A Tale of Two Economies

A New Financial Operating System For the American Economy

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A Tale of Two Economies
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TABLE OF CONTENTS

Introduction
On the Brink of Prosperity

I GAINED a fresh perspective on money when I read an account of a young man who trained for years to survive on his own in the wilderness. When he was prepared, a friend dropped him off in the New Jersey Pine Barrens. He disrobed and slipped into the woods naked, taking nothing with him, not even a knife. By evening he was eating a rabbit he had killed with a stone, cooking it over a fire that he had started by hand. In just a few days he had the clothes and shelter he needed to survive on his own.

He lived this way for a full year before making his way through the woods to return to civilization. As he approached a road, a garbage truck roared by him spewing trash and fumes. He turned around to spend another year in the woods before returning home.

I read this when I, too, was contemplating living alone in the woods. As I mulled the idea over, it dawned on me that I would find no value in money as a hermit. The only things I would value would be the skills and resources I needed for survival.

It fascinated me to think that if I discovered gold while living alone in the woods, it would be utterly useless to me unless I returned to civilization, for gold's value to me was just the value of gold to others. I saw that it was the same for money. Money's value to me was only the value of money to others.

Thus, one might conclude what others have—that the value of money is only a matter of agreement. But then one would be missing a much greater point, for there must be things of true value before money can have any value. Our agreement on money is not that money has value in and of itself, but that we will accept money in exchange for things

that have value to us. And thus, our standard of living is defined by our access to that which has real value, not by money.

For example, we would ascertain the wealth of a newly discovered alien civilization by observing their standard of living, not by determining how much money they have. If you watch Star Trek, you learn how advanced their civilization is by watching the things that they do. They dash about in spaceships, beam to the surface of planets, and make things out of thin air with replicators. How much money Captain Kirk earns is irrelevant.

Even the richest men alive today do not have the ability to fly about the galaxy at warp speed, just as the richest kings in the past could not fly across the Atlantic in a plane. In fact, none of them could make a mobile phone call, go online, drive a car, or do any of the things that you and I take for granted. So, who would you rank as having the highest standard of living: Captain Kirk, you, or Augustus Caesar? The answer has nothing to do with money.

The goal of this book then is to approach economic policy from the perspective of how we can improve our standard of living. Thus, we will explore the relationship between two very different economies. One economy, the monetary economy, is defined by the movement of money and the issuance and trading of financial assets. The other economy is the material economy, which is defined by the production and consumption of goods and services.

We will discover that the reason we have a monetary economy is to facilitate activity in the material economy. And because it is the material economy that defines our standard of living, and not the monetary economy, we will look at what we can do within the monetary economy to better facilitate production and consumption in the material economy. In other words, we want to determine how we

can upgrade our financial operating system in such a way that it improves our standard of living in the material world.

One premise in this book is that we are on the brink of unprecedented prosperity today because of technology in the material economy. Another premise is that the monetary economy is eroding our prosperity. Thus, it is the best of times, and it is the worst of times.

As you read this book, you will be surprised at how nonpartisan the solutions to our problems are. True solutions benefit everyone and are a win across the entire political spectrum. They stand in stark contrast to today's politics in which everyone loses.

We do not have win-win economic policies today because we treat taxation and economic policy as a zero-sum game. We believe that a gain for one means a loss for someone else, despite the fact that progress has never been about some winning while others lose.

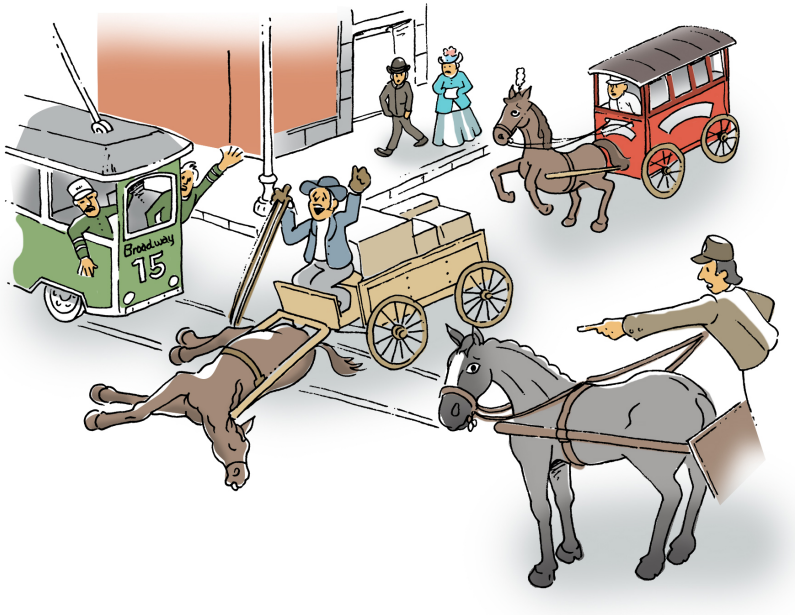
We have a higher standard of living today not because someone lost out while we made out, but because technology improved everyone's lives across the board. When someone builds a house, for example, the workers who construct the house also benefit. The owner of the house does not have a new home because someone else took a fall. That would be absurd, and yet our economic policies today fail to capitalize on this simple principle.

> "We're all working together;
> that's the secret."
> —Sam Walton

To frame why we are in such a quagmire today, imagine hundreds of archers charging into a sunny field with their quivers filled with arrows. Watch as they frantically shoot their arrows into the ground, into each other, and into the forest around the field. Notice how no one sees that there is a target in the middle of the field?

That is partisan politics today. It is the news you watch and the pundits filling your heart with nonsense. When you read this book, you will see the target in the field, and you will understand why we have been without solutions for so long.

We are looking at our economic problems today with the same short sightedness as the people in the early twentieth century who were wringing their hands over the problem of too many horses crowding their cities. Back then, four million pounds of manure piled up in the city of New York each day, faster than it could be hauled away. And since there was not enough room to rest all the horses, 15,000 dropped dead from exhaustion each year, clogging traffic and adding to the stench of the city. Naturally, there was a public uproar.



In response to the outcry, New York's leaders convened a conference of world experts to solve what they deemed to be a growing global crisis. But to everyone's dismay, the conference ended an utter failure. The experts gave up, declaring there was no answer to the problem. And then the finger pointing began. As we now know, they were merely shooting their arrows into the ground and into each other, much like the experts who sound off today.[1]

In hindsight, it's hard to imagine the experts could not have seen the automobile as the solution they were seeking since there were already cars on the road when the conference was held. It's doubtless that some of the attendees even rode about in the new-fangled contraptions, yet it didn't dawn on any of them that cars were the answer to the problem. Instead, the paradigm shift had to take place on its own, and then what was once an intractable problem was simply forgotten.

Just as the car solved our challenge with horses years ago, this book presents solutions that solve our economic challenges today. Someday we may forget that we ever had to pay high taxes, that we had a growing national deficit, and that we owed over thirty trillion dollars in national debt. We may even forget that the costs of housing, college, and healthcare were once problems. And even the appalling fact that so many of our citizens endured a marginal standard of living may eventually become a distant memory.

To get a sense of just how far off our perception is, consider the hotly debated topic of deficit spending, the fact that our government spends more than it generates in revenue. If we really could not afford the schools, roads, and military aircraft we build each year, we would run out of human and natural resources before we completed such projects.

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[1] See Agueda Garcia de Durango, "New York, manure and stairs: when horses were the cities' nightmares," *Smart Water Management*, June 9, 2019, https://smartwatermanagement.com/blogs/

The fact that this does not happen demonstrates that we do have the resources we need in the material economy. Thus, we have a deficit not because we are overly ambitious and trying to do more than we can afford with the resources we have, but because there is something wrong with how we go about paying for public projects. In other words, our deficit indicates that there is a problem with our financial operating system, and not that we are at odds with the physical reality of our material economy.

As you will see, we can actually afford much more than we do today, while also cutting personal taxes and balancing the budget. In fact, we can fully pay off the thirty trillion dollars in national debt that we owe while also providing many benefits to rich and poor that we cannot afford under our current system.

I saw our nation's money problem in a new light when I met Alan Stern a few years ago. Alan led our nation's space mission to Pluto. At dinner, Alan related to me that the most challenging aspect of the entire mission was *financing* the project. Think about that. His team tackled a project that was at the very fringes of human ability, and yet the most difficult part of the mission was obtaining the money they needed. Alan's story did not surprise me. I have seen many viable projects fail for lack of money.

I asked Alan what the limits to space exploration would be if money were not an issue. Could we launch a new probe to Pluto every year? "Of course, we could!" he replied, "That would be easy! We just don't have the money." And in fact, we do not have another mission to Pluto planned today simply because we cannot afford one.

All this begs an important question, doesn't it? Have you ever wondered what your own life would be like if we solved our nation's money problem? That is the purpose of this book. I call the solution in

this book the Financial Freedom Act. It's not an act that Congress has passed, but it should be!

> "No complaint … is more common than that of a scarcity of money."
> —Adam Smith

The solutions in this book are extraordinarily simple and pragmatic. They depend only on a shift in vision, and not on a shift in human nature. We do not need to become more altruistic or better people to enjoy the transformation described herein.

You will see that inflation's impact on our standard of living, the growing divide between the rich and the rest of society, the increasing drag that you feel from income and sales taxes, and the trap that the social welfare system imposes on those in poverty are all inevitable consequences of today's financial operating system. And you will see how a simple upgrade to that system can solve all these problems.

The tension we experience today will surely lead to a more efficient system tomorrow. Thus, the solutions in this book are not subject to political whim but to market forces. In fact, we have long been closing in on these solutions as technology has advanced and our financial world has mushroomed. The same monetary economy that is eroding our standard of living today will inevitably fuel the solutions that permit all of us to enjoy a much higher standard of living tomorrow. This book foretells how that will happen.

The next two chapters build the foundation for the how and why behind the solutions presented in this book, while the solutions themselves are set forth in chapters 3 through 7.

CHAPTER 1
THE WEALTH OF NATIONS

IN COLLEGE, I was awestruck by the splendor of the universe, so I studied astronomy. Later, intrigued by the mystery of our existence in such a vast expanse, I studied philosophy. Thus, jobs were hard to come by after I graduated. I became an entrepreneur before I knew the meaning of the word. In seeking a way to earn a living, I came across an old, yellowed book on how to finance real estate. I discovered I loved finance.

I began to read *The Wall Street Journal* and study Paul Volker's moves at the Federal Reserve, along with Michael Milken's junk bond deals. I taught myself how to broker commercial real estate loans. To my surprise, I made friends at Drexel Burnham Lambert, Lloyds, and Barclays. Back then, I lived in the mountains of North Carolina, so my new friends were remote. I bought the Yellow Pages for NYC and that was how I met people—I would cold-call them!

I was married with children when the Savings and Loan crisis hit in the late 1980s, and it became impossible to find capital for my clients. I moved my family to Boulder, Colorado, to work for a bank, hoping it would bring financial security to my life. The bank closed its doors my second day on the job. I then worked for a second bank that closed its doors two weeks later and a third bank that closed its doors two months after I started.

I surmised that I would have more control over my destiny if I worked for myself than if I worked for others, so I set out on my own again. I had studied how Lewis Ranieri securitized residential mortgage pools by selling bonds with differing levels of seniority. I felt that newly originated commercial mortgages ought to be able to be securitized, too, so I started a company to do that.

I only had $425 to start the company. I talked a landlord into two months of free rent, rented office furniture and a phone system with nothing up front, hired two loan officers on commission, and turned to the Yellow Pages to cold-call every investment bank I could.

In the early 1990s, we were in a financial crisis much like the Great Recession of 2008. Owners of commercial real estate were desperate. We listed our firm in a guidebook for commercial real estate lenders and were inundated with loan requests.

We lined up plenty of borrowers for our pool because they had no other options. We were a life saver to the borrowers even before the pool could be closed. Just by applying for a loan in our pool, the borrower's bank would hold off on foreclosing. Soon the banks themselves were sending us loans, and we had hundreds of millions of dollars in loans waiting to be closed.

We had strict standards for our loans, and we personally inspected every property. But it was difficult to convince the investment banks that it would be feasible to sell the bonds necessary to fund the loans, so for years we struggled to close the pool.

We developed a proprietary structure for our pool that proved to be the key to its success. The rating agencies liked it and became our allies. We worked with them to develop the standards for underwriting loans and creating the bonds that would fund the loans. We flew two of Standard and Poor's analysts around the country to look at the properties so they could rate the pool before it was closed.

It all came together when I was asked to speak at a rating agency conference. Shortly after, the investment bank DLJ agreed to fund our pool. But first, they needed to be sure the bonds could be sold. While they polled prospective buyers of the rated bonds, they asked me to sell the nonrated bond.

I had no idea how to sell bonds, so again I turned to the Yellow Pages and began cold-calling. I had six weeks to find a buyer, but I could find no one, even though the bond had a 34% return and a 62% loan-to-value. Finally, I lined up a meeting in the World Trade Center. I flew to NYC for the meeting, but it was a bust. As I stumbled out onto the sidewalk, I was sure the pool was doomed to fail.

To my astonishment, someone called out my name. He worked for Daiwa, the large Japanese bank. We had met briefly after my speech at the conference. He was surprised to see me in New York as he knew I lived in Colorado. I explained I was in the city to sell the B-bonds.

His eyes lit up! He exclaimed that he couldn't believe his luck. He said his boss, Andy Stone, had just announced at the staff's morning meeting that Daiwa was in the market to buy high-yield paper. He would be a hero if he brought my deal to Stone only hours after the meeting. We crossed the street, and I had a commitment in minutes. I could not believe my luck.

I called DLJ from the hotel to give them the good news. They were ecstatic, saying they knew I could do it. They were impressed I had cut a deal with Andy Stone. I returned home and sent Daiwa the specs for the pool. Soon, though, I knew something was wrong. Stone's attitude changed, and the night before he was to sign, he said over the phone that he wasn't going to do the deal.

I drove home that night thinking about how remote the probability had been that I would randomly run into a buyer on the streets of New York. Finding a new buyer overnight from Boulder would be even more impossible. I realized that I would have to call DLJ in the morning to deliver the bad news.

As I walked into my office the next morning, the phone was already ringing. It was someone I really liked at DLJ. He was excited and said

I was going to think they were crazy. That morning they had decided they wanted to buy the B-bond themselves. He asked if I had signed with Andy yet, and whether they could buy it.

I took a deep breath to process this turn of events. In March 1993, we began closing loans, and the era of securitizing commercial real estate mortgages was born. DLJ provided us a $1billion line of credit to fund all the loans we could muster.

THE TWO ECONOMIES

THE MORE TIME I spent on Wall Street, the more I could see there were two economies at play in our nation. The monetary economy, made of financial assets that we created on Wall Street, was different from the material economy that I experienced at home in Boulder.

Our mortgage pool, for example, was collateralized by properties that remained unchanged for years in the material economy, and yet we were able to generate new securities on each of the properties every few years, which we would trade over and over in the monetary

economy for additional profits. Per our underwriting standards, the property had to earn 110% of the cost of our financing to qualify for a loan. In other words, we were guaranteed to consume most of the property's net cash flow.

It did not stop with debt, either. In the monetary economy, even the ownership of property was a shell game. For example, DLJ owned properties in the form of limited partnerships. When one partnership cashed out, another was rolled in place with a new set of fees.

In the material economy, on the other hand, real people lived in the apartments. They put a third of their income into their units. That covered the cost of building the apartments, maintaining the apartments, the staff that rented the apartments, the taxes the government charged, and us. Most of the rent went to us.

ONE DAY our firm received two loan requests for the same amount of money. One was from Donald Trump. He needed $5 million to refinance his home in the Trump Tower. The other was from Nelson Mandela's government. They needed $5 million to build 11,000 homes in Soweto, South Africa, the first phase of their Reconstruction and Development Program.

Trump was coming out of bankruptcy when he applied for the loan for his home. He didn't take our money in the end because he closed a deal with some Chinese investors who netted him the money he needed. The South Africans, on the other hand, built their homes by hand. Our financing only provided the infrastructure, tools, and materials that they needed to do the work themselves.

Ironically, we were able to obtain the financing for Mandela's project directly from the banks in South Africa. They had refused to finance their own nation's project until we brought in the credit enhancement

they needed. This caused me to think about how our nation finances its own projects, leading me to wonder how it is that we have a deficit when we obviously have the material and human resources necessary to complete the projects we undertake. I began to realize that the shortfall we register in our monetary economy does not reflect the reality of our material economy.

I wondered what sort of aberration the deficit really was. I hoped for a break in my busy schedule to model the problem. Then, realizing I would never have a break, I committed two hours per weekday to research the question, no matter how busy I was. I worked for years until I completed my first book on the economy. I shared it with a few friends, and it became the cornerstone for my further study.

One of the challenges I had in researching the economy was that a lot of economic data is ideologically biased. Much economic research is paid for by special interest groups. And while economics is boring, anything that impacts our pocketbook is emotionally charging, so people are quick to embrace assertions about economics that align with their self-interest, whether the assertions are factual or not.

In my research, I wanted to understand the economy from a neutral perspective. I came up with a novel approach to wrap my mind around economic issues, which helped me to arrive at the solutions in this book. The approach has proven useful to others as well, so I will employ it below to set the stage for understanding the problems in our economy that this book solves.

Welcome, therefore, to the tale of the farmer, the hunter, and the handyman. These three gentlemen live in the woods far from anyone else, so they have their own tiny economy—one that we can easily grasp. We will use their story to understand our current economic issues, including the various forms of inflation, the impact of too much

money, the invention of cryptocurrencies, and how a nation can suffer a deficit even though it has enough resources to complete the projects it sets out to do. The story of our villagers will lead us to real solutions to today's problems, solutions that help to improve what matters the most in economics—our standard of living.

THE ORIGIN OF INFLATION

LET US think through how inflation would play itself out in such a small world. To begin, let's assume that all three men work eight hours per day every single day to meet their collective needs. That will be our benchmark for measuring any change to their standard of living.

First, let's consider what would happen if the farmer broke his arm. How would the village economy respond to a decline in the farmer's efficiency, or worse still, to a drop in the farmer's production?

If the farmer kept up his production by working sixteen hours per day, all three men would be able to exchange the same amount of goods and services. In that case, only the farmer would experience inflation since he would earn only half as much in return for each hour of his labor. But if the farmer kept to his normal work schedule so that his production was halved, the amount of food available to our villagers would be cut in half, even though all of them were working as long and as hard as they had been in the past.

If you work longer now than you did in the past to buy the same amount of goods, you are falling behind. This is a particularly harmful form of inflation. I call it *backsliding inflation.*

A decline in productive efficiency, as well as a drop in production, will cause backsliding inflation.

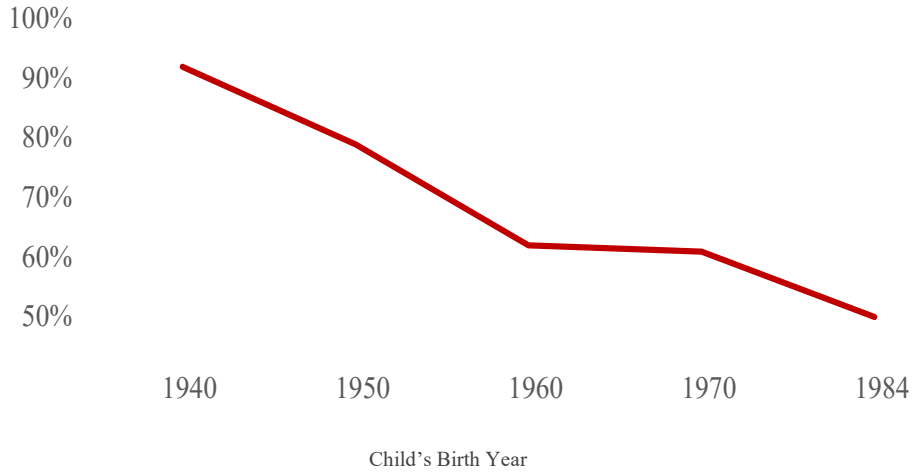
Suppose the hunter and handyman want to shield themselves from the farmer's drop in production. Perhaps they demand the same amount of food from the farmer in exchange for their wares. If they do this when the farmer's production is down by a third, the farmer would have nothing left for himself. And this strategy will not work at all if the farmer's production drops by more than a third, as there simply would not be enough for the hunter and the handyman to have their usual share. You can see why it is hard to limit the effect of backsliding inflation to a specific manufacturer or to the sector responsible for the drop in productive efficiency.

A downturn in production in any sector of the economy can impact the entire economy, causing everyone to fall behind.

If you are earning the same amount, and the price of gas doubles, you are experiencing backsliding inflation. Likewise, if it is more difficult for college graduates to buy a home today than it was for their parents, we have fallen behind, which is what the following graph suggests is happening in our nation's economy.[2]

[2] Raj Chetty, et al., "The Fading American Dream," *Science* (April 24, 2017), 398-406. See also https://www.cnn.com/2020/01/11/politics/millennials-income-stalled-upward-mobility-us/index.html.

PERCENTAGE OF CHILDREN AT AGE 30 WITH HIGHER INCOMES THAN THEIR PARENTS HAD AT AGE 30



An interruption in the supply chain, or an increase in the cost of overhead, can cause backsliding inflation. Likewise, an increase in the cost of finance would also increase the cost of producing goods. It would certainly not make things less expensive. The only reason raising interest rates tempers inflation is because higher interest rates suppress demand. If rates are increased too much, the economy becomes a train wreck. We have always found it difficult to throttle back the economy without causing a disaster.

Whether higher interest rates result in a train wreck or just a slowdown, they force businesses to find a way to reduce the cost of goods that they produce to survive. In this regard recessions can serve to prune the economy, helping restore efficiency where there has been excess. But make no mistake, higher interest rates inject an additional layer of expense within the supply chain. Higher interest rates make the capital

improvements for infrastructure and increased efficiency more expensive as well as add to the cost of materials and transportation. Later in this book we will explore a more elegant solution to the problem of fighting backsliding inflation.

In a few sections we will see how different *backsliding inflation* is from *monetary inflation*, in which the price of goods and salaries increase because of growth in the money supply. We will model monetary inflation once we create money in the villagers' economy. First though, we will explore a powerful economic stimulus—the impact of technology.

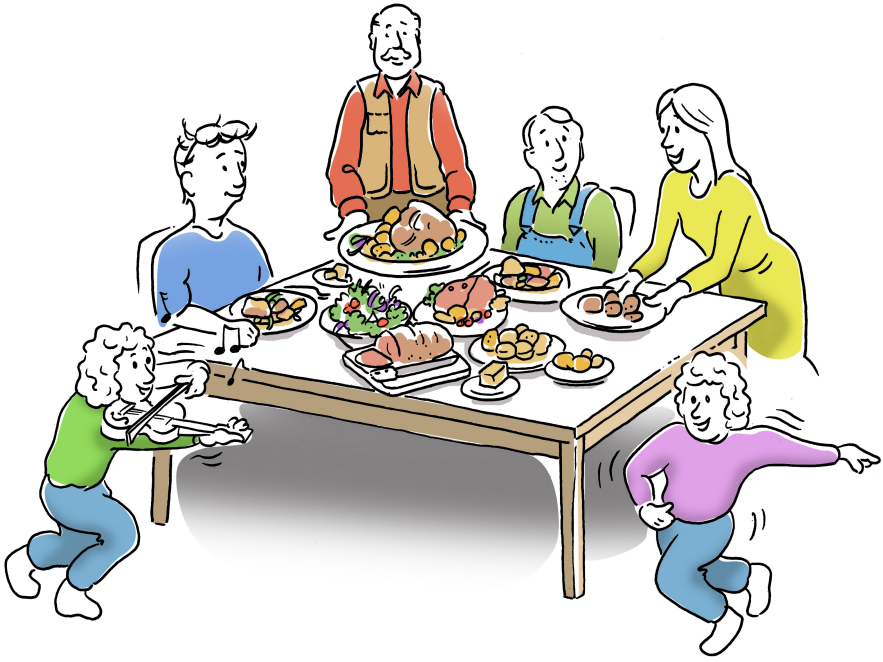
THE IMPACT OF TECHNOLOGY

IF THE VILLAGERS develop technology, they can produce more in less time. Let's say the farmer and the handyman manage to triple their production and there is no longer a need for the hunter to work. If, in his newfound leisure, the hunter marries a woman from a nearby village and they have twin daughters, the village would double its population with only a third of its citizens having to work. In this case, everyone could share in the increased production of the farmer and handyman. Or the farmer and handyman might insist the hunter bring something new to the table in return for a share of their increased production. Historically, as technology has eliminated jobs, the displaced workers have found new work, which has further increased the gross domestic product (GDP).

> Technology that increases our productive efficiency leads to greater wealth.

The hunter could be useful for protecting the village. As he is familiar with the outdoors, the hunter might also be able to find new treasures for the villagers in the forest. The hunter's wife could prepare sumptuous feasts for the villagers, and his daughters could fashion musical instruments out of wood that the hunter finds in the forest.

Because of the new technology that the handyman and the farmer had developed, the villagers would now not only have enough food, clothing, and shelter, but they can also enjoy additional security, new products from the forest, culinary delights, and even entertainment. The GDP of the village would have increased because of technology, specialization, and trade.



THUS, we see that technology enables us to:

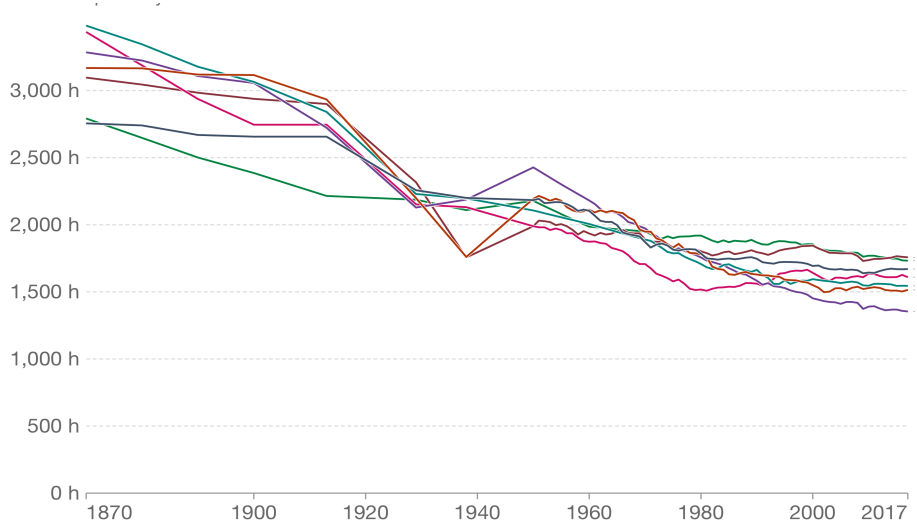
- Work less than we did in the past and yet enjoy the same standard of living, or
- Work the same amount as we did in the past and yet enjoy a higher standard of living.

Technology is deflationary, reducing the amount of work that we need to do for a given return. Yet when we research the number of hours humans worked in the distant past, it turns out that hunter-gatherers worked much less than we do today, spending only a couple of hours each day to sustain themselves. This is thought-provoking. The shift to agriculture required more work, not less.

Why would people have wanted to work harder? It seems we used technology primarily to ramp up our standard of living. When we banded together to grow food it led to larger families, which provided not just more workers, but security from others. This fueled population growth, the development of cities, and eventually nations. As the need for resources increased, competition increased, which gave rise to empires, war, and colonialism. Thus, throughout history, it was always technology that provided the competitive edge, not only in the battle for resources but also with respect to what we could do with the resources we have.

As technology improved, a growing percentage of the labor force left the farm to work in factories. Instead of their labor being limited to the growing season, though, it became a year-round grind of twelve to sixteen-hour shifts. Finally, technology reached the point that we could begin to work less and still improve our standard of living. In the chart below, the number of hours that people worked per year fell by 1,000 hours in the fifty years from 1870 to 1920, dropping from 3,200 hours per year to 2,200 hours per year. It then fell another 500 hours per year over the next century.

ANNUAL WORKING HOURS PER WORKER



Arguably, the number of hours that everyone worked per week might have dropped even more over the last century if it were not for war and the threat of war. By the 1930s, for example, many had concluded that labor-saving devices would dramatically reduce the work week as technology improved. Kellogg's embraced this idea and cut its work week to thirty hours in the 1930s while still paying their employees a full-time wage. Other companies soon followed suit. The trend ended, however, with the advent of World War II.

The war demanded longer hours and more workers. After the war, many expected the work week to resume its drop, but the cold war fueled an unprecedented build up in the "military-industrial complex," as President Eisenhower famously warned, which served to keep our nation's work week longer than it would have otherwise been.

And though the work week has shortened over the past century, some of our gains may not be quite as great as we think, since the percentage of women working has also increased. The chart a few pages back that

showed a decline in the ratio of children who had incomes higher than their parents at age thirty would indicate that we are falling behind. Thus, we need to examine which aspects in our economy are working for us, and which are working against us.

After the war, our ability to produce exploded giving rise to modern consumerism and leading to our great thirst for resources today.[3] The challenges in our economy today pose an important question: Despite our technological progress, is our standard of living still rising, or is it falling, and is the answer different if you are rich, middle class, or poor? We need to further model our village economy before we have the tools to answer these questions.

THE ART OF THE DEAL

LET'S RETURN to when the farmer, the hunter and the handyman were making just enough to meet their needs and look at what can happen if only the farmer developed technology that enabled him to double the amount he could produce per year.

Since we have not introduced money to the village yet, we will keep track of our villagers' wealth in terms of their production. We will call the amount of production that meets their daily needs a "Thoreau" in honor of Henry David Thoreau, who kept careful track of his production and how long it took him to meet his personal needs.

In our baseline model each villager worked full time to produce one Thoreau per day of goods and services. If the productive efficiency of the farmer doubled because of technology and he continues to work

[3] See https://en/wikipedia.org/wiki/Working_time; Yuval Noah Harari, *Sapiens: A Brief History of Humankind* (Harper, 2018); Peter Farb, *Man's Rise to Civilization* (Penguin, 1981); and Yehudi Cohen, *Man in Adaption* (Routledge, 1974).

just as hard, the farmer would be able to produce two Thoreaus of production per day.

Because of his technology, in a year's time the farmer would be 365 Thoreaus wealthier than his fellow villagers. He could stockpile the additional Thoreau he produces or trade them for goods from other villages. Let's say the farmer trades 120 Thoreaus of his production for construction tools, 120 Thoreaus for hunting tools, and 125 Thoreaus for luxury clothing and furniture.

If the handyman and hunter realize that they, too, could produce twice as much if they had the construction and hunting tools that the farmer had acquired, it would be to their benefit to cut a deal with the farmer to buy his technology.

Let's look at three ways the farmer could structure the sale to see how it would impact the villagers' relative net worth:

- If the farmer sold the tools he acquired to his colleagues at cost, the handyman and hunter would each need to pay him 120 Thoreaus, which they could afford over 120 days at their enhanced level of production. All the villagers would benefit from this arrangement, and though the gap in wealth between the farmer and his colleagues would still be there, it would no longer grow any greater over time.

- If the farmer sold his tools at twice his cost, while the gap in the villagers' wealth would be greater, it still would not grow any bigger after the hunter and handyman had paid for their new tools.

- If the farmer were to adopt today's service model, we would find him leasing his tools, charging his colleagues a portion of their enhanced earnings in perpetuity. While this arrangement would still give the hunter and the handyman additional wealth over time, the gap between the farmer's wealth and his colleagues would grow indefinitely.

Not only is it evident just how important productive efficiency is in the above scenarios but also how much difference the terms of the sale make. This will become only more important when we introduce money and interest into the village's economy. First, though, let's create a government for our village.

THE ORIGIN OF GOVERNMENT

LET'S HAVE our hunter become the village chief. Perhaps it is because his colleagues are impressed with his skill with weapons. Maybe he has even successfully defended the village from invaders a time or two. But for whatever reason, we will have the farmer and the handyman look to him for leadership.

If one day, the chief overhears strangers in the forest planning an attack on the village, he might call on the farmer and the handyman to help fortify the village. If the chief directs them to build a fence out of logs that the chief felled in the forest, he would be making decisions about how the village managed its resources.

If the chief's plan exceeds the village's resources, the villagers won't be able to complete the fortification. Indeed, it is impossible for them to ever do more than they have the resources for. Thus the limits to what they can accomplish are defined by physical reality and not their fiscal balance sheet.

This is an important fact to grasp because we tend to think of our nation's fiscal deficit as an indication that we are trying to accomplish more than we can afford. Indeed, there *are* limits to what we can accomplish as a nation. But those limits are set by physical reality, not the availability of capital.

> If a nation's public projects can be completed, the nation can afford its projects.

Later, we will look at how our village government can have a monetary deficit while having sufficient human and natural resources to complete its projects. First, though, it is necessary to introduce money into our village economy.

THE ORIGIN OF MONEY

LET'S SUPPOSE our villagers decide to use gold to replace their barter system. Imagine if they set out to search for gold one day after finishing their work only to return empty-handed and discouraged. If they had produced enough goods that day to meet their collective needs but were unable to find gold to pay for the transactions, it would be silly for their economy to grind to a halt. There wouldn't be any problem with their material economy; the problem would be with their monetary economy.

In this same way, many of our problems today are because of flaws in our monetary economy and not because of problems in our material economy. A liquidity crisis today is as absurd as our villagers finding themselves unable to buy each other's goods because they lack gold while having an abundance of produce.

> Recessions today stem from issues in the monetary economy, not because people are unwilling to work or because they do not need or want goods and services.

Now let's suppose that when the villagers decide to use gold as money the farmer returns to the village with buckets laden with gold. If the farmer proposes jump-starting their new monetary economy by lending the gold he found to his friends, and they go along with his suggestion, our village will have its first banker.

It is easy to understand how finding gold that the others use could fill the farmer with zeal. As long as he could find more gold, he could keep pumping gold into the village's economy and earning more interest for himself. And if his friends were sufficiently enamored with the gold, they might keep paying for it. With so much gold, the villagers could pay for all the feasts, performances, and products that their hard work had made possible.

But what if in his keenness to earn a profit, the banker made gold too abundant? You can see how the villagers could become increasingly gold-rich, yet the additional gold they acquired would do nothing, in and of itself, to improve their standard of living. The true wealth of their village depends only on the products and services they produce.

> The wealth of nations is defined by the amount of goods and services they have, not the size of their monetary economies.

The seemingly magic nature of money is rendered illusory when we stop to consider how much money our villagers need to cover their daily trades of goods and services. Two nuggets of gold each works well if they trade one nugget for a third of each other's produce each day. In that case, the farmer could give the handyman a gold nugget for a third of the handyman's produce, while also giving the hunter a gold nugget for a third of his produce. All the villagers could do the same if they each had two nuggets of gold and they agreed on the amount of produce that each nugget could buy.

And while two nuggets of gold per villager works just fine to cover their daily trades, it is plain to see that the same two nuggets of gold could also be used to pay for seven times the goods and services if they exchanged goods daily and paid one nugget to each other weekly. For that matter, they could also pay one nugget per year for 365 times the produce, and that would work, too!

In the same way, if each villager had four nuggets of gold, they could pay two nuggets for a third of each other's produce every day and that would work, too. There is no change in the amount of wealth being traded within the village economy in any of these scenarios, just a change in the number of nuggets being exchanged. Instead, it is the *price* of goods that is the variable.

Thus, when our money supply expands faster than the material economy grows, a unit of money buys less. This is the fundamental principle behind monetary inflation. That's why we want growth in the money supply to mirror growth in the material economy.

Note that we have now discovered *two* forms of inflation. The first is backsliding inflation, in which one receives less in return for the same amount of labor than one used to. The second is monetary inflation, in which things cost more and you are earning more since the money supply has increased. With monetary inflation one does not suffer a net decrease in one's buying power—that is unless the expansion in the money has been unevenly distributed.

Distributing the Money Supply

Let's further explore the principles behind monetary inflation. If the villagers decide to use gold as money and it turns out that just one of them finds the gold, how should it be distributed?

Let's say it is the farmer that finds all the gold. It might seem fair for the villagers to exchange some of their own production to buy or borrow the gold the farmer finds. But if the villagers see clearly that money is only a means of keeping track of each other's production and trade, they may not be willing to pay the farmer for gold. They could, of course, simply come up with an alternative for money if the farmer insists on exacting a price for his gold. Certainly, the villagers would be keenly aware that it was their production that provided their standard of living, and not an inert lump of gold.

One could see the villagers agreeing to evenly divide the gold nuggets amongst themselves if their sole reason for using money were to keep track of trades in their material economy. Optimizing the success of our material economy should be our sole goal, too.

But this is not how our monetary economy is set up today. In our monetary economy finding gold *does* increase one's personal wealth, just as mining a Bitcoin increases one's personal wealth. We need to understand that this happens only at the expense of reducing the value

of everyone else's financial assets. An increase in the number of chips that we can cash in for material wealth dilutes the value of all other chips, unless the material economy has also expanded at the same rate.

Let's model an uneven distribution in the money supply to better understand how it is that monetary inflation can harm some members of society. We will start with a scenario in which the villagers each have two gold nuggets, after which the farmer finds six additional gold nuggets that he keeps for himself. There are three possibilities as to what can happen if the farmer garners an uneven distribution of the village's money supply:

- First, the farmer could hold on to the extra money and not use it, in which case there would be no change in any of the villagers' standard of living, including the farmer. Money must be exchanged for goods or services for it to have an effect on one's standard of living.

- Second, the farmer could use the extra money to buy goods from another village. In this case, the farmer would have an increase in his standard of living without the other two villagers suffering a loss. The new money would not have made anyone poor, though there would now be a gap between the farmer and his colleagues in terms of their standard of living.

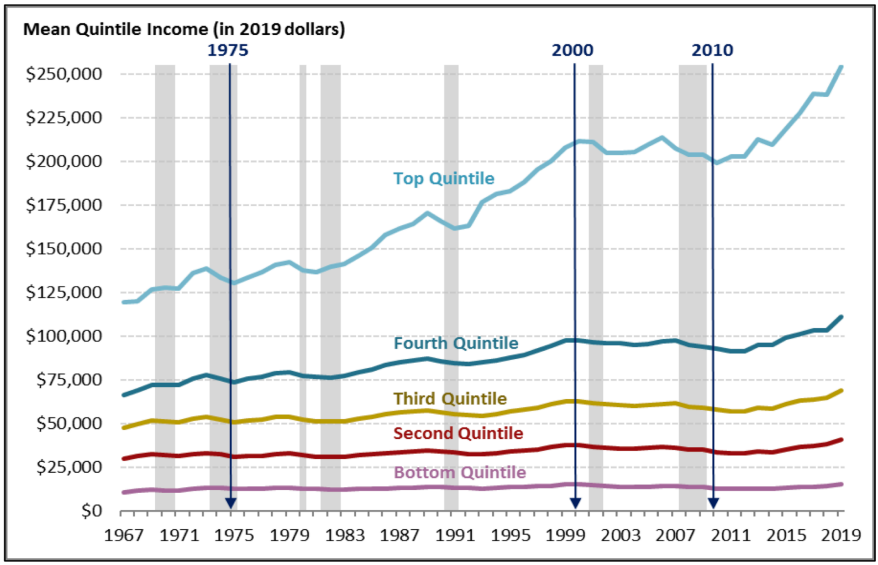
- Third, the farmer could use the new money to buy more than his daily share from either the handyman or the hunter. In this case, his colleagues share in their collective production, and thus their standard of living, would be reduced by the farmer's purchases, which would make them poorer.

All three of the above scenarios occur in our economy every day; thus, monetary inflation not only inflates prices but also widens the gap

between the rich and the rest of society. Note that the principles in the examples above will be the same whether the farmer mines gold or Village Bitcoins or creates another form of money.

The Congressional Research Service chart below, created from US Census Bureau data, shows the effect of monetary inflation today: income for the upper quintile is increasing dramatically, while everyone else's income has remained relatively flat for decades. For the record, income for the upper 10% is growing faster than it is for the upper quintile, and income for the upper 1% is growing faster still.

MEAN QUINTILE HOUSEHOLD INCOME



THE IMPACT OF INTEREST

LET'S CONSIDER what will happen if the farmer lends the gold nuggets he finds to the other villagers and charges interest. If he insists on being repaid in gold, the other villagers can never fully repay him.

Think of it this way. If I loaned you all the gold in the world in the form of a giant bar of gold and required you to repay the interest and principal in gold, you could never repay me. Any interest you paid would reduce the size of the gold bar, so there wouldn't be enough gold left to repay the principal on the loan.

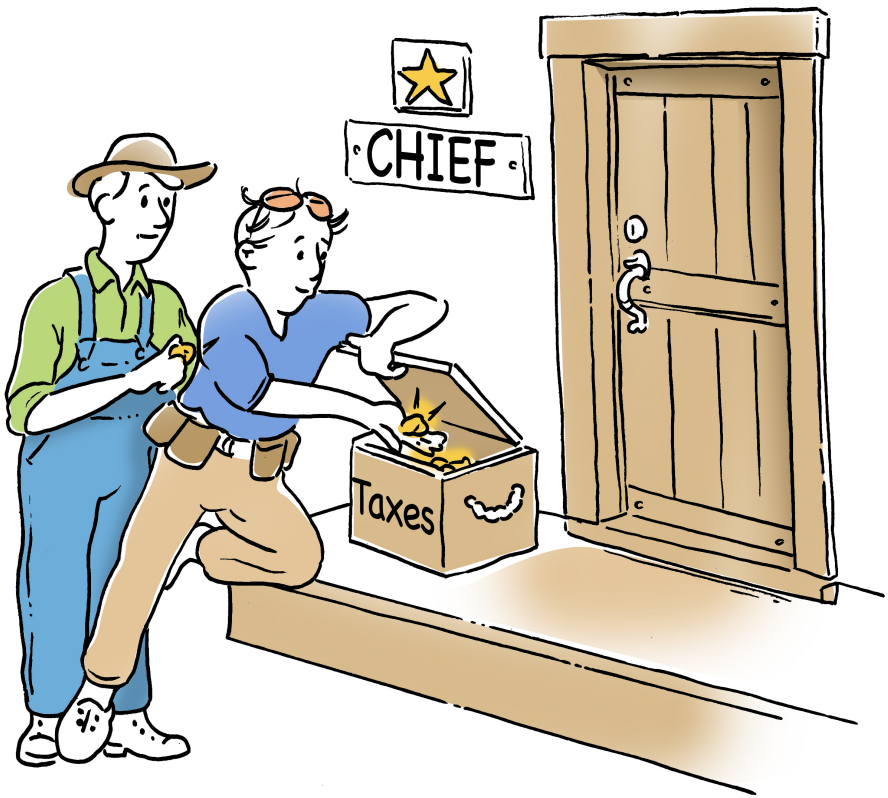
I remember when I first understood that interest was a problem. We studied compounding interest in sixth grade. Excited, I told my grandfather that I knew a way to obtain all the money in the world! It did not matter how much money I started with, I explained. If I never drew from my account, its balance would grow until it eventually equaled all the money in the world—perhaps not for me, but for some lucky descendent many years from now.

My grandfather smiled and said I had not figured out how to garner all the money in the world, I had stumbled on the problem with interest. Everyone's accounts grow, he explained, so the amount of money in the economy must also grow for that to happen. And that, he concluded, was why the value of our money declined year after year. With that epiphany, I was destined to write this book. Chapter 4, Banking 2.0, is the result of my conversation with my grandfather more than fifty years ago.

Taxes and Deficit Spending

Now let's model taxation and deficit spending in our village. Before the use of money, whenever the chief requested the help of his fellow citizens they would dive in and work alongside him. But you could see how that might change if they became accustomed to using money in their economy. If the chief asked for their help, they might want to be paid. So, how could the chief meet their desire for wages?

If the chief were to proclaim a tax for the benefit of the village and the villagers were to go along with it, he could have the money to hire them when he needs their help.



If the chief managed to collect enough in taxes to fully pay for the labor and materials the village needs, the village would have a balanced budget. In other words, his incoming tax revenue would equal his outgoing expenses, as shown in the diagram below.

But because there is not a direct correlation between the village's money supply and its material needs, there is the possibility that the chief could run a fiscal deficit, even if the villagers are able to complete their projects.

If the villagers were outraged by the taxes the chief wanted to collect, for example, and he deferred to their anger, he could end up paying for projects without collecting sufficient money. In other words, his incoming revenue, shown as one gold nugget in the diagram below, would be less than his outgoing expenses, shown as four gold nuggets. It is human nature to want to pay less, and if the promise of lower taxes gets politicians elected, the government will run a deficit.

If the chief agrees to taxes that are too low and ends up borrowing from the villagers, the village's debt has the potential to spiral indefinitely, especially if the villagers charge interest for their money. It's easy to model the village's debt growing out of control even though they may have sufficient human and natural resources to complete their projects.

If the villagers have the resources to complete their projects and yet have a deficit, the problem rests with how they are financing their projects, not overspending.

This is the same situation that our nation is in. It is easy to perceive our national deficit as being due to overspending, especially if you are being asked to pay more of your income in taxes as a way to reduce the deficit. Fortunately, there is an alternative that entails paying less in income taxes, which we will see in chapter 3.

What We Have Learned

After modeling the economy of the farmer, the hunter, and the handyman, I felt there had to be solutions to our problems, which I present in the next couple of chapters. In the meantime, here's a summary of the principles we have learned from the above scenarios:

- There are two economies: the material economy and the monetary economy.

- The wealth of our nation is based on the total amount of production available, which depends on the material economy, not on the monetary economy.

- If a government's projects can be completed, the fact that there is a deficit indicates that there is a problem with its financial operating system, not overspending.

- If there is unused capacity in our production engine, we are living below our potential standard of living.

- Investing in the material economy is the key to improving our standard of living. This means we need to capitalize the supply chain to build more efficient infrastructure and technologies rather than inflate the face value of financial assets.

- Interest strains resources and expands the money supply, which deflates the value of our money.

- A recession caused by a liquidity crisis is the fault of the monetary economy, not the material economy.

- There are two forms of inflation: 1) ***backsliding inflation***, which is caused by a decrease in production and/or a decrease in productive efficiency, and 2) ***monetary inflation***, which is caused by unwarranted expansion of the money supply. Everyone loses with backsliding inflation, which can only be remedied through increased production and adding efficiency to the supply chain. Monetary inflation, by contrast, widens the gap between the rich and the rest of society, devaluing the return of those who earn their living in the material economy.

CHAPTER 2
THE PERFECT STORM

TODAY, our nation is experiencing the perfect storm, in which both backsliding and monetary inflation are eroding our standard of living. To understand how this has happened, let's first look at our nation's early monetary history.

When America was founded, her citizens sold farm produce and lumber to the Europeans, who paid them with European money. With the European money the Americans received, they bought goods from the Europeans that they could not produce themselves.

Both European money and gold were acceptable for internal trade within America but were in short supply. To cover the transactions made possible by the work of American citizens, banks, and sometimes even states, issued what was known as "script."

When Benjamin Franklin visited Europe, he was asked by what authority the Americans were issuing script. He replied that it was being issued based on the production of our economy. In other words, the early Americans were sizing their money supply to their material economy. As we have seen, if the members of society agree to script and can produce enough goods, their money works.

Eventually, even some Europeans began to accept American script as money. And why not? If they could buy American goods with it, the script worked just like their money.

The use of script evolved as the pioneers ventured west. The lumber companies exploiting the vast western forests paid their employees with script, which the lumber companies issued. Then the lumber companies established stores and housing, accepting script from their

employees in exchange for goods and rent. When the lumber companies sold their timber for currency, they exchanged the currency they received for the script they had issued.

In this regard, the creation and exchange of money has existed since the days of antiquity. The various forms of cryptocurrency do not create money that has value in and of itself independent of our ability to produce the goods and services it is meant to buy.

When you understand that money does not create wealth but is simply an agreement extending the right to exchange money for real wealth that others have produced, you can see how crucial the material economy is, and you can see how critical it is for us to regulate our money supply in a way that fosters the success of our material economy and bolsters our standard of living.

As a nation, we want our monetary system to cost as little as possible so that it does not drain more than necessary from what is the most important—the output of our material economy. This is how our monetary economy can best serve the true wealth of our nation.

In the case of our little village, we had the villagers follow the same route our ancestors did. They began by using gold as money, and whoever had the gold set the trading wheel in motion. Their money supply was governed by how much gold was available.

There is no more magic to the value of gold than there is to any other form of money. When Spain brought boatloads of gold back from the New World, for example, the value of gold dropped relative to goods and services throughout Europe.

If a caveman discovered gold ten thousand years ago, it would not have made him wealthy. He could not have used it to jumpstart a modern economy, no matter how much he found. Our standard of living is

based on the labor and ingenuity of those who work in the material economy. Money just helps to organize our collective activities.

When we send people to Mars, for example, sending gold or any other form of money along would be useless. The only thing of value to the first explorers on Mars will be the means to survive. They will need a material economy on Mars to survive, not a monetary economy.

How We Create Money Today

THERE ARE many ways that we create money today. Eleven of the most common ways of creating money are:

- Generating reserves
- Fractional reserve lending
- Mining gold and precious metals
- Creating and mining cryptocurrencies
- Creating financial assets through the issuance of stock, corporate bonds, treasury notes, mortgage-backed securities, commodities, derivatives, and the various digital assets

The Federal Reserve is authorized to generate reserves of US dollars. After the last recession, for example, much of the growth in our monetary economy came from reserves generated by the Fed, which were used to buy treasury bonds and mortgage-backed securities under a program termed quantitative easing (QE).

As we have seen, it matters who receives the new money being generated. While many were surprised there wasn't runaway inflation when the Fed pumped a trillion dollars per year into the economy, the Fed didn't use the new money to buy consumer goods; it bought securities, so the price of financial assets rose.

We experienced inflation in the monetary economy instead of the material economy because of QE, and that expanded the ratio between the monetary and the material economy to an unprecedented level. We are feeling the consequences of that today.

Inevitably, the unfettered expansion of our monetary economy began to impact the material economy. It is important to keep in mind the sleight of hand that occurs with monetary inflation. When we see the price of food and houses going up, it is really the value of money that is going down, whether that money is gold nuggets, Village Bitcoins, chips, script, or US dollars.

To appreciate how harmful monetary inflation is to most of us, we need only look at the division of labor within the monetary and material economies. (See Appendix I for the data supporting these bullets.) If our village had a population of fifty, we would have a workforce of twenty-five, and the breakdown of jobs would be as follows:

- Three to grow and manufacture the villager's food
- Three to provide everyone's healthcare
- Three to govern the village
- Three to provide the hospitality and entertainment
- Two to manufacture all the goods and services
- Two to sell the goods and services
- Two to deliver the goods
- Two to teach and do all the research
- One to build all the real estate and infrastructure
- One to sell real estate
- One to develop and build the village's technology
- One to run the monetary economy
- One to care for everything else

Thus, while twenty-four people provide everything we need to enjoy our standard of living, just one runs the monetary economy. For a more granular view, though, we need a population of 3,000. In that case, out of a work force of 1,500, we would see that:

- Fifty-nine would work in the financial sector doing jobs that service the material economy, such as settling insurance claims, opening bank accounts, providing capital for the growth of businesses, writing mortgages so people can purchase homes, and lending for the construction of real estate and infrastructure, and
- One would be in control of the creation and flow of money.

You can see why an expanding money supply favors such a small portion of our population: only one in 3,000 directly profits from the creation and trade of money. Those who earn enough in the material economy to invest in financial assets can also benefit from monetary inflation, but the vast majority suffers as the gap between the rich and everyone else grows bigger because of monetary inflation.

The Battle For Market Share Over Our Money Supply

Let's look now at how the parties who create money compete for market share in the money supply. We will start by returning to the scenario in which each villager produces just enough to meet their needs and has two gold nuggets to pay for each other's produce. Again, we will model the various scenarios that can unfold if the farmer finds six additional gold nuggets and keeps them for himself.

This time we will isolate the village so there is no trade with other villages as we want to model the battle over market share in the money supply. If the farmer does not spend any of his extra gold, the mere fact that he has more money than his colleagues will not necessarily impact the village's economy, although the other villagers might try to find more gold for themselves or raise their prices when selling to the farmer, being aware that the farmer has more gold than they do.

If the farmer does spend some of his extra gold, though, he is sure to disrupt the village's economy. By buying more than his pro rata share of production, he will be shorting his colleagues. They must either raise their prices when selling to the farmer or find more gold for themselves to be able to buy their share of the village's production.

If the farmer has a lock on gold mining, his colleagues will be incentivized to either find other forms of money or ban the use of gold as money. Thus, if the hunter finds a dozen silver nuggets one day, it wouldn't be surprising if he floated the idea of using silver as an additional form of money. He might persuade his colleagues that two silver nuggets are worth one gold nugget.

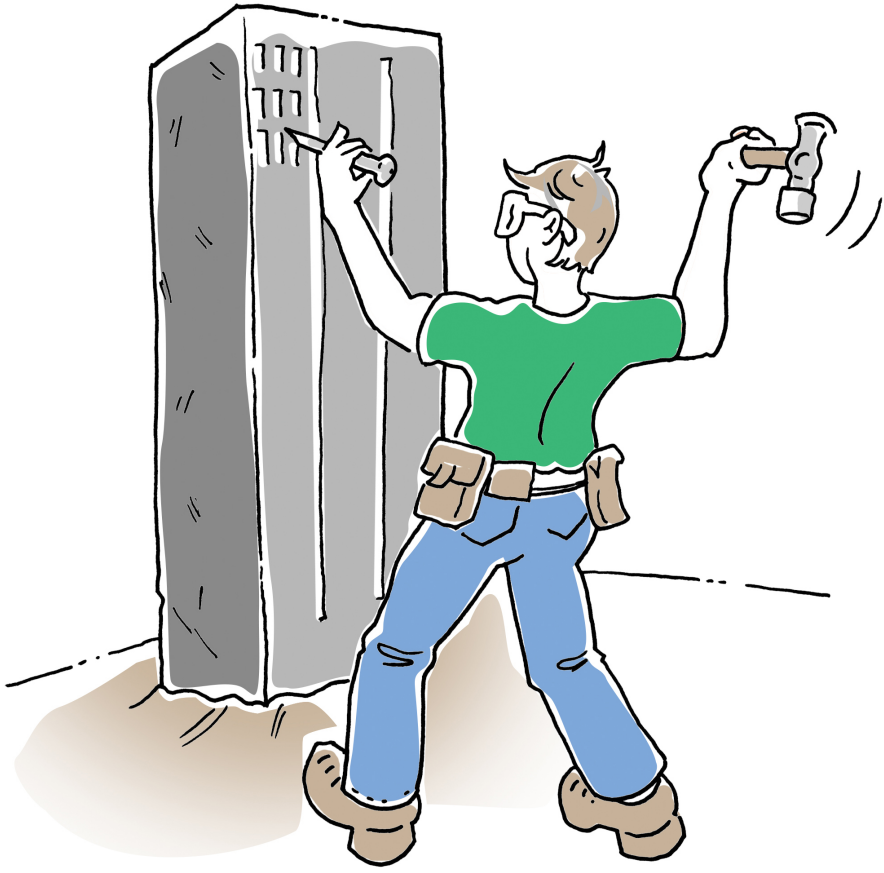
Not wanting to miss out on this new form of money, the farmer might trade one of his gold nuggets for two of the hunter's silver nuggets, and the handyman might sell a third of his daily production to the hunter for two silver nuggets. If this happens, silver would become a viable second form of money in the village.

More gold and silver would not improve the villagers' standard of living, however. They would still be producing the same amount of goods and services. But because the farmer and hunter would now each have more than their pro rata share of the village's money supply, either of them could outbid the handyman.

This imbalance might incentivize new behaviors. The handyman could feel the need to hold out on his colleagues, raising his prices. He might be driven to become industrious and invent new technology to produce more so that he could earn more money for himself. Or he might become very clever and invent Village Bitcoins as a form of money that he controls and has his own supply of.

To do this, the handyman could fashion a large block of stone on which he would etch three columns, one for each villager. After putting twenty-four hatch marks at the top of his column, he could offer to move two hatch marks to the column of any villager who gives him a silver nugget, four hatch marks for a gold nugget, and four hatch marks for a third of anyone's daily produce. No doubt, he would proudly point out how Village Bitcoins use a transparent ledger system that enables the villagers to keep track of their transactions.

Note that unlike the farmer and the hunter, who have to search and mine additional gold and silver if they need more money, the handyman can simply etch more hatch marks on the tablet whenever he likes. Thus, he might agree to limit the number of hatch marks on the tablet in order to secure the perception of his colleagues as to the value of Village Bitcoins relative to gold and silver.



Even if the farmer objected to the handyman's pitch because he saw how the hunter's silver had diluted his share of the village's money supply, it would not stop the hunter from going along with the handyman's plan. If the hunter gave the handyman a silver nugget for two hatch marks, the handyman's Village Bitcoins would be live.

This is how the battle between the various forms of money we invent plays itself out in our own monetary economy today. While mutual agreement is necessary for money to have value, it is not necessary for everyone to agree. There only needs to be enough agreement for an investor to cash out. Of course, whoever cashes the investor out will

also want to cash out someday. In this way, the value of assets can be voted down as easily as up.

The key is that new money dilutes everyone's share of the money supply unless it is tied to corresponding growth in the material economy. The newly found gold, silver, and Village Bitcoins in the examples above did not correspond to any increase in production.

Because not everyone has to agree in order for money to work, a small minority is able to dilute everyone else by securing the agreement of a few others. This exacerbates the battle over market share, driving up the price of financial assets so they outpace the rate of real growth in the material economy. This unfairly strips those who create real value in the material economy of the value that they created.

There is no end to this cycle. If our villagers were to cash in their chips, they could only spend them on their existing material assets. If we tried this in our own economy, we would find the values we have given our financial assets are grossly overinflated. There are simply not enough real-world assets to cash in for all the chips that we have created at their current pricing.

In this regard, you can think of inflation as a flight to quality. As investors sense their chips are overvalued, they gravitate to real assets like housing, so the prices of real assets rise. The problem is that real assets must be affordable for those earning their living in the material economy. Thus, when the cashing in of chips inflates the value of real assets to the point that they are no longer affordable by wage earners, the values of all assets collapse, and we have a recession. Thus, recessions are a day of reckoning for our folly in grossly overexpanding the money supply.

The point of this chapter is that the size of our money supply is not limited to just currency; it is a measure of the valuation of all financial

assets. Thus, the battle for market share within the monetary economy is the reason for monetary inflation today. Quantitative easing and stimulus checks are a relatively small part of the picture.

Our boom-and-bust cycles occur because of the battle over market share. Those who create and trade the various asset classes compete with one another in trying to win a larger share of the world's wealth. When one asset class increases in value relative to another asset class, the holders of that asset class win. This is a zero-sum game, in contrast to real growth in the material economy. Worse still, it can be entirely driven by hype.

The hype influences the betting in the battle for market share. It doesn't actually create any real value. Any increase in the value of existing financial assets, whether from new price-to-earnings (P/E) levels in the stock market or rising values for gold or Bitcoin, or from the creation of additional financial assets, always comes at a loss in value of all the other financial assets.

The only exception to this is when the value of financial assets grows in correspondence with increased value in the material economy. If a company doubles its production, for example, it is legitimate for its stock price to double. Likewise, introducing a new company to the market through a realistically priced IPO (initial public offering) is also legitimate growth. Growth in the monetary economy should parallel growth in the material economy.

There are five ways that we exaggerate growth in the monetary economy today:

- The first way is leverage. If one borrows to buy assets, one can multiply the return earned on an asset. If an investor puts 10% down on an asset, for example, it's possible for the investor to double his return if the asset increases in value by just 10%. In this

way, 10% growth in the material economy can be leveraged to 100% growth in the monetary economy.

- The second way is another form of leverage. Only a tiny portion of an asset's securities needs to trade to establish its market capitalization, or the total value of all its stock. The trading of a few shares of stock can peg a company's market cap to be higher than one would pay for the company. Likewise, Bitcoin's value is ostensibly based on its use as money, but only about 1% of Bitcoins are used to buy goods and services.

- The third way is liquidity. Consider a stock that pays a 3% dividend. If the stock is not liquid, it would take thirty years to get your principal back, and only after that would you begin to see a return on your investment. Yet if the asset is liquid and the market volatile, one can realize significant returns in short order.

- The fourth way is yet another form of leverage: changing P/E ratios enables stock prices to rise and fall uncorrelated with the material economy.

- The fifth way is because we trade financial assets mostly for other financial assets, there's never a day of reckoning when all financial assets are cashed in for their pro rata share of the material economy. Thus, the monetary economy is like a game of musical chairs in which there is just one chair per hundred players, yet because the music never stops, no one ever fully realizes the reality of the game that they are playing.

TRACKING THE STORM

INFLATION TODAY is a combination of both backsliding and monetary inflation. First let's look at the root of backsliding inflation today, then we will look at the root of monetary inflation today.

As we noted above, it is technology that enabled us to solve our material economy's greatest challenge—meeting our physical needs. Powered homes, powered factories, and powered transportation transformed our standard of living. As technology made the worker more productive, wages and production increased in lockstep for over a century after the Industrial Revolution. And as workers increasingly profited from the fruit of their labor, we developed a middle class that enabled our nation to grow extraordinarily wealthy.

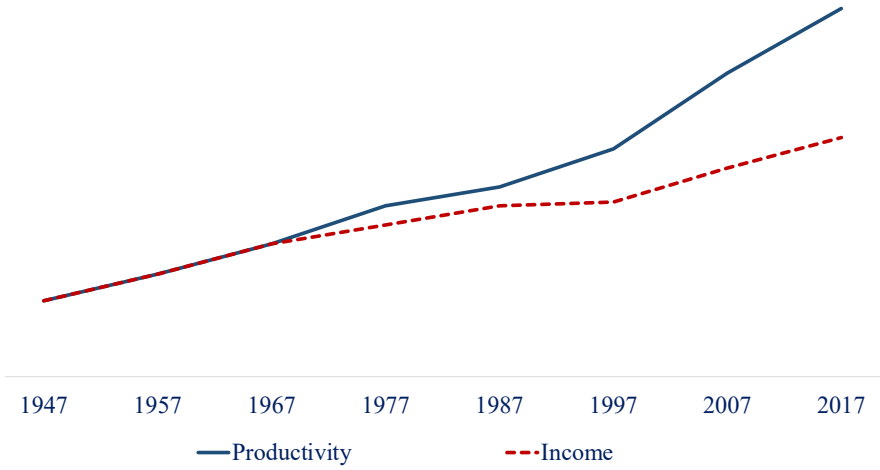
Up until about fifty years ago, the key to a company's success was developing affordable products that enriched the lives of as many as possible, and it was widely accepted that skilled employees were the means to accomplishing this. Learning a skill led to a lifetime career and a secure retirement with a pension from the company you helped to build. Real growth in the material economy led to a higher standard of living for all.

In the 1970s, a new perspective emerged that had an adverse impact on many who were earning their income in the material economy. For a company to excel in the monetary economy, it had to consistently deliver more for less. One way to increase profits, of course, is to cut expenses. Thus, labor was increasingly viewed as being an expense rather than a source of value, and wages flattened for the next fifty years. Technology, often in the form of automation, became a tool for replacing workers instead of increasing their value.

The chart below shows how production has continued to increase, representing real growth in the material economy, while wages have fallen behind.[4] The minimum wage would be $26 per hour today if wages had kept pace with production.[5]

[4] US Bureau of Labor Statistics
[5] Blake Harper, "Here's Why Experts Say the Minimum Wage Needs to Be $26/Hour," *Fatherly*, Sept. 7, 2021, https://www.fatherly.com/news/.

PRODUCTIVITY VERSUS WAGES



The discrepancy between the growth in production and wages is one of the key reasons we have a declining middle class as well as a growing gap between the rich and the rest of society today. The shock that we register when learning the minimum wage would need to be $26 per hour to match our increased level of production illustrates just how unfair the distribution of wealth has been over the last several decades because of monetary inflation. The only reason we have been able to improve our overall standard of living under such inequity is because of technology.

Historically, empires have always been built on the backs of slave labor. Some have even speculated that it is impossible to have a middle and an upper class if there's an equitable split of profits from production. Instead, the argument goes, there must be a lower class that works hard and earns little in order for others to enjoy a higher standard of living.

It is only technology that enables everyone to win in our modern economy because it is only technology that can provide sufficient productive efficiency for everyone to do better. It was the efficiency of machines in the Industrial Revolution that convinced people that it was possible to end slavery. Likewise, it is the efficiency of technology that enables our nation to have a middle class today.

China emerged as an attractive investment opportunity in the monetary economy because the combination of modern technology with dirt cheap labor was an obvious win from an investor's perspective. Outsourcing production was a disaster, though, for many who earned their living in the material economy. It also served to erode the customer base for many American businesses, as displaced workers who were once in the middle class fell into poverty. At the same time, the combination of technology and cheap labor in China delivered lower prices to the American consumer, which kept backsliding inflation at bay in our nation.

By fueling the development of China, America was essentially again growing its empire on the backs of slave labor, only this time technology was compounding the effect. The scenario ultimately set the stage for backsliding inflation, giving rise to today's perfect storm. The spark that set off backsliding inflation was the implementation of tariffs. Adding fuel to the fire was the renegotiation of trade agreements. We failed to realize the benefit that our nation had been reaping from the trade imbalance in terms of the lower price of goods that we had been paying.

Think of the economic dynamics involved from the perspective of our imaginary village. If our villagers were able to print script and use it to buy goods and services from other villages, they could stop working altogether and yet steadily grow wealthier. This is how we were benefiting from the trade imbalance. The lobbying against the trade

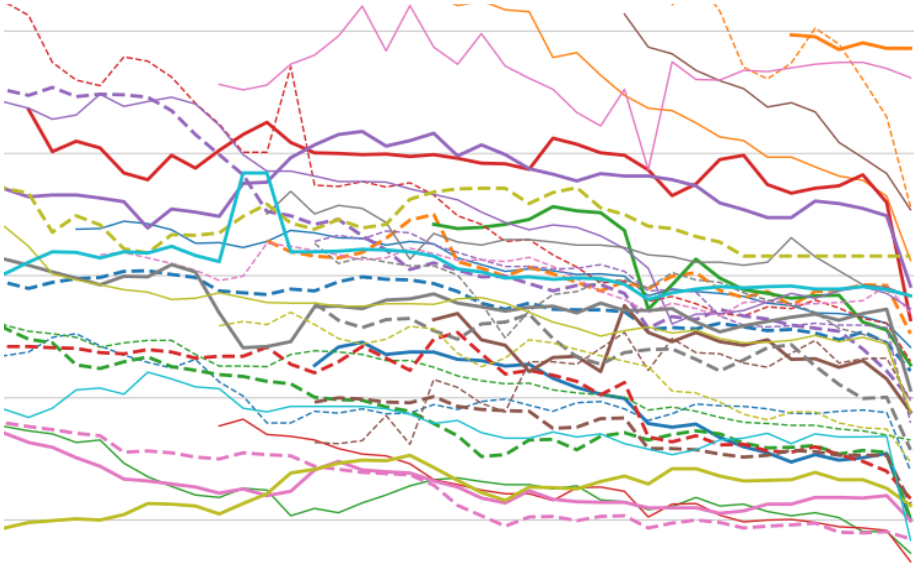
imbalance was by American companies who wanted to sell more goods to the Chinese to increase their own profits, and who also wanted less foreign competition when selling their wares to American consumers.

Tariffs are a tax that consumers pay on imported goods, not a fee the producing country pays. They are exacted in hopes that higher prices will slow demand and coerce the producing nation to agree to new terms. The higher prices that the consumers pay are inflationary.

Likewise, in the name of protecting American jobs by leveling the playing field, we renegotiated our trade agreements to require foreign workers be paid higher wages. This only meant that the American consumer would have to pay more for imported goods.

The pandemic hit on the heels of these triggers, which decimated the supply chain. The chart below shows the impact of the pandemic on work. The multiple lines represent the many different nations in the global economy.

HOURS WORKED PER WEEK IN VARIOUS NATIONS

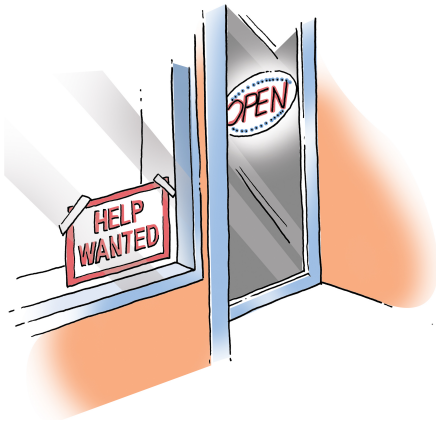


The disruption in work had huge ramifications on production, and shortages ripped through the supply chain, driving prices higher. The shock at how vulnerable our supply chain was prompted the cries to re-shore manufacturing that we hear today. Even if we are successful at reshoring, though, it will take years to do and prices are likely to climb higher still.

As people began to emerge from the pandemic, the surge in demand stressed our damaged production engine, and backsliding inflation took hold in earnest. The perfect storm was only beginning, however. Russia's invasion of Ukraine further disrupted the global supply chain, fueling more backsliding inflation.

The combination of these challenges accelerated still another problem, one that we had been wrestling with for years. Our nation's population is aging, which means the ratio of workers to retirees is dropping, which is the reason so many pension plans are underwater today.

When businesses closed during the pandemic, a lot of seniors retired early. The irony of a booming stock market during the pandemic helped fatten their retirement accounts, enabling them to leave the workforce for good. There are simply not enough young people to replace the retiring baby boomers, which is why we have so many "Help Wanted" signs today.



Businesses are scrambling to find enough workers not because stimulus payments changed the work ethic of the next generation but because of the math of the demographics involved. The ratio of workers to retired will remain a challenge for decades before it finally balances itself out.

We had been staving off the consequences of an aging population for years by augmenting our population through immigration. But because immigration has been politicized, the ratio of workers to retirees today has gown even worse, and that is fueling backsliding inflation.

Despite the many issues outlined above, the challenge of backsliding inflation is not insurmountable. While the solution is multi-faceted, it must center on advances in technology as it always has. Rather than seeing offshoring and automation as a drain on local jobs, which was once a problem but is no longer the case simply because of our changing demographics, we should seek to diversify our supply chain so that it is no longer vulnerable to disruption through the loss of a single vendor. Diversifying the supply chain would also ensure upstream competition among vendors, which will help to lower prices and mitigate backsliding inflation downstream.

Investing in reshoring, friend-shoring, and industrial automation would increase productive efficiency and help bring inflation under control. We can best finance this through Banking 2.0, which I describe in chapter 4. As we will see throughout this book, the key to fighting inflation is to stimulate real growth in the material economy while keeping the monetary economy from eroding our standard of living. As stated at the beginning of this book, we must understand the relationship between the material and the monetary economies from the perspective of how the monetary economy can be upgraded to improve our standard of living. The solutions in the remaining chapters are all designed to precisely do that.

With this goal in mind, mitigating backsliding inflation is only half the problem. We also need to address the other half of the perfect storm—the impact of monetary inflation. The seeds for today's monetary inflation were first sown in the 1960s when Kennedy promoted a reduction in tax rates for the wealthy, which dropped income tax rates from 91% to 70%. Conservatives were outraged, warning that it would cause spiraling debt, and they were right. Twenty years later, though, Reagan used the same pitch to cut income taxes from 70% to 28%. Decades later Trump slashed corporate taxes for the same reason.

Over the years, we racked up tens of trillions of dollars in national debt because of deficit spending. But then three crises blew our debt sky high today. When the dust has settled, we will have spent $2.5 trillion on the pandemic, $1.8 trillion on the 2008 recession, and $8 trillion on the war. The war took 900,000 lives at a price of $56,000 per taxpayer, which means we spent over $83,000 per Iraqi, Afghan, and Syrian citizen. The debt from these events ballooned the money supply and taxed the material economy. It is a testament to the increasing efficiency of technology that inflation is not higher today.[6]

Because of monetary inflation, the fastest way to earn wealth today is in the monetary economy. I have a friend who was a successful egg farmer. When he hedged the price of chicken feed, he found he could make more trading commodities than raising eggs. Another friend of mine owned several steel companies. He discovered that hedging metal was more profitable than delivering metal. Both friends sold their businesses and make their wealth in the monetary economy today.

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[6] We spent $2.5 trillion on the pandemic ($1.8 trillion on the CARES act, $500 billion on PPPHCEA, $192 billion on First Response) and $1.8 trillion on the recession ($755 billion on ARRA, $404 billion on payroll tax holidays, $185 billion on TARP, $140 billion on economic stimulus); see https://www.crfb.org/blogs/how-does-covid-relief-compare-great-recession-stimulus. Visit https://www.businessinsider.com/us-war-on-terror-deaths-cost-over-8-trillion-report-2021-8 for the cost of the war. Pro rata costs are based on 144 million taxpayers and 96.5 million Afghan, Iraqi, and Syrians.

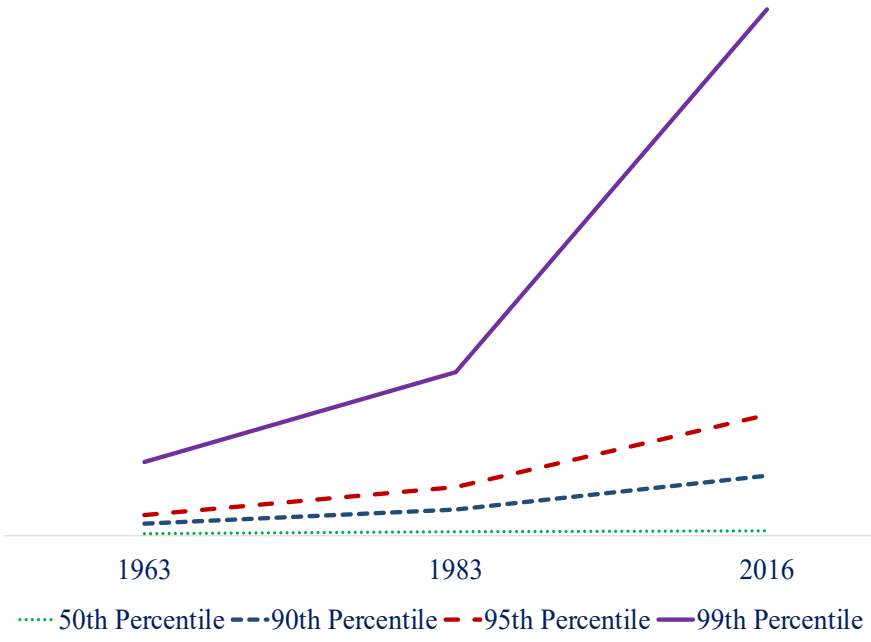
Today, we no longer equate profits with products or services. Instead, we have glorified trading over real work, thereby wasting a great deal of our nation's talent and marginalizing those who make the goods and services that support our standard of living.

Our burgeoning monetary economy has fueled the rise of securitization, private equity, hedge funds, the foreign exchange market, commodity trading, cryptocurrency, digital assets, and investments in China. Quantitative easing further fanned these flames, driving up the price of financial assets. All such assets are monetary equivalents, and, thus, inflating the price of such assets balloons the money supply.

What many lauded as a robust economy was really monetary inflation. This makes it more difficult for the next generation to start life. Monetary inflation moves a select few out of the middle class, making them newly rich, while relegating many more to being poorer.

The chart below illustrates this point. Note that the lowest line on the chart is the 50th percentile. Understand that half of Americans fall below this line. Even more shocking is the gap between the top line, the 99th percentile, and the very wealthiest in our nation, who are not shown because they do not fit on the graph. The differential between the wealthy and the wealthiest is 10,000 times—thus the wealthiest would be a line towering a quarter of a mile above the top line.

DISTRIBUTION OF FAMILY WEALTH[7]



[7] The data for this distribution of wealth chart was compiled from the Survey of Financial Characteristics of Consumers in 1962, Survey of Changes in Family Finances in 1963, and Survey of Consumer Finances 1983-2016. See https://www.federalreserve.gov. The graph is plotted in 2016 dollars.

If the good news is that technology has us on the brink of prosperity, the bad news is that our monetary economy is eroding our ability to realize this prosperity. To put this problem in perspective, read the next chapter. You will see how a tax of just a quarter of a percent, 0.25%, on every payment made in the monetary economy can replace all our current federal taxes. This is only possible because the monetary economy is so much bigger than the material economy.

The people who earn their wealth in the monetary economy buy a disproportionate share of the world's goods, while contributing nothing in terms of actually producing those goods. This only works today because those who produce the goods and services in the material economy consume far less than the share that they produce. The solutions in this book help unravel this growing inequity and are thus essential to our future wellbeing.

CHAPTER 3
LOWER TAXES

MOST PEOPLE have the same reaction when they receive their first paycheck. They are shocked and outraged at how much has been deducted for their taxes.

In this chapter, we will look at how much more of your income you could keep if we adopted a simpler and more efficient tax system. That would be the first part of my Financial Freedom Act.

The problem with our current tax system is that it is based on taxing income, which is a shrinking component of our economy. As we saw

in the last chapter, the era of rising wages ended in the 1970s, while the monetary economy has grown in leaps and bounds since then.

The discrepancy between the material and the monetary economies became glaringly evident during the pandemic, when many businesses closed their doors and millions lost their jobs, yet Wall Street took off to reach dizzying new heights. Millions were forced into poverty during the first two years of the pandemic. In the same two years, the ten richest men in the world doubled their fortunes and a new billionaire was minted every twenty-six hours.[8] Likewise, there was hardly a stir when the then president of the United States announced he had earned $500 million that year but did not owe any taxes. You can see why so many people feel hopeless over the inequity between economic classes.

Let's look at the numbers that define the disparity between the material and the monetary economies. They illustrate why we need to stop taxing income and to start taxing payments instead.

SIZING THE TWO ECONOMIES

THE SIZE of the material economy is roughly the size of our annual GDP, which was $26.1 trillion in the fourth quarter of 2022.[9] The GPD is defined by our spending, which depends on our income. Collectively we earned $22.3 trillion in 2022.[10]

The total amount of money changing hands and financial assets traded each year defines the size of the monetary economy. The Federal Reserve tracks many of these payments and publishes this data

[8] "Ten richest men double their fortunes in pandemic while incomes of 99 percent of humanity fall," Oxfam International, January 17, 2022, https://www.oxfam.org/en/press-releases/.
[9] https://fred.stlouisfed.org/series/GDP
[10] https://fred.stlouisfed.org/release/tables?rid=54&eid=155443&od=2023-01-01#

annually in the Bank for International Settlements' *Red Book*. There are other entities that track payments that are not in the *Red Book* and not all of them share their data.

The table of payments on the next page is only a partial accounting of the enormous volume of money that rolls on the rails of our monetary economy every year.[11] A number of payments have been left out, such as certain commodity trades, some options, cryptocurrency and digital asset trades, and even exchange-traded funds, but enough are included for you to see that the monetary economy is hundreds of times larger than the material economy.

[11]Cashless Payments, Payment Systems, Service Providers, Counterparties, Clearing Houses, and Central Security Depositories, see https://stats.bis.org/statx/toc/CPMI.html, data are for the year 2021. Stock Exchanges, see https://www.cboe.com/us/equities/market_statistics/historical_market_volume/, data are for the year 2022. OTC FX and IR Derivatives, see https://www.bis.org/statistics/rpfx22.htm?m=2617, data are for the year 2022 and calculated based on daily averages x 250 trading days. Exchange-Traded Futures and Options, see https://stats.bis.org/statx/srs/table/d1, data are for the year 2022. Exchange-traded Derivatives, see https://www.newyorkfed.org/medialibrary/Microsites/fxc/files/2022/aprfxsurvey2022.pdf, data are for the year 2022. OTC Foreign Exchange Instruments, see https://www.newyorkfed.org/medialibrary/Microsites/fxc/files/2023/octfxsurvey2022.pdf, data are for the year 2022 and calculated based on daily average x 250 trading days.

Payments for the Year 2021
(In trillions of dollars)

Cashless Payments	
Credit transfers	$58
Direct debits	$33
Checks	$24
Cards/e-money	$8
Payment Systems & Service Providers	
Fed check clearing	$9
Private check clearing	$10
CHIPS	$449
EPN	$38
Fed ACH	$38
Fedwire Funds Service	$992
NSS	$25
Counterparties and Clearing Houses	
FICC: GSD	$1,419
FICC: MBSD	$96
NCSS	$511
Central Securities Depositories	
DTC	$150
Fedwire Securities Services	$311
Other Payments	
Stock Exchanges	$288
OTC FX and IR Derivatives	$900
Exchange-Traded Futures and Options	$3,581
OTC Foreign Exchange Instruments	$244
Grand Total	$9,184

While there are still more payments than shown in the table above, the $9.2 quadrillion in payments and financial asset trades listed are more than 400 times the collective income of everyone in our nation. Most of these payments have little to do with what we regard as the real economy—the purchase of goods and services and the supply chain. Our GDP represents 0.28% of the action in our total economy. Once we see the big picture, the solution is obvious. We should tax payments instead of our income.

Others have arrived at similar ideas. Dr. Edgar Feige of the University of Wisconsin proposed an automated payment tax when studying the shadow economy. We worked independently, only learning of each other recently. There have also been proposals to tax the stock exchange. Such proposals have always addressed a small subset of the payments in our economy, though, and thus added another layer of taxes on top of an already burdensome tax system.

How the Math Works

The federal government's budget for 2023 is projected to be $5.8 trillion.[12] Total annualized spending for all state and local governments hit $3.6 trillion in the second quarter of 2022.[13] The federal government will give $1 trillion of its $5.8 trillion budget to states in the form of intergovernmental transfers.[14] Therefore, net spending between the federal, state, and local governments will total around $8.5 trillion in 2023.[15]

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[12] "Budget of the US Government, Fiscal Year 2023," https://www.whitehouse.gov/wp-content/uploads/2022/03/budget_fy2023.pdf, 119
[13] "State and Local Government Current Expenditures," Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/SLEXPND
[14] https://www.whitehouse.gov/wp-content/uploads/2022/03/ap_14_state_and_local_fy2023.pdf, 205
[15] $5.8 trillion plus $3.7 trillion minus $1 trillion = $8.5 trillion.

Dividing $8.5 trillion by our collective income of $22 trillion would mean a flat tax of 39 percent.

We would need to tax everyone, both rich and poor, at a rate of 39%, without deductions, to balance the budgets of our federal, state, and local governments. Our tax rates are much lower than that today, which is why our budget is projected to have nonstop trillion dollar plus annual deficits for the foreseeable future.[16] But if we divide the $8.5 trillion in federal, state, and local government spending by $9,184 trillion in payments, it comes to less than 0.001, or 0.1%.[17]

That means if we taxed payments at 0.1%, we could eliminate every tax at the federal, state, and local levels that we pay today. In other words, no one would have to pay any Social Security (FICA) taxes, sales taxes, property taxes, capital gains taxes, estate taxes, gift taxes, excise taxes, or customs taxes!

If Congress passed my Financial Freedom Act, we would charge a 0.25% tax on each payment made in the economy. Then we could afford a multitude of benefits we cannot afford today, which would stimulate real growth in our material economy. We will look at that in chapter 5. We could even exempt every payment in the material economy from a payment tax and still generate enough revenue to fund the benefits in this book. This is how a payment tax is significantly different from a value-added tax (VAT), which is levied on the supply chain. Only a very small fraction of the payments in our economy occur in the supply chain.

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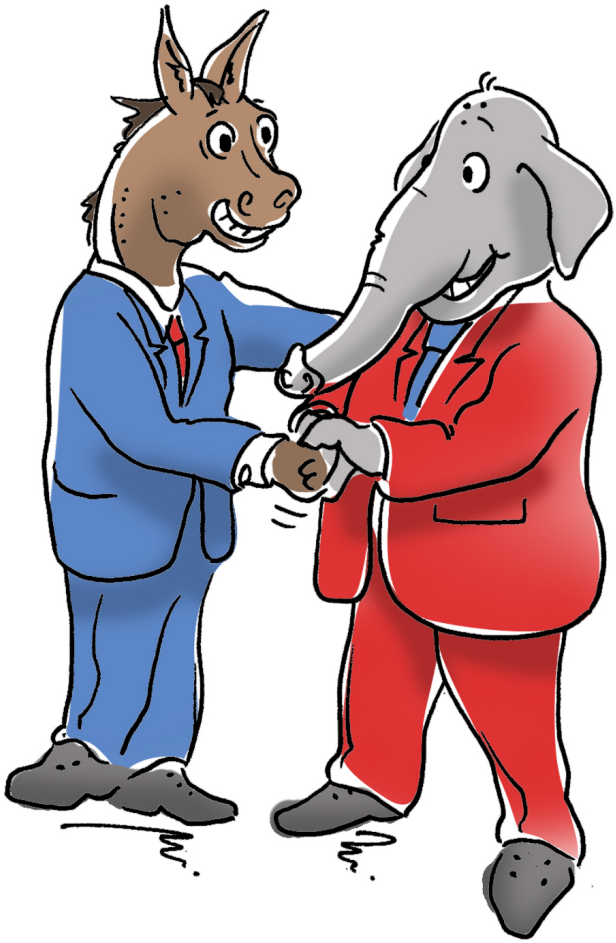
[16] "Budget of the US Government, Fiscal Year 2023," https://www.whitehouse.gov/wp-content/uploads/2022/03/budget_fy2023.pdf, p. 122

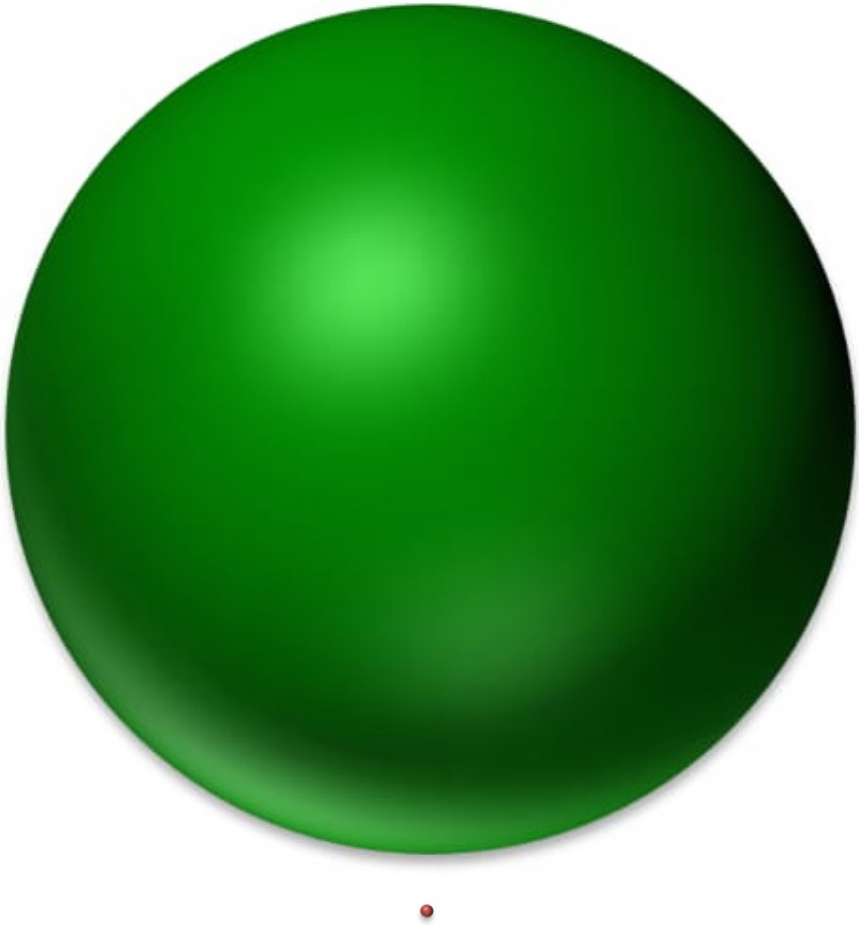
[17] $8.5 trillion/$9,184 trillion = 0.092%

This solution would be appealing to *both* Democrats and Republicans. The half percent who will pay more in taxes with a payment tax may object, but the rest of us can outvote them. If you have a net worth of $20 million or less, you would come out ahead. And if you make $500 million per year, you will finally be paying your fair share of taxes—$1.25 million dollars!



The graphs and drawing of Uncle Sam on the next few pages illustrate why a payment tax can be so low and yet collect so much revenue.

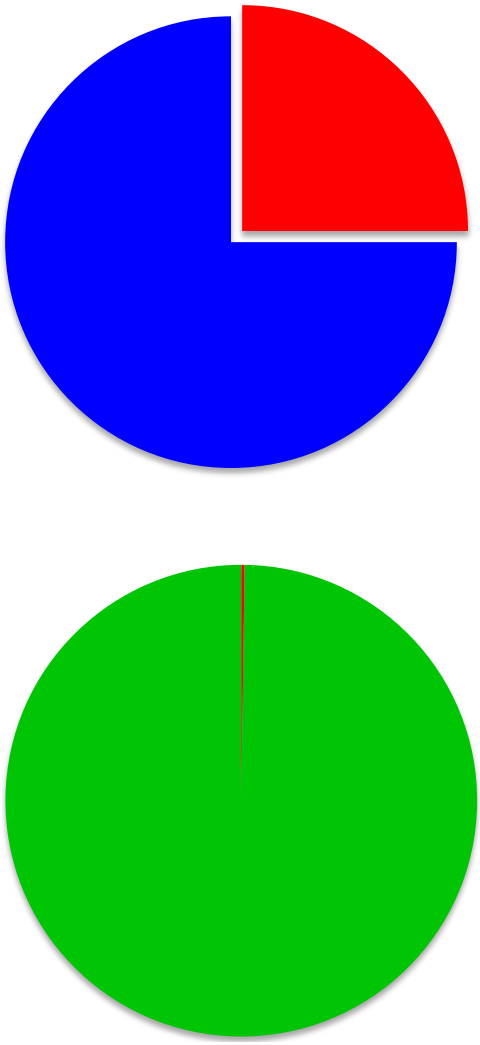
THE FEDERAL BUDGET COMPARED TO PAYMENTS



The tiny red dot represents the combined budgets of the federal government plus every state and local government. Compare its size to the large green sphere, which represents the total volume of payments in the monetary economy.

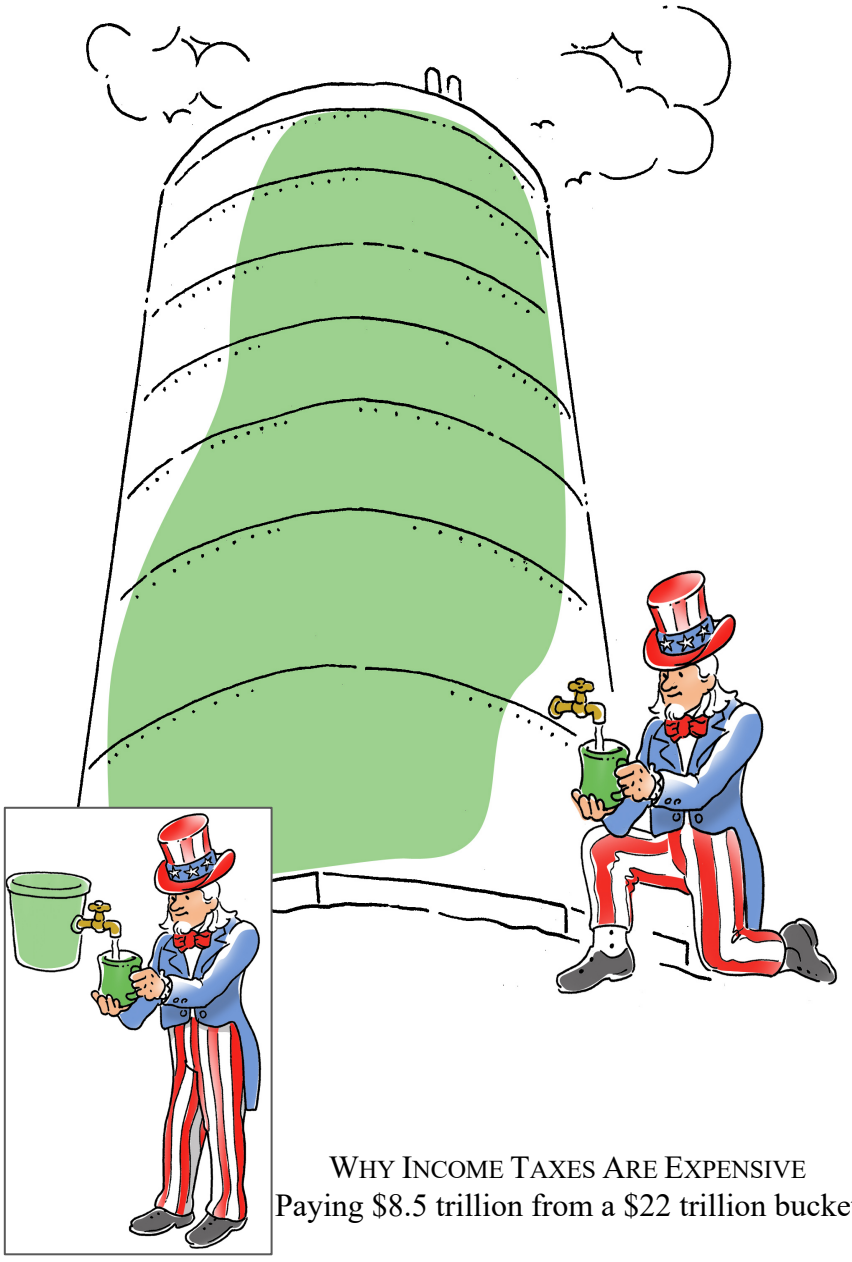
The top graph below shows the relatively large bite that the government's budget takes out of our income, while the bottom graph shows the small bite the budget would take out of payments.

THE BUDGET COMPARED TO INCOME AND PAYMENTS



WHY A PAYMENT TAX IS INEXPENSIVE

Paying $8.5 trillion from a $9 quadrillion tank



WHY INCOME TAXES ARE EXPENSIVE

Paying $8.5 trillion from a $22 trillion bucket

THE IMPACT ON YOU

SINCE YOUR PAYCHECK represents a payment to you, a quarter point, 0.0025 or 0.25%, would automatically be deducted when it was deposited into your account under a payment tax. If you are single and earn $100,000 per year, you pay around $30,000 in taxes today. With a payment tax, you would pay just $250. And if you are single and earning $30,000 per year, you pay around $8,000 in taxes today. With a payment tax, you would pay just $75.

Because your pay is such a small fraction of the total payments made each year, these low amounts represent your fair share of taxes to balance the budget and afford the benefits in the next chapter. And not only would your taxes be much lower, you would no longer have to file tax returns or worry about cumbersome tax laws.

THE IMPACT ON OUR NATION

THE IMPLICATIONS of a payment tax and what it would do for our nation's economy are exciting. Since our budget would be balanced, our national debt would no longer be spiraling out of control. Because our taxes would be lower, consumer spending would increase, and our nation's GDP would expand. And because businesses would no longer have to pay corporate or FICA taxes, they would have more money to expand and hire new employees.

There would be other benefits, too. The cost of complying with our complex tax code would be eliminated. And because foreign tax rates are much higher than a payment tax, the problem of companies moving their headquarters offshore would be solved. Thus, we would see a return of the dollars that our multinational companies have stashed offshore. This would serve to further increase the volume of payments in our nation. Likewise, we would become the world's favorite tax haven, which would bring a flood of money from foreign corporations and citizens of foreign nations.

A payment tax would save Social Security.

The Social Security Administration has announced that the trust funds supplementing the payment of benefits will soon be exhausted. When that happens, benefits to retirees will have to be cut or FICA taxes must be increased. A payment tax would end this ticking time bomb and bring solvency to Social Security. Chapter 5 discusses how a payment tax could fund basic income, which could replace both Social Security and any and all social welfare programs.

COLLECTING A PAYMENT TAX

A PAYMENT TAX would be easier to collect than income taxes. Instead of 75,000 pages of rules and regulations, a payment tax would only require a simple adjustment to the clearing process; a small debit would be made from every payment processed.

If you deposited a check for $100, for example, the bank would automatically deduct 0.25% and credit your account $99.75. Instead of taking the money deducted from a payment and crediting it to an account for transfer to the Treasury Department, as we do today with withholding taxes, the money debited would not be credited to any account at all.

While the idea of not crediting money to an account can be challenging to conceptualize, it would serve a critical purpose. From a taxpayer's point of view, a payment tax would appear as a fee applied to the clearing process. From the monetary system's point of view, the deducted money would be deleted from the money supply.

If we implemented a payment tax in this way, we would utilize the Federal Reserve to create the money the government spends. The money created by the Fed would enter the economy via government spending, essentially replacing the money deleted by the payment tax. This would balance the money supply and help mitigate inflation. There are three significant advantages to implementing a payment tax in this way:

- It would be highly efficient, eliminating the overhead associated with aggregating tax revenues and transferring them over to the US Treasury.

- It would eliminate the need to finance temporary gaps between the collection of taxes and spending.

- It would enable a payment tax to be utilized as a natural economic stabilizer for warming and cooling the economy.

Here is how a payment tax would help stabilize the economy. When the economy slows down, the amount of money being removed from the money supply by a payment tax would decline. Thus, whenever spending exceeds the amount of money being removed by a payment tax, it would serve to stimulate to the economy. And whenever the economy heats up, the amount of money removed from the money supply by a payment tax would increase, which would serve to cool the economy.

Using a payment tax to regulate the money supply
is a better way to moderate economic activity
than changing interest rates.

A payment tax would provide the Federal Reserve with a better way to manage the economy. Today, when the economy gets too frothy the Fed increases interest rates, cooling economic activity. When the economy slows, the Fed reduces interest rates, increasing economic activity. Slowing the economy with higher interest rates often results in a train wreck. Managing the money supply with a payment tax is a more efficient way to manage the economy.

THE REASON FOR TAXES

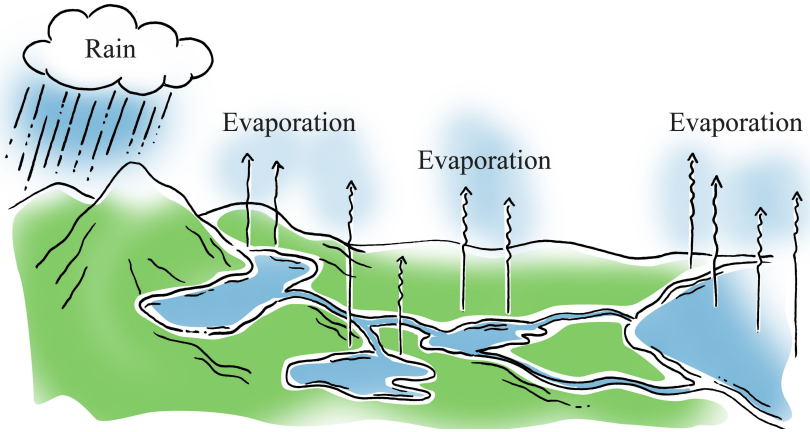
WHEN WE USED GOLD for money, governments were in the same boat as everyone else; they had to obtain the gold they needed. They either had to tax the people, plunder other nations, or finance ventures such as spice voyages. With fiat money though, governments can print the money they need. However, if governments print money without also pulling money from the money supply, they expand the money supply, which causes inflation.

> Taxation is a means of pulling money out of the money supply to counterbalance government spending in order to avoid inflation.

Once we see taxes in this way, seeking as broad of a tax base as possible makes even more sense. Note that today's tax system is the antithesis of this. We place the tax burden on a tiny subset of payments in our economy (our income and retail sales), which drives tax rates sky high. Ironically, the subset of payments that we tax today are also the payments that most adversely impact our standard of living, as well as hurt the health of our economy.

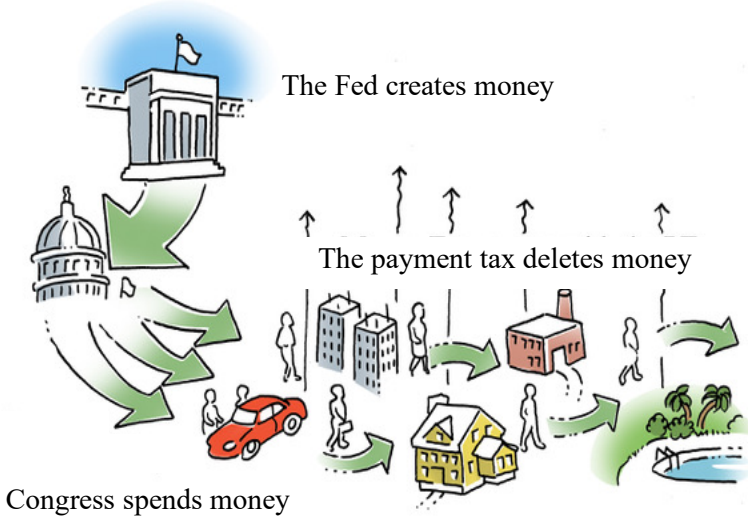
The water cycle is a useful metaphor for a payment tax since evaporation occurs across the land. Imagine if all the water for the earth's rainfall came from a single lake. That's how we have designed our tax system today. We are taxing "Lake Income" while ignoring the rest of the economy. A payment tax is like evaporation in the water cycle in that it draws from across the entire landscape, not just from a single lake. The following diagrams illustrate this.

EVAPORATION BALANCES THE WATER CYCLE



In the diagram above, evaporation balances rainfall. In the diagram below, the Fed creates the money Congress spends while the payment tax removes money from the economy.

A PAYMENT TAX BALANCES THE MONETARY CYCLE



A BRIEF HISTORY OF TAXES

DURING THE LINCOLN ADMINISTRATION, the federal government's need for revenue increased because of the Civil War. By temporarily imposing a small tax on the income of the wealthy, the government was able to cover its expenses.[18]

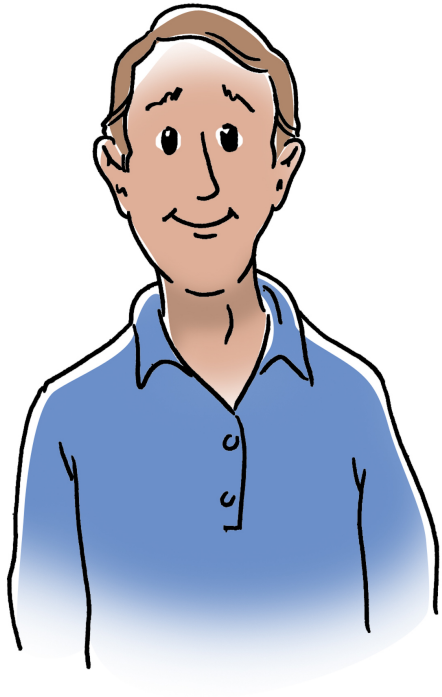
After the Civil War, the idea of permanently taxing income was debated for decades. In 1913, income taxes became a permanent part of the government's revenue plan. Initially, only the wealthiest were taxed at a low rate. That soon changed and tax rates fluctuated wildly over the next century. The tax rate for the wealthiest went from 7% in 1913 all the way to 77% in just five years because of the First World War.

Taxes briefly fell to 24% in 1929, then jumped to 63% in 1932 because of the Great Depression. They kept climbing until they hit 94% in 1942 because of WWII. They stayed over 90% for twenty-two years until they were reduced to 77% in 1964 under Kennedy/Johnson, followed by a reduction a year later to 70%, where they remained for the next seventeen years.

[18] For further information, see www.taxhistory.org, www.archives.gov, and www.civilwar.org

Under Reagan the tax rate dropped to 50% in 1982 and then to 28% in 1988. Bush edged rates up to 31% in 1991, then they hit 39.6% under Clinton in 1993. The rate ranged from 35% to 39.6% over the next three decades.[19]

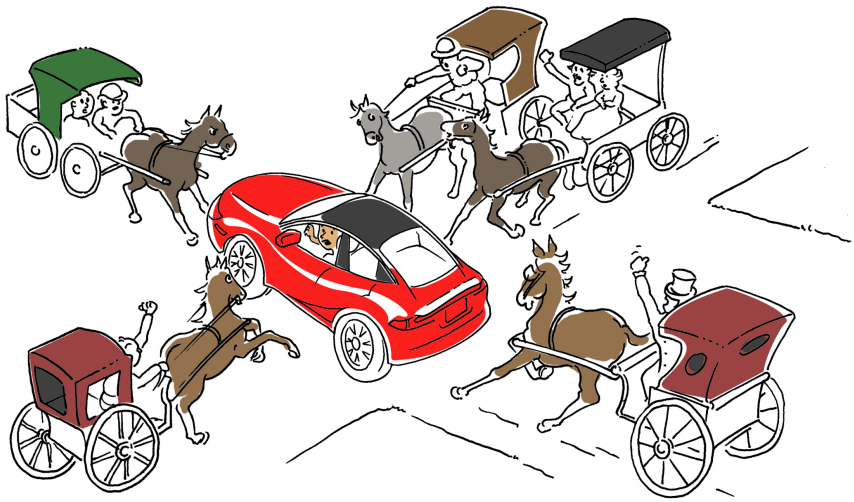
Once you understand how the economy works, we see that we no longer need to pay the high taxes we've been paying for over a century now. We are simply taxing the wrong thing today.



[19] Data obtained from www.taxpolicycenter.org, www.cch.com, www.taxfoundation.org, and http://qz.com/74271/income-tax-rates-since-1913/

CHAPTER 4
BANKING 2.0

BANKING TODAY is rooted in the days when we used gold as money. It makes you wonder how much better our system could be if we were to design it from scratch. This chapter explores how optimizing banking could improve our lives, a key tenet in the Financial Freedom Act. Running our twenty-first century economy on an outdated nineteenth-century financial operating system is not only inflationary but also holds back progress. We could all enjoy a higher standard of living if we upgraded our banking system.



Back in the day when we used gold for money, banks had to aggregate gold to provide sufficient liquidity to cover the transactions in our growing material economy. Thus, we went out of our way to ensure that we had enough gold. We built facilities like Fort Knox to stockpile what we saw as our lifeblood. This led us to perceive money as being a commodity that we were dependent on rather than something that is under our control.

Because it was challenging to mine, transport, and trace stolen gold, we associated these attributes with money. When programmers developed cryptocurrency, they imbued it with these same attributes. It is challenging to mine, transport, and trace who steals Bitcoins.

Because it was so expensive to use gold as money, we also developed the belief that there is an inherent cost of funds. Banking 2.0 turns this concept of money on its head. Money is an invention of humankind. We learned this a long time ago, but for some reason, we keep forgetting it.

> "All money is a matter of belief."
> —Adam Smith

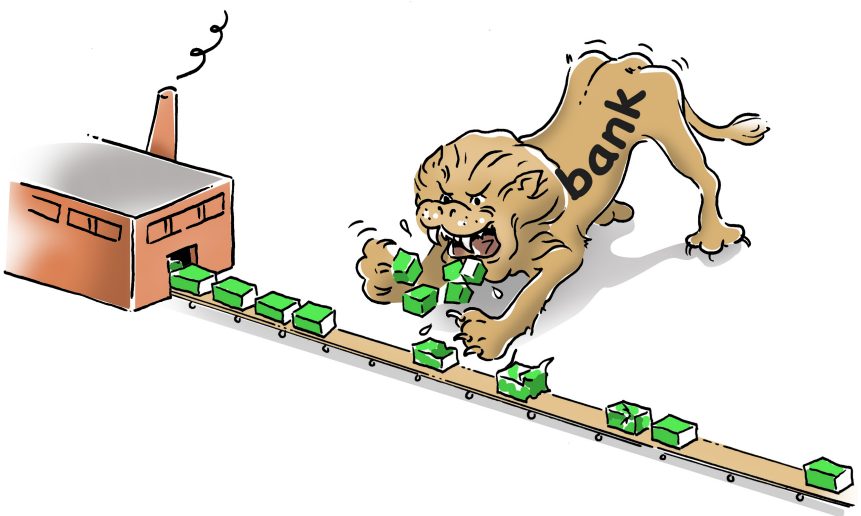
The truth is that money can be created for free in an instant at the touch of a button and inexpensively moved about in a secure fashion on a simple ledger. There is no mystery to creating, transferring, or securing money. The mystery, or more accurately, the challenge, is in properly managing our money supply. We want our monetary system to facilitate commerce without causing inflation.

Early banks invested their customers' money so they could pay interest to customers to attract more deposits and make a profit. The practice of making money off money gave birth to our modern monetary economy. Today the financial sector earns a huge percent of corporate profits while employing only a tiny percent of our nation's workforce. And just as eSports generate more revenue than real sports, the monetary economy has grown to be bigger than the material economy.

The role of the monetary economy should be to facilitate growth in the material economy, not to deplete the material economy.

There are two ways in which the monetary economy takes from the material economy today. First, those who earn their wealth in the monetary economy buy goods and services in the material economy without contributing to production. Thus, those who make goods and services end up able to buy less of what they make. Second, the cost of finance drives up the cost of goods and services, which hurts all of us. We need financial services, of course, but we want them to cost as little as possible.

Thus, profits in the monetary economy devour production in the material economy. When the monetary economy grows faster than the material economy, which has been the case for some time now, those who earn their wealth in the monetary economy consume an increasing share of the GDP each year, thereby growing the divide between the haves and the have-nots.



> We want banks to stoke the production engine in our material economy as efficiently as possible.

Technology's magic is in doing more for less. We want the same thing from banking. When we build a new factory, for example, our goal is for fewer people to make the same number of widgets than it used to take. This helps drive the cost of widgets down. In the same way, if it costs less to finance factories, it will cost less to make widgets. The interest charged at each step in the supply chain drives prices up, which in turn drives our standard of living down.

Upgrading Our Banking System

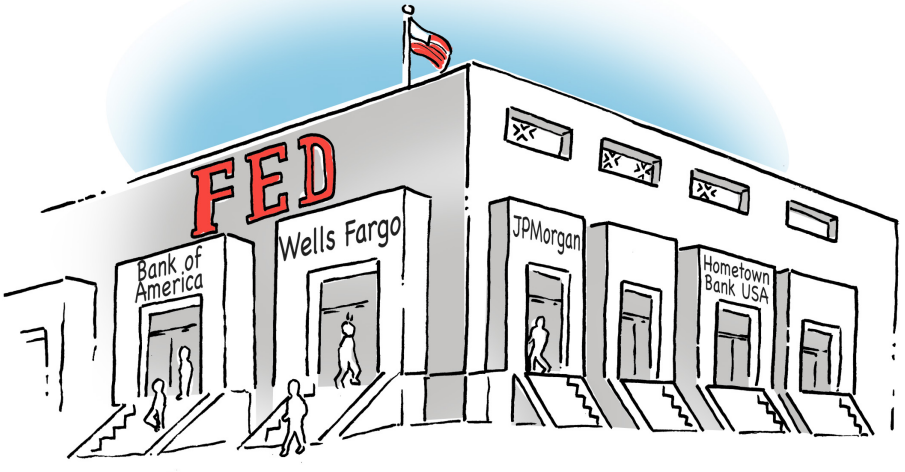
Today, banks must aggregate money to make loans and investments, just as they had to do when we used gold for money. Thus, the money needed to make loans and investments comes at a cost for banks even though we have a central bank, the Federal Reserve, that can create money out of thin air.

> The truth is we no longer need banks to aggregate money because the authority to create money has been given to the Federal Reserve.

Under Banking 2.0, the Federal Reserve would no longer be a privately held entity owned by its member banks. Instead, it would be a true central bank owned by and for the people. The Fed's member banks would be service agents of our collectively owned central bank. Your bank would no longer invest your money; it would deposit your money with the Federal Reserve for safekeeping.

This is not a theoretical construct. I sat on the board of directors of a trust in Colorado that had a master account with the Federal Reserve. We deposited our clients' money with the Fed, just as member banks would deposit their clients' money with the Fed under Banking 2.0.

> The customers' money would be held by the Fed, with banks providing the interface for deposits and withdrawals.



As service agents for the Fed, banks would still provide the same services they do today, processing checks, sending wires, and executing electronic fund transfers across the Automated Clearing House (ACHs). Banks would also originate and underwrite loans, service loans, foreclose on property in the event of a default, manage lines of credit, and do everything else they do now. They would do all this as intermediaries for the Fed.

Not only would banks no longer invest their depositors' money, neither would the Fed. The Fed would be a ledger system for keeping track of transactions, with its member banks providing the interface. We would never again have to worry about a bank failure under this system.

The Fed would also provide the capital necessary for its member banks to lend and invest. There would no longer be a relationship between the deposits a member bank manages and its lending and investing activities. In fact, some banks could choose to just provide depository services while others could choose to just lend and invest.

Because the Federal Reserve can generate reserves, it would be the source of capital for banks to invest, instead of banks using their depositors' money.

How this system of banking differs from our current system is important. The amount of money a bank can lend today is based on fractional reserve lending. In other words, a bank can loan a fraction of the deposits it holds. If the reserve requirement is 10%, for example, a bank can lend 90% of the money it has on deposit. While this seems reasonable, it creates two problems:

- First, if a bank's customers want to withdraw more than 10% of their money, the funds will not be available. We have workarounds for this problem today, but under Banking 2.0 the problem would not even exist.

- Second, fractional reserve lending balloons the money supply. A million-dollar deposit permits a bank to make $900,000 in loans. When the proceeds from those loans are deposited, however, they enable another $810,000 in loans to be made. The proceeds of

those loans then enable another $729,000 in loans. Thus, one million dollars turns into many millions of dollars.

Under Banking 2.0, the money deposited in a bank would no longer be loaned out, which would end this cycle. Because banks would not be earning money off their customers' deposits, they would no longer pay interest on deposits unless the Fed chose to pay interest to expand the money supply. If the Fed paid interest, it would do so by generating reserves and not by investing its depositors' money. Thus, the Fed would have a powerful and effective set of tools to oversee the creation and deletion of money:

- If the Fed generated a reserve for a member bank to make a loan, the Fed would be increasing the money supply.

- If the Fed generated a reserve to pay interest on deposits, the Fed would be increasing the money supply.

- If the Fed generated a reserve to buy assets, as it has with quantitative easing, it would be increasing the money supply.

- If a loan made by a member bank is repaid to the Fed, it would decrease the money supply.

- If an investment made by a member bank is repaid to the Fed, it would decrease the money supply.

Once we understand how reserves generated by the Fed feed the money supply, we see how important it is that the capital deployed by the Fed be used in a way that will improve our standard of living and not cause inflation. We want financing for home loans, education, and consumer goods to cost as little as possible. And we want commercial finance to earn a return that is in line with the growth in the economy that the

financing helps to foster. The answer is to make interest-free loans for home and consumer loans and a mix of interest-free lending and equity investing for commercial finance.

> The principle is simple—we want the monetary economy to grow in parallel with the material economy.

INTEREST-FREE LENDING

BECAUSE the Federal Reserve would be a bank's source of capital, banks could make interest-free loans. All five of the world's major religions have banned interest at one time or another. Even Adam Smith, despite his *laissez-faire* approach to economics, had concerns about interest.

C. S. Lewis expressed his reservations about interest in *Mere Christianity*, noting: "There is one bit of advice given us by the ancient heathen Greeks, and by the Jews in the Old Testament, and by the Christian teachers of the Middle Ages, which the modern economic system has completely disobeyed. All these people told us not to lend money at interest. . . . That is a question I cannot decide on. I am not an economist and I simply do not know whether the investment system is responsible for the state we are in or not. . . . But I should not have been honest if I had not told you that three great civilizations had agreed (or so it seems at first sight) in condemning the very thing on which we have based our whole life."

> It was not out of brotherly love that our ancestors banned interest, but for practical reasons.

Our ancestors were aware that interest eroded the value of money, as the rise and fall of empires had long been tied to the debt they took on and the excruciating toll that interest exacted.

If the Fed generated the reserves that banks loaned out, and neither the Fed nor the bank charged interest, banks could still earn origination fees as well as servicing fees. Loan originators are better off if they don't have to contend with interest. As a conduit lender in the 1990s, for example, I earned an origination fee for the loans I wrote. The interest my borrowers had to pay was just a nuisance to me.

A borrower would still have to qualify for an interest-free loan, pay the loan back, and be subject to foreclosure if they did not make their payments. But without interest, loans would cost less:

- Eliminating interest would reduce the monthly payment on a $400,000 home loan from $2,147 down to $1,111, saving $372,960 over the life of the loan.[20]

- Eliminating interest would reduce the monthly payment on a $100,000 student loan from $763 to $417, saving $83,040 over the life of the loan.[21]

Since interest-free loans would cut mortgage payments in half, we would have to change the qualifying parameters for obtaining a mortgage; otherwise, home prices would double. When lenders qualify a borrower for a mortgage today, the borrower is permitted to spend up to a third of their income on their mortgage payment. Under Banking 2.0 the borrower could only spend a sixth of their income on their mortgage payment. Thus, you could buy the same house with half

[20] The example illustrates the difference between 5% interest and 0% over a thirty-year amortization.
[21] The example illustrates the difference between 6.8% interest and 0% over a twenty-year amortization.

the monthly payment under Banking 2.0. That is the type of progress that financial technology is supposed to deliver!

We want the cost of housing to take as small of a bite out of our income as possible. We handled falling interest rates over the past decades the wrong way, and we sent home prices spiraling because of it. We should have ratcheted the lending ratios down whenever interest rates fell, as described above, reducing the percentage of a borrower's paycheck that could be spent on their mortgage payment. If we had done that, housing would be more affordable today.

It is interesting to note that the 2008 recession would never have happened under Banking 2.0. The recession was a lesson in how punishing interest is. Millions lost their homes because of interest, and we spent billions bailing out the banks. The problem was with our monetary economy, not our material economy.

THE FUTURE OF BANKING

IRONICALLY, today's banks can no longer provide the same services that the famed Medici banks in Europe pioneered hundreds of years ago.[22] The Medici banks provided venture capital, for example, something today's banks cannot do. The services that banks provide today are limited by regulations to protect depositors from risk. Under Banking 2.0, because banks would no longer be investing their depositors' money, banks could provide a wider range of services than they do today. Thus, under Banking 2.0, new specialized financial service providers could emerge, many of whom would not offer depository services, so they would look very different than banks do

[22] For more information see https://en.wikipedia.org/wiki/Medici_Bank

today. Here are some of the challenges that face today's business owners that Banking 2.0 would help solve:

- Today, capital to launch companies is expensive and hard to come by. Venture capitalists (VCs) only invest in startups in hot markets that have scalable revenue and are poised for a lucrative exit. VC funding is not an option for most startups. For most startups, one must raise money from friends and family, which limits who can start a company. The irony is that new companies are the backbone of our nation's future. Banking 2.0 would solve this problem by allowing banks to provide venture capital.

- It is difficult to find capital to expand small businesses that are profitable but not targeting high value exits. Most such companies are family-owned and are the foundation of our economy, providing jobs for tens of millions of citizens. Today, the Small Business Administration (SBA) is their main source of capital, but one must pledge all their assets, including one's home, to qualify for an SBA loan. Many small business owners are unwilling to incur such risk. Banking 2.0 would provide lower-cost financing, at less risk to the business owner.

- If your business is generating a few million dollars in revenue and clearly scalable, you have more options. Bank financing is possible if your business has the right type of cashflow. You can also partner with a private equity (PE) firm. Most PE funds want an exit, though, so you must either sell your company down the road or go public. Banking 2.0 would provide growth capital without the exit requirement, and at a lower cost.

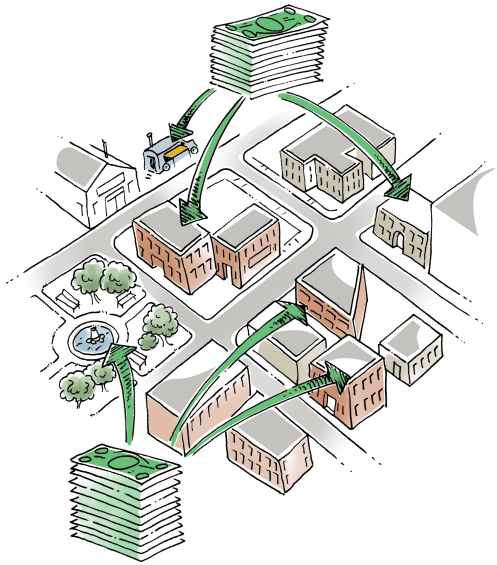
- Large companies have the most choices. Even though they can raise money by going public, sell debt through the bond market,

secure commercial financing through banks and private lenders, or partner with private equity firms, Banking 2.0 would expand the financial options for these enterprises as well.

Banking 2.0 would open the door to
Community Enterprise Funds.

Community Enterprise Funds would be locally owned venture funds that have access to capital from the Fed and are dedicated to community and local economic growth. Because the Fed would be their source of capital, they could earn a much more modest return on the capital they invest compared to the returns that today's VCs seek.

Community Enterprise Funds would provide seed money for local startups, investing in small and medium-sized businesses that will be around for a long time. Rather than exit plans, they'd have succession plans. Community Enterprise Funds would be ideal for financing enterprises that are not profit-oriented, such as schools, community centers, or publicly run vocational training centers. Today, there are few resources that provide capital for these needs. Banking 2.0 would solve this problem.



Banking 2.0 would open the door to structured investments in PE funds and REITs.

The Fed could provide capital for its member banks to buy senior interest in structured equity firms, such as PE funds, VC funds, and real estate investment trusts (REITs), augmenting the returns for conventional investors in such vehicles. Thus, the Fed can stimulate growth in the material economy, in contrast to quantitative easing, in which the Fed stimulated growth in the monetary economy.

Today PE funds are unstructured. They are financed by the sale of limited partnership units, all of which share in the returns of the fund on an equal pro rata basis. With this approach, funds deliver a return of about 14%. If they structured their funds and paid their preferred investors 7%, they would be able to deliver a return of 21% to their subordinate investors.[23]

This strategy would make investing in private equity more attractive than it is today, bringing additional capital to the industry and stimulating real economic growth. The Federal Reserve would not be the only source of capital for senior positions in private equity funds. Corporate treasuries, insurance companies, and wealth management firms would all find senior securities in equity funds to be attractive.

[23] An investment fund that I am a partner in has patents pending on the technologies required to execute this strategy.

Banking 2.0 would open the door to new ways to finance domestic infrastructure projects.

With Banking 2.0, we can finance large-scale projects to increase energy production, provide access to water, improve transportation, and the like, which requires government spending today. Member banks could partner with both private and public entities, including federal, state, and local governments, through a combination of interest-free lending and equity investments.

Interest not only devours resources at the national level but among state and local governments. Just as we saw how a payment tax helps to solve our nation's money problem, so too would Banking 2.0.

Banking 2.0 would open the door to a new level of international finance for member banks.

Since the Fed can generate the reserves needed for any project, our banks can become the world's pre-eminent financiers. This would strengthen our global influence, enabling us to compete with China, the World Bank, and the International Monetary Fund.

We could use Banking 2.0 to finance factories and infrastructure for friend-shoring, focusing on supply chain networks with allies, which would diversify our supply chain and increase global competition. This would help tame inflation and build redundancy in the supply chain.

We could also use Banking 2.0 to finance economic development and housing in nations to help stem the tide of fleeing immigrants. Most immigrants are desperate for economic opportunity and would prefer

a future among their friends and family. Today it costs taxpayer dollars to address this issue, which understandably creates resentment among our citizens. Banking 2.0 would enable us to finance projects that strengthen our ties with other nations while also benefiting our own economy, and without tapping into the pockets our citizens.

With Banking 2.0 we would finally have a true central bank owned by and for the people, purposed to raise our standard of living.

CHAPTER 5
GAME-CHANGING BENEFITS

LET'S NOW look at the game-changing benefits that are possible with a payment tax, and what a payment tax and Banking 2.0 would mean to you personally under the Financial Freedom Act. Chapter 6 will show how we can afford the benefits in this chapter and balance our nation's budget. Chapter 7 will show how we can fully pay off our nation's debt in eight years, even while enjoying the benefits in this chapter.

With a 0.25% payment tax, one would pay just $250 in taxes per $100,000 in income, and yet we could afford the following benefits for everyone.

BASIC INCOME

WHILE THE IDEA of basic income appeals to many, the pushback has always been the same: How do we pay for basic income without raising taxes? With a 0.25% payment tax, we would have enough revenue to pay basic income for all adult citizens in our nation, plus the other benefits described in this chapter.

If we eliminated income taxes and implemented a payment tax, your paycheck would be much larger, as there would no longer be any deductions from it for income or FICA taxes. With basic income, you would receive a check each month in addition to your paycheck, based on the following schedule.

Age Group	Basic Income
18-69	$2,000/month
70+	$3,000/month

The annual cost for basic income at the levels shown in the table above would be $6.6 trillion.[24] We could replace Social Security, public assistance, and unemployment with basic income, which would eliminate a lot of bureaucracy and overhead while also cutting $1.9 trillion per year from the budget.[25] Thus, basic income would represent a net increase of $4.6 trillion per year to our budget.

Basic income would significantly improve the standard of living for 90% of our nation's population. It would be a game-changer for the lower fiftieth percentile in income. And based on the schedule above, most retirees would see a net gain in their benefits if we replaced Social Security with basic income, especially those recipients of Social Security who are losing benefits because they are working.[26]

Basic income would also eliminate the "welfare trap," which locks many recipients of public assistance in an unending cycle of poverty today. If someone lands a job while receiving welfare benefits, they usually lose some or all of those benefits. Thus, these programs often disincentivize recipients from working. With basic income, no one loses their benefits when they land a job. Instead, their net income

[24] The 2021 American Community Survey of the US Census Bureau estimated there were 310.7M citizens and 21.2M noncitizens in the US, https://www.census.gov/topics/population/foreign-born.html. Around 221 million citizens are 18-69, and 37 million citizens are 70+. 221 million x $24,000 = $5.3 trillion, and 37 million x $36,000 = $1.3 trillion.

[25] Center on Budget and Policy Priorities, https://www.cbpp.org/research/federal-budget/where-do-our-federal-tax-dollars-go

[26] Based on data from Social Security Administration, basic income as proposed in this book would be higher than most Social Security benefits: https://www.ssa.gov/oact/cola/examplemax.html A retiree can lose benefits by working: https://www.ssa.gov/pubs/EN-05-10069.pdf

increases when they work. Unlike public assistance programs, therefore, basic income would incentivize recipients to work.

Basic income could also prove important in helping to encourage the creation of new startups. It could provide a bit of a runway, enabling people to take the leap to try their hand at a business they have always dreamed of.

EARNED INCOME CREDITS

TO ENCOURAGE WORK, we could also pay earned income credits, which would only kick in when someone has a job. When coupled with basic income, earned income credits would enable those with lower-paying jobs to earn a livable wage. A payment tax of a quarter point could fund earned income credits on the following schedule.

Income Bracket	Credit
$0–$15,000	50%
$15,001–$25,000	35%
$25,001–$35,000	25%
$35,001-$50,000	10%

Based on the above table, someone earning $15,000 per year would earn an additional $7,500 in earned income credits, meaning their take home pay would be $22,500 per year. When combined with basic income, they would be receiving a total of $46,500 per year.

To calculate how much earned income credits would cost our nation, we will assume every household in each bracket above earns the maximum possible for receiving a credit. Thus, the upper limit for the

cost of earned income credits for our nation would be $346 billion per year, while the actual cost is likely to be closer to $275 billion. [27]

CHILDCARE CREDITS

PARENTS OF YOUNG CHILDREN report the cost of childcare as their greatest hurdle to working. With a quarter point payment tax we could afford to pay childcare credits for children ages five and under on the following schedule.

Hourly Wage	Credit
Up to $25	$6/hour
>$25 - $35	$4/hour
>$35 - $40	$2/hour

The average cost of basic childcare is around $250 per week today, so the above schedule would significantly help anyone earning less than $50,000 per year. For single parents, a combination of basic income, earned income credits and childcare credits would be a lifesaver. For parents with a partner, basic income would make it easier for one parent to stay at home if that's their preference. Around 25% of parents with partners would prefer to stay at home if they could afford to.[28]

[27] https://www.census.gov/content/dam/Census/library/publications/2022/demo/p60-276.pdf, 16. Of 131 million households, 9.3% make under $15,000, 8.1% make between $15,000 and $25,000, 7.8% make between $25,000 and $35,000, and 10.9% make between $35,000 and $50,000. 131 million x 9.3% x $15,000 x 50% = $91.4 billion. 131 million x 8.1% x $25,000 x 35% = 92.8 billion. 131 million x 7.8% x $35,000 x 25% = 89.4 billion. 131 million x 10.9% x $50,000 x 10% = $72.4 billion. The maximum cost would thus be $91.4 billion + $92.8 billion + $89.4 billion + $72.4 billion = $346 billion.

[28] Gretchen Livingston, "Stay-at-home mons and dads account for about one-in-five US parents," Pew Research Center, September 24, 2018, https://www.pewresearch.org/fact-tank/2018/09/24/.

There are 24 million children ages five and under in our nation.[29] Thirty percent of our nation's children live with a single parent, a figure that has tripled since 1965.[30] To calculate how much childcare credits would cost our nation, we will assume full participation in the program for single parents and 75% participation for couples. We will also assume the maximum credit of $6 per hour for every participant.

Based on the above assumptions, the upper limit for the cost of childcare credits is $240 billion per year.[31] The actual cost is likely to be around $200 billion.

FREE BASIC HEALTHCARE

JUST AS WITH basic income, the idea of free healthcare is appealing to many, but the pushback is the same: How can we pay for free healthcare without raising taxes? With a payment tax we can finally afford the cost of national healthcare for citizens of all ages and economic levels.

Estimates of what a national healthcare plan would cost vary, depending on the benefits. For our purposes, let's go with $4.5 trillion per year, as that is on the high side.[32] Since a new national healthcare plan would replace our current programs, which cost us $1.4 trillion per year today, the net increase to our budget would be $3.1 trillion.[33]

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[29] "Child population by age group in the United States," Kids Count Data Center, Annie E. Casey Foundation, https://datacenter.kidscount.org/data/tables/101

[30] Joseph Chamie, "America's single-parent families," The Hill, March 19, 2021, https://thehill.com/opinion/finance/543941

[31] 7 million x 2,000 hours x $6/hour + 13 million x 2,000 hours x $6/hours = $240 million.

[32] Koch funded study that projects the cost of national healthcare to be $4.5 trillion per year, https://www.mercatus.org/system/files/blahous-costs-medicare-mercatus-working-paper-v1_1.pdf. The study estimates such a program would cost several hundred billion dollars less than the way we pay for healthcare today.

[33] "Where Do Our Federal Tax Dollars Go?" Center on Budget and Policy Priorites, July 28, 2022, , https://www.cbpp.org/research/federal-budget/.

We should use the implementation of a national healthcare plan as an opportunity to both provide greater choice for citizens and permit providers to offer a wider range of plans. Today, many are locked into the plan our employer chooses, while employers are limited to choosing a single plan. Worse still, employers choose insurers, not providers, which limits both choice and the role that the free market can play in keeping costs down. This is why our healthcare costs have escalated so much. We have a substantially higher cost of healthcare than comparable nations do today.[34]

We can alleviate this problem by allowing citizens to pick the provider they want with the pro rata share of the money available to them for healthcare, fostering a competitive environment for providers. The monthly premium each provider would receive for your care would be fixed. Thus, they would be incentivized to keep their costs down while providing service that wins you over as the customer.

We could permit the creation of provider groups that accept this credit in exchange for healthcare, bypassing the middleman, or insurance company. Today, a third of the cost of healthcare is administrative in nature.[35] Whenever healthcare is managed by a third party, it is always costly. It does not matter who manages it, whether it is the government or an insurance company; a third party will always add expense and bureaucracy to a system. Likewise, whenever providers are paid on a reimbursable basis, they are incentivized to drive up the cost of healthcare. Providers need to be an integral part of the solution, so they must be able to profit both from providing good service and from operating efficiently.

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[34] [34] Nisha Kurani and Cynthia Cos, "What drives health spending in the US compared to other countries," Health System Tracker, Sept. 25, 2020, https://www.healthsystemtracker.org/chart-collection/health-spending-u-s-compare-countries.
[35] James E. Dalen, "We Can Reduce US Health Care Costs," *American Journal of Medicine*, March 2010, https://www.amjmed.com/article/S0002-9343%2809%2901115-2/fulltext.

Thus, we would be putting doctors in charge of:

- Keeping their patients happy, and
- Controlling their expenses.

For a provider group to earn your monthly credit, they would have to agree to provide your basic healthcare needs as established within federal and state guidelines. Small providers could insure against providing you with catastrophic care, or partner with larger groups, just as many provider groups do today.

FREE HIGHER ED

THE ESCALATING cost of college is a challenge for most students today. Student debt tops $1.7 trillion, indicating that we need to change our approach to college. Our student loan program has unwittingly fueled the high cost of college. Just as easy credit fuels high home prices, student loans have made it easy for colleges to raise tuition.

> We need an option for free college that drives costs down while encouraging more educational options that lead directly to jobs.

We can afford to offer free higher education in our nation with a quarter point payment tax if we follow a few parameters. For example, we could make every post-secondary student eligible for a free ride only if they find a program where the cost of tuition does not exceed $10,000. Students would not be allowed to apply this benefit toward a program where the cost of tuition is over $10,000, though, as that would serve to drive the cost of tuition higher.

This would create strong market pressure for schools to cap their tuition at $10,000 per year. I have had many discussions with college administrators on this subject, and every one of them has said that they could meet this challenge.

There are about twenty-four million post-secondary students in our nation today. If every one of them participated in this program, it would cost $240 billion per year, which we could afford with a quarter point payment tax. To boost our nation's competitiveness, the program needs to also cover all post-secondary programs, including trade and tech programs. It can be modified for post-secondary programs that are more expensive, like medical school.

A SIMILAR APPROACH could also be used to bolster the quality of primary and secondary education in our nation. Frequently, the cost of the central administration in public school systems consumes half of a district's budget. We cannot legislate our way out of such bureaucracy. But if we give parents the right to decide where to spend their pro rata share of money budgeted for public education, the free market can be used to improve education.

Families should not be able to apply their credit toward a more expensive school, though. The credit would have to fully pay for their choice; otherwise, we will fuel the rise of tuition at private schools. Likewise, schools funded with credits should be available to anyone.

It is my personal belief that anyone should be able to start a school without the bureaucratic roadblocks that exist today. As a co-founder

of two charter schools in Colorado, I can assure you that people do not lightly start schools—it is simply too much work.[36]

We can rely on parents to judge the quality of their children's education. If they sign their children up and are happy enough with their school to stay enrolled, that is all that matters. The heated arguments over how public schools ought to be run indicate people want choice. The diverse opinions of our nation's citizens are the basis of our nation's strength. If we honor choice in education, the free market will improve the quality of our schools. This principle applies to both healthcare and education.

One note of caution, however. We must be practical with how the money is paid out to schools. The money must be paid on a monthly basis, and only if a student continues to attend. If a school is unable to manage its expenses and closes prior to the end of a school year, or if a student does not like a school, the cash flow that goes with that student must be available for the new school that the student chooses.

YOUR NEW BOTTOM LINE

THE CHARTS below show how the above benefits would combine under the Financial Freedom Act for six families of different economic means. The calculations for each family's future taxes are based on a quarter point payment tax. Since one's paycheck is a payment, a quarter point would automatically be deducted from it, which would represent your fair share to balance the budget and afford the many benefits in this chapter.

[36] Summit Middle School in Boulder and Peak to Peak K-12 Charter School in Lafayette.

A COUPLE WITH NO JOB

	Today	Future
Salary	$0	$0
Taxes	$0	-$120
Basic income	$0	$48,000
Public Asst.	$15,000	$0
Net Income	$15,000	$47,880

A RETIRED COUPLE

	Today	Future
Salary	$0	$0
Taxes	$0	-$180
Basic income	$0	$72,000
Soc Sec[37]	$30,000	$0
Net Income	$30,000	$71,820

[37] A moderately high level of Social Security for a couple in which only one person worked. Many couples receive much less than this.

A COUPLE EARNING $10,000

	Today	Future
Salary	$10,000	$10,000
Taxes[38]	-$765	-$158
BI	$0	$48,000
EIC	$4,010	$5,000
Net Income	$13,245	$62,842

A COUPLE EARNING $30,000

	Today	Future
Salary	$30,000	$30,000
Taxes	-$2,295	-$214
BI	$0	$48,000
EIC[39]	$0	$7,500
Healthcare	-$2,500	$0
$100K Mort[40]	-$6,441	-$3,333
Net Income	$18,764	$81,953

[38] Pays FICA taxes today, but no income taxes, and they receive an EIC as they have children. A childless couple would make less.
[39] EIC is calculated as if only one partner is working. If the income were divided between two partners, they would be receiving a higher level of EIC.
[40] All mortgages shown are the difference between 5% interest and 0% with a thirty-year amortization.

A FAMILY EARNING $100,000

	Today	Future
Salary	$100,000	$100,000
Taxes	-$17,434	-$370
BI	$0	$48,000
EIC[41]	$0	$0
Healthcare	-$12,000	$0
$300K Mort[42]	-$19,323	-$10,000
Net Income	$51,243	$137,630

A FAMILY EARNING $250,000

	Today	Future
Salary	$250,000	$250,000
Taxes	-$58,077	-$745
BI	$0	$48,000
EIC	$0	$0
Healthcare	-$14,000	$0
$500K Mort	-$32,205	-$16,667
Net Income	$145,718	$280,588

[41] No EIC is shown as it is presumed only one person is working. If the income came from both partners, they could be receiving EIC.
[42] All mortgages shown are the difference between 5% interest and 0% with a thirty-year amortization.

Our ability to enjoy the level of prosperity shown in the tables above is very real. It is the result of the hard work of millions of American citizens in the material economy plus our nation's many technological advancements. The next chapter totals the cost of all the benefits shown in this chapter and incorporates them into a new budget for our federal, state, and local governments. As you will see, not only can the citizens of our nation enjoy more prosperity but we can also trade in decades of chronic deficits for a healthy annual surplus.

"The marvel of all of history is the patience with which men and women submit to burdens unnecessarily laid on them by their governments."

—George Washington

CHAPTER 6
A NATIONAL SURPLUS

THIS CHAPTER explores how we can balance the budget with a quarter point payment tax under the Financial Freedom Act, while also affording the benefits shown in chapter 5. The table below totals the cost of all of the benefits presented in the previous chapter.

TOTAL COST OF ADDITIONAL BENEFITS
(IN BILLIONS OF DOLLARS)

Basic Income	$6,600
Earned Income Credits	$346
Child Care Credits	$240
Free Healthcare	$4,500
Free College	$240
Total New Benefits	$11,926

In the table on the next page, we add the cost of the above benefits to the current budget and subtract any existing programs that the new benefits replace. The next table shows what this new budget would be for the federal government plus all state and local governments.

Note that all the revenue necessary to pay for this new budget that includes the benefits in the previous chapter comes from a 0.25% payment tax. By implementing a payment tax, we could eliminate every tax we pay today at the federal, state, and local level, and yet have a surplus. We can finally end years of chronic deficits, spiraling debt, and high personal taxes.

NEW FEDERAL, STATE, AND LOCAL BUDGET (IN BILLIONS OF DOLLARS)	
Current budget	$8,500
Add new programs above	$11,926
Subtract programs replaced[43]	-$3,300
New Budget	$17,126
Revenue from a payment tax[44]	$22,960
Subtract cost of new budget	-$17,126
Budget Surplus	$5,834

As you can see in the table above, a quarter point payment tax would generate a $5.8 trillion budget surplus, instead of the trillion-dollar-plus deficit we suffer from today, even while paying for all the benefits shown in chapter 5.

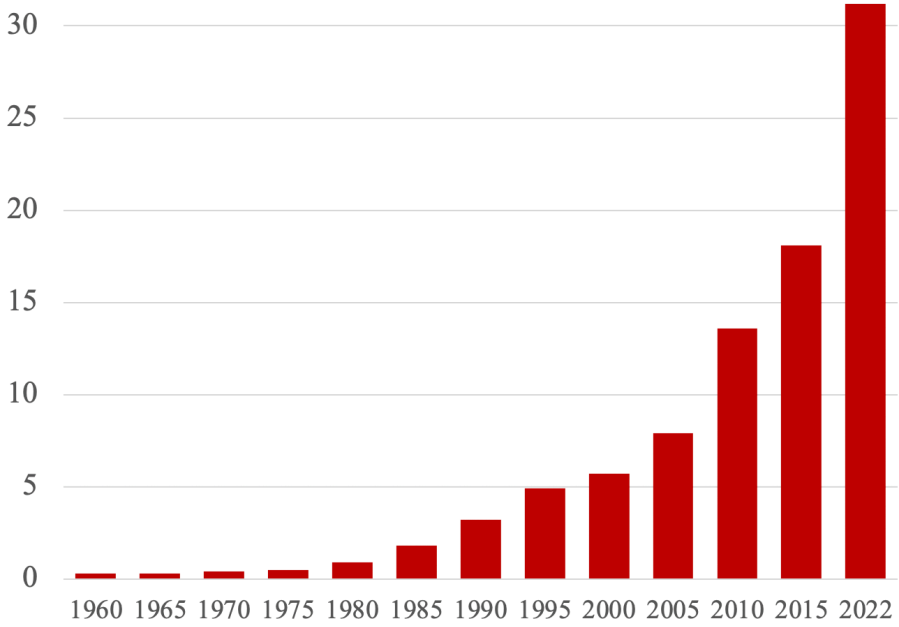
Under the Financial Freedom Act, our nation would be income tax-free and deficit-free. And since we would no longer have a deficit, the door would be opened to finally paying off our national debt, which is the subject of the next chapter.

[43] Replacing public assistance, social security, and unemployment would save $1.9 trillion, while replacing our current healthcare system would save $1.4 trillion. The savings could be more, as eliminating these programs would save substantial overhead.
[44] $9,184 trillion x .0025 = $22.96 trillion

CHAPTER 7
GOODBYE NATIONAL DEBT

WITH A SOLUTION in hand for balancing the budget, you will be pleased at how easy it is to pay off the national debt under the Financial Freedom Act. The graph below shows that our national debt began to balloon in the 1980s and has been doubling every ten years since. Our many years of deficit spending have left us with over $31.2 trillion in debt, which comes to $215,000 per taxpayer.[45]

OUR SKYROCKETING NATIONAL DEBT



[45] "Debt to the Penny," Fiscal Data, https://fiscaldata.treasury.gov/datasets/debt-to-the-penny/.

In 1960, our national debt was 52% of our GDP. We managed to reduce that to 35% by 1980. In the 1990s, we had two years when the budget was balanced, so there was hope that we could reduce the debt someday. But two wars, three recessions, and a pandemic have landed us with a debt-to-GDP ratio of 124% today.[46]

The annual interest payments on our debt at the end of the 2020 federal fiscal year came to more than half a trillion dollars.[47] Rising interest rates cause our nation's interest payments to grow higher. The key to a solution lies in understanding how we finance our deficit today.

As we saw earlier, the government collects revenue by charging taxes, and when it collects less than it spends, we have a deficit. Today, the government makes up the difference between what it collects and what it spends by selling Treasury bonds. The government uses the money it receives from the sale of Treasury bonds to pay for the spending that it cannot pay for from the collection of taxes.

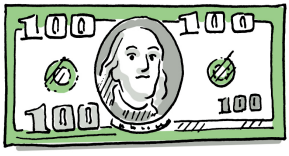
Each year's deficit adds to the amount of debt our nation owes, and the cost of interest adds to the deficit. Under our current tax system, we have no ability to repay the money we have borrowed, so our national debt keeps climbing with no end in sight. If we eliminated income taxes and replaced them with a payment tax, we would balance the budget, which would stop the growth of our national debt in its tracks. Doing so would also open the door to paying off our national debt.

The key to paying off our national debt rests with the fact that selling Treasury bonds balloons our money supply even more than printing money does. We have many forms of money today, as discussed in chapter 2. The two forms of money germane to paying off our debt are

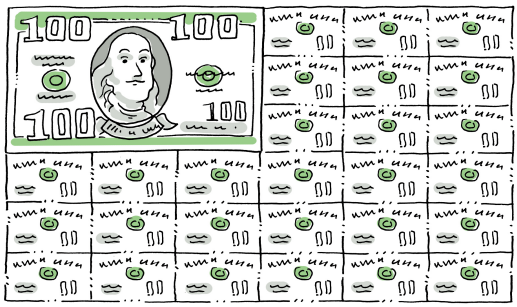
[46] "What is the National Debt?" https://fiscaldata.treasury.gov/americas-finance-guide/national-debt/
[47] "Interest Expense on the Debt Outstanding," https://www.fiscaldata.treasury.gov.

Treasury bonds and currency. The key difference between them is that Treasury bonds earn interest while currency does not.

There was once a Treasury bond known as a *bearer bond* that illustrated this difference. Bearer bonds looked like money and could be transferred by hand. The only visual difference between bearer bonds and currency was that bearer bonds had coupons printed on them representing the interest they would earn over time. Whoever owned the bond when a coupon matured could clip the coupon and redeem it for cash. The coupons showed the growth in the money supply that financing deficits with debt creates. The diagram below shows a hundred dollar bill and a hundred dollar bearer bond.



GOOD MONEY



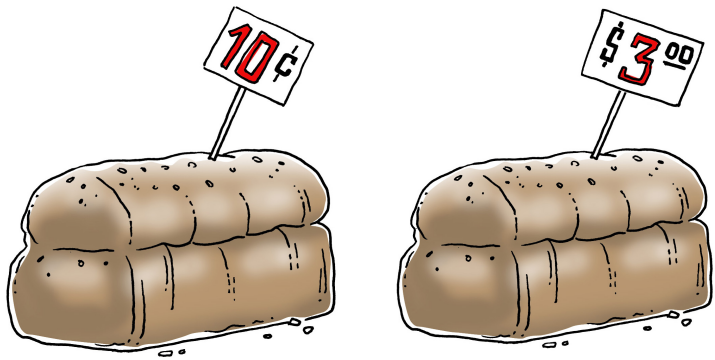
BAD MONEY

Treasury bonds are the same today, even if the interest they bear is no longer printed on the bond. Deficit spending causes inflation, and the interest that our nation's debt bears fuels that inflation even more. While inflation is in the news again because it has spiked, it has always been a problem, even when it was 2% per year. Whether prices double every ten years or twenty years doesn't matter; inflation always causes our currency to lose value.

When the cost of four years at a top college topped $10,000 in the 1970s, everyone was appalled. People speculated when spiraling costs

would level off. They never did, of course, and they never will, unless we make the changes set forth in this book. Today four years at many colleges cost $200,000, and the price keeps rising. The leap from $10,000 to $200,000 is the same as from $200,000 to $4 million. In other words, we are steadily on the track to four years of college costing $4 million.

It is not just the cost of college that is going up. One of the reasons a loaf of bread costs three dollars today instead of ten cents as it did in the 1940s is because we have been financing our national debt with Treasury bonds and charging interest on debt in general.[48] Inflation makes saving for retirement very challenging.



1940s TODAY

Imagine paying $60 for a loaf of bread someday.

[48] Farmers' Almanac Staff, "A Look Back at What Things Used to Cost," Farmers' Almanac, December 3, 2020, https://www.farmers almanac.com/, and Goldie and Kurt's site, http://www.thepeoplehistory.com/70yearsofpricechange.html

The irony is that borrowing ends up costing us more over time than the taxes we are attempting to avoid. In other words, if we taxed ourselves enough to balance the budget, it would cost us less than it costs to borrow the money. Borrowing is not magic. It does not provide a free lunch. When we borrow to cover a deficit, we end up repaying the borrowed money, plus we pay interest.

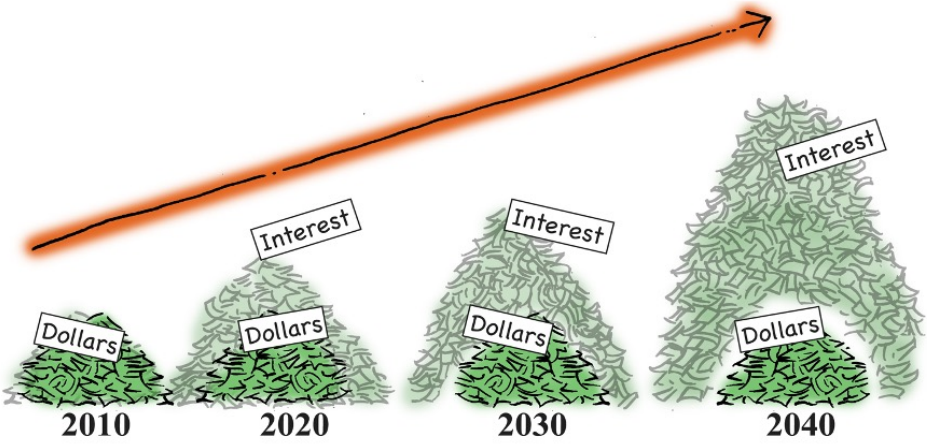
It is plain enough that every dollar we borrow costs us more than a dollar to repay. But the extra amount we spend each year as a result of inflation never ends; that cost keeps accruing. Over time, the extra amount we pay in inflated prices adds up to be more than the taxes we would have paid if we had paid enough in taxes to balance the budget. In other words, borrowing does not make for a free lunch; it makes for a more expensive lunch.

Coupon Stripping

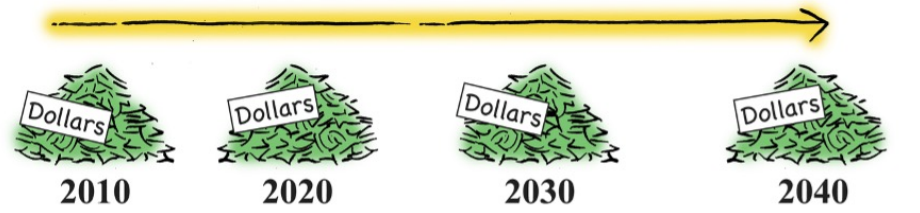
THE BEST way to pay off our national debt is to use coupon stripping, which essentially strips Treasury bonds of their interest-bearing coupons by converting them into currency. This relies on the fact that the damage from the Treasury bonds we have issued has already been done. The damage came in the form of today's inflated prices. We do not need to keep adding to the impact of our past deficits by inflating prices further.

Under coupon stripping, the Federal Reserve would replace our nation's bad money with good money by generating a reserve that does not bear interest to retire our debt, which does bear interest. The Fed would not keep the bonds it purchases under coupon stripping as it did under quantitative easing; instead, it would cancel them, thereby removing the interest-bearing money from our money supply.

T-BONDS EXPAND THE MONEY SUPPLY



CONVERTING T-BONDS TO DOLLARS
STOPS THE EXPANSION



It is ironic that we financed our deficit by borrowing money instead of printing money. We would have inflated our money supply less if we had issued new money to pay for the deficit instead of selling Treasury bonds, as the new money would not have accrued interest like our Treasury bonds do.

We cannot pay our debt off in one lump sum, though, as that would be too great of a disruption in the capital markets. Not that we would be flooding the money supply by converting Treasury bonds to currency; we did that when we issued the Treasury bonds in the first place.

Our nation could pay off its debt in eight years with the following three-phase plan, without disrupting the capital markets.

Phase 1: About $6.8 trillion of our nation's debt is owned by trust funds within the US government, such as Social Security, military retirement, and civil service.[49] Because the payment tax would eliminate the deficit, these reserves would no longer be necessary. In addition, the Federal Reserve owns $5.6 trillion in Treasury bonds.[50] These bonds can be cancelled, too, which would reduce our debt from $31.2 trillion to $18.8 trillion. It is astounding to learn that our government is its own biggest creditor.[51] Fortunately, this makes the problem easier to solve.

Phase 2: The next step is to pay off the debt we owe to foreign entities, which comes to $7.5 trillion.[52] One of the main reasons other nations buy our debt is to strengthen the dollar so the price of their exports remains low. Using coupon stripping to repay our debt to foreign nations at a rate of $2.5 trillion per year over a three-year period would not be inflationary.

Phase 3: Finally, we pay off the $11.3 trillion in debt we owe to investors within our country at the rate of $2.25 trillion per year over a five-year period.

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[49] "Debt to the Penny," Fiscal Data, https://fiscaldata.treasury.gov/datasets/debt-to-the-penny/
[50] Federal Reserve Statistical Release, https://www.federalreserve.gov/releases/h41/current/h41.pdf.
[51] "The Federal Government Has Borrowed Trillions but Who Owns All That Debt?" Peter G. Peterson Foundation, August 31, 2022, https://www.pgpf.org.
[52] Treasury International Capital (TIC) System, https://ticdata.treasury.gov/Publish/mfh.txt

Under the Financial Freedom Act, in just eight years, our nation could be debt-free, deficit-free, and income tax-free. Our economy would grow and our standard of living rise.

APPENDIX I
OUR NATION'S WORKFORCE

THERE ARE about 158 million people in the U.S. workforce (https://www.statista.com/statistics/269959/employment-in-the-united-states/)

12 million in manufacturing (https://www.nam.org/state-manufacturing-data/2019-united-states-manufacturing-facts/)

15 million in transportation (https://data.bts.gov/stories/s/Transportation-Economic-Trends-Transportation-Empl/caxh-t8jd/)

9.8 million in retail (https://www.census.gov/library/stories/2020/09/profile-of-the-retail-workforce.html)

17 million in real estate, of which 10 million are in construction, 4 million manage and sell commercial real estate, and 3 million sell residential real estate (https://www.nar.realtor/research-and-statistics/quick-real-estate-statistics) (https://www.ibisworld.com/industry-statistics/employment/commercial-real-estate-united-states/) (https://www.ibisworld.com/industry-statistics/employment/construction-united-states/)

15 million in hospitality (https://www.statista.com/statistics/978503/hospitality-industry-employees-us/)

22.8 million in agriculture
(https://blog.aghires.com/millions-people-are-employed-in-agriculture/)

22 million in healthcare
(https://www.census.gov/library/stories/2021/04/who-are-our-health-care-workers.html)

18.3 million in federal, state, and local government
(https://www.statista.com/statistics/204535/number-of-governmental-employees-in-the-us/)

10 million in education, of which 7 million work in K-12, and 3 million work for colleges
(https://www.ibisworld.com/industry-statistics/employment/public-schools-united-states/)
(https://www.ibisworld.com/industry-statistics/employment/colleges-universities-united-states/)

7.7 million work in banking and insurance, of which 115,000 are investment bankers
(https://www.ibisworld.com/industry-statistics/employment/finance-insurance-united-states/)

12.2 million in the tech industry
(https://www.zippia.com/advice/tech-industry-statistics/)

5 million in arts and entertainment
(https://www.ibisworld.com/industry-statistics/employment/arts-entertainment-recreation-united-states/)

APPENDIX II
FREQUENTLY ASKED QUESTIONS

1) Won't people try to circumvent a payment tax? This question reflects our natural aversion to any tax. A payment tax would be much smaller than other taxes we currently accept as part of our daily lives. A payment tax would be difficult to dodge as it would not rely on the filing of returns or the compliance of employers or retailers. Instead, it would be part of the payment system itself, and thus the taxpayer would have no role in the process.

2) Can't people avoid a payment tax by using cash? This same problem exists with sales and income taxes today, except there's a greater incentive to avoid sales and income taxes as they are levied at higher rates. The truth is, cash transactions don't need to be taxed for a payment tax to work. There's not enough cash in the world to make a dent in the volume of payments.

3) Won't a payment tax reduce the volume of payments in the economy? This is the usual question about all taxes, but rarely proves to be true. Some have suggested that income taxes de-incentivize people from earning income, yet the evidence is that they actually force people to earn more in order to net the amount they need. Because of the economic stimulus that reduced taxation creates, it could be argued that a payment tax would lead to a higher volume of payments in the economy. Under a payment tax, the American economy would boom, which would attract new capital from foreign investors, further increasing the volume of payments.

4) Where does the extra revenue come from that a payment tax generates? A payment tax is a progressive tax in that it taxes those who own the most financial assets. The trading of financial assets in

the monetary economy represents the majority of the payments in the economy, eclipsing payments related to wages or the purchase of goods or services. Thus, it would be wealthy individuals and institutions, such as hedge funds, that would shoulder most of the burden of a payment tax.

5) Who wins and who loses with a payment tax? I have had many discussions with those who manage financial assets, and the vast majority are supportive of a payment tax, as they, too, would be better off under the solutions in this book than they are under our current system. In other words, just as lower, middle and higher income-earners will do better, as shown in the tables in chapter 5, the ultra-wealthy will do better, too. The reason is quite simple: the value of financial assets is tied to the real world, so if the material economy grows, the monetary economy will grow even more. Thus, the gain in the value of financial assets will be greater than the cost of a payment tax to the owners of those assets.

6) Who will be against a payment tax? Certainly, some will resist the solutions in this book simply because they are a change to the status quo. But there will also be those whose livelihoods are impacted. Those in the tax preparation industry would have to shift focus, for example, and the IRS is likely to shrink, as a payment tax would require fewer people to enforce than income taxes do. Likewise, those earning their income off of tax shelters will have to find other work.

7) What does it mean that a payment tax "deletes" money? Deleting digital money as it flows through our payment system is much like shredding a dollar bill. If a service provider debits $100 from someone's account, for example, and credits $90 to a recipient's account, but does not credit the remaining $10 to anyone's account,

then the $10 has essentially been deleted, since it is no longer in the money supply.

8) Will a payment tax work with block chain? Yes, because of the automated nature of block chain, a payment tax would simply be an automated feature in block chain's settlement software.

9) How is a payment tax different from a VAT or a sales tax? A payment tax applies to any payment made in the economy, whereas a VAT only applies to each payment made in the supply chain, including the final retail sales. As shown in chapter 3, the total payments in the monetary economy exceed retail sales by over 350-fold. Whereas a VAT or sales tax is 5-10%, a payment tax would be only a quarter of a percent, 0.25%.

10) With the rate for a payment tax being just a quarter of a point, won't Congress be tempted to raise taxes? Yes, we should not elect candidates who will vote to raise taxes further. At a quarter of a point, a payment tax will fund sufficient programs to significantly improve our standard of living. That will stimulate economic activity, which will increase the volume of payments, producing even more revenue at a quarter point tax rate.

11) Are the solutions in this book, especially basic income, communism? Communism is premised on the notion that it is the worker who creates the value in the products that are produced, so if a company makes a profit after having paid its workers, the worker has been shortchanged for the value they created. Communism was conceived of before automation as a response to the abject poverty that the majority of workers suffered from in the nineteenth century. It was fueled by the huge gap between the rich and the poor, and it rejected

the notion that profiting from capital investments could ever be good for society.

The issues that communism sought to address were real, and these issues still exist as shown in this book, though not to the extent that they did in the nineteenth century. The fact that we have a middle class today shows that workers are better paid. Yet there are many who work hard and still live in poverty. The solutions in this book address these problems in a way that fuels economic growth instead of destroying the engine of our wealth, as communism does.

12) Will employers pay lower wages if we introduce basic income? The wages that employers pay are based on the free market, which is a balance between how much they have to pay in order to attract workers, and how much they can afford to pay based on the revenue they are making. If the economy booms because of basic income, as it should, then competition for workers will serve to drive up wages.

13) Will people stop working if they receive basic income? Some people might stop working when they receive basic income, but others will begin working as they would no longer risk losing social welfare benefits. Our existing public assistance system would be replaced with basic income and earned income credits. Offering earned income credits in conjunction with basic income will incentivize even more people to work.

14) Will basic income help keep families together? Too often, the rules for our welfare system provide an incentive to drive couples apart, so basic income may help keep families together.

15) Will basic income cause a population explosion? One could actually argue the opposite. The structuring of our welfare system has often incentivized having children. If basic income is extended equally to everyone regardless of the number of children one has, then it will probably discourage population growth.

16) Will people misreport their income in order to receive earned income credits? Fraud is always a challenge with any program involving the distribution or collection of money. There are ways to safeguard against fraudulent reporting, though, such as having employers report into a central database with penalties for abuse.

17) Will dead people receive basic income? Not legally.

18) Won't free healthcare drive the cost of medical care up? If healthcare benefits are administered the wrong way, it can drive the cost of healthcare up. But done right, healthcare credits can also be used to incentivize efficiency and to reduce costs. Healthcare is complex and the US uses a variety of healthcare approaches, but with some basic principles like consumer choice and a fixed amount of money for each provider to work with, our healthcare system can become a customer-driven meritocracy.

19) Will free college drive up the cost of education? The way that free college has been proposed in the past, it would drive the cost of college up. Today, student grants and student loans serve to increase the cost of college. That is why the education credits proposed in this book would be required to fully cover the cost of an educational program, not to help pay for a higher cost program, which would cause tuitions to continue to rise.

20) Won't the price of homes go up with interest-free mortgages? They would if we do not modify the lending parameters used to qualify borrowers. Whereas today one can spend up to 33% of their income on a mortgage payment, this ratio would have to be reduced to 17% under Banking 2.0; otherwise, home prices would double. One of the reasons that home prices have increased over the last few decades is that the qualifying ratio for mortgages was kept the same even when interest rates dropped.

21) Isn't the Fed malevolent? Won't it refuse to go along with Banking 2.0? The Fed is not the mysterious empire owned by clandestine forces that some imagine. It is owned by its member banks. The Federal Reserve exists by an act of Congress, so it is Congress that can vote in Banking 2.0 if they want. Those employees at the Fed that I have talked with like the idea of Banking 2.0. Many Fed employees would earn more money elsewhere in the banking system but choose to work at the Fed because they want to make a difference.

22) Won't Banking 2.0 put banks out of business? On the contrary, Banking 2.0 will open the door to more service agents focused on specific banking activities. Community Enterprise Funds, as described in chapter 4, are just one example of a way to extend traditional banking activities. Today's banks would be able to engage in a broader range of activities than they do today under Banking 2.0.

23) Won't banks just charge higher service fees to make up for the lack of interest? The fees that banks charge are highly regulated and would continue to be so under Banking 2.0.

24) Aren't Treasury bonds a necessary benchmark? Should we really pay off all the debt? It is certainly not necessary that we pay off all the national debt, but it would not be a problem if we do. I have

written covenants indexed to Treasuries, and there is always a designated provision in case Treasuries are no longer available. The market is so diverse today that alternative indexes are abundant. But we could keep a little national debt in the market if we chose to.

25) Won't other countries do this too? For a variety of reasons, the US is in the best position to pay off its debt using Coupon Stripping. But we have no vested interest in hoping that other countries do not follow our lead.

26) Will paying off the national debt be inflationary? If the money for paying off the debt were distributed in the form of personal spending money for citizens, it might be inflationary. But money to pay off the debt would be flowing into the monetary economy. Thus, it may cause the price of financial assets to increase, but it won't cause the price of consumer products to go up.

27) What will people do if they can't invest in treasury bonds? Treasury bonds are held primarily as a liquid asset. The interest rate on Treasury bonds is minimal. Under Banking 2.0, deposits held by the Federal Reserve could serve this same purpose.

28) Won't the government go right back into debt? A payment tax as set forth in this book is designed to keep the government from ever having to go into debt again. If Congress authorizes spending that exceeds the amount of money deleted by a payment tax, the generation of funds for government spending by the Fed would increase the money supply but would not require the government to have to sell new Treasury bonds.

29) With all the additional money that people would have at their disposal under this plan, won't that be inflationary? Inflation

is a risk whenever people have additional money to spend, but if the production capacity of the material economy, which includes the production capacity of foreign companies, is sufficient to support the additional spending, there will be little inflation. They key to minimizing inflation is to finance a diverse and robust supply chain.

30) What should we do with our new budget surplus? We could choose to use it to 1) build up supplies for natural disasters, 2) make improvements to our infrastructure, 3) fund desalinization projects to provide fresh water for recharging our nation's aquifers, 4) fund improvements to our manufacturing capacity, 5) fund improvements to our environment, and 6) develop new space technologies. With a payment tax we should have an annual surplus for years to come, so we should fund projects that strengthen our nation's wellbeing.

31) How would the federal government distribute revenue from a payment tax to states? The federal government already provides a third of the revenue that states use for their own spending, so this is not a new problem. One approach would be to divide the money on a per capita basis and let each state charge taxes if they want more than their share of the revenue from a payment tax.

32) Why hasn't any of this been proposed before? The total volume of payments in our nation was not fully known until recently. The Fed began building the means to track the volume of payments recently as part of a program with the Bank for International Settlements to assess and build a more efficient global financial settlement system. Most of the people in the Fed are still unaware of the data, since it is a small group within the Fed that collects the information. I have yet to meet a single politician who was aware of the volume of payments in our economy before talking to me.