# Chapter 2: Money, Credit, and Debt

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In order to understand why empires and their economies rise and fall and what is happening to the world order right now, **you need to understand how money, credit, and debt work**.  Understanding how they work is critically important because **that which has historically been, and still is, what people are most inclined to fight for is wealth—and the biggest single influence on how wealth rises and declines is money and credit.  So, if you don’t understand how money and credit work, you can’t understand how economies work, and if you can’t understand how economies work, you can’t understand the most important influence on economic conditions, which is the biggest driver of politics and how the whole economic-political system works.**

For example, if you don’t understand how the Roaring ’20s led to a debt bubble and a big wealth gap, and how the bursting of that debt bubble led to the 1930-33 depression, and how the depression and wealth gap led to conflicts over wealth all around the world, you can’t understand the forces that led to Franklin D. Roosevelt being elected president. You also wouldn’t understand why, soon after his inauguration in 1933, he announced a new plan in which the central government and the Federal Reserve would together provide a lot of money and credit, a change that was similar to things happening in other countries at the same time and similar to what is happening now. Without understanding money and credit, you wouldn’t understand why these things changed the world order nor would you understand what happened next (i.e., the war, how it was won and lost, and why the new world order was created as it was in 1945), and you won’t be able to understand what is happening now or imagine the future.  However, by seeing many of these cases and understanding the mechanics behind them, you will be able to better understand the past, the present, and what is likely to happen in the future.  I did this study because I personally needed what it would teach me and am passing it along to you in the hope that it will help you and the world understand the economic pandemic that is now transpiring.

In doing this study of history as it relates to the present and future, I spoke with several of the most knowledgeable historians and political practitioners.  In those discussions, it was clear to both them and me that we each had different pieces of the puzzle that made the picture clearer when we put them together. They lacked adequate practical understanding of how money and credit work, and I lacked adequate practical understanding of how politics and geopolitics work.  Several told me that this has been the biggest missing piece in their quest to understand the lessons of history.  It is understandably difficult for those who are experts in history and politics to simultaneously be experts in money, credit, economics, and markets, and for those who are experts in money, credit, economics, and markets to simultaneously be experts in history and politics.  That is why, in doing this study, I needed to learn from, and triangulate with, the best experts in history and politics and why they wanted to do the same with me about money, credit, economics, and markets. Through this triangulation, we came away with a richer understanding of how the whole machine works that I’m sharing in this book.

Let’s start with the timeless and universal fundamentals of money and credit.

**The Timeless and Universal Fundamentals of Money and Credit**

**All entities—countries, companies, nonprofit organizations, and people—deal with the same basic financial realities, and always have.  They have money that comes in (i.e., revenue) and money that goes out (i.e., expenses) which, when netted, makes up their net income.**These flows are measured in numbers that can be shown in their income statements. **If one brings in more than one spends, one has a profit that causes one’s savings to go up.  If one’s spending is more than one’s earnings, one’s savings goes down or one has to make up the difference by borrowing it or taking it from someone else.**  The assets and liabilities (i.e., debts) that one has can be shown in one’s balance sheet.  Whether one writes these numbers out or not, every country, company, nonprofit organization, and person has them.

**If one entity has a large net worth (i.e., many more assets than liabilities), it can spend above its income until the money runs out, at which point it has to slash its expenses, and if it has significant liabilities/debts and not enough income to pay for both expenses and debt payments, it will default on its debts.  Since one person’s debts are another’s assets, that defaulting on debts reduces other entities’ assets, which requires them to cut their spending, and a self-reinforcing downward debt and economic contraction ensues.**  It is important to understand how that machine works.

To understand what is happening financially with individuals, companies, nonprofit organizations, governments, and whole economies, it is important to watch how their income statements and balance sheets are doing and to imagine what will likely happen.  Think about how this is happening for you and your own financial situation.  How much income do you have relative to your expenses, how much savings do you have, and what’s that savings in?  If your income fell or disappeared, how long would your savings last?  How much risk do you have in the value of that savings? These are the most important calculations you can make to assure your economic well-being.  Now look at others—other people, businesses, nonprofit organizations, and governments—realizing that the same is true for them and seeing how we are interconnected.

**This money and credit system works for all people, companies, nonprofit organizations, and governments in the same way it works for you and me, with one big, important exception. All countries can print money to give to people to spend or to lend it out.  However, not all money that governments print is of equal value.**

**Those monies (i.e., currencies) that are widely accepted around the world are called reserve currencies.**  At this time the world’s dominant reserve currency is the US dollar, which is created by the US central bank, which is the Federal Reserve; it accounts for about 55% of all international transactions.  A much less important currency is the euro, which is produced by the Eurozone countries’ central bank, the European Central Bank; it accounts for about 25% of all international transactions. The Japanese yen, the Chinese Renminbi, and the British pound all are relatively small reserve currencies now, though the Renminbi is growing quickly in importance.

**Countries that have reserve currencies find it easier to get away with borrowing a lot**(i.e., creating credit and debt) and creating a lot of money because others around the world are inclined to hold that debt and money because it can be used for spending around the world. For that reason countries that produce reserve currencies can produce a lot of money and Credit/Debt that is denominated in them, especially when there is a shortage of them such as now.  **In contrast countries that don’t have reserve currencies don’t have that option.**They are especially prone to finding themselves in need of these reserve currencies (e.g., dollars) when a) they have a lot of debt that is owed in the reserve currencies that they can’t print (e.g., dollars), b) they don’t have much savings in those reserve currencies, and c) their ability to earn the currencies they need falls off. **When countries that don’t have reserve currencies desperately need reserve currencies to pay their debts that are denominated in reserve currencies and to buy things from sellers who want them to pay in reserve currencies, their inability to get enough reserve currencies to meet those needs can bankrupt them.**That is where things now stand for a number of countries.

It is also where things stand for local governments and states and for the rest of us.  For example a number of states, local governments, companies, nonprofit organizations, and people have suffered income losses and don’t have much savings relative to their losses. They will have to cut their expenses or get money and credit some other way.

At the time of this writing the income levels of a number of people, companies, nonprofit organizations, and governments have plunged to be below their expense levels by amounts that are large in relation to their net worths so they will be forced either to slash their expenses, which is painful to do now, or they risk running out of their savings and having to default on their debts.  Governments that have the power to do so are printing money to help ease the debt burdens and help finance the expenses that are denominated in their own currencies, which will weaken their own currencies and raise their levels of monetary inflation to offset the deflation that is coming from reduced demand and forced asset sales that are happening as those that are stretched have to raise cash. This configuration of circumstances has happened throughout history and has been handled in the same way so it’s easy to see how this machine works.  That is what I want to make sure that I convey in this chapter.

Let’s start with the real basics and build from there.

**What is money?**

**Money is a medium of exchange that can also be used as a store hold of wealth.**

By medium of exchange, I mean that it can be given to someone to buy things. Basically people produce things in order to exchange them with people who have other things that they want. Because carrying around non-money objects in the hope of exchanging them for what one wants (i.e., barter) is inefficient, virtually every society that has ever existed has invented money (also known as currency) to be something portable that everyone agrees is of value so it can be exchanged for what we want.

By a store hold of wealth, I mean a vehicle for storing buying power between acquiring it and spending it.  While people can store their wealth in assets that they expect will retain their value or appreciate (such as gold, gems, paintings, real estate, stocks, and bonds), one of the most logical things to store it in has been the money that one will use later. But they actually don’t hold the currency because they believe that they can hold something a bit better and always exchange the thing they’re holding to get the currency to buy the things they want to buy.  That is where credit and debt come into the picture.

When lenders lend, they assume that the money they will receive back will buy more goods and services than if they just held onto the money.  If done well, the borrowers used the money productively and earned a profit so that they can pay the lenders back and keep some extra money. When the loan is outstanding it is an asset for the lender (e.g., a bond) and a liability (debt) for the borrower. When the money is paid back, the assets and liabilities disappear, and the exchange is good for both the borrowers and lenders. They essentially split the profits that come from doing this productive lending.  It is also good for the whole society, which benefits from the productivity gains that result from this.[[1]](http://applewebdata/3DA64C7F-EC01-438E-8B73-C1797A9C9BDD#_ftn1)

So, it’s important to realize that **1) most money and credit (especially the fiat money that now exists) has no intrinsic value, 2) it is just journal entries in an accounting system that can easily be changed, 3) the purpose of that system is to help to allocate resources efficiently so that productivity can grow, rewarding both lenders and borrowers, and 4) that system periodically breaks down.  As a result, since the beginning of time, all currencies have either been destroyed or devalued.**When currencies are destroyed or devalued that shifts wealth in a big way that sends big reverberations through the economy and markets.

More specifically, rather than working perfectly the money and credit system swings the supplies, demands, and values of money in cycles that in the upswings produce joyful abundance and in the downswings produce painful restructurings.  Let’s now get into how these cycles work building from the fundamentals up to where we now are.

**The Fundamentals**

**While money and credit are associated with wealth, they aren’t wealth.**Because money and credit can buy wealth (i.e., goods and services) the amount of money and credit one has and the amount of wealth one has look pretty much the same.  **But one cannot create more wealth simply by creating more money and credit. To create more wealth, one has to be more productive**. The relationship between the creation of money and credit and the creation of wealth (actual goods and services) is often confused yet it is the biggest driver of economic cycles, so let’s look at this relationship more closely.

There is typically a positive correlation between a) the creation of money and credit and b) the amount of goods, services, and investment assets that are produced so it’s easy to get them confused.  They go together and can be confused as being the same thing because when people have more money and credit they can, and they want to, spend more.  Give people more money and credit and they’ll feel richer and spend more on goods and services.  To the extent that spending increases economic production and raises the prices of goods, services, and financial assets, it can be said to increase wealth, because the people who own those assets become “richer” when measured by the way we account for wealth.  However, that increase in wealth is more an illusion than a reality for two reasons: 1) the increased credit that pushes prices and production up has to be paid back, which, all things being equal, will have the opposite effect when it has to be paid back and 2) the intrinsic value of things doesn’t increase just because their prices go up. Think of it this way: if you own a house and the government creates a lot of money and credit the price of your house will go up but it’s still the same house; your actual wealth hasn’t increased, just your calculated wealth has increased.  Similarly, if the government creates a lot of money and credit that is used to buy goods, services, and investment assets (e.g., stocks, bonds, and real estate) which go up in price, the amount of calculated wealth goes up but the amount of actual wealth hasn’t gone up because you own the exact same thing as you did before it was considered worth more.  In other words, using market values of what one owns to measure one’s wealth gives an illusion of changes in wealth that doesn’t really exist. The big thing is that **money and credit is stimulative when it’s given out and depressing when it has to be paid back. That’s what makes money, credit, and economic growth so cyclical.**

**The people who control money and credit (i.e., central banks) vary the costs and availability of money and credit to control markets and the economy as a whole.** When the economy is growing too quickly and they want to slow it down, they make less money and credit available, causing both to become more expensive. This encourages people to lend rather than to borrow and spend. When there is too little growth and central bankers want to stimulate the economy, they make money and credit cheap and plentiful, which encourages people to borrow and invest and/or spend. These variations in the cost and availability of money and credit also cause the prices and quantities of goods, services, and investment assets to rise and fall.  But banks can only control the economy within their capacities to produce money and credit growth, and their capacities to do that are limited.

**Think of the central bank as having a bottle of stimulant that they can inject into the economy as needed with the amount of stimulant in the bottle being limited. When the markets and the economy sag they give them shots of the money and credit stimulant to pick them up, and when they’re too hot they give them less stimulant. These moves lead to cyclical rises and declines in the amounts and prices of money and credit, and goods, services, and financial assets. These moves typically come in the form of short-term debt cycles and long-term debt cycles.**The short-term cycles of ups and downs typically last about eight years, give or take a few.  The timing is determined by the amount of time it takes the stimulant to raise demand to the point that it reaches the limits of the real economy’s capacity to produce.  Most people have seen enough of these short-term debt cycles to know what they are like—so much so that they mistakenly think that they will go on working this way forever. They’re most popularly called “the business cycle,” though I call them “the short-term debt cycle” to distinguish them from “the long-term debt cycle.”  **Over long periods of time these short-term debt cycles add up to long-term debt cycles that typically last about 50 to 75 years.**[**[2]**](http://applewebdata/3DA64C7F-EC01-438E-8B73-C1797A9C9BDD#_ftn2)Because they come along about once in a lifetime most people aren’t aware of them; as a result they typically take people by surprise, which hurts a lot of people. **The last big long-term debt cycle, which is the one that we are now in, was designed in 1944 in Bretton Woods, New Hampshire, and was put in place in 1945 when World War II ended and we began the dollar/US-dominated world order.**

These long-term debt cycles start when debts are low after previously existing excess debts have been restructured in a way so that central banks have a lot of stimulant in the bottle, and they end when debts are high and central banks don’t have much stimulant left in the bottle.  More specifically, **the ability of central banks to be stimulative ends when the central bank loses its ability to produce money and credit growth that pass through the economic system to produce real economic growth. That lost ability of central bankers typically takes place when debt levels are high, interest rates can’t be adequately lowered, and the creation of money and credit increases financial asset prices more than it increases actual economic activity.  At such times those who are holding the debt (which is someone else’s promise to give them currency) typically want to exchange the currency debt they are holding for other store holds of wealth.  When it is widely perceived that the money and the debt assets that are promises to receive money are not good store holds of wealth, the long-term debt cycle is at its end, and a restructuring of the monetary system has to occur.**  In other words **the long-term debt cycle runs from 1) low debt and debt burdens (which gives those who control money and credit growth plenty of capacity to create debt and with it to create buying power for borrowers and a high likelihood that the lender who is holding debt assets will get repaid with good real returns) to 2) high debt and debt burdens with little capacity to create buying power for borrowers and a low likelihood that the lender will be repaid with good returns.  At the end of the long-term debt cycle there is essentially no more stimulant in the bottle (i.e., no more ability of central bankers to extend the debt cycle) so there needs to be a debt restructuring or debt devaluation to reduce the debt burdens and start this cycle over again.**

Since these cycles are big deals and have happened virtually everywhere for as long as there has been recorded history, we need to understand them and have timeless and universal principles for dealing with them well.However, these long-term debt cycles take about a lifetime to transpire, unlike the short-term debt cycles that we all experience a number of times in our lifetimes so most people understand better.  When it comes to the long-term debt cycle most people, including most economists, don’t recognize or acknowledge its existence because, to see a number of them in order to understand the mechanics of how they work, one has to look at them operating in a number of countries over many hundreds of years in order to get a good sample size.  In Part 2 of this study we will look at all of the most important cycles with reference to the timeless and universal mechanics of why money and credit have worked and failed to work as mediums of exchange and store holds of wealth. In this chapter, we will look at how they archetypically work.

I will start with the basics of the long-term debt cycle from way back when and bring you up to the present, giving you a classic template.  To repeat, while I’m saying that this is a classic template I’m not saying that all cases transpire exactly like this, though I am saying that almost all follow this pattern closely.

**The Long-Term Debt Cycle**

Let’s start with the basics.

**1. It Begins with No or Low Debt and "Hard Money"**

**When societies first invented money they used all sorts of things, like grain and beads. But mostly they used things that had intrinsic value, like gold, silver, and copper. Let’s call that “hard money.”**

Gold and silver (and sometimes copper and other metals like nickel) were the preferred forms of money because 1) they had intrinsic value and 2) they could easily be shaped and sized to be to portable so they could easily be exchanged. Having intrinsic value (i.e., being useful in and of themselves) was important because no trust—or credit—was required to carry out an exchange with them. Any transaction could be settled on the spot, even if the buyer and seller were strangers or enemies. There is an old saying that “gold is the only financial asset that isn’t someone else’s liability.” That is because it has widely accepted intrinsic value, unlike debt assets or other assets that require an enforceable contract or a law to ensure the other side will deliver on its promise to deliver whatever it promised to deliver (which when it’s just “paper” currency that can easily be printed isn’t much of a promise).  On the other hand, if during such a period of lack of trust and enforceability one receives gold coins from a buyer, that doesn’t have a credit component to it—i.e., you could melt them down and still receive almost the same amount of value because of its intrinsic value—so the transaction can happen without the same sort of risks and lingering promises that need to be kept. When countries were at war and there was not trust in the intentions or abilities to pay, they could still pay in gold. So gold (and to a lesser extent silver) could be used as both a safe medium of exchange and a safe store hold of wealth.

**2. Then Come Claims on “Hard Money” (aka, “Notes” or “Paper Money”)**

Because carrying a lot of metal money around was risky and inconvenient, **credible parties (which came to be known as banks, though they initially included all sorts of institutions that people trusted, such as temples in China) arose that would put the money in a safe place and issue paper claims on it. Soon people treated these paper “claims on money” as if they were money themselves.**After all, they were as good as money because they could be redeemed for tangible money.  This type of currency system is called a linked currency system because the value of the currency is linked to the value of something, typically a “hard money” such as gold.

**3. Then Comes Increased Debt**

At first there is the same number of claims on the “hard money” as there is hard money in the bank. However, the holders of the paper claims and the banks discover the wonders of credit and debt. They can lend these paper claims to the bank in exchange for an interest payment so they get interest.  The banks that borrow it from them like it because they lend the money to others who pay a higher interest rate so the banks make a profit. And those who borrow the money from the bank like it because it gives them buying power that they didn’t have.  And the whole society likes it because it leads asset prices and production to rise. Since everyone is happy with how things are going they do a lot of it.  More lending and borrowing happens over and over again many times, there is a boom, and the quantity of the claims on the money (i.e., debt assets) rises relative to the amount of actual goods and services there are to buy.  Trouble approaches when either there isn’t enough income to survive one’s debts or the amount of the claims (i.e., debt assets) that people are holding in the expectation that they can sell them to get money to buy goods and services increases faster than the amount of goods and services by an amount that makes the conversion from that debt asset (e.g., that bond) implausible.  These two problems tend to come together.

Concerning the first of these problems, think of debt as negative earnings and a negative asset that eats up earnings (because earnings have to go to pay it) and eats up other assets (because other assets have to be sold to get the money to pay the debt). It is senior—meaning it gets paid before any other type of asset—so when incomes and the values of one’s assets fall, there is a need to cut expenditures and sell off assets to raise the needed cash.  When that’s not enough, there needs to be a) debt restructurings where debts and debt burdens are reduced, which is problematic for both the debtor and the creditor because one person’s debts are another’s assets and/or b) the central bank printing money and the central government handing out money and credit to fill in the holes in incomes and balance sheets (which is what is happening now).

Concerning the second of these problems, it occurs when holders of debt don’t believe that they are going to get adequate returns from it.  Debt assets (e.g., bonds) are held by investors who believe that they are store holds of wealth that can be sold to get money, which can be used to buy things.  When the holders of debt assets try to make the conversion to real money and real goods and services and find out that they can’t, this problem surfaces.  Then a “run” occurs, by which I mean that lots of holders of that debt want to make that conversion to money, goods, services, and other financial assets.  The bank, regardless of whether it is a private bank or a central bank, is then faced with the choice to allow that flow of money out of the debt asset, which will raise interest rates and cause the debt and economic problems to worsen, or to “print money” and buy enough of those bonds that others are selling to prevent interest rates from rising and hopefully reverse the run out of them. Sometimes their doing that buying works temporarily, but if the ratio of a) claims on money (debt assets) to b) the amount of money there is and the quantity of goods and services there is to buy is too high, the bank is in a bind that it can’t get out of because it simply doesn’t have enough money to meet the claims so it will have to default on its claims.  When that happens to a central bank it has the choice either to default or to print the money and devalue it.  They inevitably devalue.  When these debt restructurings and currency devaluations are big they lead to breakdowns and possibly destructions of the monetary system.  Whatever the bank or the central bank does, the more debt (i.e., claims on money and claims on goods and services) there is, the more the likelihood that it will be necessary to devalue the money.

Remember that there is always a limited amount of goods and services because the amount is constrained by the ability to produce. Also remember that, in our example of paper money being claims on “hard money,” there is a limited amount of that “hard money” (e.g., the gold on deposit), while the amount of paper money (e.g., the claims on that hard money) and debt (the claims on that paper money) is constantly growing.  And, as that amount of paper money claims grows relative to the amount of hard money in the bank and goods and services in the economy, the risk increases that the holders of those debt assets may not be able to redeem them for the amounts of hard money or goods and services that they expect to be able to exchange them for.

**It is important to understand the difference between money and debt. Money is what settles claims—i.e., one pays one’s bills and one is done. Debt is a promise to deliver money.  In watching how the machine is working it is important to watch a) the amounts of both debt and money that exist relative to the amount of hard money (e.g., gold) in the bank and b) the amounts of goods and services that exist, which can vary, remembering that debt cycles happen because most people love to expand their buying power (generally through debt) while central banks tend to want to expand the amount of money in existence because people are happier when they do that. But this can’t go on forever. And it is important to remember that the “leveraging up” phase of the money and debt cycle ends when bankers—whether private bankers or central bankers—create a lot more certificates (paper money and debt) than there is hard money in the bank to give and the inevitable day comes when more certificates are turned in than there is money to give.** Let’s look at how that happens.

**4. Then Come Debt Crises, Defaults, and Devaluations**

**History has shown that when the bank’s claims on money grow faster than the amount of money in the bank—whether the bank is a private bank or government-controlled (i.e., central bank) eventually the demands for the money will become greater than the money the bank can provide and the bank will default on its obligations.** That is what is called a bank run.  One can quite literally tell when a bank run is happening and a banking crisis is imminent by watching the amounts of money in banks (whether “hard” or paper) decline and approach the point of running out due to withdrawals.

A bank that can’t deliver enough hard money to meet the claims that are being made on it is in trouble whether it is a private or a central bank, though central banks have more options than private banks do. That’s because a private bank can’t simply print the money or change the laws to make it easier to pay their debts, while a central bank can.  **Private bankers must either default or get bailed out by the government when they get into trouble, while central bankers can devalue their claims (e.g., pay back 50-70%) if their debts are denominated in their national currency.  If the debt is denominated in a currency that they can’t print, then they too must ultimately default.**

**5. Then Comes Fiat Money**

Central banks want to stretch the money and credit cycle to make it last for as long as they can because that is so much better than the alternative, so, when “hard money” and “claims on hard money” become too painfully constrictive, governments typically abandon them in favor of what is called “fiat” money. No hard money is involved in fiat systems; there is just “paper money” that the central bank can “print” without restriction. As a result, there is no risk that the central bank will have its stash of “hard money” drawn down and have to default on its promises to deliver it. Rather the risk is that, freed from the constraints on the supply of tangible gold or some other “hard” asset, the people who control the printing presses (i.e., the central bankers working with the commercial bankers) will create ever more money and debt assets and liabilities in relation to the amount of goods and services being produced until a time when those who are holding the enormous amount of debt will try to turn them in for goods and services which will have the same effect as a run on a bank and result in either debt defaults or the devaluation of money. That shift from a) a system in which the debt notes are convertible to a tangible asset (e.g., gold) at a fixed rate to b) a fiat monetary system in which there is no such convertibility last happened in 1971.  When that happened—on the evening of August 15, when President Nixon spoke to the nation and told the world that the dollar would no longer be tied to gold—I watched that on TV and thought, “Oh my God, the monetary system as we know it is ending,” and it was. I was clerking on the floor of the New York Stock Exchange at the time, and that Monday morning I went on the floor expecting pandemonium with stocks falling and found pandemonium with stocks rising.  Because I had never seen a devaluation before I didn’t understand how they worked.  Then I looked into history and found that on Sunday evening March 5 President Franklin Roosevelt gave essentially the same speech doing essentially the same thing which yielded essentially the same result over the following months (a devaluation, a big stock market rally, and big gains in the gold price), and I saw that that happened many times before in many countries, including essentially the same proclamations by the heads of state.

In the years leading up to 1971 the US government spent a lot of money on military and social programs then referred to as “guns and butter” policy, which it paid for by borrowing money that created debt.  The debt was a claim on money that could be turned in for gold. The investors bought this debt as assets because they got paid interest on this government debt and because the US government promised that it would allow the holders of these notes to exchange them for the gold that was held in the gold vaults in the US.  As the spending and budget deficits in the US grew the US had to issue much more debt—i.e., create many more claims on gold—even though the amount of gold in the bank didn’t go up.  Naturally more investors turned in their promises to get the gold for the claims on the gold.  People who were astute enough to pay attention could see that the US was running out of gold and the amount of outstanding claims on gold was much larger than the amount of gold in the bank, so they realized that if this continued the US would default.  Of course the idea that the United States government, the richest and most powerful government in the world, would default on its promise to give those who had claims on gold the gold it promised to give them seemed implausible at the time.  So, while most people were surprised at the announcement and the effects on the markets, those who understood the mechanics of how money and credit work were not.

**When credit cycles reach their limit it is both the logical and the classic response for central governments and their central banks to create a lot of debt and print money that will be spent on goods, services, and investment assets to keep the economy moving**. That is what was done during the 2008 debt crisis, when interest rates could no longer be lowered because they had already hit 0%.  As explained that was also done in response to the 1929-32 debt crisis, when interest rates had been driven to 0%.  This creating of the debt and money is now happening in amounts that are greater than at any time since World War II.

To be clear, central banks’ “printing money” and giving it out for spending rather than supporting spending with debt growth is not without its benefits—e.g., money spends like credit, but in practice (rather than in theory) it doesn’t have to be paid back. In other words, there is nothing wrong with having an increase in money growth instead of an increase in Credit/Debt growth, provided that the money is put to productive use.  The main risks of printing money rather than facilitating credit growth are a) market participants will fail to carefully analyze whether the money is being put to productive use and b) it eliminates the need to have the money paid back. Both increase the chances that money will printed too aggressively and not used productively so people will stop using it as a store hold of wealth and will shift their wealth into other things. Throughout history, when the outstanding claims on hard money (debt and money certificates) are far greater than there is hard money and goods and services, a lot of defaults or a lot of printing of money and devaluing have always happened.

History has shown us that **we shouldn’t rely on governments to protect us financially**. On the contrary, we should expect most governments to abuse their privileged positions as the creators and users of money and credit for the same reasons that you might do these abuses if you were in their shoes.  That is because no one policy maker owns the whole cycle. Each one comes in at one or another part of it and does what is in their interest to do at that time given their circumstances at the time.

Because early in the debt cycle governments are considered trustworthy and they need and want money as much or more than anyone else, they are typically the biggest borrowers. Later in the cycle, when successive leaders come in to run the more indebted governments the new government leaders and the new central bankers have to face the greater challenge of paying back debts when they have less stimulant in the bottle. To make matters worse, governments also have to bail out debtors whose failures would hurt the system.  As a result, they tend to get themselves into big cash flow jams that are much larger than those of individuals, companies, and most other entities.

In other words, in virtually all cases the government contributes to the accumulation of debt in its actions and by becoming a large debtor and, when the debt bubble bursts, bails itself and others out by printing money and devaluing it. The larger the debt crisis, the more that is true.  While undesirable, it is understandable why this happens. **When you can manufacture money and credit and pass it out to everyone to make them happy, it is very hard to resist the temptation to do so**.[[3]](http://applewebdata/3C0EB539-EB64-4721-A080-D2164CCDF8AC#_ftn1)It is a classic financial move. **Throughout history, rulers have run up debts that won’t come due until long after their reign is over, leaving it to their successors to pick up the pieces.**

How do governments react when they have debt problems?  They do what any practical heavily indebted entity with promises to give money that they can print would do.  Without exception, they print money and devalue it if the debt is in their own currency.  When central banks print money and buy up debt that puts money into the financial system and bids up the prices of financial assets (which also widens the wealth gap because it helps those with the financial assets that are bid up relative to those who don’t have financial assets). It also puts a lot of debt in the hands of the central bank, which allows the central bank to handle the debts however they see fit.  Also their printing of the money and buying the financial assets (mostly bonds) holds interest rates down, which stimulates borrowing and buying and encourages those holding these bonds to sell them and encourages the borrowing of money at low interest rates to invest it in higher-returning assets, which leads to central banks printing more money and buying more bonds and sometimes other financial assets. That typically does a good job of pushing up financial asset prices but is relatively inefficient in getting money and credit and buying power into the hands of those who need it most.  That is what happened in 2008 and has happened for most of the time since until just recently.  Then, when the printing of money and the central bank buying up of financial assets fails to get money and credit to where it needs to go, the central government—which can decide what to spend money on—borrows money from the central bank (which prints it) so it can spend it on what it needs to be spent on.  In the US the Fed announced this plan on April 9, 2020.  This approach of printing money to buy debt (called debt monetization) is vastly more politically palatable as a way of getting money and shifting wealth from those who have it to those who need it than imposing taxes, which leads taxed people to get angry.   That is why **in the end central banks always print money and devalue.**

**When governments print a lot of money and buy a lot of debt so the amounts of both money and debt increase, they cheapen money and debt, which essentially taxes those who own it to make it easier for debtors and borrowers.  When this happens enough that the holders of this money and debt assets realize what is happening, they seek to sell their debt assets and/or borrow money to get into debt that they can pay back with cheap money. They also often move their wealth to other store holds of wealth like gold, certain types of stocks, and/or somewhere else (like another country that is not having these problems).  At such times central banks have typically continued to print money and buy debt directly or indirectly (e.g., by having banks do the buying for them) and outlawed the flow of money into inflation-hedge assets and alternative currencies and alternative places.**

Such periods of reflation either stimulate another money and credit expansion that finances another economic expansion (which is good for stocks) or devalue money so that it produces monetary inflation (which is good for inflation-hedge assets such as gold).  Earlier in the long-term debt cycle when the amounts of outstanding debts aren’t large and when there is lots of room to stimulate by lowering interest rates (and failing that, printing money and buying financial assets), the greater the likelihood that credit growth and economic growth will be good, while later in the long-term debt cycle when the amounts of debt are large and when there isn’t much room to stimulate by lowering interest rates (or printing money and buying financial assets) the greater the likelihood that there will be a monetary inflation accompanied by economic weakness.

**6. Then Comes the Flight Back into Hard Money**

When taken too far, the over-printing of fiat currency leads to the selling of debt assets and the earlier-described bank “run” dynamic, which ultimately reduces the value of money and credit, which prompts people to flee out of both the currency and the debt (e.g., bonds).  They need to decide what alternative store hold of wealth they will use. History teaches us that they typically turn to gold, other currencies, assets in other countries not having these problems, and stocks that retain their real value.  Some people think that there needs to be an alternative reserve currency to go to, but that’s not true as the same dynamic of the breakdown of the monetary system and the running to other assets happened in cases in which there was no alternative currency to go to (e.g., in China and in the Roman Empire). The debasement of the currency leads it to devalue and have people run from it and debt in it into something else.  There is a whole litany of things people run to when money is devalued, including rocks (used for construction) in Germany’s Weimar Republic.

Typically at this stage in the debt cycle there is also economic stress caused by large wealth and values gaps, which lead to higher taxes and fighting between the rich and the poor, which also makes those with wealth want to move to hard assets and other currencies and other countries. Naturally those who are governing the countries that are suffering from this flight from their debt, their currency, and their country want to stop it. So, at such times, governments make it harder to invest in assets like gold (e.g., via outlawing gold transactions and ownership), foreign currencies (via eliminating the ability to transact in them), and foreign countries (via establishing foreign exchange controls to prevent the money from leaving the country). Eventually the debt is largely wiped out, usually by making the money to pay it back plentiful and cheap, which devalues both the money and the debt.

**When this becomes extreme so that the money and credit system breaks down and debts have been devalued and/or defaulted on, necessity generally compels governments to go back to some form of hard currency to rebuild people’s faith in the value of money as a store hold of wealth so that credit growth can resume**. Quite often, though not always, the government links its money to some hard money (e.g., gold or a hard reserve currency) with promises to allow holders of the new money to make that conversion to the hard money.  Sometimes that hard money is another country’s’.  For example, over the past decades many weak currency countries have linked their money to the US dollar or simply dollarized their economy (i.e., used the dollar as their own medium of exchange and store hold of wealth).

To review, **in the long-term debt cycle, holding debt as an asset that provides interest is typically rewarding early in the cycle when there isn’t a lot of debt outstanding, but holding debt late in the cycle when there is a lot of it outstanding and it is closer to being defaulted on or devalued is risky relative to the interest rate being given.**So, holding debt (e.g., bonds) is a bit like holding a ticking time bomb that rewards you while it’s still ticking and blows you up when it goes off. And as we’ve seen, that big blow-up (i.e., big default or big devaluation) happens something like once every 50 to 75 years.

These cycles of debt and writing off debts have existed for thousands of years and in some cases have been institutionalized.  For example, the Old Testament provided for a year of Jubilee every 50 years, in which debts were forgiven (Leviticus 25:8-13).  Knowing that the debt cycle would happen on that schedule allowed everyone act in a rational way in preparation for it. Helping you understand this dynamic so that you are prepared for it rather than are surprised by it is the main objective behind my writing this.

Because most people don’t pay attention to this cycle much in relation to what they are experiencing, ironically **the closer people are to the blow-up the safer they tend to feel.**  That is because they have held the debt and enjoyed the rewards of doing that and the longer it has been from the time since the last one blew up, the more comfortable they have become as the memories of the last blow-up fade—even as the risks of holding this debt rise and the rewards of holding it decline. By keeping an eye on the amount of debt that needs to be paid relative to the amount of hard money that there is to pay it, and the amount of debt payments that have to be made relative to the amount of cash flow the debtors have to service the debt and the interest rewards that one is getting for lending one’s money, one can assess the risk/reward of holding the time bomb.

### The Long-Term Debt Cycle in Summary

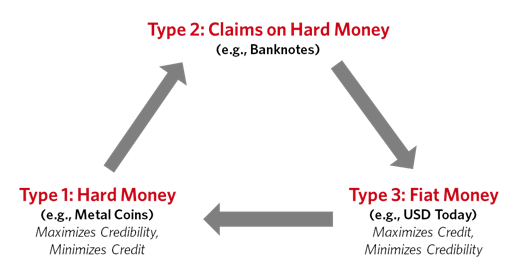
**For thousands of years there have always been three types of monetary systems:**

* **Hard Money (e.g., metal coins)**
* **“Paper Money” claims on hard money**
* **Fiat Money (e.g., the US dollar today)**

**Hard money is the most restrictive system because money can’t be created unless the supply of the metal or other intrinsically valuable commodity that is the money is increased.  Money and credit are more easily created in the second type of system, so the ratio of the claims on hard money to the actual hard money held rises, which eventually leads to a “run” on the banks. The result is a) defaults, when the bank closes its doors and the depositors lose their hard assets and/or b) devaluations of the claims money, which means that the depositors get back less.  In the third type of system, governments can create money and credit freely, which works for as long as people continue to have confidence in the currency and fails when they don’t.**

Throughout history, countries have transitioned across these different types of systems for logical reasons. As a country needs more money and credit than it currently has, whether to deal with debts, wars, or other problems, it naturally moves from Type 1 to Type 2, or Type 2 to Type 3, so that it has more flexibility to print money. Then creating too much money and debt depreciates its value, causing people to get out of holding the debt and money as a store hold of wealth, and moving back into hard assets (like gold) and other currencies. Since this typically takes place when there is wealth conflict and sometimes a war, there is typically also a desire to get out of the country.  Such countries need to re-establish confidence in the currency as a store hold of wealth before they can restore their credit markets.

 The below diagram conveys these different transitions. There are many historical examples, from the Song Dynasty to Weimar Germany, of countries making the full transition from constrained types (Type 1 and Type 2) to fiat money, then back to a constrained currency as the old fiat currency hyper inflates.



As noted earlier this big debt cycle plays out over the long term—something like 50 to 75 years—and, at its end, is characterized by a restructuring of debts and of the monetary system.  The abrupt parts of these restructurings—i.e., the debt and currency crisis periods—typically happen quickly, lasting only months to up to three years, depending on how long it takes the governments to exercise these moves.  However, the ripple effects of them can be long-lasting.  For example, these circumstances can lead to reserve currencies stopping being reserve currencies.  Within each of these currency regimes there are typically two to four big debt crises—i.e., big enough to cause banking crises and debt write-downs or devaluations of 30% or more—but not big enough to break the currency system. Because I have invested in many countries for about 50 years I have experienced dozens of them. They all run the same way, which is explained in greater depth in my book Principles for Navigating Big Debt Crises.

**Having a Reserve Currency Gives a Country Incredible Power**

**A reserve currency is a currency that is widely used around the world as a medium of exchange and a store hold of wealth.**  The more widely used and depended on, the more powerful the reserve currency and the country that has it are.  At the risk of boring you by repeating some of the things I already told you, **I will now review the US case and the circumstances that led to the US and the dollar putting the world in the position that we are now in.**

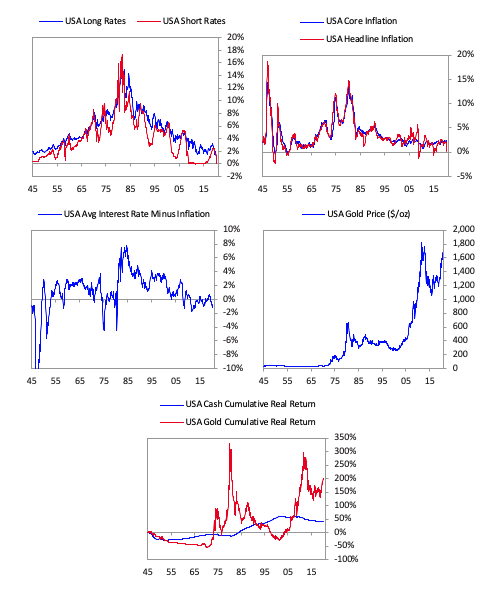
As previously explained, **the new world order began after the end of World War II in 1945, with the Bretton Woods agreement having put the dollar in the position of being the world’s leading reserve currency in 1944**.  The US and the dollar naturally fit into that role because at the end of the war, the US had around 2/3 of the world’s gold held by governments (which was the world’s money at the time), accounted for 50% of world’s economic production, and was the dominant military power.  **The new monetary system was a Type 2 (i.e., claims on hard money) monetary system, in which “paper dollar” claims on gold could be exchanged by other countries’ central banks for an ounce of gold**at a price of $35/ounce.  It was then illegal for individuals to own gold because government leaders didn’t want gold to compete with money and credit as a store hold of wealth.  So, at the time, gold was the money in the bank and the paper dollars were like checks in a checkbook that could be turned in for the real money.  At the time of the establishment of this new monetary system there was $50 of paper money in existence for each ounce of gold the US government owned, so there was nearly 100% gold backing. Other major countries that were US allies (e.g., the UK, France, and the Commonwealth countries) or under US control (Germany, Japan, and Italy) had US-controlled currencies that were linked to the dollar.  In the years that followed, to finance its activities, **the US government spent more than it took in in tax revenue so it had to borrow money, which created more dollar-denominated debt. The US Federal Reserve allowed the creation of a lot more claims on gold (i.e., dollar-denominated money and credit) than could actually be converted into gold at that $35 price.**  As the paper money was turned in for the hard money (gold), **the quantity of gold in the US bank went down at the same time as the claims on it continued to rise. As a result, the Bretton Woods monetary system broke down on August 15, 1971 when President Nixon, like President Roosevelt on March 5, 1933, defaulted on the US’s promise to allow holders of paper dollars to turn them in for gold.  Thus the dollar devalued against gold and other currencies.**  **That is when the US and all countries went to a Type 3 fiat monetary system**.  If you want to read a great description of this process of figuring out how to go from the old monetary system to the new fiat one, I recommend Changing Fortunes by Paul Volcker, who was the leading American negotiator of how the new monetary system would work.

**This move to a fiat monetary system freed the Federal Reserve and other central banks to create a lot of dollar-denominated money and credit, which led to the inflationary 1970s, which was characterized by a flight from dollars and dollar-denominated debt to goods, services, and inflation-hedge assets such as gold.** That panic out of dollar debt also led interest rates to rise and drove the gold price from the $35 that it was fixed at in 1944 and officially stayed at until 1971 to a then-peak of $670 in 1980.

With the money and credit managed this way in the 1970s it was profitable to borrow dollars and convert them into goods and services, so many entities in many countries borrowed dollars largely through US banks to do that.  As a result, dollar-denominated debt grew rapidly around the world, and US banks made a lot of money lending it to these borrowers. This lending led to the classic debt bubble part of the debt cycle. **The panic out of dollars and dollar-debt assets and into inflation-hedge assets, as well as the rapid borrowing of dollars and the getting into debt, accelerated.  That created the money and credit crisis of 1979-82, during which time the US dollar and dollar-denominated debt was at risk of ceasing to be an accepted store hold of wealth.** Of course, the average citizen didn’t understand how this money and credit dynamic worked, but they felt it in the form of high inflation and high interest rates, so it was a huge political issue.  President Carter, who like most political leaders didn’t understand the monetary mechanics very well, knew that something had to be done to stop it and appointed a strong monetary policy maker, Paul Volcker.  Just about everyone who followed such things, including me, hung on his every word.  He was strong enough to do the painful but right things needed to break the back of inflation. He became a hero of mine and eventually good personal friend because of his great character and great capabilities, and I loved his wry humor too.

**To deal with that monetary inflation crisis and break the inflation, Volcker tightened the supply of money, which drove interest rates to the highest level “since Jesus Christ,” according to German Chancellor Helmut Schmidt.**  **Debtors had to pay much more in debt service at the same time as their incomes and assets fell in value.  That squeezed the debtors and required them to sell assets.  Because of the great need for dollars, the dollar was strong. For these reasons, inflation rates fell, which allowed the Federal Reserve to lower interest rates and to ease money and credit for Americans.  Of course many debtors and holders of these assets that were falling in value went broke.  So in the 1980s these debtors, especially foreign debtors and more especially those in emerging countries, went through a decade-long depression and debt-restructuring period.** The Federal Reserve protected the American banks by providing them with the money they needed, and the American accounting system protected them from going broke by not requiring them to account for these bad debts as losses or value these debt assets at realistic prices.  This debt management and restructuring process lasted until 1991, when it was completed through the Brady Bond agreement, named after Nicholas Brady who was the US Secretary of Treasury at the time.  This whole 1971-91 cycle, which affected just about everyone in the world, was the result of the US going off the gold standard.  It led to the soaring of inflation and inflation-hedge assets in the 1970s, which led to the 1979-81 tightening and a lot of deflationary debt restructuring by non-American debtors, falling inflation rates, and excellent performance of bonds and other deflationary assets in the 1980s. The entire period was a forceful demonstration of the power of the US having the world’s reserve currency—and the implications for everyone around the world of how that currency was managed.

**From that 1979-81 peak in dollar-denominated inflation and dollar-denominated interest rates until now, both the inflation rates and interest rates have fallen to nearly 0%.** You can clearly see that whole big cycle up and down in interest rates and inflation rates since the new dollar-denominated monetary system.



**Throughout this time, inclusive of these swings, the amount of dollar-denominated money, credit, and debt in the world and other non-debt liabilities (such as pensions and healthcare) continued to rise in relation to incomes, especially in the US because of the Federal Reserve’s unique ability to support this debt growth.**

After the 1980s debt restructurings were completed the 1990s new global increase in money, credit, and debt began again, which again produced a prosperity that led to debt-financed purchases of speculative investments that became the dot-com bubble, which burst in 2000.  That led to an economic downturn in 2000-01 that spurred the Federal Reserve to ease money and credit, which pushed debt levels to new highs and created another prosperity that turned into another and bigger debt bubble in 2007, which burst in 2008, which led the Fed and other reserve currency countries’ central banks again eased, leading to the next bubble that just recently burst.  However, this time the money and credit creation needed to address the downturn was engineered differently.

**Short-term interest rates hit 0% in 2008, and that amount of decline wasn’t enough to create the money and credit expansion that was needed.** Stimulating money and credit growth by lowering interest rates is the first-choice monetary policy of central banks. I call it “Monetary Policy 1.” With this approach no longer available to central banks, they **turned to the second-choice monetary policy (which I call “Monetary Policy 2”), which is the printing of money and the buying of financial assets**, mostly government bonds and some high-quality debt.  The last time they had needed to do that because interest rates had hit 0% began in 1933 and continued through the war years.  This approach is called “quantitative easing” rather than “debt monetization” because it sounds less threatening. All the world’s major reserve currency central banks did this. That led to the next money/credit/economic paradigm, which has lasted until the economic downturn that we are now in.

The paradigm that began in 2008 worked as follows.

By printing money and buying debt, as had been done beginning in 1933, central banks kept the money and debt expansion cycle going.  They did that by making those purchases, which pushed bond prices up, and providing the sellers of these bonds with cash, which led them to buy other assets. This pushed those asset prices up and, as they rose in price, drove future expected returns down.  With interest rates below the expected returns of other investments and bond yields and other future expected returns falling to very low levels relative to the returns needed by investors to fund their various spending obligations, investors increasingly borrowed money to buy assets that they expected to have greater returns than their borrowing costs.  **That both pushed these asset prices up and created a new debt bubble vulnerability that would come home to roost if the incomes produced by the assets they bought had returns that were less than their borrowing costs.**  With both long-term and short-term interest rates around 0% and central banks’ purchases of bonds not flowing through to stimulate economic growth and help those who needed it most, it became apparent to me that the second type of monetary policy wouldn’t work well and the third type of monetary policy—“Monetary Policy 3,” or MP3—would be needed. MP3 works by the reserve currency central governments increasing their borrowing and targeting their spending and lending to where they want it to go with the reserve currency central banks creating money and credit and buying debt (and possibly other assets, like stocks) to fund these purchases.  Though I won’t explain the various ways of doing that here, they were explained in my book Principles for Navigating Big Debt Crises, which you can get online for free [here](https://www.principles.com/big-debt-crises/).

So, before we had the pandemic-induced downturn, the circumstances were set up for this path being the necessary one in the event of a downturn.  If you want to look at relevant research pieces that look at these issues in greater depth that I did at the time, you can find them at [economicprinciples.org](https://economicprinciples.org/).

In any case, throughout this period debt and non-debt obligations (e.g., pensions and healthcare) continued to rise relative to incomes while central banks managed to keep debt service costs down (see my report [“The Big Picture”](https://www.linkedin.com/pulse/big-picture-ray-dalio/) for a more complete explanation of the coming “squeeze” this will cause).  This pushed interest rates toward nil and made the debt long-term so that principal payments would be low.  These conditions—i.e., central banks owning a lot debt, interest rates around 0% so no interest payment would be required, and structuring debt to be paid back over the very long term so principal payments could be spread out or even possibly not paid back—meant that there was little or no limit to the capacities of central banks to create money and credit.  That set of conditions set the stage for what came next.

**The coronavirus trigged economic and market downturns around the world, which created holes in incomes and balance sheets, especially for indebted entities that had incomes that suffered from the downturn.**Classically, central governments and central banks had to create money and credit to get it to those entities they wanted to save that financially wouldn’t have survived without that money and credit.  **So, on April 9, 2020 the US central government (the president and Congress) and the US central bank (the Fed) announced a massive money and credit creation program that included all the classic MP3 techniques, including helicopter money (direct payments from the government to citizens). It was essentially the same announcement that Roosevelt made on March 5, 1933.**While the virus triggered this particular financial and economic downturn, something else would have eventually triggered it, and regardless of what did, the dynamic would have been basically the same because only MP3 would have worked to reverse the downturn. The European Central Bank, the Bank of Japan, and—to a lesser extent—the People’s Bank of China made similar moves, though what matters most is what the Federal Reserve did because it is the creator of dollars, which are still the world’s dominant money and credit.

The US dollar now accounts for about 55% of the world’s international transactions, savings, and borrowing.  The Eurozone’s euro accounts for about 25%.  The Japanese yen accounts for less than 10%.  The Chinese Renminbi accounts for about 2%.  Most other currencies are not used internationally as mediums of exchange or store holds of wealth, though they are used within countries. Those other currencies are ones that even the smart people in those countries, and virtually everyone outside those countries, won’t hold as store holds of wealth.  In contrast, the reserve currencies I mentioned are the currencies that most people around the world like to save, borrow, and transact, roughly in proportion to the percentages I just mentioned.

**Countries that have the world’s reserve currencies have amazing power—a reserve currency is probably the most important power to have, even more than military power.  That is because when a country has a reserve currency it can print money and borrow money to spend as it sees fit, the way the US is doing now, while those that don’t have reserve currencies have to get the money and credit that they need (which is denominated in the world’s reserve currency) to transact and save in it.**For example right now, as of this writing, those who have a lot of debt that they need to service and need more dollars to buy goods and services now that their dollar incomes have fallen are strongly demanding dollars.

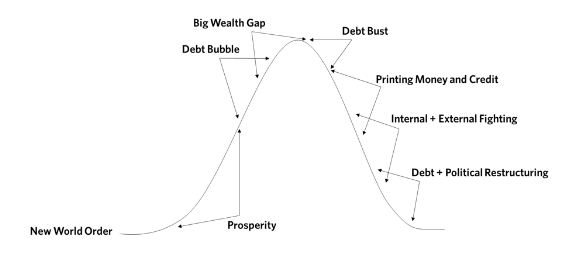
As shown in the chart in Chapter 1 that depicts eight measures of a country’s rising and declining power, the reserve currency power (which is measured by the share of transactions and savings in that currency) significantly lags the other measures of the country’s strength. That has been true for the US and the US dollar. For example, in 1944 when the US dollar was anointed as the world’s dominant reserve currency, the US had around 2/3 of the world’s gold held by governments (which was considered money at the time) and accounted for about half of world GDP.  Today the US accounts for only around 20% of world GDP but still accounts for about 60% of global reserves and about half of international transactions.  So **the US dollar and the dollar-based monetary and payments system still reign supreme and are outsized relative to the size of the US economy**.

As with all banks that printed reserve currencies, the Federal Reserve is now in the strong but awkward position of running its monetary policy in a way that is good for Americans but that might not be good for others around the world who are dependent on dollars. For example the US central government just recently decided that it would borrow money to give it and dollar credit to Americans and the Federal Reserve decided to buy that US government debt and a lot more other debt of Americans to help them through this financial crisis.  Understandably little of that will go to foreigners. The European Central Bank will do something similar for those in the Eurozone. The Bank of Japan, which is still smaller on the world scene, will do the same thing for the Japanese, and the People’s Bank of China will do the same thing for the Chinese. A couple of other relatively small countries (like Switzerland) might be able to do something similar for their people, but most of the world won’t get the money and credit they need to fill their income and balance sheet holes the way Americans will. This dynamic of countries not being able to get the hard currency they need is like what happened in the 1982-91 period, except interest rates can’t be cut significantly this time while they could be cut very significantly in that 1982-91 period.

At the same time, dollar-denominated debt owed by non-Americans (i.e., those in emerging markets, European countries, and China) is about $20 trillion (which is about 50% higher than what it was in 2008), with a bit less than half of that total being short-term.  These dollar debtors will have to come up with dollars to service these debts and they will have to come up with more dollars to buy goods and services in world markets.  So, the US, by having the US dollar as the world’s reserve currency and having the world’s bank that produces that currency, and by having the power to put these needed dollars in the hands of Americans, can help Americans more effectively than other countries’ governments can help their own citizens. At the same time the US risks losing this privileged position by creating too much money and debt.  In the appendix to this chapter we will look much more closely into how countries that had reserve currencies lost them and how devaluations of currencies work.

**In Summary**

Stepping back to look at all of this from the big-picture level, what I’m saying about the relationship between 1) the economic part (i.e., money, credit, debt, economic activity, and wealth) and 2) the political part (both within countries and between countries) of rises and declines looks like the picture shown below.  Typically the big cycles start with a new world order—i.e., a new way of operating both domestically and internationally that includes a new monetary system and new political systems.  The last one began in 1945.  Because at such times, after the conflicts, there are dominant powers that no one wants to fight and people are tired of fighting, so there is a peaceful rebuilding and increasing prosperity that are supported by a credit expansion that is sustainable. It is sustainable because income growth exceeds or keeps pace with the debt-service payments that are required to service the growing debt and because of central banks’ capacities to stimulate credit and economic growth is great.  Along the way up there are short-term debt and economic cycles that we call recessions and expansions.  With time investors extrapolate past gains into the future and borrow money to bet on them continuing to happen, which creates debt bubbles at the same time as the wealth gaps grow because some benefit more than others from this money-making upswing.  This continues until central banks run out of their abilities to stimulate credit and economic growth effectively.  As money becomes tighter the debt bubble bursts and credit contracts and with it the economy contracts.  At the same time, when there is a large wealth gap, big debt problems, and an economic contraction, there is often fighting within countries and between countries over wealth and power.  At such times of debt and economic problems central governments and central banks typically create money and credit and/or devalue their currencies.  These developments lead to the restructuring of the debts, the monetary system, the domestic order, and the world order. Then it starts again.  While none go exactly like that almost all of them by and large go that way.  For example, while the debt bubble bursting generally leads to economic contraction and the economic contraction with the large wealth gaps generally leads to the internal and external fighting, sometimes the order is a bit different. However, more often than not money, credit, and debt cycles lead to economic changes, which lead to domestic and international political changes.



This explanation of money and credit will be followed by an appendix that will show why and how all currencies devalue and/or die, with references to the most important cases of the last 500 years.

[[1]](http://applewebdata/3DA64C7F-EC01-438E-8B73-C1797A9C9BDD#_ftnref1) While borrowers are typically willing to pay interest, which is what gives lenders the incentive to lend it out, nowadays there are some debt assets that have negative interest rates, which is a weird story that we will explore later.

[[2]](http://applewebdata/3DA64C7F-EC01-438E-8B73-C1797A9C9BDD#_ftnref2) By the way, please understand that these rough estimates of cycle times are just rough estimates, and to know where we are in these cycles we need to look more at the conditions than the amount of time.

[[3]](http://applewebdata/3C0EB539-EB64-4721-A080-D2164CCDF8AC#_ftnref1) Some central banks have made this harder by separating themselves from the direct control of politicians, but virtually every central bank has to bail out their governments at some point, so devaluations always happen.

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