.
8. *Cash helps the poor.* A cashless society marginalizes the poor and those who are unbanked. Not everyone in society has or can get an account at a bank or financial institution. Moving to a cashless society forces all people to get bank accounts. For the rich and middle class, bank accounts typically have no out-of-pocket cost. However, for the poor, bank accounts are expensive. Bank accounts with little money in them typically have an up-front monthly charge. The up-front charge, overdraft, and other fees make banking costly for poor people and those living paycheck to paycheck.

As one advocate told me, “the fees charged to my poor clients are predatory.” Chapter 11 focuses on the problems the poor have in the cashless society.

9. *Cash enables charity.* How often have you been asked for “spare change” or “can you help us with a small donation?” With cash if you are feeling charitable you pull some money from your pocket and continue on your way. In a cashless society making small donations and helping the poorest of the poor is difficult. Without cash what are you going to do: send money via PayPal, Venmo, or some other instant payment program? The person or group asking for change might not have a phone or an account. Charity is talked about in more detail in Chapter 11.
10. *Cash makes the lives of immigrants and tourists easier.* Immigrants and foreign tourists don’t have local financial connections. For them it is easier to do things in cash than using the cashless system. Both groups often face language barriers. Electronic transactions come with a host of things that must be read, understood, and signed. With cash you only need to recognize a few commonly used digits. Making it easy for people to pay for lodging, food, and entertainment without excess fees and surcharges boosts local economies. Chapter 12 discusses paper money, immigrants, refugees, and tourism.
11. *Cash prevents governments from controlling protestors, minorities, and opposition groups.* A cashless society gives governments the power to shut down dissent quickly. Shutting off access to cashless payments and financial accounts is a simple way of restraining protests or punishing groups and individuals. You think this only happens in dictatorships or in countries most people cannot find on a map? In Canada truck drivers protested government policies by driving their tractor trailers slowly around Parliament while honking their horns for days. The government crushed the

demonstrations by shutting off the drivers' access to their money, which meant no food, gas, or ability to post bail for the protesters. With cash the truckers could have continued to dissent. Chapter 17 has other examples of government control.

12. *Cash ensures central bankers do not have unfettered ability to wreak economic havoc on the vulnerable.* For most of history people who saved money were paid interest and people who borrowed money owed interest. Saving was rewarded and borrowing was punished. Based on these rules in preparation for old age, many people saved money during their working years and lived off the interest and principal in retirement. Electronic money has turned this entire system on its head by allowing central banks to push interest rates below zero. Negative interest rates were common in Europe from 2014 to 2022 and also in Japan for many years. Negative rates punish anyone who saves money because a negative rate means savers have a portion of their money confiscated every month. Borrowers who get negative interest loans are rewarded for spending. Central bankers use negative rates to spur spending. However, what is good for a central banker is not good for the many elderly people who are concerned that spending too much today will leave them destitute tomorrow. Cash puts a brake on central bank policies, because taking paper money out of banks prevents central bankers from pushing interest rates much below zero. Chapter 17 goes into detail about negative interest rate problems.

CONCLUSION

Although I've identified my top dozen reasons, I always urge my business school students to give customers a bit more than expected. The bakery industry codified this by giving customers a "baker's dozen," which is

13 items instead of 12. Following that model, my 13th reason is *cash is fun to hold and use*.

At the beginning of my academic career I was very poor. Because of that experience, today I get a thrill out of holding a wad of cash and using it to make purchases. Holding these bills in my hand is fun because they are a concrete signal I have money and can now afford to buy things.

Beyond cash being fun, it provides clearer feedback on how well or poorly you are doing financially than is available in a cashless world. Many of us have no clue how rich or poor we really are. I wrote a series of research papers comparing people's perceptions of their wealth with reality. The findings were dramatic; the vast number of people underestimated their financial situation and the average person believed they only had about 62¢ for every \$1 of wealth they actually held. One reason for the underestimation is for many people their paycheck, bank account, or retirement savings are just numbers that exist as a string of zeros and ones in some remote digital database. Having and using paper money makes your financial situation real instead of abstract.⁴

Many pundits have predicted the demise of cash. Hopefully, these 13 reasons, plus all the others in this book, will convince you of the power cash has over electronic forms of money. When you are convinced, join me in using paper money more frequently in your personal and business life. This will ensure cash does not become a thing of the past but, like vinyl records, enjoys a resurgence as an important method of paying and saving around the world.