by them, and they can create political support for the leaders who impose them.

The Soviet Union had yet to recover from its devastating 1917–22 revolution and civil war, a lost war to Germany, a costly war with Poland, and a famine in 1921, and it was wracked by political purges and economic hardships throughout the 1930s. China also suffered from civil war, poverty, and a famine in 1928–30. **So, when things worsened in 1930 and tariffs began, bad conditions became desperate conditions in those countries.**

To make matters worse, there were droughts in the US and in the Soviet Union in the 1930s. ● ***Harmful acts of nature (e.g., droughts, floods, and plagues) often cause periods of great economic hardship that when combined with other adverse conditions lead to periods of great conflict.*** In combination with extreme government policies, millions died in the USSR. At the same time, internal political fighting and fears of Nazi Germany led to purges of hundreds of thousands of people who were accused of spying and shot without trials.

● ***Deflationary depressions are debt crises caused by there not being enough money in the hands of debtors to service their debts. They inevitably lead to the printing of money, debt restructurings, and government spending programs that increase the supply of, and reduce the value of, money and credit. The only question is how long it takes for government officials to make this move.***

In the case of the US, it took three and a half years from the crash in October 1929 until President Franklin D. Roosevelt's March 1933 actions. In Roosevelt's first 100 days in office, he created several massive government spending programs that were paid for by big tax increases and big budget deficits financed by debt that the Federal Reserve monetized. He instituted jobs programs, unemployment insurance, Social Security supports, and labor- and union-friendly programs. After his 1935 tax bill, then popularly called the "Soak the Rich Tax," the top marginal income tax rate for individuals rose to 75 percent (versus as low as 25 percent in 1930). By 1941, the top personal tax rate was 81 percent, and the top corporate tax rate was 31 percent, having started at 12 percent in 1930. Roosevelt also imposed a number of other taxes. Despite all of these taxes and the pickup in the economy that helped raise tax revenue, budget deficits increased from around 1 percent of

GDP to about 4 percent of GDP because the spending increases were so large.[5] **From 1933 until the end of 1936 the stock market returned over 200 percent, and the economy grew at a blistering average real rate of about 9 percent.**

In 1936, the Federal Reserve tightened money and credit to fight inflation and slow an overheating economy, which caused the fragile US economy to fall back into recession and the other major economies to weaken with it, further raising tensions within and between countries.

Meanwhile in Europe, the conflict in Spain between the populists of the left (the communists) and the populists of the right (the fascists) flared into the brutal Spanish Civil War. Right-wing Franco, with the support of Hitler, succeeded in purging left-wing opposition in Spain.

● ***During periods of severe economic distress and large wealth gaps, there are typically revolutionarily large redistributions of wealth.*** **When done peacefully these are achieved through large tax increases on the rich and big increases in the supply of money that devalue debtors' claims, and when done violently they are achieved by forced asset confiscations.** In the US and the UK, while there were redistributions of wealth and political power, capitalism and democracy were maintained. In Germany, Japan, Italy, and Spain they were not.

● ***Before there is a shooting war there is usually an economic war.*** As is also typical, before all-out wars are declared there is about a decade of economic, technological, geopolitical, and capital wars, during which the conflicting powers intimidate each other, testing the limits of each other's power. While 1939 and 1941 are known as the official starts of the wars in Europe and the Pacific, the conflicts really began about 10 years before that. **In addition to the economically motivated conflicts within countries and the political shifts that arose from them, all of these countries faced increased external economic conflicts as they fought for greater shares of a shrinking economic pie.** Because power, and not law, rules international relations, Germany and Japan became more expansionist and increasingly began to test the UK, the US, and France in the competition over resources and influence over territories.

Before going on to describe the hot war, I want to elaborate on the common tactics used when economic and capital tools are weaponized. They have been and still are:

1. **Asset freezes/seizures:** Preventing an enemy/rival from using or selling foreign assets they rely on. These measures can range from asset freezes for targeted groups in a country (e.g., the current US sanctions of the Iranian Revolutionary Guard or the initial US asset freeze against Japan in World War II) to more severe measures like unilateral debt repudiation or outright seizures of a country's assets (e.g., some top US policy makers have been talking about not paying our debts to China).
2. **Blocking capital markets access:** Preventing a country from accessing their own or another country's capital markets (e.g., in 1887 Germany banned the purchase of Russian securities and debt to impede Russia's military buildup; the US is now threatening to do this to China).
3. **Embargoes/blockades:** Blocking trade in goods and/or services in one's own country and in some cases with neutral third parties for the purpose of weakening the targeted country or preventing it from getting essential items (e.g., the US's oil embargo on Japan and cutting off its ships' access to the Panama Canal in World War II) or blocking exports from the targeted country to other countries, thus cutting off their income (e.g., France's blockade of the UK in the Napoleonic Wars).

If you're interested in seeing how these tactics have been applied from 1600 until now, they are available at economicprinciples.org.

THE HOT WAR BEGINS

In November 1937, Hitler secretly met with his top officials to announce his plans for German expansion to gain resources and bring together the Aryan race. Then he put them into action, first annexing Austria and then seizing a part of what was then Czechoslovakia that contained oil resources. Europe and the US watched warily, not wanting to get drawn into another war so soon after the devastation of World War I.

As with all wars, the unknowns were far greater than the knowns because a) rival powers go into wars only when their powers are roughly comparable (otherwise it would be stupidly suicidal for the obviously weaker power) and b) there are way too many possible actions and reactions to anticipate. The only thing that is known at the outset of a hot war is that it will probably be extremely painful and possibly ruinous. As a result, smart leaders typically go into them only if the other side has pushed them into a position of either fighting or losing by backing down. For the Allies, that moment came on September 1, 1939, when Germany invaded Poland.

Germany looked unstoppable; in short order it captured Denmark, Norway, the Netherlands, Belgium, Luxembourg, and France, and strengthened its alliances with Japan and Italy, which had common enemies and were ideologically aligned. By seizing territory rapidly (e.g., oil-rich Romania), Hitler's army was able to conserve its existing oil resources and gain new ones quickly. The thirst for, and acquisition of, natural resources remained a major driver of the Nazi war machine as it pushed its campaigns into Russia and the Middle East. War with the Soviets was inevitable; the only question was when. Although Germany and the USSR had signed a non-aggression pact, Germany invaded Russia in June 1941, which put Germany in an extremely costly war on two fronts.

In the Pacific in 1937, Japan expanded its occupation of China, brutally taking control of Shanghai and Nanking, killing an estimated 200,000 Chinese civilians and disarmed combatants in the capture of Nanking alone. While the US remained isolationist, it did provide Chiang Kai-shek's government with fighter planes and pilots to counter the Japanese, putting a toe in the war. Conflicts between the US and Japan began to flare. A Japanese soldier struck the US consul, John Moore Allison, in the face in Nanking and Japanese fighter planes sank a US gunship.

In November 1940, Roosevelt won re-election after campaigning on the promise to keep the US out of the war, even though the US was already taking economic actions to protect its interests, especially in the Pacific, using economic supports to help countries it sympathized with and economic sanctions against those it did not. Earlier in 1940, Secretary of War Henry Stimson had initiated aggressive economic sanctions against Japan, culminating in the Export Control Act of 1940. In mid-1940, the US moved the US Pacific Fleet to Hawaii. In October, the US ramped up the embargo, restricting "all iron and steel to destinations other than Britain and nations of the Western Hemisphere." The plan was to cut Japan off from resources in order to force them to retreat from most of the areas they had taken over.

In March 1941, Congress passed the Lend-Lease Act, which allowed the US to lend or lease war supplies to the nations it deemed to be acting in ways that were "vital to the defense of the United States," which included Great Britain, the Soviet Union, and China. Helping the Allies was good for the US both geopolitically and economically because it made a lot of money selling weapons, food, and other items to these soon-to-be-allied countries who were struggling to maintain production while waging war. But its motivations weren't entirely mercenary. Great Britain was running out of money (i.e., gold), so the US allowed them to postpone payment until after the war (in some cases waiving payment entirely). Although not an outright declaration of war, Lend-Lease effectively ended the United States' neutrality.

• ***When countries are weak, opposing countries take advantage of their weaknesses to obtain gains.*** France, the Netherlands, and Great Britain all had colonies in Asia. Overstretched by the fighting in Europe, they were unable to defend them against the Japanese. Starting in September 1940, Japan invaded several colonies in Southeast Asia, beginning with French Indochina, adding what it called the Southern Resource Zone to its Greater East Asia Co-Prosperity Sphere. In 1941, Japan seized oil reserves in the Dutch East Indies.

This Japanese territorial expansion was a threat to the US's own Pacific ambitions. In July and August 1941, Roosevelt responded by freezing all Japanese assets in the United States, closing the Panama Canal to Japanese ships, and embargoing oil and gas exports to Japan. This cut off three-fourths of Japan's trade and 80 percent of its oil. Japan calculated that it would run out of oil in two years. This put Japan in the position of having to choose between backing down or attacking the US.

On December 7 and 8, 1941, Japan launched coordinated attacks on US military forces at Pearl Harbor and in the Philippines. This marked the beginning of the declared war in the Pacific, which brought the US into the war in Europe too. While Japan didn't have a widely recognized plan to win the war, the most optimistic Japanese leaders believed that the US would lose because it was fighting a war on two fronts and because its individualistic/capitalist political system was inferior to Japan's and Germany's authoritarian/fascist systems with their command military-industrial complexes. They also believed that they had the greater willingness to endure pain and die for their country, which is a big driver of which side wins. ● ***In war one's ability to withstand pain is even more important than one's ability to inflict pain.***

WARTIME ECONOMIC POLICIES

Just as it is worth noting what classic economic war tactics are, it is also worth noting what classic wartime economic policies are within countries. These include government controls on just about everything as the country shifts its resources from profit making to war making—e.g., the government determines a) what items are allowed to be produced, b) what items can be bought and sold in what amounts (rationing), c) what items can be imported and exported, d) prices, wages, and profits, e) access to one's own financial assets, and f) the ability to move one's own money out of the country. Because wars are expensive, classically the government g) issues lots of debt that is monetized, h) relies on non-credit money such as gold for international transactions because its credit is not accepted, i) governs more autocratically, j) imposes various types of economic sanctions on enemies, including cutting off their access to capital, and k) experiences enemies imposing these sanctions on them.

When the US entered the European and Pacific wars after the attack on Pearl Harbor, classic wartime economic policies were put in place in most countries by leaders whose more autocratic approaches were broadly supported by their populations. The following table shows those economic controls in each of the major countries.

WARTIME ECONOMIC CONTROLS

	Rationing	Production Controls	Price/Wage Controls	Import or Export Restrictions	Takeover of Central Bank
Allies					
United States	Yes	Yes	Yes	Yes	Yes
United Kingdom	Yes	Yes	Yes	Yes	Partial
Axis					
Germany	Yes	Yes	Yes	Yes	Yes
Japan	Yes	Yes	Yes	Yes	Yes

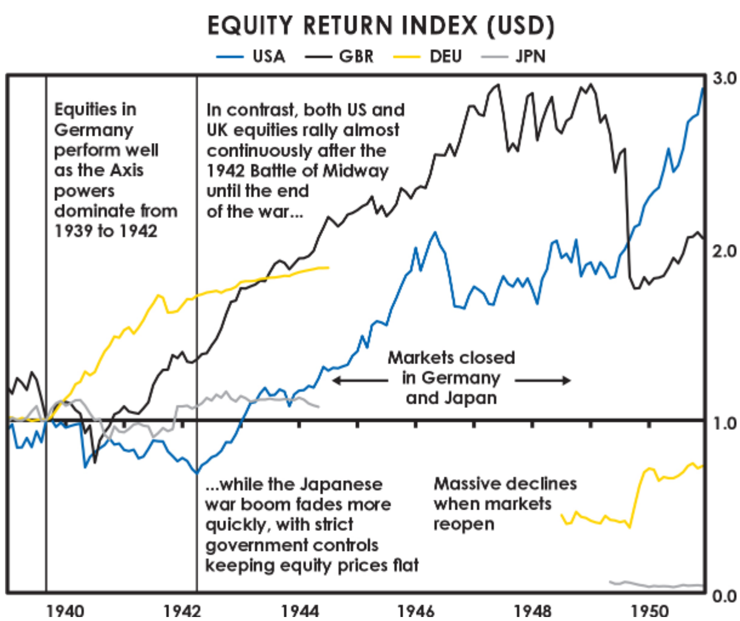
The market movements during the hot war years were heavily affected by both government controls and how countries did in battles as the odds of winning and losing changed. The next table shows the controls over markets and capital flows that were put in place by the major countries during the war years.

REGULATIONS IMPACTING ASSETS

	Market Closures	Asset Price Controls	Asset Ownership Restrictions	FX Controls	Top Marginal Tax Rate	Limits on New Issuance	Limits on Corp Profits
Allies							
United States	No	Yes	Yes	Yes	94%	–	Yes
United Kingdom	Yes	Yes	Yes	Yes	98%	Yes	Yes
Axis							
Germany	Yes	Yes	Yes	Yes	60%	Yes	Yes
Japan	Yes	Yes	Yes	Yes	74%	Yes	Yes

Stock market closures were common in a number of countries, leaving investors in stocks stuck without access to their capital. I should also note that money and credit were not commonly accepted between non-allied countries during the war because of a justifiable wariness about whether the currency would have any value. As noted earlier, gold—or, in some cases, silver or barter—is the coin of the realm during wars. At such times, prices and capital flows are typically controlled, so it is difficult to say what the real prices of many things are.

Because losing wars typically leads to a total wipeout of wealth and power, movements of those stock markets that remained open in the war years were largely driven by how countries did in key battles as these results shifted the probability of victory or defeat for each side. For example, German equities outperformed at the beginning of World War II as Germany captured territory and established military dominance, while they underperformed after Allied powers like the US and the UK turned the tide of the war. After the 1942 Battle of Midway, Allied equities rallied almost continuously until the end of the war, while Axis equities were flat or down. As shown, both the German and Japanese stock markets were closed at the end of the war, didn't reopen for around five years, and were virtually wiped out when they did, while US stocks were extremely strong.



Protecting one's wealth in times of war is difficult, as normal economic activities are curtailed, traditionally safe investments are not safe, capital mobility is limited, and high taxes are imposed when people and countries are fighting for their survival. Protecting the wealth of those who have it is not a priority relative to the need to redistribute wealth to get it to where it is needed most. As for investing, sell out of all debt and buy gold because wars are financed by borrowing and printing money, which devalues debt and money, and because there is a justifiable reluctance to accept credit.

CONCLUSION

Every world power has its time in the sun, thanks to the uniqueness of their circumstances and the nature of their character and culture (e.g., they have the essential elements of a strong work ethic, smarts, discipline, education, etc.), but they all eventually decline. Some do so more gracefully than others, with less trauma, but they nevertheless decline. Traumatic declines can lead to some of the worst periods in history, when big fights over wealth and power prove extremely costly both economically and in human lives.

Still, the cycle needn't transpire this way if countries in their rich and powerful stages stay productive, earn more than they spend, make the system work well for most of their populations, and figure out ways of creating and sustaining win-win relationships with their most significant rivals. A number of empires and dynasties have sustained themselves for hundreds of years, and the United States, at 245 years old, has proven itself to be one of the longest-lasting.

In Part II, I will turn to the US, the two reserve currency empires that preceded it, and the one that may someday follow it. As we continue, I hope this explanation of the archetypical Big Cycle and the three cycles that make it up will help you see the patterns of history and what they portend. But before we delve more deeply into the history, I'd first like to share how these big three cycles figure into my approach as an investor.

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[1] To give an oversimplified example of a win-win approach, if each country picks the top 10 things that they want to get or want to be protected against and allocates 100 points in total to these to express how much they want these things, they could determine what the best trades would be. For example, I expect that high on China's list would be the reunification with Taiwan—so high in fact that they would go to war for it. I

can't imagine that preventing that from happening peacefully would be nearly as high on the US's list, whereas something on the US's list would be very high so that they should be willing to trade it to make both sides happy.

[2] Though it might sound naïve, I wish the power of thoughtful disagreement could be tapped to deal with the US-China wars. For example, I visualize how wonderful it would be if leaders or representatives of each country were to have a series of publicly aired thoughtful disagreements, like presidential debates, that the populations of both countries could listen to in order to gain both sides' perspectives. I'm sure it would make us much more knowledgeable and empathetic, and improve the chances of peaceful resolutions.

[3] For example, though I always had the ownership power to make decisions at Bridgewater autocratically, I chose not to use that power. Instead, I created and operated an idea-meritocratic system (which I described in *Principles: Life and Work*). I also chose to be far more generous with the people I worked with than I had to be while maintaining extremely high standards because I knew that operating that way would produce the amazing relationships and outcomes that we experienced—far better than if I had used my "hard powers" more forcefully. So, it's important to remember that great relationships give one great powers and that they are wonderful rewards in and of themselves. There is nothing more powerful and rewarding for the individual and the collective than the cooperation of capable people who care for each other and who will give each other all they can.

[4] Specific developments and detail on this period are explained in my book *Principles for Navigating Big Debt Crises*.

[5] Specific developments through the Great Depression are explained in great detail in my book *Principles for Navigating Big Debt Crises*.

CHAPTER 7

INVESTING IN LIGHT OF THE BIG CYCLE

The game I play for handling both my life and my career is to try to figure out how the world works, develop principles for dealing with it well, and then place my bets. The research that I'm sharing with you in this book was done for that purpose. Naturally, when I look at all that we've covered up to this point, I think about how it applies to my investing. For me to be comfortable that I am doing that well, I need to know how my approach would have worked through time. If I can't confidently explain what happened in the past, or at least have a strategy for dealing with it in light of what I don't know, I consider myself dangerously negligent.

As you saw from my study of the last 500 years up to now, there were Big Cycles of great accumulations and great losses of wealth and power, and of these, the greatest contributing factor was the debt and capital markets cycle. From an investor's perspective, this could be called the Big Investing Cycle. I felt that I needed to understand these cycles well enough to tactically move or diversify my portfolio to be protected against them and/or to profit from them. By understanding them, and ideally realizing where countries are in their cycles, I can do that.

Over my roughly 50 years as a global macro investor, I discovered many timeless and universal truths that form my principles for investing. While I won't get deeply into all of them here, but will discuss most of them in my next book, *Principles: Economics and Investing*, I will convey one important principle.

- ***All markets are primarily driven by just four determinants: growth, inflation, risk premiums, and discount rates.***

That is because all investments are exchanges of lump-sum payments today for future payments. What these future cash payments will be is determined by growth and inflation, what risk investors are willing to take in investing in them as compared to having cash in hand is the risk premium, and what they are worth today, which is called their "present value," is determined by the discount rate.[1]

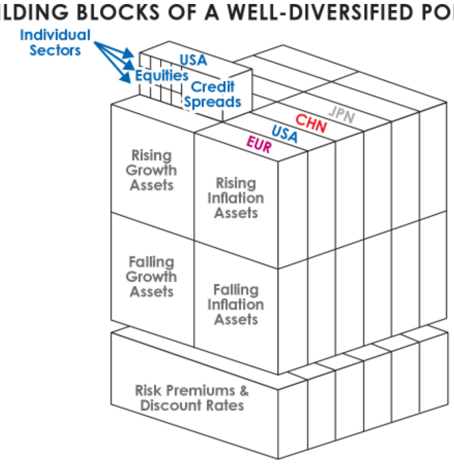
How these four determinants change drives how investment returns change. Tell me what each of these determinants is going to do and I can tell you what the investments are going to do. Knowing this tells me how to connect what is happening in the world to what is happening in the markets and vice versa. It also shows me how to balance my investments so that my portfolio doesn't have any bias to any environment, which is what produces good diversification.

Governments influence these factors through their fiscal and monetary policies. As a result, interactions between what governments want to happen and what is actually happening are what drive the cycles.[2] For example, when growth and inflation are too low, central banks create more money and credit growth, which creates buying power, which causes economic growth to pick up at first and then, with a lag, inflation to pick up as well. When central banks constrain money and credit growth, the opposite happens: economic growth and inflation both slow down.

There is a difference between what central governments and central banks do in order to drive market returns and economic conditions. Central governments determine where the money they use comes from and goes to because they can tax and spend, but they can't create money and credit. Central banks on the other hand can create money and credit but can't determine what the money and credit go into in the real economy. These actions from central governments and central banks influence the purchases and sales of goods, services, and investment assets, driving their prices up or down.

To me each investment asset reflects these drivers in its own way that is logical in light of the effects on its future cash flows. Each investment asset is a building block for a portfolio, and the challenge is to put together a portfolio well in light of these things. For example, when growth is stronger than expected, all else being equal, stock prices will likely rise, and when growth and inflation are higher than expected, bond prices will likely fall. **My goal is to put these building blocks together in a portfolio that is well-diversified and tactically tilted based on what is happening or is going to happen in the world that is affecting these four drivers.** These building blocks can be broken out by country, by environmental bias, and all the way down to the level of individual sectors and companies. When this concept is put into a well-balanced portfolio, it looks like the following graphic. It is through this lens that I look at the history of events, the history of the markets, and the behavior of portfolios.

THE BUILDING BLOCKS OF A WELL-DIVERSIFIED PORTFOLIO



I understand that my approach is different from that of most investors for two reasons. First, most investors don't look for historically analogous periods because they think history and old investment returns are largely irrelevant to them. Second, they don't look at investment returns through the lens I just described. I believe that these perspectives give me and Bridgewater a competitive advantage, but it's up to you to take or leave them as you like.

Most investors base their expectations on what they have experienced in their lifetimes and a few more diligent ones look back in history to see how their decision-making rules would have worked back to the 1950s or 1960s. There are no investors I know and no senior economic policy makers I know—and I know many and I know the best—who have any excellent understandings of what happened in the past and why. Most investors who look at longer-term returns look at those in the US and the UK (the countries that won World War I and World War II) as being representative. That is because there are not many stock and bond markets that survived World War II. But these countries and time periods are not representative because of their survivorship bias. In looking at the returns of the US and the UK, one is looking at uniquely blessed countries in the uniquely peaceful and productive time that is the best part of the Big Cycle. Not looking at what happened in other countries and in times before yields a distorted perspective.

Reasoning logically from what we know about Big Cycles, when we extend our perspective just a few decades further back and look at what happened in different places, we get a shockingly different perspective. I'm going to show you this because I think you should have it.

In the 35 years before 1945, virtually all wealth was destroyed or confiscated in most countries, and in some countries many capitalists were killed or imprisoned because of anger at them when the capital markets and capitalism failed along with other aspects of the old order. If we look at what happened over the past few centuries, we see that such extreme boom/bust cycles happened regularly—there were regular cycles of capital and capitalist boom periods (such as the Second Industrial Revolution and the Gilded Age that happened in the late 19th and early 20th centuries) that were followed by transition periods (like the 1900–10 period of rising internal conflict and rising international conflict over wealth and power) that led to great conflict and economic bust periods (similar to those that happened between 1910 and 1945). We can also see that the cause/effect relationships that were behind the movements of those boom and bust periods are now more aligned with the late-cycle bust and restructuring periods than the early-cycle boom and building periods.

My goal was simply to see and try to understand what happened in the past and do a good job of showing it to you. That is what I will now try to do. I will start in 1350, though the story begins long before.

THE BIG CYCLE OF CAPITALISM AND MARKETS

Up until around 1350, lending with an interest rate was prohibited by both Christianity and Islam—and in Judaism it was banned within the Jewish community—because of the terrible problems it caused, with human nature leading people to borrow more than they could pay back, which created tensions and often violence between borrowers and lenders. As a result of this lack of lending, currency was "hard" (gold and silver). A century or so later, in the Age of Exploration, explorers went around the world collecting gold and silver and other hard assets to make more money. That's how the greatest fortunes were built at the time. The explorers and those who backed them split the profits. It was an effective incentive-based system for getting rich.

The alchemy of lending as we know it today was first created in Italy around 1350. Rules for lending changed and new types of money were made: cash deposits, bonds, and stocks that looked pretty much like we know them today. Wealth became promises to deliver money—what I call "financial wealth."

Think about what a huge impact the inventions and developments of bond and stock markets had. Before then, all wealth was tangible. Think about how much more "financial wealth" was created by creating these markets. To imagine the difference, consider how much "wealth" you would now have if your cash deposits and stock and bond promises to pay you in the future didn't exist. You wouldn't have much at all. You'd feel broke, and you'd behave differently—for example, you'd build up more savings in tangible wealth. That is pretty much what it was like before cash deposits, bonds, and stocks were created.

With the invention and growth of financial wealth, money was not constrained by a link to gold and silver. Because money and credit, and with them spending power, were less constrained, it was common practice for entrepreneurs who came up with good ideas to create companies and borrow money and/or sell a piece of those companies by selling stock to get money to buy what they needed. They could do this because promises to pay became money that took the form of journal entries. Around 1350 those who could do this, most famously the Medici family in Florence, could create money. If you can create credit—let's say five times as much as there is actual money (which banks can do)—you can produce a lot of buying power so you don't need as much of the other type of money (gold and silver) anymore. The creation of new forms of money was and still is a kind of alchemy. Those who could create it and use it—bankers, entrepreneurs, and capitalists—became very rich and powerful.[3]

This process of expanding financial wealth has continued up to today, with financial wealth becoming so large that the hard money (gold and silver) and other tangible wealth (e.g., property) have become relatively unimportant. But of course the more promises there are in the form of financial wealth the greater the risk there is that these promises can't be kept. That's what makes the classic big debt/money/economic cycle.

Think about how much financial wealth there is now relative to real wealth and imagine if you and others who are holding it actually tried to convert it into real wealth—that is, sell it and buy stuff. It would be like a run on a bank. It couldn't happen. The bonds and stocks are too sizable in value relative to what they could buy. But remember that with fiat money the central banks can print and provide the money needed to meet the demand. That is a timeless and universal truth.

Also remember that paper money and financial assets (e.g., stocks and bonds) that are essentially promises to pay aren't of much use; it is only what they buy that is of use.

As discussed in detail in Chapter 3, **when credit is created, buying power is created in exchange for a promise to pay back, so it is near-term stimulating and longer-term depressing.** That creates cycles. Throughout history the desire to obtain money (by borrowing or selling stock) and the desire to save it (by investing through lending or buying stock) have been in a symbiotic relationship. **This has led to growth in the form of buying power and eventually to many more promises to pay than can be delivered and**

broken-promises crises in the form of debt-default depressions and stock market crashes.

That is when the bankers and capitalists are hanged both figuratively and literally, vast amounts of wealth and lives are wiped out, and vast amounts of fiat money (money that can be printed and has no intrinsic value) are printed to try to relieve the crisis.

THE MORE COMPLETE PICTURE OF THE BIG CYCLE FROM AN INVESTOR'S PERSPECTIVE

While it would be too burdensome for me and you to go through all the relevant history between 1350 and now, I will show you what the picture would have looked like if you had started investing in 1900. But before I do so I want to explain how I think about risk because I'm going to highlight these risks in what I show you.

As I see it, **investment risk is failing to earn enough money to meet your needs**. It's not volatility measured by standard deviation, which is the almost exclusively used measure of risk.

To me, **the three biggest risks most investors face are that their portfolios won't provide the returns needed to meet their spending needs, that their portfolios will face ruin, and that a large share of their wealth will be taken away (e.g., through high taxes)**.

While the first two risks sound analogous, they are in fact different because it is possible to have average returns that are higher than required but also experience one or more periods of devastatingly high losses.

To gain perspective, I imagined that I was dropped into 1900 to see how my investments would have done in every decade since. I chose to look at the 10 greatest powers as of 1900 and skip less-established countries, which were more prone to bad outcomes. Virtually any one of these countries was or could have become a great, wealthy empire, and they were all reasonable places for one to invest, especially if one wanted to have a diversified portfolio.

Seven of these 10 countries saw wealth virtually wiped out at least once, and even the countries that didn't see wealth wiped out had a handful of terrible decades for asset returns that virtually destroyed them financially. Two of the great developed countries—Germany and Japan, which at times one easily could have bet on as being winners—had virtually all their wealth and many lives destroyed in the World Wars. I saw that many other countries had similar results. The US and the UK (and a few others) were the uniquely successful cases, but even they experienced periods of great wealth destruction.

If I hadn't looked at these returns in the period before the new world order began in 1945, I wouldn't have seen these periods of destruction. And had I not looked back 500 years around the world, I wouldn't have seen that this has happened repeatedly almost everywhere.

The numbers shown in this table are annualized real returns for each decade, which means that for the decade as a whole the losses are about eight times greater than shown and the gains are about 15 times greater.[4]

A LOOK AT ASSET RETURNS ACROSS THE GREAT POWERS
(Real Returns, 10-Year Window, Ann)

	UNITED STATES			GREAT BRITAIN			JAPAN			GERMANY		
	Equity	Bond	Cash	Equity	Bond	Cash	Equity	Bond	Cash	Equity	Bond	Cash
1900–10	9%	0%	1%	3%	2%	2%	4%	1%	4%	3%		2%
1910–20	-2%	-4%	-3%	-6%	-7%	-5%	1%	-5%	-4%	-14%	-10%	-14%
1920–30	16%	7%	5%	10%	8%	7%	-3%	12%	10%	-24%	-95%	-86%
1930–40	0%	7%	3%	1%	5%	1%	6%	4%	-1%	7%	11%	6%
1940–50	3%	-2%	-5%	3%	-1%	-4%	-28%	-34%	-33%	-4%	-16%	-19%
1950–60	16%	-1%	0%	13%	-1%	-1%	27%	-1%	5%	26%	5%	2%

	UNITED STATES			GREAT BRITAIN			JAPAN			GERMANY		
	Equity	Bond	Cash	Equity	Bond	Cash	Equity	Bond	Cash	Equity	Bond	Cash
1960–70	5%	-1%	2%	4%	0%	2%	8%	8%	2%	3%	5%	1%
1970–80	-2%	-1%	-1%	-4%	-3%	-3%	3%	-2%	-1%	-7%	4%	0%
1980–90	13%	9%	4%	16%	8%	5%	19%	9%	4%	10%	6%	3%
1990–00	14%	6%	2%	12%	8%	5%	-7%	9%	2%	13%	7%	3%
2000–10	-3%	8%	0%	0%	4%	2%	-3%	4%	1%	-2%	6%	2%
2010–20	11%	4%	-1%	5%	5%	-1%	10%	2%	0%	7%	5%	-1%

A LOOK AT ASSET RETURNS ACROSS THE GREAT POWERS

(Real Returns, 10-Year Window, Ann)

	FRANCE			NETHERLANDS			ITALY		
	Equity	Bond	Cash	Equity	Bond	Cash	Equity	Bond	Cash
1900–10	1%	3%	2%	5%	1%	1%		3%	4%
1910–20	-7%	-8%	-6%	1%	-6%	-3%	-9%	-8%	-6%
1920–30	-2%	-1%	-4%	1%	11%	6%	-6%	-5%	-1%
1930–40	-10%	2%	0%	2%	6%	3%	4%	5%	5%
1940–50	-20%	-22%	-23%	2%	-3%	-6%	-13%	-30%	-30%
1950–60	17%	0%	-2%	14%	0%	-2%	20%	2%	1%
1960–70	0%	2%	1%	2%	0%	0%	0%	2%	0%
1970–80	-2%	-3%	0%	-3%	2%	-2%	-13%	-8%	-1%

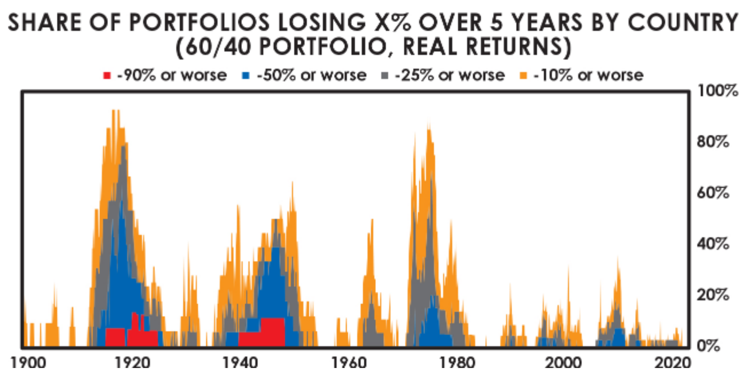
	FRANCE			NETHERLANDS			ITALY		
	Equity	Bond	Cash	Equity	Bond	Cash	Equity	Bond	Cash
1980–90	16%	9%	5%	16%	7%	5%	15%	4%	6%
1990–00	13%	10%	5%	20%	7%	4%	9%	15%	6%
2000–10	-2%	5%	1%	-6%	5%	1%	-4%	5%	1%
2010–20	7%	6%	-1%	8%	5%	-1%	3%	8%	-1%

	RUSSIA			CHINA			AUSTRIA-HUNGARY		
	Equity	Bond	Cash	Equity	Bond	Cash	Equity	Bond	Cash
1900–10	-2%	3%	4%	7%	6%	3%	4%	3%	2%
1910–20	-100%	-100%	-36%	3%	1%	4%	-9%	-10%	-8%
1920–30				9%	6%	1%	-6%	-44%	-44%
1930–40				2%	-7%	-6%			
1940–50				-100%	-100%	-73%			
1950–60									
1960–70									
1970–80									
1980–90									
1990–00									
2000–10	15%		-2%	4%		1%			

	RUSSIA			CHINA			AUSTRIA-HUNGARY		
	Equity	Bond	Cash	Equity	Bond	Cash	Equity	Bond	Cash
2010–20	7%	4%	1%	2%	2%	0%			

5

Perhaps this next chart paints a clearer picture, as it shows what percentage of countries saw losses of a 60/40 stock/bond portfolio over five-year periods.



The following table shows the worst cases of investing in major countries in detail. You will note that the US doesn't appear on this table because it wasn't among the worst cases. **The US, Canada, and Australia were the only countries that didn't experience sustained periods of losses.**

WORST INVESTOR EXPERIENCES (ACROSS MAJOR COUNTRIES)

Major Cases of 60/40 Real Returns Below -40% over a 20-Year Window

Country	20yr Window	Worst 20yr Return (Real, Cumul)	Detail
Russia	1900–1918	-100%	The Russian Civil War ended with communist rule, debt repudiation, and the destruction of financial markets.
China	1930–1950	-100%	Asset markets closed during WWII and were destroyed when communist rule took hold in the late 1940s.
Germany	1903–1923	-100%	Weimar Republic

			hyperinflation led to a collapse in assets following WWI.
Japan	1928–1948	-96%	Japanese markets and currency collapsed as markets reopened post-WWII and inflation soared.
Austria	1903–1923	-95%	Similar to Weimar Germany (though less infamous); hyperinflation led to poor asset returns post-WWI.
France	1930–1950	-93%	The Great Depression, followed by WWII and German occupation, led to poor returns and high inflation.
Italy	1928–1948	-87%	Similar to those of other Axis powers, Italian markets collapsed as WWII concluded.
Italy	1907–1927	-84%	Post-WWI, Italy suffered from economic depression and high inflation, helping lead to Mussolini's rise.
France	1906–1926	-75%	The early 20th century saw WWI, followed by France's inflationary currency crisis in the early 1920s.
Italy	1960–1980	-72%	Italy endured a series of recessions, high unemployment rate and inflation, and currency declines in the 1960–70s.
India	1955–1975	-66%	Post-independence, a series of major droughts caused weak Indian economic growth and high inflation.
Spain	1962–1982	-59%	The post-Franco transition to democracy coupled with the inflationary 1970s strained Spain's economy.
Germany	1929–1949	-50%	The Great Depression

			followed by the devastation of WWII led to a terrible period for German assets.
France	1961–1981	-48%	Like other European nations, the 1960–70s saw weaker growth, currency declines, and high inflation.
UK	1901–1921	-46%	The early 20th century saw World War I, followed by the depression of 1920–21.

[6]

Naturally I think about how I would have approached these periods if I had been living through them. I'm certain that even if I had seen the signs of things coming that I'm passing along in this book I never would have confidently predicted such bad outcomes—as noted earlier, seven of 10 countries saw their wealth wiped out. In the early 1900s, even those looking back over the past few decades would never have seen it coming because there were plenty of reasons to be optimistic based on what had happened during the second half of the 19th century.

People today often assume that World War I must have been easy to foresee in the years leading up to it, but that wasn't the case. Before the war, there had been about 50 years of almost no conflict between the world's major powers. During those 50 years the world experienced the greatest innovation and productivity growth rates it had ever seen, which led to enormous wealth and prosperity. Globalization was at new highs, with global exports up several multiples in the 50 years prior to World War I. Countries were more interconnected than ever. The US, France, Germany, Japan, and Austria-Hungary were rapidly rising empires, experiencing dizzying technological advancement. The UK was still the dominant global power. Russia was rapidly industrializing. Of those countries shown in the table of worst investor experiences, only China was obviously in decline. Strong alliances among European powers were seen at the time as a means of keeping the peace and maintaining the balance of power. Going into 1900 things looked great, except for the fact that wealth gaps and resentments were increasing and debts had become large.

Between 1900 and 1914 these conditions worsened and international tensions increased. Then came the periods of terrible returns I just described.

But it was worse than just terrible returns.

In addition, the impacts on wealth of wealth confiscations, confiscatory taxes, capital controls, and markets being closed were enormous. Most investors today don't know of such things and consider them implausible because they wouldn't have seen them by looking back on the past few decades. The following table shows in which decades these events occurred. Naturally the most severe cases of wealth confiscation came during periods in which there were large wealth gaps and internal conflict over wealth when economic conditions got bad and/or there was a war.

PERIODS OF WEALTH CONFISCATION

	1900	1920	1940	1960	1980	2000
UK						
USA	Yes	Yes				
China			Yes	Yes		
Germany		Yes				
France						
Russia	Yes	Yes	Yes			
Austria-Hungary						
Italy		Yes				
Netherlands						
Japan			Yes			

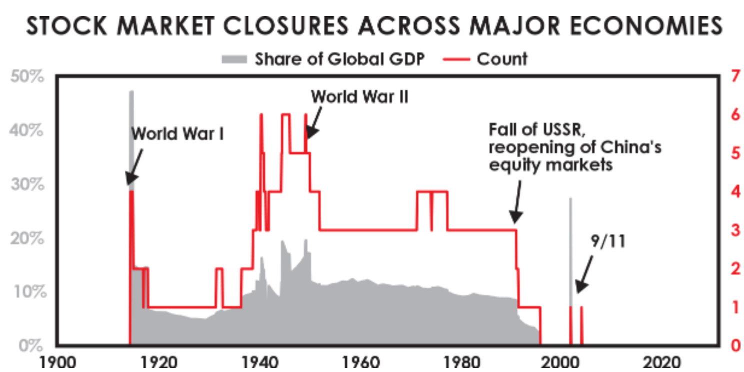
7

PERIODS OF STRICT/RISING CAPITAL CONTROLS

	1900	1920	1940	1960	1980	2000
UK	Yes	Yes	Yes	Yes		
USA	Yes	Yes				
China			Yes	Yes	Yes	

Germany	Yes	Yes	Yes	Yes		
France	Yes			Yes		
Russia	Yes	Yes	Yes	Yes	Yes	Yes
Austria-Hungary	Yes					
Italy		Yes				
Netherlands				Yes		
Japan		Yes		Yes		

The next chart shows the share of major countries that shut their stock markets through time. Wartime stock market closures were common, and of course communist countries shut their stock markets over a generation.



The bad parts of all the cycles that took place prior to 1900 were similarly bad. To make matters even worse, **these periods of internal and external fighting over wealth and power led to many deaths.**

DEATHS IN MAJOR VIOLENT CONFLICTS (%POPULATION)

INTERNAL AND EXTERNAL

	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010
UK	0%	2%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
USA	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
China	0%	0%	1%	2%	3%	1%	1%	1%	0%	0%	0%	0%
Germany	0%	3%	0%	9%	15%	0%	0%	0%	0%	0%	0%	0%

France	0%	4%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Russia	0%	4%	5%	10%	13%	0%	0%	0%	0%	0%	0%	0%
Austria-Hungary	0%	2%										
Italy	0%	2%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Netherlands	0%	0%	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%
Japan	0%	0%	0%	1%	4%	0%	0%	0%	0%	0%	0%	0%

Even for the lucky investors who were in countries that won the wars (such as the US, which was twice the biggest winner), there were two further headwinds: market timing and taxes.

Most investors sell near the lows when things are bad because they need money and because they tend to panic; they tend to buy near the highs because they have plenty of money and they are drawn into the euphoria. This means that their actual returns are worse than the market returns I showed. A recent study showed that US investors underperformed US stocks by around 1.5 percent a year between 2000 and 2020.

As for taxes, this table estimates the average impact of taxes for investors in the S&P 500 over all 20-year periods (using average tax rates for the top quintile today throughout the analysis period). The different columns represent different ways of investing in the US stock market, including a tax-deferred retirement account (where tax is paid only at the end of the investment) and holding physical equities and reinvesting dividends annually like if stocks were held in a brokerage account. While these different implementations have different tax implications (with retirement accounts least impacted), all of them show a significant impact, especially in real returns, where taxes can erode a significant portion of returns. US investors lost about a quarter of their real equity returns on average to taxes in any given 20-year period.

IMPACT OF TAXES ON ROLLING 20-YEAR S&P TOTAL RETURNS

	Pre-Tax	Post-Tax (401[k])	Post-Tax (Brokerage)
Avg Ann Total Return	9.5%	8.2%	7.9%

Avg Drag from Taxes (Ann Total Return)		**-1.3%**	**-1.6%**
Avg Drag from Taxes (% of Total Returns)		**-14%**	**-17%**
Avg Ann Real Return	**6.2%**	**4.9%**	**4.6%**
Avg Drag from Taxes (Ann Real Return)		**-1.2%**	**-1.6%**
Avg Drag from Taxes (% of Real Returns)		**-20%**	**-26%**

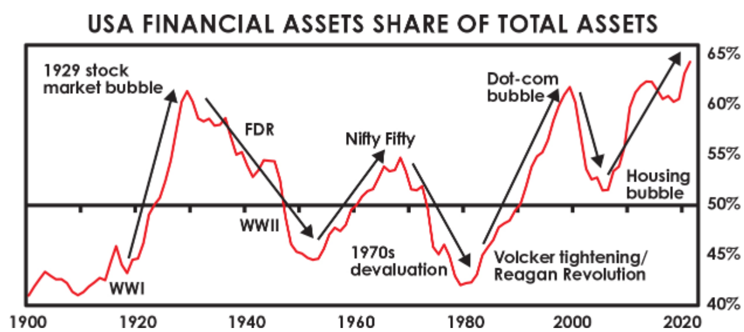
8

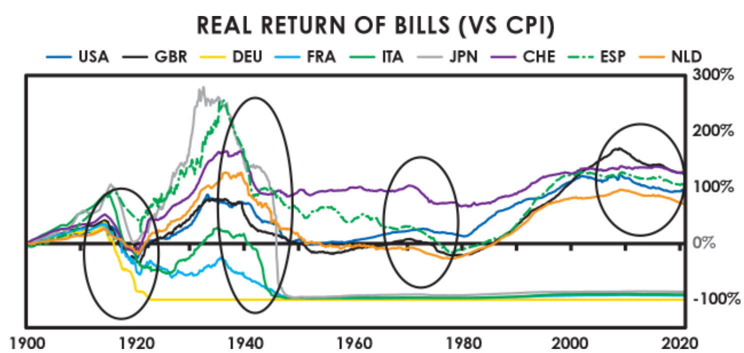
REVIEWING THE BIG CAPITAL MARKETS CYCLE

Earlier, I explained how the classic big debt and capital markets cycle works. To reiterate, **in the upwave, debt is increased and financial wealth and obligations rise relative to tangible wealth to the point that these promises to pay in the future (i.e., the values of cash, bonds, and stocks) can't be met. This causes "run on the bank"-type debt problems to emerge, which leads to the printing of money to try to relieve the problems of debt defaults and falling stock market prices, which leads to the devaluation of money and in turn to financial wealth going down relative to real wealth, until the real (inflation-adjusted) value of financial assets returns to being low relative to tangible wealth. Then the cycle begins again.** That is a very simplified description, but you get the idea—during the downwave in this cycle there are negative real returns of financial assets relative to real assets and there are bad times. It is the anti-capital, anti-capitalist part of the cycle that continues until the opposite extreme is reached.

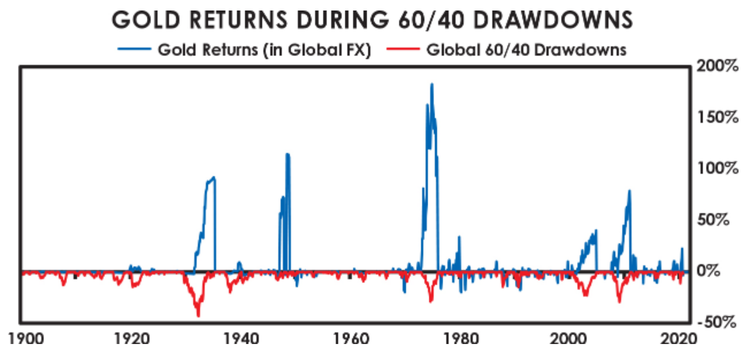
This cycle is reflected in the following two charts. The first shows the value of total financial assets relative to the total value of real assets. The second shows the real return of money (i.e., cash). I use US numbers rather than global numbers because they are the ones that are most continuous since 1900. **As you can see, when there is a lot of financial wealth relative to real wealth it reverses and real returns of financial wealth, especially cash and debt assets (like bonds), are bad. That is because interest rates and returns for debt holders have to be low and bad in order to provide the**

relief to the debtors who have too much debt and in order to try to stimulate more debt growth as a way of stimulating the economy. This is the classic late-cycle part of the long-term debt cycle. It occurs when printing more money is used to reduce debt burdens and new debts are created to increase purchasing power. This devalues the currency relative to other storeholds of wealth and relative to goods and services. **Eventually as the value of financial assets declines until they become cheap relative to real assets, the opposite extreme is reached and reverses, which is when peace and prosperity return, the cycle goes into its up phase, and financial assets have excellent real returns.**





As explained earlier, during periods of the devaluation of money, hard money and hard assets rise in value relative to cash. For example, the next chart shows that periods when the value of the classic 60/40 stock/bond portfolio declined were periods when gold prices rose. I am not saying anything about gold being a good or bad investment. I am simply describing economic and market mechanics and how they have been manifest in past market movements and investment returns for the purpose of sharing my perspective on what happened and what could happen and why.

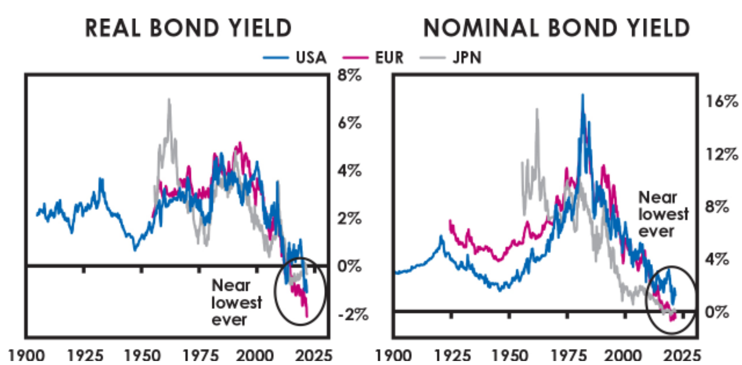


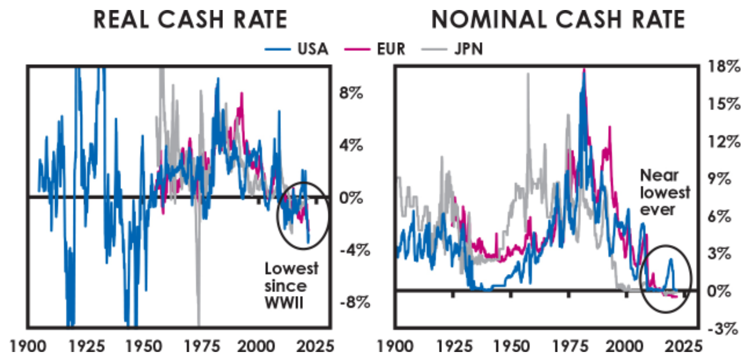
One of the most important questions investors need to regularly ask themselves is whether the amount of interest that is being paid more than makes up for the devaluation risk they face.

The classic big debt/money/capital markets cycle, which has repeated through time and in all places and is reflected in the charts I just showed you, is seen in the relative values of 1) real/tangible money and real/tangible wealth and 2) financial money and financial wealth. Financial money and financial wealth are valuable only to the extent that they get you the real money and real wealth that have real (i.e., intrinsic) value. The ways these cycles have always worked is that, in their rising phases, the amounts of financial money and financial wealth (i.e., created debt and equity assets) are increased relative to the amounts of real money and real wealth that they are claims on. They are increased because a) it is profitable for those capitalists who are in the business of creating and selling financial assets to produce and sell them, b) increasing money, credit, and other capital market assets is an effective way for policy makers to create prosperity because it funds demand, and c) it creates the illusion that people are wealthier because the stated values of financial investments go up when the value of the money and debt assets goes down. In this way central governments and central bankers have always created many more claims on real money and real wealth than could ever be turned in for real wealth and real money.

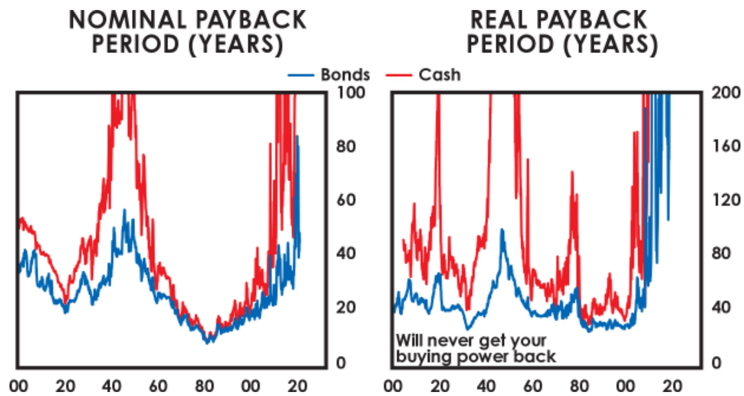
In the rising parts of the cycle, stocks, bonds, and other investment assets go up as interest rates go down because falling interest rates make asset prices rise, all else being equal. Also putting more money in the system raises the demand for financial assets, which lowers risk premiums. When these investments go up because of lower interest rates and more money in the system, that makes them seem more attractive at the same time as interest rates and the future expected returns of financial assets are going down. The more outstanding claims there are relative to what there are claims on, the more risk there is. This should be compensated for by a higher interest rate, but it typically isn't because at that moment conditions seem good and memories of debt and capital market crises have faded.

The charts that I showed you before to convey the cycles would not be complete in painting the picture without some interest rate charts. Interest rates are shown in the next four charts that go back to 1900. They show real (i.e., inflation-adjusted) bond yields, nominal (i.e., not inflation-adjusted) bond yields, and nominal and real cash rates for the US, Europe, and Japan at the time of my writing. As you can see they were much higher and now they are very low. Real yields of reserve currency sovereign bonds, at the time of my writing this, are near the lowest ever, and nominal bond yields are around 0 percent, also near the lowest ever. As shown real yields of cash are even lower, though not as negative as they were in the 1930–45 and 1915–20 great monetization periods. Nominal cash yields are near the lowest ever.





What does this mean for investing? The purpose of investing is to have money in a storehold of wealth that one can convert into buying power at a later date. When one invests, one gives a lump-sum payment for payments in the future. Let's look at what that deal, as of this writing, looks like. If you give $100 today, how many years do you have to wait to get your $100 back and then start collecting the reward on top of what you gave? In US, Japanese, Chinese, and European bonds you could have to wait roughly 45 years, 150 years, and 30 years[9] respectively to get your money back (likely getting low or nil nominal returns) and in Europe at the time of this writing you would likely never get your money back given negative nominal interest rates. However, because you are trying to store buying power you have to take into consideration inflation. At the time of this writing, in the US and Europe, you may never get your buying power back (and in Japan it will take over 250 years). In fact, in these countries with negative real interest rates, you are almost guaranteed to have a lot less buying power in the future. Rather than get paid less than inflation, why not instead buy stuff—any stuff—that will equal inflation or better? I see a lot of investments that I expect to do significantly better than inflation. The following charts show these payback periods for holding cash and bonds in the US, in both nominal and real terms. As shown, it is the longest ever and obviously a ridiculous amount of time.



CONCLUSION

What I showed you here was the Big Cycle from an investor's perspective since 1900. In looking around the world going back 500 years and in China going back 1,400 years I saw basically the same cycles occur repeatedly for basically the same reasons.

As discussed earlier in the book, the terrible periods in the years prior to the 1945 establishment of the new world order are typical of the late Big Cycle transition stage when revolutionary changes and restructurings occur. While they were terrible, they were more than matched by terrific upswings that came after the painful transition from the old order to the new order. Because these things have happened many times before, and because I can't say for sure what will happen in the future, I can't invest without having protections against these sorts of things happening and my being wrong.

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[1] The discount rate is the interest rate that one uses to assess what an amount of money in the future is worth today. To calculate it, one compares what amount of money today, invested at that interest rate (i.e., the discount rate), would be worth a certain amount at a specific time in the future.

[2] If governments and their systems break down, non-government-directed forces take over, which is a whole other story that I won't get into now.

[3] You can see this kind of alchemy at work today in the form of digital currency.

[4] When compounded over a decade, gains are greater than losses because you keep building off of gains; whereas as you experience losses and approach zero, future percent losses matter less in dollar terms. The

comparison of annualizing gains versus losses represents compounding from 10 percent annualized gains and -5 percent annualized losses on average. At more extreme changes the multipliers change from there.

[5] For China and Russia, bond data pre-1950 is modeled using hard currency bond returns held as though hedged back to local currency by a domestic investor; stocks and bonds modeled as full default at time of revolution. Annualized returns assume a full 10-year period even if markets closed during the decade.

[6] Cases of poor asset returns in smaller countries such as Belgium, Greece, New Zealand, Norway, Sweden, Switzerland, and across the emerging world are excluded from this table. Note that for conciseness the worst 20-year window is shown for each country/time period (i.e., including Germany in 1903–23 precludes including Germany from 1915–35). For our 60/40 portfolios, we assumed monthly rebalancing across the 20-year window.

[7] While this diagram is not exhaustive, I include instances where I could find clear evidence of each occurring in the 20-year period. For this analysis, wealth confiscation was defined as extensive seizure of private assets, including large-scale forced, non-economic sales by a government (or revolutionaries in the case of revolution). Relevant capital controls were defined as meaningful restrictions on investors moving their money to and from other countries and assets (although this does not include targeted measures directed only at single countries, such as sanctions).

[8] Tax impact for 401(k) method applies a 26 percent income tax rate (effective average federal tax rate for top quintile from the Congressional Budget Office as of 2017) at the conclusion of each 20-year investment period (i.e., tax-free investment growth). Tax impact for brokerage method separately taxes dividends (at the same 26 percent income tax rate) and capital gains, paying taxes on all capital gains (at a 20 percent rate) from both principal and dividend reinvestment at the conclusion of each 20-year investment period and netting losses against any gains.

[9] Based on August 2021 levels of 30-year nominal bond yields (treated as a perpetuity).

PART II

HOW THE WORLD HAS WORKED OVER THE LAST 500 YEARS

CHAPTER 8

THE LAST 500 YEARS IN A TINY NUTSHELL

I In Part I, I described how I believe the perpetual-motion machine works. In Part II, I will show you what this perpetual-motion machine has produced over the last 500 years of history. Just as I did in Part I, I'll start by conveying everything in a tiny nutshell. This chapter will set the stage for the remaining chapters of Part II, which will cover in detail how the Big Cycle played out in the Dutch, British, American, and Chinese cases. Finally, in Part III, I will attempt to squint into the future by sharing with you what my model says about a number of the leading countries today. But before we get there, we need to go back to 1500 to get a better picture of what the world was like when this story begins.

THE WORLD IN 1500

The world was very different in 1500 yet it operated the same way it does now. That's because while things have evolved a lot since 1500, they've done so in the same ways they always have, with evolutionary uptrends producing advancements and big cycles creating swings and bumps around the uptrends.

A few of the most important ways that the world was different in 1500 were:

The World Was Much "Bigger" Then. Five hundred years ago one could travel about 25 miles in a day on horseback. Today it is possible to travel to the other side of the world in the same amount of time. The Apollo astronauts traveled to the moon and back much faster than it took a traveler to get from Paris to Rome in 1500. As a result, the geographic areas of relevance—e.g., who could impact whom—were much smaller so the world seemed much bigger. Europe was one world, Russia was another, and China and the areas around it were an even more remote world. States that in retrospect seem tiny and numerous did not seem that way at all at the time. Because national boundaries didn't exist as they do today, there were almost constant fights with neighbors over wealth and power in their neighborhoods.

But in 1500, that picture was changing quickly. The European powers were well into their Age of Exploration, which was led by the Portuguese and the Spanish and brought them into contact with faraway empires. Like all periods of great evolution, the Age of Exploration was enabled by technological developments that could make people rich—in this case, the invention of ships that could travel the world to accumulate riches by trading with and taking wealth from those who the explorers encountered. At the time, wealthy rulers funded the expeditions in exchange for a share of the bounty that the explorers brought back with them.

Countries Didn't Exist—Instead, Territories Were Run by Families. Back in 1500, there were no sovereign states with borders and ruling orders. They hadn't been invented yet. Instead there were **big family estates called kingdoms and dynasties run by kings and emperors that almost constantly fought with their neighbors for wealth and power**. When a kingdom conquered, grew, and encompassed enough area, it was called an empire. Because the ruling order was centered around families, kingdoms and dynasties at that time could inherit other lands if their rulers died and there was no closer relative, similar to how one would inherit property or a family company today. Arranged marriages were logical ways the empire could stay in the hands of a tighter family group rather than branching off and dissipating over the generations.

Religions and Religious Leaders Were Much More Powerful—and Science as We Know It Today Didn't Exist. In most of the world, the elites (i.e., that small percentage of the population who had most of the wealth and power) consisted of monarchs who supposedly gained their power from the divine, the clergy who represented the divine, and the landowning nobles who oversaw the peasants and largely treated them like oxen working the land. The monarchs had ministers, bureaucracies, and militaries that controlled and defended their territories for them.

Though the Europeans and the Chinese were on opposite sides of the world and had virtually no contact with each other, they operated in essentially the same way, though China's institutions were bigger, more developed, and less religious than Europe's.

The World Was Much Less Egalitarian. The ideas that a) all people should be treated equally and b) judged by the law didn't exist at the time. This was true both within kingdoms and between them; in both cases, power through arms and violence ruled the day. Up until the 1300s and 1400s, serfdom (i.e., peasants being essentially treated as the property of their rulers) existed in most of Western Europe, which meant that the only way for most people to assert their power was through revolt. While this had largely changed by 1500, the rights afforded to common people remained weak until the Enlightenment in the 1700s.

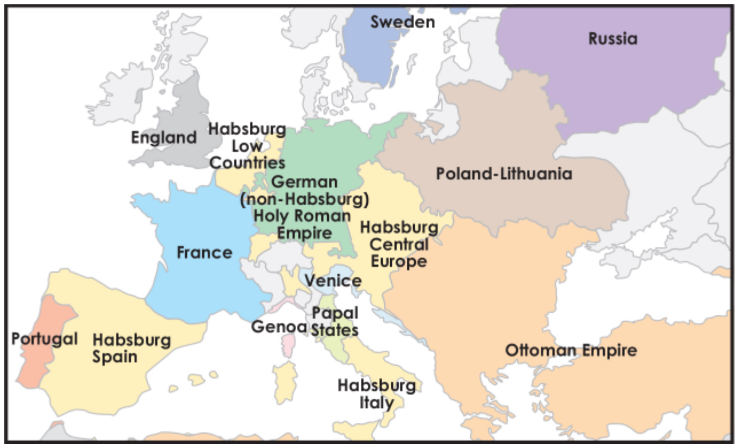
THE WORLD'S EMPIRES IN 1500

Europe

- **The Habsburg family dynasty controlled Spain and all the territories that Spain controlled plus a collection of territories that formed the Holy Roman Empire. This included parts of what we now call the Netherlands, Belgium, Italy, Germany, and Austria.** It was the Western world's most powerful empire.

- **The Valois (later Bourbon) family dynasty, which was the main rival to the Habsburgs, controlled France.** This led to a lot of fighting between the families.
- **The Tudor dynasty controlled England**, which was not yet an important force in Europe though it was growing in strength.
- **Florence, Venice, and Milan, which were frequently run as republics with prominent families**, were where the action was. Most of the financial, commercial, intellectual, and artistic innovation coming out of Europe in 1500 originated in these states. They were very rich and played a central role in shaping Europe and the Western world at this time and for centuries to come because of the revolutionary ideas they fostered, ideas I will explore in more detail later.
- **The Papal States were run by the pope and the Catholic Church.** Throughout Christian Europe, relationships between monarchs, nobles, and the church followed the typical formula of elites working in mutually supportive ways to drive the ruling orders to their benefit. As a result of this, the church acquired vast wealth, which it got mostly from poor peasants who gave money to the church (through the system of tithes) and worked without pay on church agricultural lands.
- **The Rurik dynasty, and later the Romanovs, ruled Russia**, which was a peripheral power at the time and seemed remote to Europeans.
- **The Ottoman Empire, named after its ruling family**, was centered in Constantinople, which it had conquered in 1453.

Additionally there were many hundreds, perhaps thousands, of family-run states across Europe. They fought all the time because each had to constantly defend and fight one's neighbors. Allies and enemies were always important and constantly changing. This map shows the major powers in Europe in 1550. There were many more small states we couldn't fit on this map.



Asia

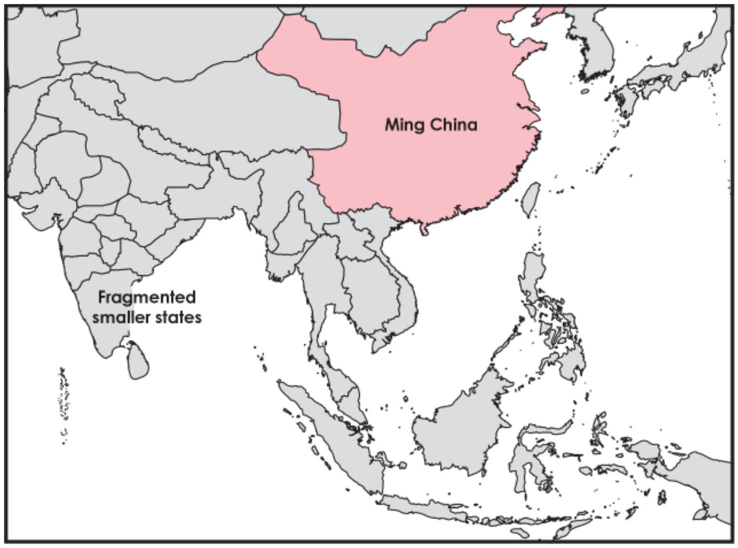
The Ming Dynasty controlled almost all of China and was the most advanced and powerful empire in the world. Like European empires, it was family-controlled with an emperor who had the "mandate of heaven." The emperor oversaw a bureaucracy that was run and protected by ministers and military leaders who worked in symbiotic—though sometimes contentious—relationships with landowning noble families who oversaw peasant workers. In 1500 the Ming Dynasty was approaching its peak and was leaps and bounds ahead of Europe in wealth, technology, and power. It had enormous cultural and political influence all over East Asia and Japan.[1]

At the time, Confucian scholars were then seen to be near the top of the social hierarchy, which helped them get ahead in politics. To get ahead one needed to study Confucianism in depth and pass highly competitive exams. Political decisions were frequently based on ruler's interpretations of Confucian ideals. "Neo-Confucianism," which was dominant at the time, shifted the focus of the belief system toward a more rational, philosophical, academic, and humanistic form. This way of thinking, which was practical, evidence-based, and scientific, was a key reason China pulled so far ahead of Europe in the Middle Ages. At the time, scholars and scientists had significant power, which led to remarkable technological advances (gun powder, the printing press, architecture, and more). Literacy rates were extremely high relative to other places at the time, and China was also advanced in medicine. For example, it had a widespread program of fighting smallpox infection via an early form of vaccination, centuries before Europe. Its financial system was relatively well developed with early forms of corporations and banks, a history of using (and misusing) printed money, and relatively sophisticated financial markets. And it was militarily very strong. The Ming Dynasty had the largest navy in the world and a standing army of a million troops.

In his wonderful book, *The Rise and Fall of the Great Powers*, historian Paul Kennedy described it well:

> "Of all the civilizations of premodern times, none appeared more advanced, none felt more superior than that of China. Its considerable population, 100–130 million compared with Europe's 50–55 million in the fifteenth century; its remarkable culture; its exceedingly fertile and irrigated plains, linked by a splendid canal system since the eleventh century; and its unified, hierarchic administration run by a well-educated Confucian bureaucracy had given a coherence and sophistication to Chinese society which was the envy of foreign visitors."

Ironically and typically, the enormity of the Ming Dynasty's wealth and power is one possible explanation of what eventually led to its fall. Believing that they did not need anything else, the emperors put an end to China's exploration of the world, closed its doors, and retired to lives of pleasure, and turned over the running of government to their ministers and eunuchs, which led to dysfunctional infighting, corruption, weakness, and vulnerability to attack. There was a shift away from pragmatic scientific study and innovation toward pedantic scholarship. As we'll see in Chapter 12, this helped drive the decline of China relative to Europe.



Across the rest of Asia, the story in 1500 was one of fragmentation. India was divided among several kingdoms, including the Delhi Sultanate in the north and the Hindu Vijayanagara Empire in the south. It was not an empire of note, though it was about to be, as in the 1520s the Mughal Empire began its conquest of India, eventually leading it to be among the world's most powerful. Likewise **Japan in 1500 was divided into many entities, experienced civil war, and was isolated, so it too was not a power of note.**

The Middle East

- **The Ottoman Empire, mentioned before, also came to control much of the Middle East by the mid-1500s, with a key rival in the new Safavid dynasty of Persia (modern-day Iran).**

The Americas

- **The largest empires were the Aztec Empire centered in Mexico (its capital, Tenochtitlán, probably had a greater population than any city in Europe at the time) and the Incan Empire in South America. But soon the Europeans arrived, devastating both powers and**

leading to the emergence of new colonies, including the seedlings of what would become the United States 276 years later.

Africa

- **A vast continent three times bigger than Europe was divided into dozens of kingdoms, often separated by large, sparsely populated areas.** The biggest in the year 1500 was the Songhai Empire in West Africa, which had a reputation as a center of trade and Islamic scholarship.

That was the lay of the land in 1500. **The world order was about to change in very big ways.**

WHAT HAS HAPPENED SINCE 1500

As you might imagine, there are far too many important things that have happened since 1500 for me to fit into this tiny nutshell. However, I can hit the highlights of the story of how the world changed from 1500 until now, with an emphasis on the key themes and shifts I will be expanding on in the following chapters. The most important changes were the changes in thinking that led to people changing behaviors, particularly about how wealth and power should be shared. They were what made the story transpire as it did. It is easy to identify the biggest periods of change because they are generally called "revolutions" and "ages" (though sometimes they are called other things).

When reading this short summary of the last 500 years, notice both the evolutions and the cycles. You will see that there were both 1) several revolutions in ways of thinking that led to tremendous evolution and progress over hundreds of years and 2) many cycles of peaceful and prosperous periods alternating with depressions and wars that marked the ends of old orders and beginnings of new ones.

The Commercial Revolution (1100s–1500s)

The Commercial Revolution was the move away from a solely agriculture-based economy to one that included trade in a variety of goods. This evolution began in the 12th century, and by 1500, it was centered in the Italian city-states due to a confluence of two factors that enabled them to become terrifically wealthy. First, the wars between Christian Europe and the Ottoman Empire significantly slowed land trade (especially for spices and luxuries) between Europe and the rest of the world, which created a significant opening for maritime trade. Second, a number of Italian city-states developed republican governments modeled after the Roman Republic. Their governments were more inventive and responsive than those in the rest of Europe, which allowed a strong merchant class to develop.

Venice was a prime example of this, as its governance system was designed with multiple checks and balances to ensure that there was a more meritocratic approach to government than existed in the rest of Europe. Venice's leader—called the doge—did not have the right to name a successor and was restricted from bringing family members into government. New doges were chosen by vote by a series of committees whose members, in some cases, were chosen by lot from among several hundred aristocratic families. The Italians produced well-functioning capital markets, supported by new advances in bookkeeping and impartial institutions to enforce contracts. While private and government borrowing weren't new, leading up to 1500, they tended to take place as bilateral deals between wealthy citizens, and defaults on creditors (or the expulsion and even execution of them) were extremely common. Because those who made money from trade—the merchant class—could benefit from a well-functioning financial system in which savings could be put into investments that fueled productivity, they created a number of financial innovations, including credit markets.

With the proceeds from trade flowing in and a need for standardized coinage, coins minted in the Italian city-states, especially Florence's gold florin, were of solid value, were well-recognized as such, and, as a result, began to be accepted as global currencies. On the basis of their solid currencies, these city-states developed effective lending and a publicly traded bond market. Venice established a perpetual bond early in the 12th century with a 5 percent coupon that the government would either issue (i.e., borrow) or purchase back depending on the finances/needs of the time. Venice's merchants owned the bonds and had significant influence on the government, so default could only be a last resort. The centuries in which the bond existed without defaults gave lenders confidence in it and institutions for trading bonds in secondary markets made it a liquid form of investment.

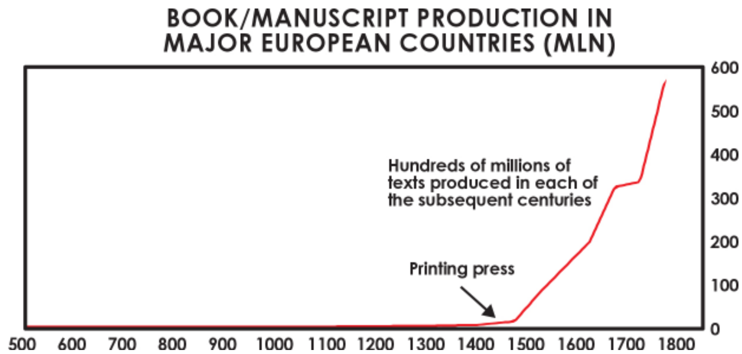
The ability to borrow quickly at reasonable rates was an enormous boon to Venice. Though Venice eventually defaulted after losing a series of wars around 1500, liquid bond markets caught on elsewhere including in the Netherlands and in the UK.

The Renaissance (1300s–1600s)

A new way of thinking in many respects modeled after the ancient Greeks and Romans started in Italian city-states around 1300 and passed through Europe until the 1600s, in a period known as the Renaissance. Renaissance thinkers made a big pivot toward using logical reasoning instead of divine intention as the way to explain how the world works. This shift contributed to dizzyingly fast discoveries that led to artistic and technological advances in Europe. It began in the city-states of northern Italy where the Commercial Revolution had created riches that led to advances in trade, production, and banking enabled by intellectualism and creativity. **The Renaissance was one of history's greatest cases of a self-reinforcing cycle I described in Chapter 5: peaceful periods in which creativity and commerce reinforce each other to produce an economic boom and great advancements.**

In the middle of it, and propelling it forward, were people and families like the Medici, who were merchants and bankers, not feudal kings. They used their riches to support the arts, architecture, and science.[2] Alongside the flourishing in art and architecture were huge advances in science, technology, and business.

Knowledge and ideas spread rapidly because of the invention of the printing press in the mid-15th century.



By the way, many of the European Renaissance innovations had already been in place in China for centuries because the Chinese discovered the key elements to produce it—e.g., the printing press, the scientific method, and the meritocratic placements of people in jobs—much earlier. One can think of China's Neo-Confucianism, described earlier, as being like China's Renaissance because, as in Europe's Renaissance, it led to more logic- and evidence-based thinking and more inventive rather than religious worldviews.

As the new ideas spread across Europe in the late 16th and early 17th centuries, luminaries such as Shakespeare and Francis Bacon in England, Descartes in France, and Erasmus in the Netherlands had broad impacts. Living standards rose dramatically, though much more for the elites than for peasants. In Italy, this period of relative peace and prosperity eventually led to excesses, decadence, and decline as the city-states became less competitive and their financial conditions deteriorated.

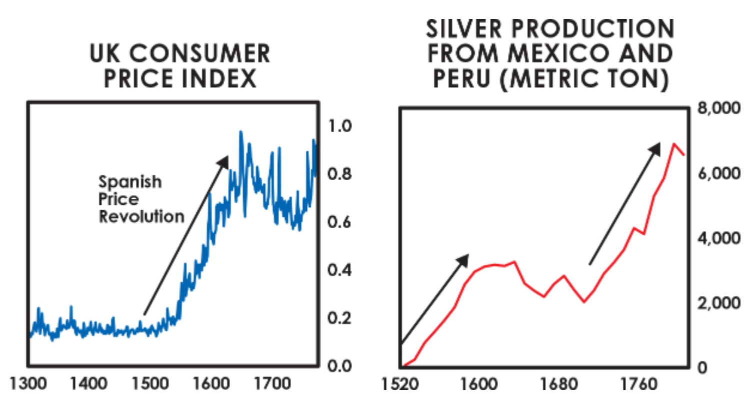
The Age of Exploration and Colonialism (1400s–1700s)

The Age of Exploration began in the 1400s when Europeans traveled all over the world in search of wealth, creating widespread contact between many different peoples for the first time and beginning to shrink the world. It roughly coincided with the Renaissance because the

technological marvels of the Renaissance translated into advancements in shipbuilding and navigation, and the riches that those ships brought back financed further Renaissance advancements.

Ruling families supported these money-making explorations and split the profits with explorers. For example, Henry the Navigator, the brother of the head of the Portuguese royal family, sponsored some of the earliest voyages and established a trading empire in Africa and Asia. Spain followed suit, swiftly conquering and colonizing significant portions of the Western Hemisphere, including the precious-metal-rich Aztec and Incan empires. Though Portugal and Spain were rivals, the unexplored world was huge, and when they had disputes, they were successfully mediated. Spain's integration into the Habsburg Empire and its control over highly profitable silver mines made it stronger than Portugal in the 1500s, and for a roughly 60-year period starting in the late 1500s the Habsburg king ruled Portugal as well. Both translated their wealth into golden ages of art and technology. The Spanish Empire grew so large it became known as "the empire on which the sun never sets"—an expression that would later be used to describe the British Empire.

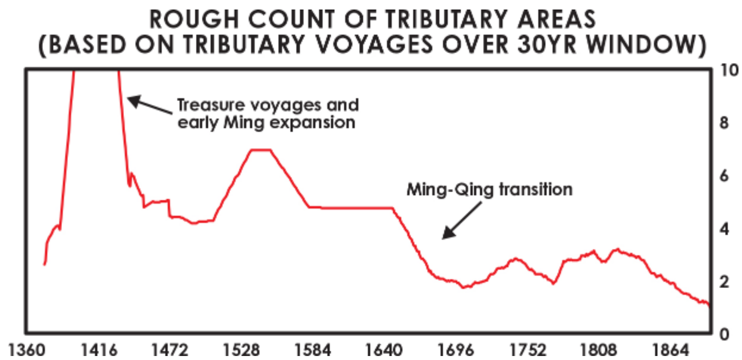
As European nations found ways to make their explorations more profitable, the rise of global trade transformed their economies. Most notably, the flow of new riches (particularly silver) to Europe fueled a rise in prices for basic goods and services. Referred to as the Spanish Price Revolution, **Europe went from hundreds of years of steady prices to a doubling of prices every few decades, a reminder of how big shifts can have economic impacts that seem unimaginable based on one's most recent experiences.**



Eventually this push toward exploration led Europe to trade with—and exploit—Asia, most notably China, Japan, and the Indian subcontinent. The Portuguese were the first of these explorers to approach China in 1513, though other European explorers like Marco Polo had been in contact before. Europeans were dazzled by the quality of Chinese porcelain, silk, and other goods, which became highly sought after, but the Chinese weren't interested in buying European goods, which they considered inferior. However they eagerly accepted silver, which was money in China as well as in Europe, as payment. As we'll cover later, China struggled for centuries with shortages of the precious metals it needed to have a sufficient supply of money. However the Europeans didn't have enough silver to trade and the Chinese weren't interested in other goods, which eventually led to the Opium Wars and other interesting stories that we will explore later.

China's Ming Dynasty had its own version of the Age of Exploration but abandoned it. Starting in the early 1400s, Ming Dynasty Emperor Yongle empowered his most trusted admiral, Zheng He, to lead seven major naval expeditions—"treasure voyages"—around the world. Though not colonizing expeditions (and historians debate the extent to which they were commercial), these naval missions helped project China's power abroad. Yongle's navy was the largest and most sophisticated in the world, featuring larger and better-constructed ships than any country in Europe would produce for at least a century.

China's international influence, as indicated by the number of foreign cities engaged in formal tributary relationships with the mainland, increased rapidly. However, the Ming emperors chose to end these voyages and pulled the empire into itself. It remains a matter of conjecture whether that is because Yongle's military and naval expeditions were expensive or because the emperors believed that they had all they needed within China so there was no need for this exploration.



The result of this pullback was an Age of Isolationism in China and in Japan as well, where it was called *Sakoku*. For the next several centuries, China and Japan broadly moved away, in fits and starts, from openness toward foreigners and toward distance and isolation.

The Reformation (1517–1648)

Beginning in the 1500s in Europe, Protestant religious movements initiated a revolution against the Roman Catholic Church, which contributed to a series of wars and the bringing down of the then-existing European order. As previously explained, at the time, the existing order consisted of monarchs, nobles, and the church in symbiotic relationships. The Reformation took aim at the power and corruption of the Roman Catholic Church and sought an independent religion in which people dealt with God directly rather than one mediated by the church's rules. At the time, many Catholic bishops and other senior clergy lived like princes in palaces and the church sold "indulgences" (a supposed reduction in time people would have to spend in purgatory). The Roman Catholic Church was a nation as much as it was a religion, directly governing a sizable share of modern Italy (the Papal States).

The Reformation started in 1517, when Martin Luther published his *Ninety-Five Theses*, challenging the papal monopoly on the interpretation of the Bible and on papal power in general. When he refused to recant his ideas, he was declared a heretic and excommunicated. His ideas—and those of other theologians—nonetheless took hold in large parts of Europe, thanks to the political support of key nobles, as well as the new printing press technology. **That move, together with the usual constant fighting for power, broke down the existing European world order.**

In virtually all the major Christian powers, the immediate impact of the Reformation was increased internal conflict and instability, and the instability extended between countries too. **The Wars of Religion were intertwined with the wars against the existing orders and existing elites. They included an extended civil war in France in which an estimated 3 million people died and later contributed to an extended civil war in the UK. In the end, the Reformation led to Protestants earning substantial rights and freedoms. It also undermined the power of the Holy Roman Empire and the Habsburgs, left Germany with deep divisions that would continue to build through the end of the incredibly brutal Thirty Years' War in the mid-1600s, and led to civil wars for over a hundred years. As is typical, the big war led to a new order, which was followed by a period of peace and prosperity.**

The New World Order Following the Thirty Years' War (1648)

On its surface, the Thirty Years' War pitted Protestant countries against Catholic ones; however, the full story was more complicated with wider geopolitical interests related to wealth and power playing a role of who lined up with whom. At the end of the war the new order was laid out at the Peace of Westphalia. The most important breakthroughs that came from it were the establishment of geographic borders and the sovereign rights of the people within those borders to decide what happens in their domains. Like most periods after major wars and the establishment of new orders, there was an extended time of peace between countries, with the Dutch emerging from the chaos as the leading global economic power. However, the battles for wealth and power—most importantly between declining monarchies and their subjects—continued across the continent.

The Invention of Capitalism (1600s)

Beginning with the Dutch, the development of publicly available and popularly used equity markets allowed savers to effectively transfer their buying power to entrepreneurs who could put that buying power to productive and profitable use. This significantly improved the allocation of resources and was stimulative to economies because it produced new buying power. It also produced the capital markets cycles. While there were many elements involved in the creation of capitalism, a series of related economic and financial developments—most notably the developments of publicly traded stock and bond markets such as the opening of the Amsterdam Stock Exchange in 1602 and the Bank of England's first government bond issuance (to fund the war with France) in 1694—are associated with it. Along with the advances of the Scientific Revolution, the invention of capitalism was a key reason behind the shift from slow real GDP growth to the faster growth, as seen in the chart I showed in Chapter 1. We will explore this innovation and its tremendous impact in more detail in the following chapter.

The Scientific Revolution (1500s–1600s)

The Scientific Revolution was an extension of the Renaissance-era shift from finding truth in religion to finding truth in logical reasoning and the Reformation's drive to question authority and think for oneself. These factors led to the development of the scientific method, which improved humanity's understanding of the world, establishing protocols by which scientific discoveries could be investigated and proven and ushering in many discoveries that raised living standards.

The scientific method was pioneered by Francis Bacon in the early 1600s, though many important advances in astronomy—particularly the work of Copernicus and Galileo—took place earlier, in the 1500s. These discoveries vastly expanded European knowledge about the solar system for the first time since the Greco-Roman period and were paralleled by many others across anatomy, mathematics, physics (e.g., Isaac Newton's laws of motion), and many other fields. European governments began to support and sponsor this research, with the most famous example being the Royal Society in the UK, which was founded in 1660 and proved instrumental in promoting the exchange of ideas and discoveries (Newton was its president from 1703 to 1727). Over the centuries to come, the discoveries of the Scientific Revolution helped unleash economic growth and greater competitiveness for the major European powers, particularly the UK. The ideas and methods that underpinned the revolution were applied to more and more fields through the movement known as the Enlightenment.

The First Industrial Revolution (1700s–1800s)

Beginning in the UK in the 1700s, freeing people to be inventive and productive and providing them with capital led many societies to shift to new machine-based manufacturing processes, creating the first sustained and widespread period of productivity improvement in thousands of years. These improvements began with agricultural inventions that increased productivity, which led to a population boom and a secular shift toward urbanization as the labor intensity of farming declined. As people flocked to cities, industry benefited from the steadily increasing supply of labor, creating a virtuous cycle and leading to shifts in wealth and power both within and between nations. The new urban populations needed new types of goods and services, which required the government to get bigger and spend money on things like housing, sanitation, and education, as well as on the infrastructure for the new industrial capitalist system, such as courts, regulators, and central banks. Power moved into the hands of central government bureaucrats and the capitalists who controlled the means of production.

Geopolitically, these developments most helped the UK, which pioneered many of the most important innovations. The UK caught up to the Netherlands in output per capita around 1800, before overtaking them in the mid-19th century, when the British Empire approached its peak share of world output (around 20 percent).

The Enlightenment and the Age of Revolutions (1600s–1700s)

Also known as the Age of Reason, the Enlightenment was essentially the scientific method applied to how humans should behave. This way of thinking became widespread in Europe in the 1700s and 1800s and was an extension of the diminishing of the rights of the monarchy and the church and the increasing of the rights of the individual that characterized earlier intellectual movements. New fields like economics expanded thanks to thinkers like Adam Smith, while figures like John Locke and Montesquieu pushed political philosophy in new directions. In particular, the Enlightenment ideas of these and other figures promoted rationality and individual liberties and undermined monarchic and religious powers, creating a movement toward overthrowing monarchies known as the Age of Revolutions. This wave of revolutions included the American, French, Spanish, German, Portuguese, and Italian. As is typical, this era of upheaval led some nations to seek out strong leaders who could bring order to the chaos. In the case of France, that leader was Napoleon, who changed the course not just of French history but of European history as he sought to conquer all of Europe. Napoleon was the classic great benevolent dictator who converted chaos into order and prosperity, and expanded the empire with his military prowess. As is often the case, he overreached and failed.

The Napoleonic Wars and the New World Order that Followed (1803–1815)

The Napoleonic Wars lasted from 1803 to 1815, when Great Britain and its allies defeated Napoleon and his allies. As is usual, the victors got together to create a new world order, which was hashed out at the Congress of Vienna. It drew new boundaries to ensure that no European power would become too dominant, based on balance of power concepts that would avoid war. The British emerged as the world's leading empire, and as is typical after the war and the establishment of a new order, there was an extended period of peace and prosperity—the Pax Britannica.

Western Powers Move into Asia (1800s)

The British and other Western powers brought their gunboats to India, China, and Japan in the mid-1700s and into the 1800s, causing dramatic disruptions to the course of their histories. At the time, both China and Japan were isolationist. India was controlled by the Mughal Empire, which had expanded into a significant power in South Asia but experienced rapid decline in the 1700s. The Western powers, which were significantly more advanced militarily at this time, wanted to force trade on all three. The Chinese attempted to fight the British but lost; the Japanese saw this and opened themselves for trade after US Commander Matthew Perry sailed four warships into Tokyo Bay in 1853. **These developments led to the eventual fall of the Qing Dynasty, the resignation of the Japanese government, and the continued control of India by the British. Especially in Japan and China, it also led to the realization that they needed to modernize, which prompted the Meiji Restoration (in Japan) and the Self-Strengthening Movement (in China). This move was very successful in Japan and not successful in China, which continued to suffer in what the Chinese call the Century of Humiliation.**

Second Industrial Revolution (1850s–early 1900s)

Beginning in the mid-1800s, a second big wave of innovation took place, centered at first around steam-powered locomotion (e.g., railroads) and then electricity, telephones, interchangeable manufacturing parts, and other innovations at the turn of the 20th century. Whereas the First Industrial Revolution was centered on the UK, the Second Industrial Revolution primarily benefited the United States. **As is typical, this period produced both great wealth and great wealth gaps and excesses in the capital markets, leading to an era known as the Gilded Age in the US.**

Invention of Communism (1848)

The invention and development of communism in the mid-1800s came as a reaction against both capitalism and the wealth gaps it created and the benefits of the Industrial Revolutions going more to the owners of the

new technologies than to the workers. Conflicts between communists and the established powers intensified around the turn of the century and led to a number of major revolutions in the 20th century, including in both Russia and China where communist governments took power.

That brings us to the 20th century, which had two big cycles of boom, busts, wars, and new orders, the second of which we appear to be in the late stages of. Because I review these comprehensively in Chapters 10 through 13, and because they are much more familiar to most readers, I will end this overview here and dive now into the story of the Dutch and how they rose to become the first global reserve currency empire.

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[1] By the way, the existence of familial relationships in a Chinese dynasty should not be mistaken for loving and caring relationships, as, just like in Europe, fights between family members for control of dynasties were brutal and often to the death.

[2] The Medici family, who ruled and developed Florence during the period (though Florence technically remained a republic for much of their rule), acquired their wealth and power as business leaders and bankers. The Medici used their wealth, power, and smarts to acquire more wealth and power and to contribute enormously to the arts and sciences. They also acquired significant political power in Europe. For example, to gain power and/or to provide public service, four popes came from the Medici family during their reign. A number of Medici were themselves artists and political leaders who looked to help not only the rich but also the middle and poorer classes in the city. However, like many multigenerational families and monarchies, after a few generations a weak head of the family and leader of the state, together with perceived excesses at a time of economic stress, led to a revolution. The Medici lost control of Florence on several occasions. While the Medici returned to power over the subsequent three centuries and the Renaissance continued, they struggled and failed in the mid-16th century as a result of wars, changing trade routes, and bad loan making, which damaged their finances, and of changes in social norms and political practices.

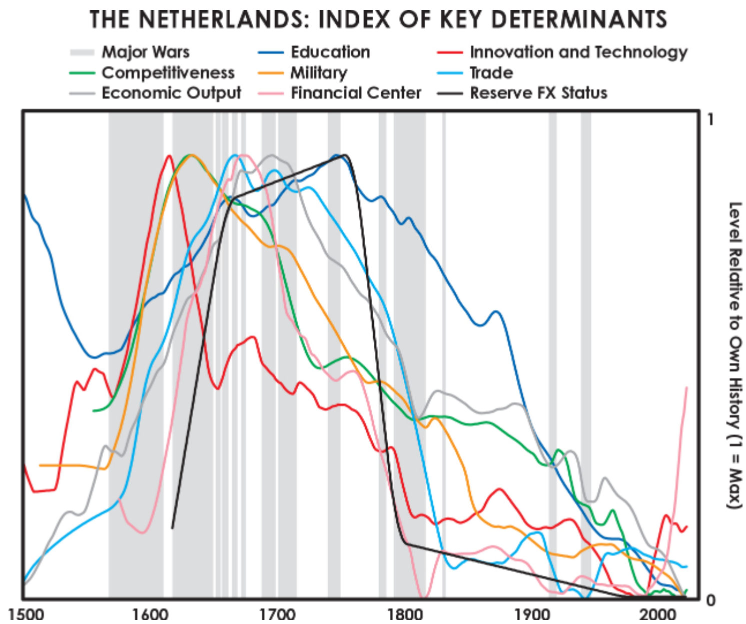
CHAPTER 9

THE BIG CYCLE RISE AND DECLINE OF THE DUTCH EMPIRE AND THE GUILDER

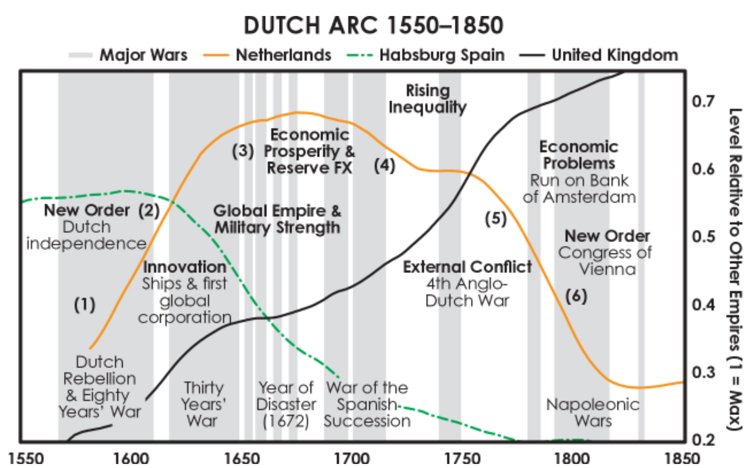
After a series of attempted revolts in the mid-1500s, the Dutch, who were under the control of Habsburg Spain, finally became powerful enough to gain de facto independence in 1581. From 1625 until their collapse in 1795, the Dutch gained enough wealth and power to eclipse both the Habsburgs and China as the world's richest empire.

The Dutch Empire rose for all the classic reasons explained in earlier chapters, peaking around 1650 in what is now remembered as the Dutch Golden Age. While its small population and territorial footprint prevented it from being the dominant military power on the European continent, it more than made up for that through a combination of economic strength, financial sophistication, and a strong navy that could protect its large empire of trading posts and colonies around the world. This allowed its currency, the Dutch guilder, to emerge as the first global reserve currency.

The following chart shows the eight powers that fueled the Dutch ascent and eventual decline.



What the chart doesn't show is the decline of the prior leading power, the Habsburg Empire, which you can see in the next chart depicting the entire arc of the Dutch Empire with key events noted. The numbers mark the approximate times of the six stages of the internal order cycle.

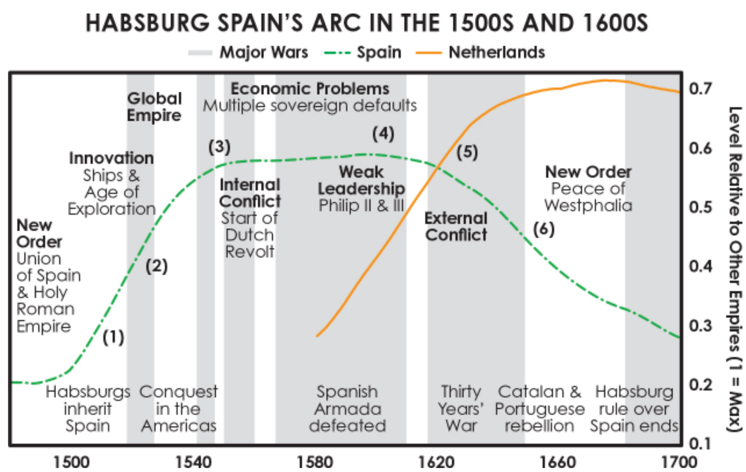


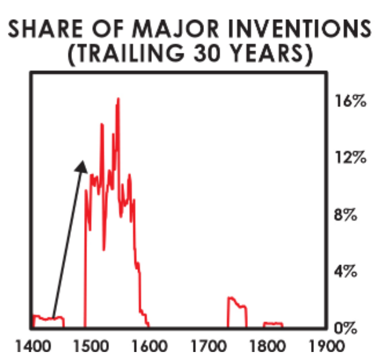
The story begins with the decline of the Spanish Habsburgs, which initiated the first stage of the Dutch Big Cycle.

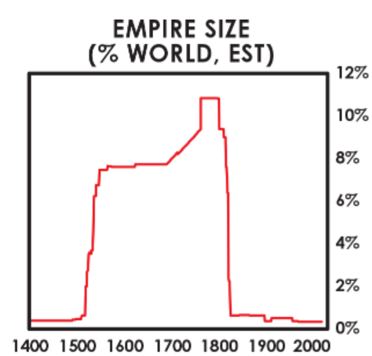
The Transition from the Spanish/Habsburg Empire to the Dutch Empire

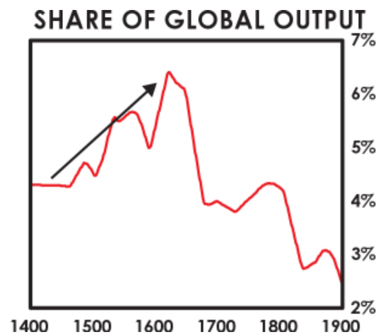
New empires rise when old ones become weak and decadent. The story of the Dutch Empire began when the Habsburg Empire became weak, decadent, and overextended in all the classic ways.

From 1519 until 1556, the Holy Roman emperor and head of the Habsburg Empire was Charles V. The union of territories he controlled—which included most of modern-day Netherlands, Belgium, Italy, Germany, Austria, and Spain—made the Habsburg Empire the most powerful family empire in Europe. **Spain was especially strong[1] because of the wealth and power it acquired in the Age of Exploration.** The Spanish fleet was clearly the most powerful navy in Europe. Spanish silver coinage came close to being a reserve currency—it was used as far afield as China. Things began to change around the mid-1500s as **the seeds of decline that were planted in the top phase began to germinate and a revolutionary shift in power began to brew**.









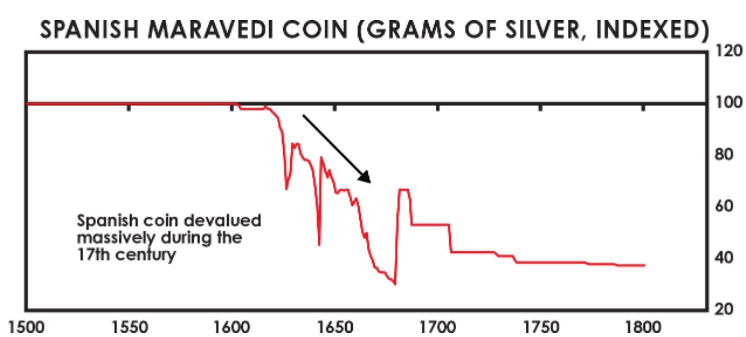
The decline of the Habsburgs happened in many of the classic ways. There were revolutions against the elites who held wealth and power by those without them, challenging the existing order. For example, as I explained in the previous chapter, new religious ideas surfaced in the form of the Reformation, a revolution against the Roman Catholic Church, which was perceived as decadent and exploitative. At the time, the Catholic Church and the Holy Roman Empire were a rich and powerful political force that was integral to the existing order. **The revolution started when a collection of religious opposition groups known generally as Protestantism challenged the system.** Martin Luther published his *Ninety-Five Theses* in 1517, challenging the papal interpretation of the Bible and papal power in general. When Luther refused to recant, he was declared a heretic and excommunicated. His ideas nonetheless took hold in large parts of Europe, thanks to the political support of key nobles, as well as Europe's new printing press technology.

This came at an economically difficult time, when conflicts were intensifying, leading to instability and terrible civil wars,[2] **eventually culminating in the brutal Thirty Years' War in the mid-1600s. Its biggest negative impact was on the Holy Roman Empire and the Habsburgs.**

Charles V failed to prevent the revolutionary impacts of the Reformation and with it the damage to the existing order. He was forced to sign the Peace of Augsburg in 1555, which weakened the Holy Roman Empire and the Habsburg dynasty. He abdicated and divided his holdings in two: the Holy Roman Empire, which he passed to his brother Ferdinand, and most of the rest of the Habsburg Empire—most importantly Spain, but also the Netherlands, Belgium, significant portions of Italy, and Spanish colonies abroad—which he passed on to his son Philip II. From that point forward, the decline followed the classic script:

- **The empire was overextended militarily.** Not only did Spain face a lengthy revolt against its unpopular rule in the Netherlands, it also fought with the Ottoman Empire, various Italian states, the French, and the British. These wars were costly and chipped away at the Habsburg family dynasty even before the Thirty Years' War.
- **Terrible national finances caused the classic toxic mix of increased taxation, money printing, and rising debt.** Philip II defaulted on debts four times during his reign.
- **The lower and middle classes suffered from rising food prices**, which were increasing at an unprecedented rate from the Spanish Price Revolution.
- **Internal conflict grew**, for all the previously mentioned reasons.
- **Leadership deteriorated.** Philip II and his son Philip III preferred lavish living to governing and ultimately used money printing to cover the large deficits, which led to high inflation and economic pain. Those around them behaved similarly.

This chart shows the value of the most popular commonly circulating coin in silver terms. Adding cheap base metals to the monetary supply was the popular way to "print" and devalue money at the time. You can see it started in the early 1600s.



The events of the 1500s were not the end of the Habsburg Empire, nor even to its claim to control the Netherlands—that wouldn't happen until the end of the Thirty Years' War in 1648. But they did create the conditions that allowed the Dutch to rise.

THE RISE

From 1581 until around 1625, the Dutch Empire was built following the classic steps of a rising empire outlined in Chapter 1. More specifically:

- Led by William the Silent, the Dutch successfully revolted against Spain in the Eighty Years' War, which resulted in the Dutch Republic asserting its independence in 1581. William, who was basically the father of the Netherlands, was a skilled military commander and united the various Dutch provinces against the Spanish.
- While the Spanish and the Dutch continued to fight over the subsequent decades, the Dutch were able to gain independence and the seeds were sown for the rise of a more unified Dutch Republic (particularly as Philip II cut off trade with the Dutch, forcing them to expand abroad on their own).
- **Because the republic was set up to allow each of the underlying provinces to maintain a high degree of sovereignty, the rise of the Dutch Empire was driven by a collective of statesmen rather than by a single monarch or leader.** Though nobles held the most important roles, this system created checks and balances and a partnership that proved effective.
- **Dutch values and culture emphasized education, saving, merit, and tolerance.**
- The break from Spain allowed the Dutch to create a **more open and inventive society.**
- **The Dutch invented ships that could go around the world to collect riches, capitalism that could finance these and other productive**

endeavors, and many more breakthroughs that made them rich and powerful. The Dutch created the world's first mega-corporation, the Dutch East India Company, which accounted for about one-third of world trade.[3] **Dutch openness to new ideas, people, and technology helped them rise quickly.**

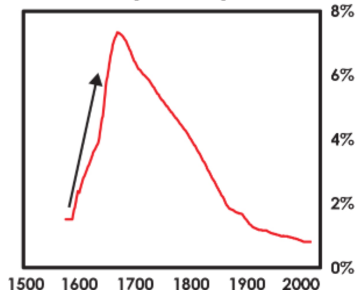
- To support trade **the Dutch government increased military investments**, which allowed the country to control still more trade by holding off the British in a number of military conflicts.
- **The Dutch also created the world's first reserve currency other than gold and silver, the Dutch guilder, supported by an innovative banking and currency system put into place via the establishment of the Bank of Amsterdam.**[4]

As a result of these classic and sound fundamental steps, the Dutch became rich—income per capita in the Netherlands rose to over twice that of most other European powers. The Dutch continued to invest heavily in education and infrastructure to build on their successes. Dutch literacy rates reached twice the world average. They continued to develop their capital markets and **Amsterdam became the world's most important financial center**. The Dutch did all of this with a population of only 1–2 million people.

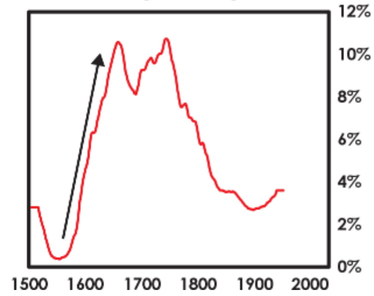
The following charts provide some perspective on the unique nature of Dutch education, innovation, and trade in the 1600s and the impact these forces had on Dutch incomes, all of which we will explore later in this chapter.

In short, the Dutch were superbly educated people who were very hardworking and inventive—in fact, they came up with about a quarter of all major inventions in the world when they were at their peak, a spike that began shortly before Dutch independence from Spain.

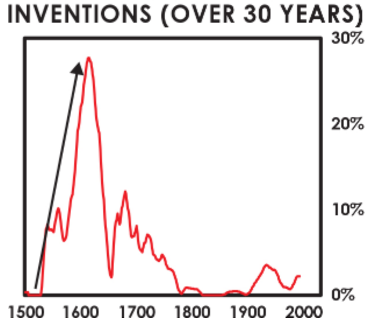
NLD UNIVERSITIES FOUNDED
(% WLD)



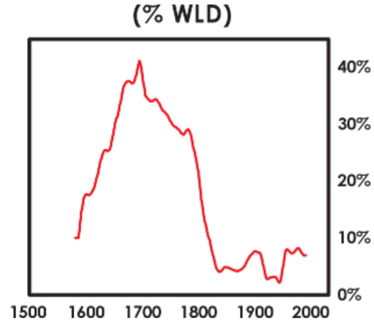
NLD BOOKS PUBLISHED
(% WLD)



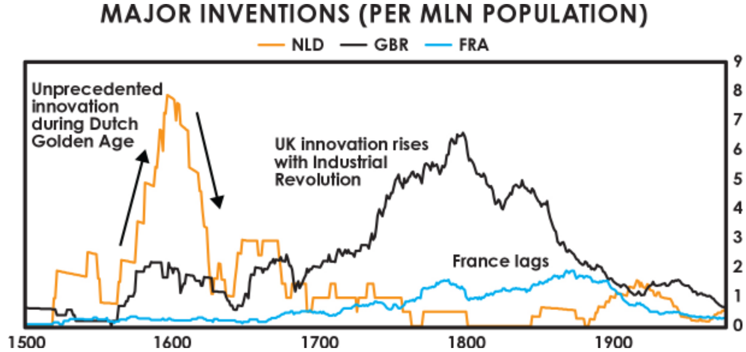
NLD SHARE OF MAJOR
INVENTIONS (OVER 30 YEARS)



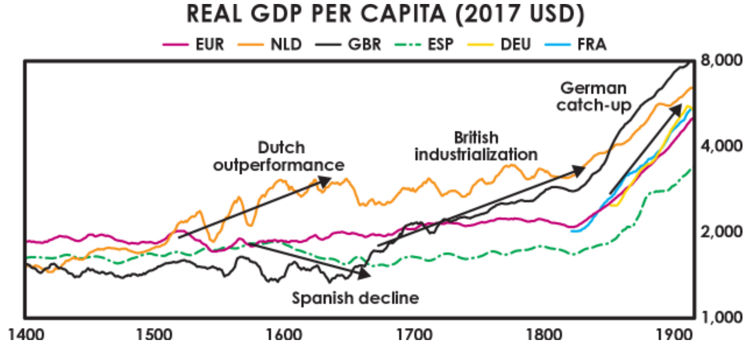
NLD EXPORTS
(% WLD)



MAJOR INVENTIONS (PER MLN POPULATION)



REAL GDP PER CAPITA (2017 USD)



To reiterate, the two most important inventions they came up with were 1) uniquely effective sailing ships that could take them all around the world, which, with the military skills they acquired from the fighting they did in Europe, allowed them to collect great riches, and 2) the capitalism that fueled these endeavors.

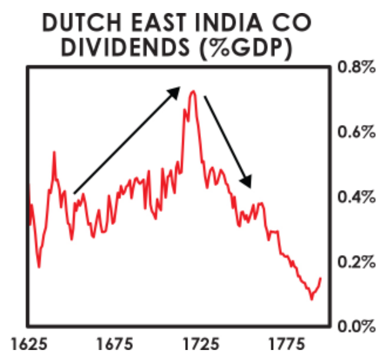
The Capital Markets Cycle of the Dutch

The Dutch invented capitalism as we know it. This was great for the Dutch and great for the world, but like most great inventions, it brought with it some potentially deadly consequences. While production, trade, and private ownership had existed before, **the ability of large numbers of people to collectively buy ownership in money-making endeavors through public equity markets did not exist. The Dutch created that when they invented the world's first publicly listed company (the Dutch East India Company) and the first stock exchange in 1602.**

Like most inventions, these capital market developments arose out of necessity and self-interest. The voyages across the world in search of new trade routes were risky ventures, so it made sense for merchants to sell some of the risk associated with the voyage to others in exchange for a share of the future profits. At the time the Dutch introduced equity shares in their voyages in the mid-1500s, it was revolutionary. Until 1600, these shares were held by only a small number of merchants, largely lacked transparency, and were illiquid, so their attractiveness to outside investors was limited.

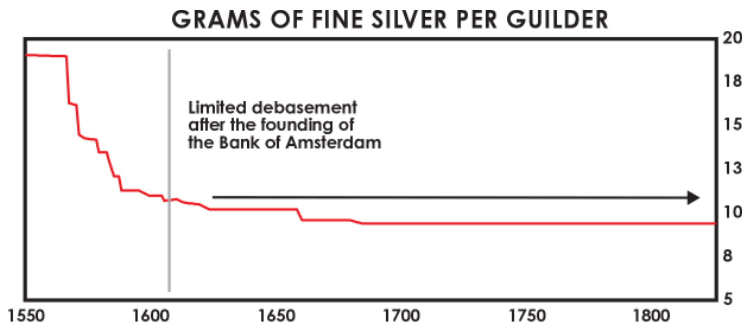
The formation of the Amsterdam Stock Exchange in August 1602 and the listing of the Dutch East India Company spread share ownership much wider (more than one in 50 Dutch adults owned shares), and the exchange's clear rules about ownership and transfer of shares made the market much more transparent. **The Dutch East India Company was an equally revolutionary invention. The world's first transnational corporation, it had many of the features you see in companies today**—shareholders, a corporate logo, a board of directors, etc. Capital markets enabled investors to save, merchants to raise funds, and everyone to have a liquid market in which transfers of capital could happen easily and efficiently, fueling a new era of wealth accumulation. At their peak in the early 1700s, Dutch East India Company dividends accounted for nearly $1 out of every $100 of total Dutch GDP.

Importantly, the Dutch outcompeted the Spanish and the Portuguese, which led them to win the main prize—a higher share of the trading between Europe and Asia, particularly China and Indonesia, which was very profitable.



In addition to creating an equity market, the Dutch developed an innovative banking system, which grew rapidly and began to finance international trade for Dutch and non-Dutch merchants. Prior to the Dutch banking innovations, the international currency situation was a mess. In the late 1500s, around 800 different foreign and domestic coins circulated in the Netherlands, many of which were debased (i.e., had a lowered content of precious metal in the coins) and difficult to distinguish from counterfeits. This created uncertainty over the value of money, which made international trade slower and more expensive.

In 1609, the Bank of Amsterdam was established as an exchange bank to protect commercial creditors from unreliable commodity money in general circulation. The Bank of Amsterdam undertook activities that would generate monetary stability and put the Netherlands' coinage, the bank's letters of credit, and the Dutch financial system at the center of global finance. Notably, this bank guilder, though backed by hard currency, was essentially Type 2 money. That set up the guilder as a true reserve currency, the first of its kind.



As a result of this system, the guilder remained effective as both a medium of exchange and a storehold of wealth. **Bank of Amsterdam bills of exchange improved their status as a reserve currency. Baltic and Russian trade relied solely on guilders and Bank of Amsterdam bills of exchange for pricing and contract settlement.**[5]

The New World Order: The Thirty Years' War and the Peace of Westphalia

Then came the Thirty Years' War (1618–48). While the Dutch played a relatively minor role in the Europe-wide conflict, it is worth covering this war in some detail given its importance to the internal and external orders of Europe more broadly. It is also a classic case of how internal and external orders work together.

All the classic balance of power dynamics came into play. In this case, the Thirty Years' War was a classic fight over wealth and power, just a lot longer one. On one side was the Catholic emperor of Habsburg Austria, who was allied with the German Catholic territories (most prominently Bavaria), as well as with Spain and the Papal States. On the other side were the German Protestant nobles, allied at different points in time with Denmark, the Netherlands, Sweden, and France. The fighting was about money, religion (Protestants versus Catholics), and geopolitics. The alliances were pretty complex. For example, the French monarchy—despite being Catholic and having Cardinal Richelieu[6] driving policy—was allied (first secretly, then openly) with both Lutheran Sweden and largely Calvinist Netherlands. That is because money and geopolitics mattered more than religious ideologies.

The Habsburgs lost the war. That left them in a meaningfully weakened position. The treaty that established the new international order, the Peace of Westphalia, expanded the autonomy of the individual princes of the Holy Roman Empire, further eroding the limited authority of the Austrian emperor over the other states. More importantly, **the deal that was cut at Westphalia invented countries as we know them, which is to say it allowed sovereignty of the state with the ability to make choices within its geographic borders** (e.g., their religions, their languages, and all their rules) and instituted respect for those boundaries so that no longer would borderless, free-flowing power grabs occur (without, of course, the understanding that you'd be starting a major war). The emergence of the concept of states led to nationalism and the pursuit of national interests, which reshaped the concept of the balance of power between rival states. **It also made the religious authorities much less powerful.**

The Peace of Westphalia reflected what I call the "exhaustion of war," which contributed to a long period of peace and prosperity that followed. Like all big wars, the Thirty Years' War produced devastating losses of life, property, and wealth. One quarter of the population of Europe died from combat, disease, or starvation. **Because wars are so much more terrible than even those who are eager for them can imagine, they lead to treaties that redefine the order and are followed by periods of peace, until the next big war happens.**

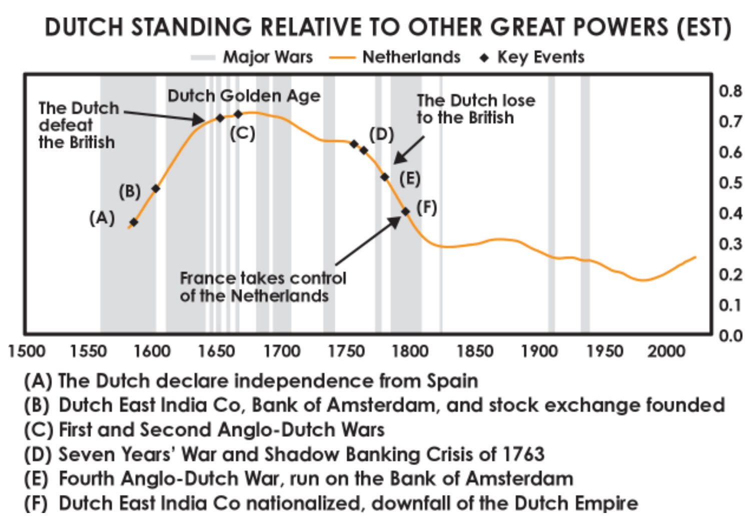
The Dutch benefited greatly from the new balance of power and period of relative stability; probably most importantly, it protected them from the threat of Habsburg domination.

It is also the case that ● ***wars are devastating financially; that is true for the winners and much more so for the losers.*** For example, France, though a "winner" and only indirectly involved for much of the war, experienced such bad financial problems and instability as a result that it was faced with widespread rebellions. The losing Habsburg Empire was even more devastated. Relative to the French and Spanish, the Dutch were less financially hurt. They benefited from the peace that fostered the Dutch Golden Age. The Dutch also benefited from the military developments that occurred in the war because, when coupled with the shipping capabilities of the Dutch East India Company, this strong shipping and military combination expanded Dutch power around the world.

THE TOP

The Dutch Golden Age led the Dutch to shift their attentions to "living the good life" in a way that weakened their finances. Other powers rose too and began to challenge them. The arrival of capitalism, combined with the new approaches of the Enlightenment, led to an economic transformation called the Industrial Revolution, which was centered in Britain. The Dutch, who had been the unparalleled leaders in innovation, trade, and wealth in the 1600s, failed to keep up. Eventually the cost of maintaining a declining and overextended empire became unsustainable.

This chart shows a number of key steps.



At the top, the Dutch saw a reversal of many of the classic ingredients we discussed earlier:

- The Dutch **educational and technological edge eroded**.

- The Dutch became **uncompetitive** in general and via the decline of the Dutch East India Company.
- **In the 1700s, the Industrial Revolution led the British to overtake the Dutch as the preeminent economic and financial power in Europe.**
- Slower economic growth relative to other powers made it more difficult to pay for and maintain its vast empire (especially one controlled by such a small nation). Increasing military conflicts (in attempts to protect their vast wealth around the world) left the Dutch **overextended and overindebted**.
- This all set the stage for the **decline in the guilder's reserve currency status**, which ultimately deteriorated after the Dutch **lost a war** (and with it, important assets) to the British.
- With the Dutch Empire weakened, its **financial center eroded**, especially after a series of debt crises and a run on the central bank and currency.

Even though the Peace of Westphalia brought relative peace and stability to Europe, the Dutch were still engaged in a number of conflicts throughout their time as an empire, as opponents saw their weaknesses and attacked, especially via naval wars fought over trade. Here is a brief summary of the wars the Dutch fought to build and then to hold on to its empire:

- **Eighty Years' War (1566–1648)**: This was the revolt by Protestant Netherlands against Catholic Spain. The Dutch first declared independence in 1581, but their full independence was not realized until the Peace of Westphalia (1648) ended both the Thirty Years' War and the Eighty Years' War.
- **The First Anglo-Dutch War (1652–54)**: This was a trade war that began when the English Parliament passed the Navigation Act of 1651, mandating that all goods from its American colonies be carried by English ships. The war was largely a stalemate and failed to resolve the trade rivalry between the nations.

- **The Dano-Swedish War (1657–60)**: This began when Sweden declared war on Denmark, a Dutch ally, threatening the highly profitable Baltic trade routes. The Dutch defeated the Swedish.
- **The Second Anglo-Dutch War (1665–67)**: England and the Netherlands fought over another trade dispute, which ended with a Dutch victory.
- **The Franco-Dutch War (1672–78) and the Third Anglo-Dutch War (1672–74)**: These were also fights over trade. The Dutch foiled French plans to conquer the Netherlands and forced them to reduce some of their tariffs, but at a tremendous cost.
- **The Fourth Anglo-Dutch War (1780–84)**: The British began the war in retaliation for Dutch support of the colonies in the American Revolution. It ended in a significant defeat for the Dutch, ushering in the end of the guilder as a reserve currency.

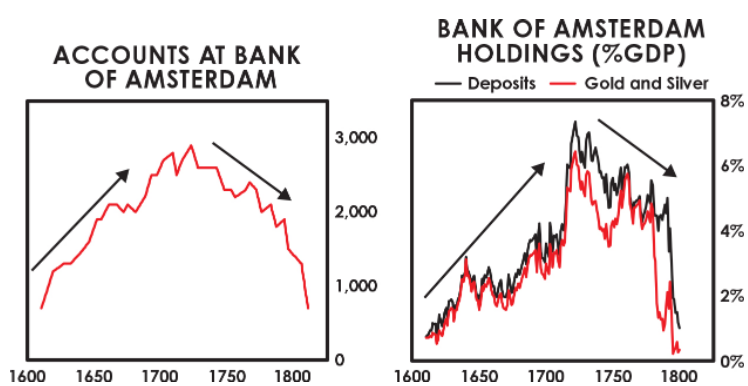
Ironically, it was a military victory, one that began nearly a century of peace, that led power to shift away from the Netherlands. In 1688, William III of Orange married Mary II, who was the daughter of the unpopular king of England, and successfully invaded England and took power. This was known as the Glorious Revolution and created a new internal order for Great Britain. While it was undoubtedly good for the Dutch in the short run to have William III on the British throne, **the second-order consequences of economic integration and military cooperation played a major role in the decline of Dutch economic power and the guilder over the next century**.

After 1688, as Great Britain became more competitive, Dutch merchants shifted their operations to London, hastening its rise as an international center of finance. The alliance also gave English merchants access to Dutch trade. William III moved to England instead of focusing his attention on ruling the Netherlands. When he died heirless in 1702, the direct connection between the two nations was broken, and the various Dutch provinces that had been unified under him began to splinter. While England and the Netherlands continued to have military partnerships against the French during most of the 80-plus years leading up to the Fourth Anglo-Dutch War, by the mid-1700s they were beginning to bump into each other in many of the same markets.

By the mid-18th century, the Dutch Empire was no longer the world's leading empire. Britain especially had learned from Dutch innovations and made their own investments in education to strengthen their people's capabilities. These abilities, coupled with the use of capitalism, led to the advancements that made up the Industrial Revolution, which brought about constant improvements on existing concepts to make production more efficient, such as standardizing inputs and moving production from individual artisans to factories. It also led to transformative new inventions. This allowed the British to become more productive, capture more trade, and build military might.

Additionally, and as is classic, **as the Dutch became extremely wealthy, they became less competitive**—for example, their wages were generally higher than those in other parts of Europe. The Dutch East India Company lost its competitive edge as well. For example, it was ineffective in trading popular new products like tea. **Dutch economic growth slowed relative to other powers, which made it more difficult for the Dutch to pay for and maintain their vast empire.** Increasing military conflicts to protect their vast wealth left them **overextended**.

Thus, from around 1725 through around 1800 the financial decline unfolded in the classic ways. These charts do a good job of conveying both the ascent and the decline of the Bank of Amsterdam.



As is classic, the reserve currency status of the guilder remained strong even as the Netherlands' other powers began to decline. Because bills of exchange were the dominant vehicle for international trade credit, all merchants wishing to trade with the Dutch were forced to open an account at the Bank of Amsterdam, which led to **around 40 percent of global trade being settled in Amsterdam using bank guilders**. The importance of the Dutch in trade and financial transactions, the Bank of Amsterdam's policies that made the guilder very effective as both a medium of exchange and a storehold of wealth, and the fact that Dutch commercial entities and banks insisted on its usage all cemented the guilder's place as the first global reserve currency.[7] This gave the Dutch the "extraordinary privilege" of being able to get into a lot of debt.

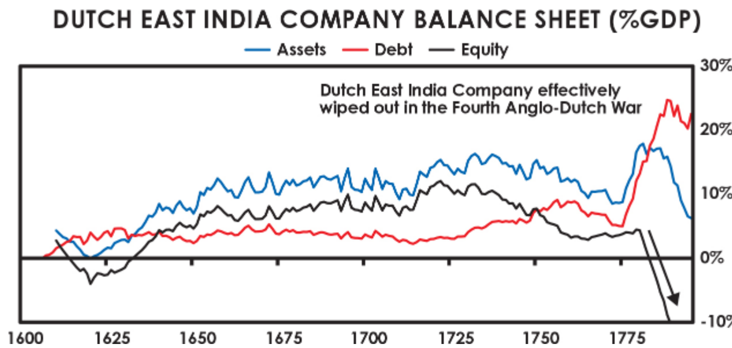
THE DECLINE

Around 1750 the British (and the French) became stronger than the Dutch, both because their own power had grown and because the Dutch had become weaker. As is classic, the Dutch a) became more indebted, b) experienced a lot of internal fighting over wealth,[8] and c) weakened militarily. All this made them vulnerable to decline and attack.

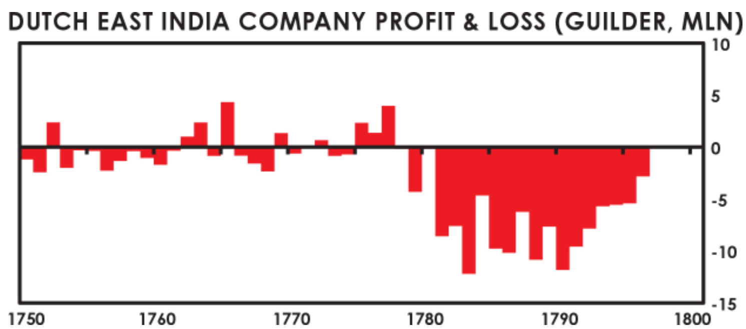
As earnings from abroad fell, wealthy Dutch savers moved their cash into British investments, which were more attractive due to their strong growth and higher yields.[9] Despite this, the guilder remained widely used as a global reserve currency. As explained earlier, reserve currency status classically lags the decline of other key drivers of the rise and fall of empires. Then, **as is typical, a rising great power challenged the existing great power in a war**.

Starting in the 1770s, the English began to interfere with Dutch shipping, escalating the conflict after the Dutch traded arms with the colonies during the American Revolution. In retaliation, the English delivered a massive blow to the Dutch Navy in the Caribbean in 1781, taking over Dutch territories there and in the East Indies as well. Having lost half its ships and access to its key trade routes, the Dutch East India Company had to borrow heavily from the Bank of Amsterdam to stay alive. Rival powers took the Dutch defeat as an opportunity to grab still more of the Dutch shipping business. British blockades in the

Netherlands and in the East Indies caused a liquidity crisis. The financial consequences of these events can be seen in the following charts.

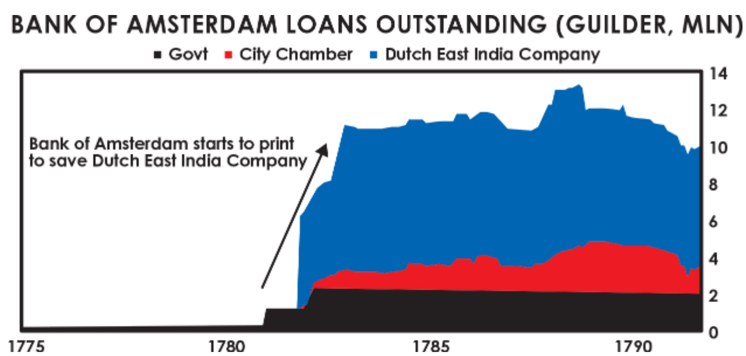


[10]



Financial losses and large debts led to the classic move by the central bank to print more money. As the Bank of Amsterdam printed more and more paper money to provide loans to the Dutch East India Company, it soon became clear that there would not be enough gold and silver to cover all the paper claims on it. That led to the classic "run on the bank" dynamic, in which investors exchanged their paper money for precious metals. With the bank's store of precious metals exhausted, the supply of guilders soared, even as demand for them fell, as shown in the following chart.

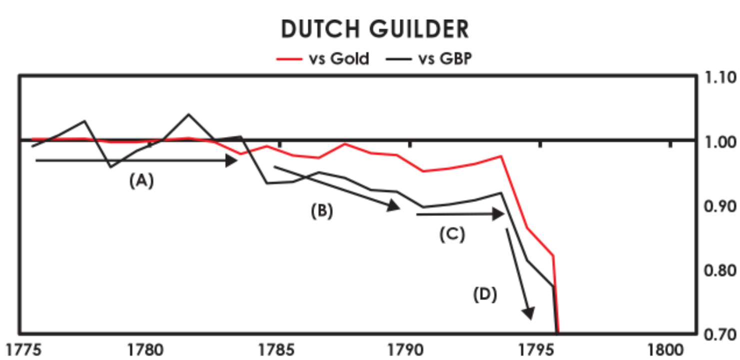
The next chart shows this explosion of loans on the bank's balance sheet throughout the Fourth Anglo-Dutch War. (For reference, the full balance sheet at the start of the war was about 20 million bank guilders outstanding, so this represented a roughly 50 percent expansion in the Bank of Amsterdam's balance sheet.) The Bank of Amsterdam had no choice; the Dutch East India Company was too big to fail because the government depended on loans from the company.



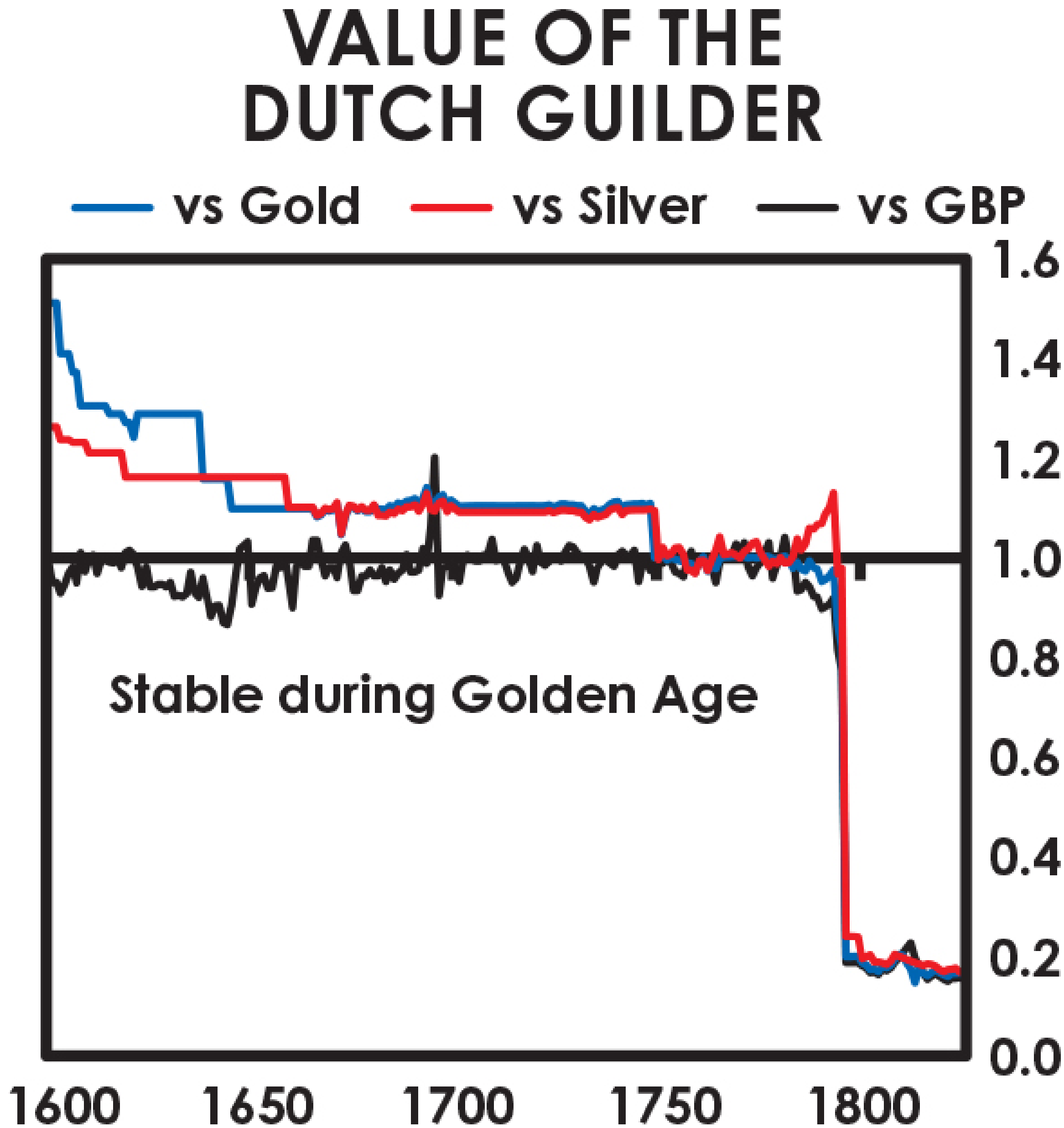
Interest rates rose and the Bank of Amsterdam had to devalue, undermining the credibility of the guilder as a storehold of wealth.[11] As a result, the British pound replaced the Dutch guilder as the leading reserve currency.

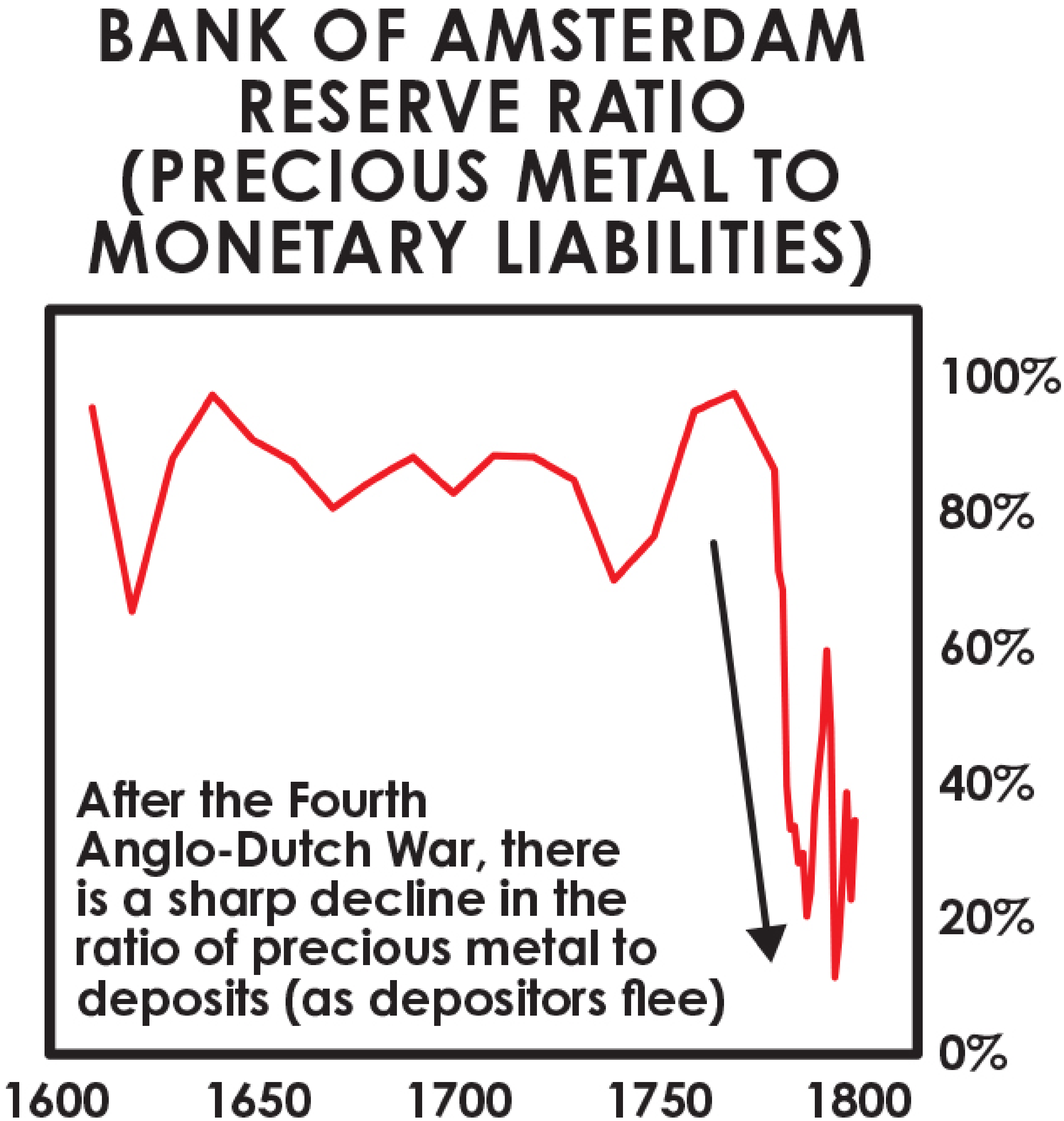
What happened to the Dutch was classic, as described in Chapter 1's summary of why empires rise and fall and Chapter 3's description of how money, credit, and debt work. **The Bank of Amsterdam started with a Type 1 monetary system (precious metal) that morphed into a Type 2 monetary system (paper money linked to precious metal).** As usual, this transition occurred at a time of financial stress and military conflict. It was risky because the transition decreased trust in the currency and added to the risk of a bank-run-like dynamic, which is exactly what occurred. Bank of Amsterdam deposits (i.e., holdings of short-term debt) had been a reliable storehold of wealth for nearly two centuries. They began to trade at large discounts to guilder coins (which were made of gold and silver). The bank used its holdings of coin and precious metals (i.e., its reserves) to buy its currency on the open market to support the value of deposits, but it lacked adequate foreign currency reserves to do this indefinitely. Accounts backed by coins held at the bank plummeted from 17 million guilder in March 1780 to only 300,000 guilder in January 1783 as owners of these gold and silver coins demanded them back. The bank run marked the end of the Dutch Empire and the guilder as a reserve currency. In 1791 the bank was taken over by the City of Amsterdam, and in 1795 the French revolutionary government overthrew the Dutch Republic, establishing a client state in its place. After being nationalized in 1796, rendering its stock worthless, the Dutch East India Company's charter expired in 1799.

The following charts show the exchange rates between the guilder and the pound and gold. As it became clear that the bank no longer had any credibility, investors fled to other assets and currencies.[12]

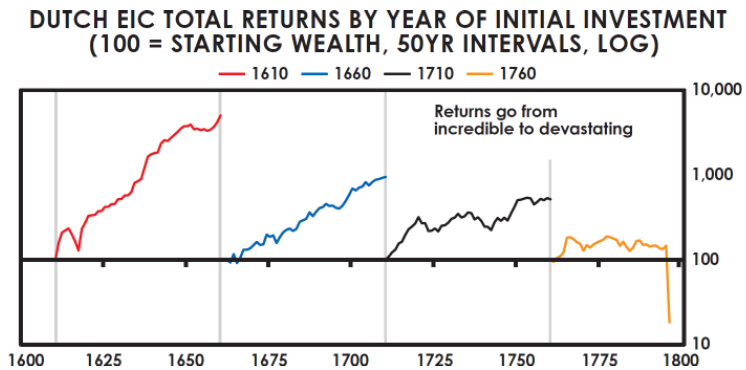


(A) Guilder stable through most of the decline era
(B) Fourth Anglo-Dutch War leads to money printing and initial pressure on the guilder (run on the Bank of Amsterdam)
(C) Short period of stabilization as investors seek safe havens at the start of the French Revolution
(D) The French overthrow the Dutch; accounts at the bank basically wiped out [13]

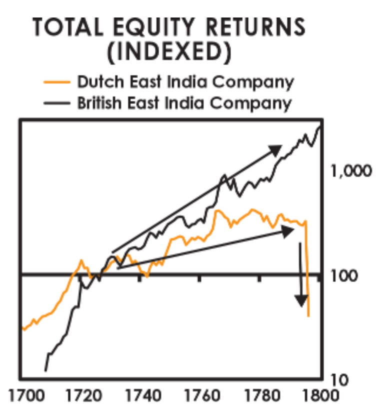

VALUE OF THE
DUTCH GUILDER
vs Gold
vs Silver
vs GBP
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Stable during Golden Age
1600
1650
1700
1750
1800

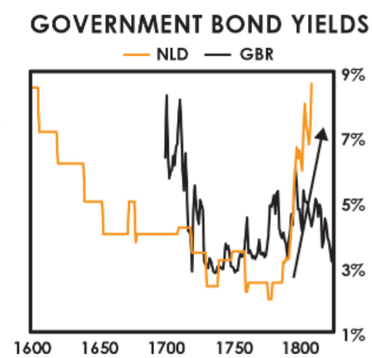


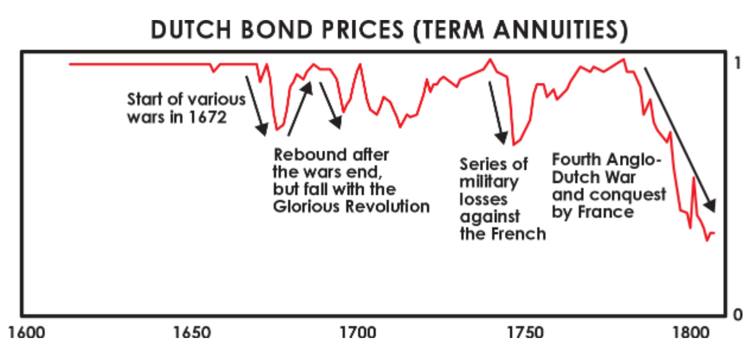
The next chart shows the returns of holding Dutch East India Company stock starting in various years. As with most bubble companies, it did great at first and seemed to have great fundamentals. This attracted still more investors even after those fundamentals began to weaken. Ultimately its failed fundamentals and excessive debt burdens broke it.



As is typical, the returns of investment assets in the declining empire fall relative to the returns of investing in the rising empire. Returns on investment in the British East India Company, for example, far exceeded those in the Dutch East India Company, and the returns on Dutch government bonds were terrible relative to British government bonds.







The decline of the Dutch Empire led to the next Big Cycle in world history: the rise and decline of the British Empire and its reserve currency. That story—

which is basically the same story, just a century or so later in a more technologically evolved form with people in different clothes speaking a different language—is told in the next chapter.

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[1] By 1500, the territory of modern-day Spain was increasingly unified following more than 500 years of conflict between Christian kingdoms and Muslim powers that had ruled most of the area since the 700s. The two largest kingdoms, Castile and Aragon, were joined together following the marriage of their rulers in 1469, and in 1492 they conquered Spain's last Muslim kingdom in Granada. The emergent Spanish power had a strong military and very close ties to the Catholic Church—significant portions of the Reconquista of Muslim Spain took the form of papally supported crusades, and religious and monarchic authorities were often closely aligned, as in the Spanish Inquisition.

[2] For example, the Wars of Religion in France led to millions of deaths from 1550 to 1600, while England violently switched faiths at several points in the 1500s as new monarchs came to the throne. Even later on, the devastating English Civil Wars of the mid-1600s were significantly driven by religious strife.

[3] Rough estimate based on my calculations.

[4] In this chapter, when talking about the "guilder," we are generally referring to guilder bank notes, which were used at the Bank of Amsterdam, rather than to the physical coin (also called "guilder"), which was made of a precious metal (i.e., Type 1 money).

[5] By 1650, it was fairly common for, say, a merchant in London to pay for goods imported from Moscow with a bill drawn on their deposit in Amsterdam. Both the number of accounts and deposit base of the bank rose continually through 1650.

[6] Cardinal Richelieu was the most important leader in France at the time, serving as chief minister from 1624 until 1642. Richelieu was a brilliant man who provided advice to the two rivals for control of the monarchy in France: the queen mother and her young son Louis XIII. (You can't make this stuff up.) Richelieu had his own particular view of how an internal order should work, which was that the state should be all-powerful—more important than what the monarchy, church, or nobility wanted. Besides being a great big-picture thinker, he was a great administrator who made the system work well. He improved efficiency throughout the kingdom, effectively collecting taxes and controlling power over the nobility and local authorities. He created the notions of national interest and balance of power—e.g., focusing policy on the goal of having France balance the Habsburg hegemony. This wasn't that long after Machiavelli's theories first circulated. His concept of keeping Central Europe divided and balanced (because united it would dominate other areas) worked from 1624 until the French Revolution (for more, see Henry Kissinger's *World Order*).

[7] Available payment data supports the claim that the guilder accounted for a large share of global trade: the annual value of payments made through the bank peaked in the 1760s at about 1.5 times the Dutch Republic's annual GDP (with some estimates more than double that). Similar ratios for the United Kingdom in 1868 and the United States in 1955 were 3.6 and 2.7, respectively.

[8] A good example of this is the popularity of the Patriot Movement in the Netherlands around this time.

[9] There was a general rise in foreign investment by the Dutch during this period. Examples include Dutch purchases of stock in the British East India Company and the City of London selling term annuities (bonds) to Dutch investors. For a further description, see Hart, Jonker, and van Zanden, *A Financial History of the Netherlands*.

[10] This chart only shows the financial results from the Dutch East India Company reported *in patria*, i.e., the Netherlands. It does not include the parts of the revenue and debt from its operations in Asia but does include its revenue from goods it sourced in Asia and sold in Europe.

[11] The Bank of Amsterdam was ahead of its time and used ledgers instead of real "paper money." See Quinn & Roberds, "The Bank of Amsterdam Through the Lens of Monetary Competition."

[12] Historical data suggests that by 1795 bank deposits were trading at a -25 percent discount to actual coin. See Quinn & Roberds, "Death of a Reserve Currency."

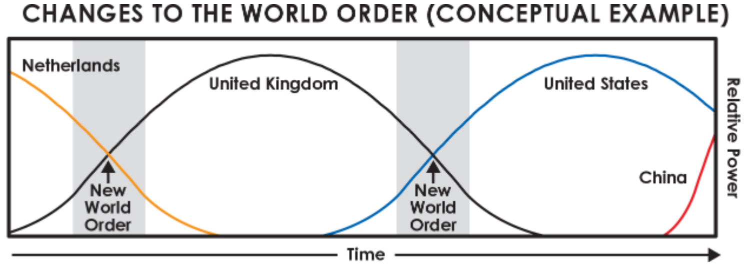
[13] To fully represent the likely economics of a deposit holder at the Bank of Amsterdam, we assumed depositors each received their pro-rated share of precious metal still in the bank's vaults when it closed (that was roughly 20 percent of the fully backed amount, thus the approximately 80 percent total devaluation).

CHAPTER 10

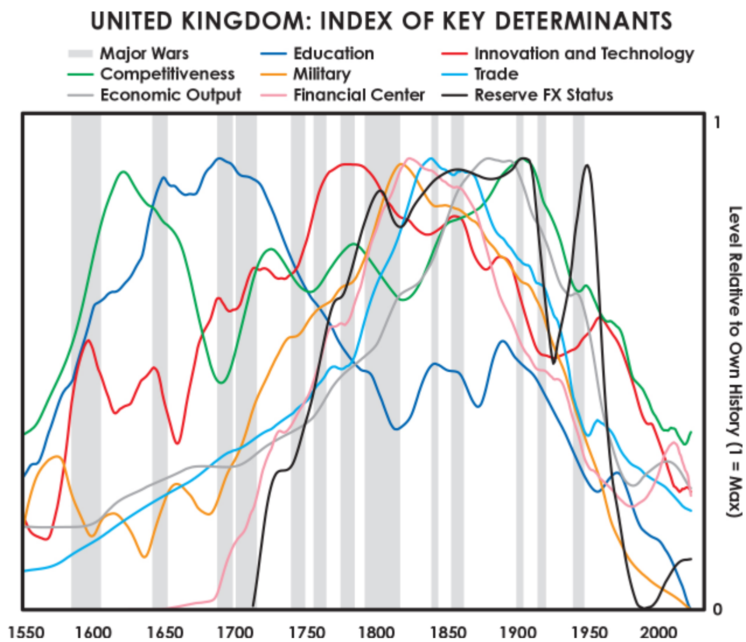
THE BIG CYCLE RISE AND DECLINE OF THE BRITISH EMPIRE AND THE POUND

Changes in the world order come about when two or more countries (or alliances of countries) of comparable power fight and one wins and becomes dominant enough to set the new rules, which is the new world order. Before this happens, the rising country needs to get itself into a comparable position of strength relative to the reigning country, so the story of any great country's rise begins long before it becomes a great power. Likewise, the story of its decline extends long after it ceases to be a great power. That is reflected in the arc chart that shows the simplified version of the cycles of the Dutch, British, American, and Chinese empires that I shared with you before and share here again.

CHANGES TO THE WORLD ORDER (CONCEPTUAL EXAMPLE)



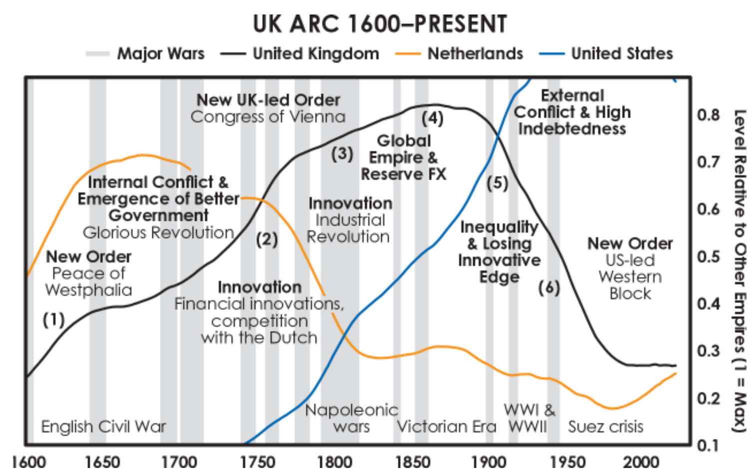
The rise of the British Empire started long before it became preeminent, as it first had to build its educational, institutional, and technological strengths to become more competitive and then challenge and defeat the Dutch. This chart shows my gauges of the eight measures of power for the British Empire from 1600 to the present. As shown, competitiveness, education, and innovation and technology levels rose sharply in the early 1600s and continued to increase steadily from 1600 to 1800, which paid off from 1700 to 1900 as the UK's output, share of world trade, and military expanded together. With the typical lag, the development of Britain's financial markets and its financial center (London) to become world leaders followed, and, with a greater lag, the pound overtook the guilder as the global reserve currency.



While the fall of the Dutch in the late 1700s removed the UK's primary trade and financial competitor, Britain's rise wasn't complete until the early 1800s because it had one last great rival power to defeat—France, led by Napoleon. You see, Napoleon was on a tear to conquer Europe and be the greatest power via the Napoleonic Wars. This created the usual sort of great power rivalry and balance of power struggle dynamic that I described in the addendum to Chapter 2, with all the alliances and escalation building to a great crescendo. Later in this chapter, I will briefly drop into the French story, also an iconic one, as part of explaining the rise of the British Empire. But for now I will simply jump to the punchline, which is that **Britain won through effective economic as well as military warfare. Then, following the classic Big Cycle script of what happens after wars that establish the dominant power, there was a new world order set out by the winners followed by a long**

period—in this case 100 years—of relative peace and prosperity. That is when the British Empire became the greatest empire ever. At its peak, with only 2.5 percent of the world's population in the UK, the British empire produced over 20 percent of the world's income and controlled over 20 percent of the world's land mass and over 25 percent of the global population.

But I'm getting ahead of myself. As shown in the previous chart, the story of Britain's rise began around 1600, so we should start there. The following chart shows the arc and the timing of key events. The numbers mark the approximate times of the six stages of the internal order cycle.



THE RISE

To set the stage for the UK's rise, we need to describe its situation, as well as the broader backdrop of Europe, at the end of the 1600s. For both, the early 17th century had massive conflicts that radically changed or overturned all the prior orders. As explained in the last chapter, **in Europe there was great devastation and change that resulted from the Thirty Years' War because it was a war between ideologies, religions, and economic classes that created a new European order through the Peace of Westphalia. This treaty established countries as we know them and created a fractured Europe, which led to different choices in different countries**. Great Britain had its own turmoil over wealth and power that took the forms of the English Civil War, which was a brutally violent continuation of the centuries-long battles between classes, and the Glorious Revolution, which less violently led to William III, a Dutch ruler, becoming the king of England. What these conflicts have in common is that they weakened the monarchy and strengthened Parliament. They also established terms for the relationships between the kingdoms of England, Scotland, and Ireland. **The English Civil War specifically led to the king (Charles I) being tried and executed and the monarchy being replaced by the Commonwealth of England under the rule of the general who led the revolt, Oliver Cromwell.**

These conflicts established rule of law rather than rule of the monarchy and they created a new balance of power between the king and Parliament that set the foundation for Great Britain's later rise. That is because a strong Parliament allowed for a moderately meritocratic selection of national leaders, as the prime minister had to command the confidence of Parliament rather than just be a favorite of the royal court. Statesmen who led Britain during its later rise and peak—such as William Pitt the Elder and his son, Will Pitt the Younger, Robert Peel, William Gladstone, and Benjamin Disraeli—were strong forces for shaping Britain. They all came from families of merchants, not the landed gentry.

This revolutionary strengthening of Parliament was heavily influenced by the new Enlightenment thinking about who should have what powers and how governments should work that had spread throughout Europe starting in the late 1600s. That was shaped by the earlier scientific thought of Englishman Francis Bacon (1561–1626). **At the core of this new, human-centric philosophy was the idea that society should be based on reason and science and that the government's power comes from the people, not from God.**

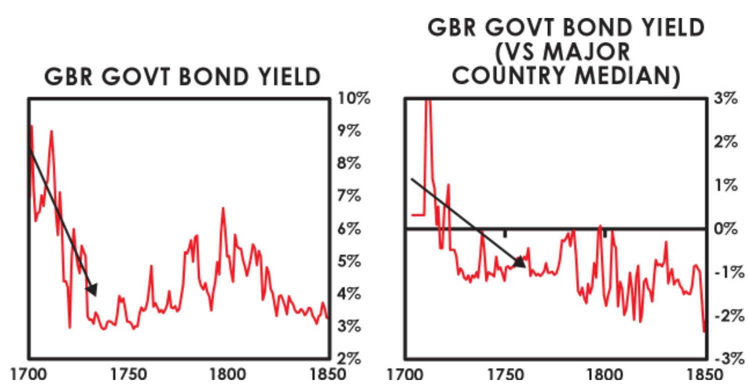
Debate and skepticism were encouraged. Improvements in basic education (which caused literacy rates to rise), the dissemination of ideas via printed materials (the first encyclopedias and dictionaries were printed en masse at this time), and a growing number of transnational elites (who were well-read and cultivated cross-border contacts) created a new and wider "public sphere" of political and social thought. The key

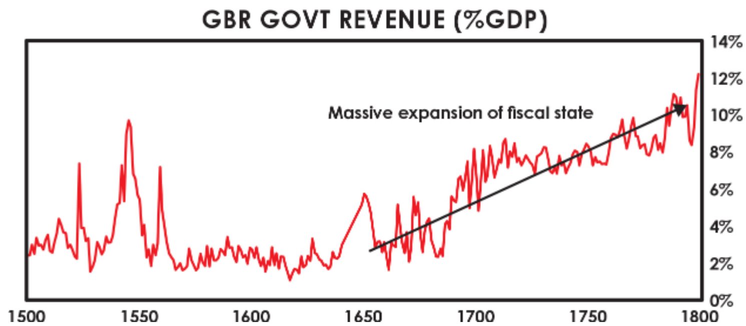
thinkers during this time produced ideas and concepts that are still important in the Western world.

Enlightenment ideas influenced different countries in different ways, ranging from more autocratic monarchs like Catherine the Great in Russia to the more representative form of government adopted by America's Founding Fathers. **The UK particularly reaped the benefits of the Enlightenment's strong political institutions and rule of law alongside the Enlightenment's emphasis on science, which supported major discoveries.**

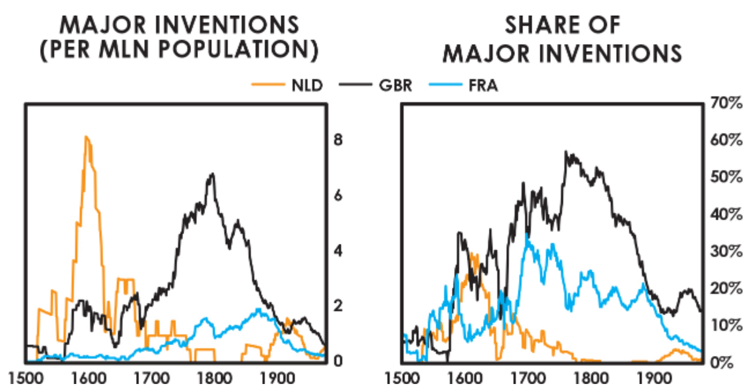
While these strengths did not bring about immediate prosperity, **over time the British system's respect for the rule of law, combined with strong education, gave it the foundation to gain competitive advantages in commerce and innovations that followed and led to the rise of the British Empire.**

At the same time, **England became financially strong as it created a powerful and centralized fiscal authority that allowed the state to raise significantly more revenue than its international rivals. By the 18th century, the tax burden in Britain was almost twice that of France. The creation of the Bank of England in 1694 helped standardize and increase the liquidity of UK government debt, improving its ability to borrow**. Consistent with these reforms, government bond yields fell drastically, both outright and relative to other countries over the early 1700s.





By the early 1700s, there were many other classic signs of an empire on the rise. In these charts, you can see Britain's leadership in innovation compared to its main rivals at the time.



The Industrial Revolution

A well-educated population together with a culture of inventiveness and the availability of capital to financially support the developments of new ideas—especially about how machines could more efficiently do what many were laboring to do—created a great wave of competitiveness and prosperity. England's geological endowments of iron and coal gave it a great boost in producing this economic transformation known as the First Industrial Revolution. As described in Chapter 8, this shift changed Europe from a primarily rural and agrarian society in which most people were poor and power resided with landowning elites to an urban and industrial society in which people as a whole got a lot richer (though benefits disproportionately accrued to the elites) and power resided with

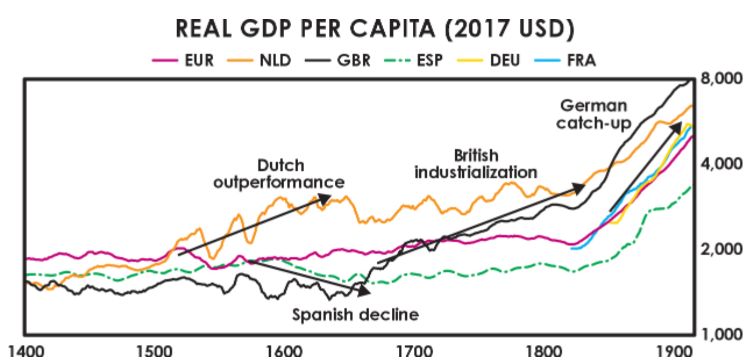
central government bureaucrats and capitalists. Geopolitically, these strengths led it to overtake the Dutch as the preeminent economic and financial power in Europe around 1750, 30 years before the UK defeated the Dutch in the battle and clearly became the world's leading empire.

The productivity revolution started with agriculture. Agricultural inventions increased productivity, which reduced the labor intensity of farming. It also made food more plentiful and cheaper, which led to a population boom. Together these forces led to people flocking to cities, which benefited industry from the steadily increasing supply of labor. The Industrial Revolution was driven not only by the creation of brand-new inventions like the steam engine but also by adapting and improving on existing concepts to make production more efficient, such as standardizing inputs and moving production from individual artisans to factories. Ample labor, energy, and connected global markets together helped support the burst of innovation. This list gives a sense of the timing and pace of innovation in the UK:

- 1712: Steam engine invented.
- 1719: Silk factory established.
- 1733: Flying shuttle (basic weaving machine) invented.
- 1764: Spinning jenny (multi-spindle weaving machine) invented.
- 1765: Separate condenser (for steam engines) invented.
- 1769: Water frame (hydraulic power for weaving machines) invented; steam engine upgraded.
- 1785: Power loom invented; iron refining developed.
- 1801: Steam-powered locomotive on wheels invented.
- 1816: Steam-powered locomotive on rail patented.
- 1825: Railway construction initiated on a line connecting Manchester and Liverpool.

Through these revolutionary changes to agriculture and industry Europe became urban and industrial, with goods made by machines in city factories. The new urban population required new types of goods and services, which required the government to get bigger and spend money on things like housing, sanitation, and education, as well as to set up the infrastructure for the new industrial capitalist system to flourish, such as courts, regulators, and central banks. **Power was in the hands of central government bureaucrats and capitalists who controlled the means of production.**

This was most true in the **United Kingdom, which pioneered many of the most important innovations and which used the new methods of production to pull ahead of other nations and become the world's leading superpower**. As reflected in output per capita, the UK's living standards caught up to those in the Netherlands by around 1800 and overtook them in the mid-19th century, when the UK approached the zenith of its share of world output (around 20 percent). In parallel to this economic growth—and helping to reinforce it—the UK became the world's dominant trading nation, pulling decisively ahead of the Dutch in the late 1700s and maintaining that position through the 19th century. At the same time there was an acceleration in the output of all countries through most of the 1800s. Most countries in the world were then in Stages 3 and 4 of the internal order cycle.



Naturally as it became a world economic power the UK needed to be able to fight militarily to both protect and assert its interests. **The UK's military strength—especially its navy—helped it establish its colonies and take over those of other European powers, as well as secure its control over global trade routes. The profitability of the empire more than paid for its military spending because it supported economic activities.** Thanks to the Bank of England's financial innovations and the guilder's collapse, **London became the world's financial center and the pound sterling the world's**

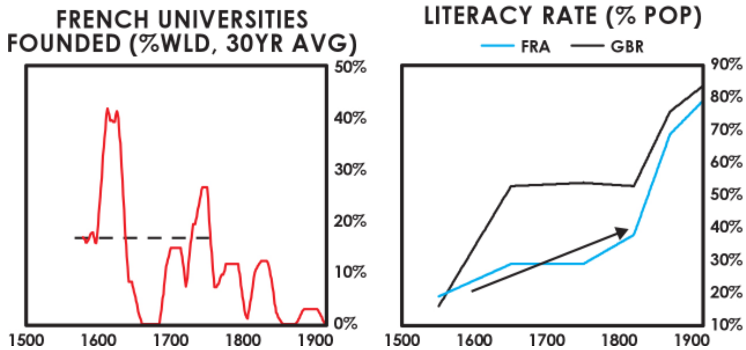
reserve currency. In other words, Great Britain followed the classic Big Cycle steps of a rising empire.

Britain also took the Netherlands' mantle as the top trader with China. With the Industrial Revolution, Europe no longer demanded nearly as much in the way of manufactured luxury goods from China, but instead sought a commodity —tea. China, for its part, wasn't interested in European goods and continued to seek payment in precious metals. That sowed the seeds of the great British-Chinese conflict that led to the Opium Wars and China's Century of Humiliation. Who would have imagined that?

The story of Britain's rise is obvious in retrospect. It's easy to look back and describe what happened. It's another thing to position oneself well for it by anticipating it and seeing it happen at the time. I wonder what I would have thought at the time. I wonder whether in looking at the readings of my indicators and systems and thinking about the situations whether I would have bet well. That is why it is so important to me to have the data and the decision rules to see what I would have actually done and what the results would have been. I can now see what the indicators would have shown at the time and know that they would have painted the picture I just described, and I can see from that that the picture would not have been crystal clear that the British Empire would have gone on to become the dominant world empire. If I were alive in the early 1700s and looking at my indicators, I would have seen the Dutch still at their peak and Bourbon France as a major power on the rise also, and I would have seen bullish conditions for them both at that time.

Why Not the French?

In the early 1700s, France was a center of education and learning, a hub of the Enlightenment with famous thinkers like Voltaire and Montesquieu, and a home to a booming publishing industry, so my indicators would have shown the French as being just as strong as the Dutch and British powers. From 1720 to 1780, the number of books on the arts and science published in Paris doubled. As the quantity of information increased, so did people's literacy; over the course of the 18th century literacy rates in France close to doubled.



France also would have shown up as economically strong in the early stage of a big debt cycle upswing. It was just before an investment boom was about to turn into a bubble which later turned into a bust. At the time, France's most famous economist was John Law (a Scotsman by birth) who thought the creation of new money would stimulate the economy. In 1716 he created a national bank with the ability to issue paper money backed by land, gold, silver, and state bills. That began the upswing in the cycle. The original capital for this bank, Banque Générale, was provided by shareholders, who also sat on the bank's board. France had had a stock market since 1673, when Finance Minister Jean-Baptiste Colbert's Ordinance of Trade was codified into commercial law,[1] so it had all the ingredients for a classic capital markets upswing. At the same time, Law also created the Company of the West. The Company of the West, or the Mississippi Company, was a trading company with monopoly rights in French Louisiana (half of the present-day United States). Law allowed French government debt to be used to purchase shares in the Mississippi Company. With a new company that had an exciting story about exploiting the opportunities of the new frontier and a bank and government finances supporting this endeavor, all the right ingredients were in place. As the company expanded, state debt holders jumped at the ability to convert their debt into equity. This created what was perceived to be a great investment. Would you have bought in? Would I have bought in? If we didn't would we have had regrets? The stock soared, eventually becoming a bubble in the classic ways these things happen. When it burst, both shares and bills rapidly lost their value because of the classic reason of the outstanding claims on real assets being much greater than the real assets that were backing up the claims.

Naturally people in France fled from the depreciating paper money toward hard currency coinage. New laws prohibited charging interest rates above 5 percent, which meant that only the most credit-worthy borrowers and most stable investments could receive capital. As a result, it became nearly impossible for new businesses to receive funding. There wasn't enough real money.

On top of that, and quite typically, expensive wars made financial conditions worse. A partial list of wars that France was in follows:

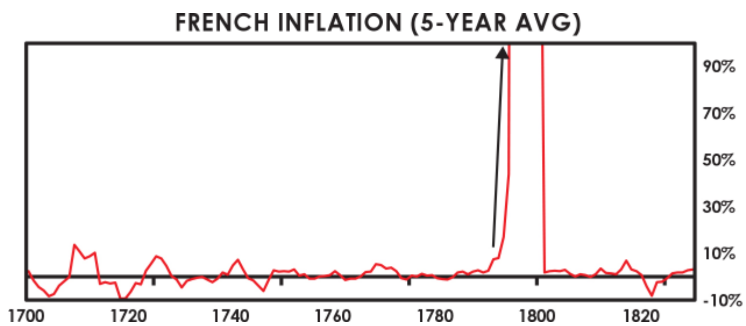
- **War of the League of Augsburg (1688–97)**: France, under the leadership of Louis XIV, expanded into modern-day western Germany, spurring war against England, Spain, Austria, and a number of German states.
- **War of the Spanish Succession (1701–14)**: France, allied with Spain, fought an alliance of England, Austria, and the Netherlands to contest the inheritance of the Spanish throne. The war ended with the French heir taking the throne of Spain, but with various concessions made to the other powers (including giving up Spanish territory in Italy and Belgium to Austria, and France giving England and the Netherlands colonial and trade concessions).
- **War of the Austrian Succession (1740–48)**: France, in alliance with Spain, Prussia, and other German principalities, fought against Austria and the UK, in support of the German princes' territorial ambitions against Austria.
- **Seven Years' War (1756–63)**: France, allied with Austria, Sweden, and Russia, fought against Britain and Prussia over German territories and French and British colonies abroad, particularly in North America. (This war is also known as the French and Indian War.)
- **American Revolution (1775–83)**: France and Spain allied with the American revolutionary forces against the British government.

While a number of these wars produced territorial and strategic gains for France, they turned out to cost much more than they brought in which eventually severely damaged the French government's finances. Without a modern financial system, France had more difficulty funding its government through debt than Britain did so it had to rely more on burdensome taxes, which were unpopular. One example of France's inferior financial position affecting its geopolitical position is the differences in experiences of the British and the French during the American Revolution. The French paid for the war effort entirely by floating loans at interest rates at least double those the British government faced. This caused France's debt service payments to rise to over £14 million compared to Britain's £7 million (both had national debts of around £220 million). Because the nobility, clergy, and even certain privileged towns often paid lower taxes, high levels of taxation on the rest of society were imposed. That exacerbated France's already high income inequality. Many French laborers struggled to meet their basic needs. That caused more class warfare.

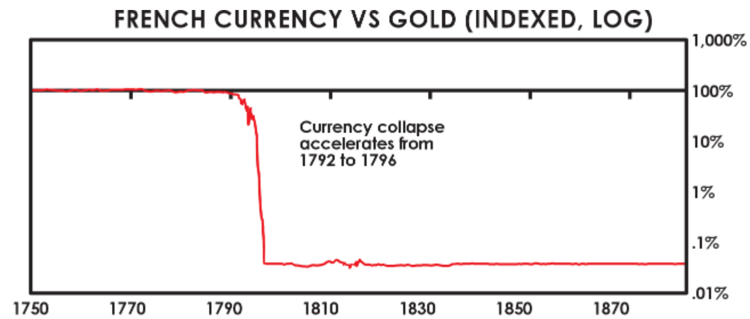
Along with extreme income inequality, there was corruption and extravagance at the top. The court of King Louis XVI was infamous for its frivolous spending—for instance, Marie Antoinette's Hamlet, an ornamental farm near the gardens of Versailles built at great expense to replicate a rustic village. **Two major wars—the Seven Years' War and the American Revolution—led to massive deficits.** During the American Revolution the deficits were around 2–3 percent of GDP and about a third of France's annual tax revenue. Meanwhile, the American Revolution further popularized Enlightenment ideas of liberty and equality, while **bad harvests in 1788 and 1789 led to soaring bread prices and famines**. It was a recipe for revolution.

Due to France's inefficient and unrepresentative political decision-making system, the government was unable to raise needed revenues or enact needed changes. Decisions from the ancien régime could be and often were undermined at virtually every lower level. The nobility and clergy resisted decisions that hurt them and were able to carve out broad privileges for themselves. Local authorities (called *parlements*) were needed to enact tax policy, but often resisted doing so. The closest thing France had to a legislative body was the Estates General, where representatives of France's three estates (the clergy, the nobility, and the commoners) met to approve certain legislation when summoned by the king. Its consent was seen as necessary to levy new national taxes; however, its powers and procedures were unclear, and basic questions—like how representatives were chosen and how many votes each estate got—were unsettled. In 1789, the Third Estate—representing the commoners, who made up 98 percent of the population—formed its own assembly, inviting members of the First and Second Estates to join it. To stop this National Assembly from meeting, the king closed their meeting hall.

Protests, riots, and insurrection arose. **In 1791, a newly elected National Convention declared France a republic**, and in January 1793 Louis XVI (by then officially called "Citizen Louis") was sentenced to death. As is classic in revolutions, violence began soon after, in which those who were deemed insufficiently zealous were purged. It is estimated that between 20,000 and 30,000 people were executed during the French Reign of Terror. By 1795, France was broke, and the assignat—the currency it printed to finance government spending—was experiencing hyperinflation.



As is also classic, the revolution led to a counterreaction in which the revolution's leaders were themselves arrested and a new constitution written and approved. The new system (the Directorate) proved to be ineffective and was immediately crippled by financial problems. Still, **the government continued to print money and forced wealthy citizens to loan it funds**. Ultimately, the inflationary spiral was halted by the introduction of the hard currency that was acquired through Napoleon's successful military conquests in Italy and the decision to declare bankruptcy on two-thirds of the government's debt. Additional measures such as increased taxes further strengthened the government's fiscal condition. In 1796, the government held a ceremony in which it destroyed the presses it had been using to print money.



Enter Napoleon

The bubble, the big wealth gaps, and the costly expense of war led to the bust and then to revolution, which threw out the old order and put in a new one. That new order consisted of revolutionary leaders who fought with each other, producing 10 years of painful chaos that required a strong leader to get control of the mess. It was all consistent with the classic, melodramatic script that has played innumerable times in the past. **As if on cue, Napoleon entered the picture. Napoleon was the classic hero rising to the occasion.** He had gained a sterling reputation as a military commander as France attempted to spread its republican system across Europe, and he was very popular. So, in 1799, he led a coup to install himself as first consul and eventually emperor, and held dictatorial powers until 1814. **Armed with centralized power and widespread support, he stabilized the economy and professionalized the government**; France was widely seen as an empire on the rise and a formidable rival to other European powers.

When Austria and Russia declared war on France, Napoleon scored sizable early military victories. Before long, he controlled Spain, Portugal, Italy, and much of Germany. I won't go through the history of the Napoleonic Wars, except to say that like other such leaders he overreached. Napoleon's invasion of Russia swung the tide of war against him. **In the end, France was defeated. Great Britain and Russia were the primary victors.**

It should be noted that a significant factor in the war was the UK's much greater financial strength. Because of their financial strength, **the UK was able to lend a lot of money to the European coalition forces against France.** It was both its financial resources and its naval power that allowed Britain to stay in the fight even as it and its allies suffered repeated defeats.

A New World Order: The Congress of Vienna

By now you know how these things go. After a war the victors come together and create a new world order. That happened at the Congress of Vienna. Just as the victors of the Thirty Years' War had done at Westphalia, **the quadruple alliance of Great Britain, Austria, Prussia, and Russia reorganized the world order in their favor at the Congress of Vienna (1814–15), creating a system of checks and balances among the European powers that would more or less hold for the next century.** The geopolitical importance of these developments is well-described by Henry Kissinger:

> It may not have fulfilled all the hopes of an idealistic generation, but it gave this generation something perhaps more precious: a period of stability which permitted their hopes to be realized without a major war or a permanent revolution... The period of stability which ensued was the best proof that a "legitimate" order had been constructed, an order accepted by all the major powers, so that henceforth they sought adjustment within its framework rather than in its overthrow.

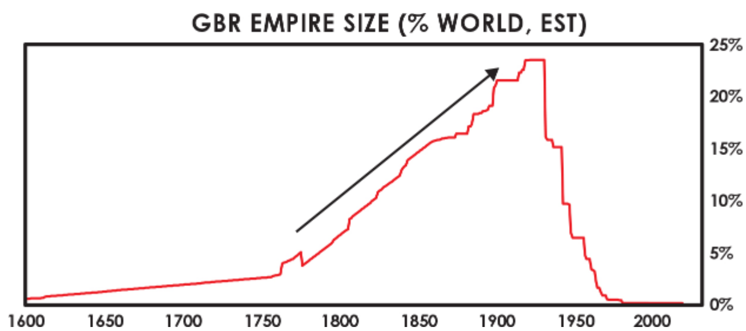
All the major powers were represented in Vienna, though the most important decisions were negotiated by the core group and France itself. Like the US at the Paris Peace Conference after World War I and in the negotiations after World War II, the UK didn't seek to gain significant new territories. **Its primary goal was to address the power imbalances in Europe that had led to wars. Areas that had previously consisted of weak and divided states, such as Italy, Germany, and the Low Countries, saw significant territorial consolidation to counterbalance more centralized states like France**, while agreements on the navigation of international rivers supported the expansion of trade. Tactically, the Treaties of Paris aimed to contain but not destroy France, which suffered only a minimal loss of territory.[2]

The victorious powers were all monarchies, and many of the policies they enacted were aimed at restoring the old status quo (for example, returning the Bourbon dynasty to power in France). Even so, the new ideas of the Enlightenment continued to have influence. **Governments shifted to more representative and rule-of-law-based systems, though to varying degrees (Tsarist Russia remained largely autocratic).** In England the liberalization came about as a result of gradual reforms, while on the continent a series of revolutions (most famously the liberal Revolutions of 1848) spurred the changes. **In time, nationalist movements led to the unification of Germany and Italy, as well as the destabilization of the multiethnic Austrian and Ottoman empires.**

British Power Approaches Its Peak

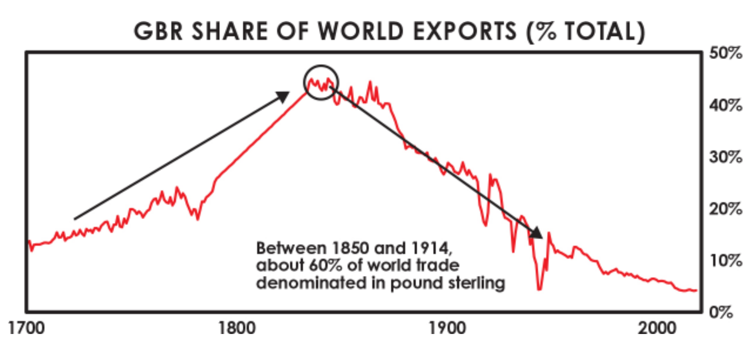
No power benefited more from the new stability than the British Empire. **Not only were Britain's main economic and military rivals weakened, but the power equilibrium allowed the UK to avoid expensive military conflicts close to home and focus on trade and its colonies, a policy known as "splendid isolation," which set the stage for its "Imperial Century."** Of course there were some bad economic periods during those years (e.g., the Panic of 1825 in the UK, and the panics of 1837 and 1873 in the US), and there were military conflicts (e.g., the Crimean War between Russia on one side and the Ottoman Empire and a coalition of Western European powers on the other). But these were not significant enough to change the big picture, which was of a very prosperous period with the British on top. As mentioned, at their peak in the late 19th century around 1870, the British produced 20 percent of the world's income and controlled 40 percent of global exports, 20 percent of the world's land mass, and 25 percent of the world's population. And the pound, of course, became the world's undisputed reserve currency. The charts on the following pages help paint the picture of Britain's dominant strength.

Geopolitically, the UK continued to expand abroad throughout the 19th century, eventually encompassing Canada, Australia, India, and large portions of Africa.[3] And even where the British Empire didn't explicitly take control, it was increasingly able to intervene abroad in order to gain trade access on uneven terms (e.g., the Opium Wars against China ending with a treaty ensuring the UK's ability to export opium to China despite local Chinese laws against it). Maintaining these colonies gave the UK an assured source of commodities, wealth, and income, and preferential trade arrangements. This chart clearly paints the picture.

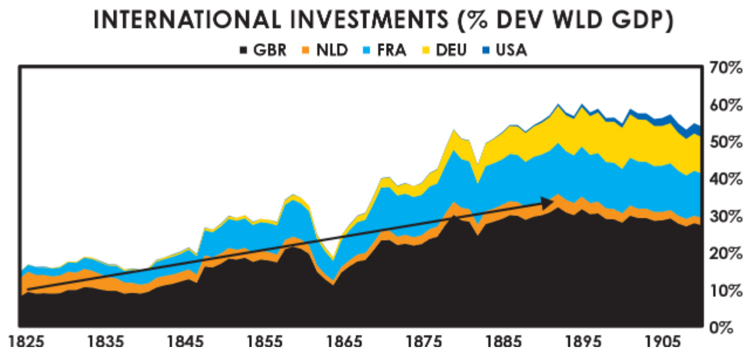


THE TOP

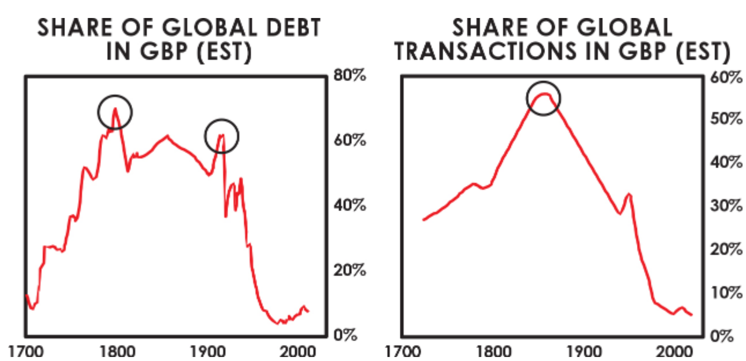
The pound's status as a reserve currency complemented its dominance in colonial expansion, military reach, global trade, and investment flows. **The UK's share of global exports rose with the Industrial Revolution and the spread of the empire, peaking around 1850 at about 40 percent of global exports.** And the share of trade denominated in sterling was greater than the UK's trade share alone. From 1850 to 1914, around 60 percent of global trade was denominated in pounds. This set of conditions sowed the seeds of the decline that typify the top phase of the Big Cycle.



Even as the UK's share of world exports declined, the UK ran a persistent current account surplus throughout this period. After 1870, this was comprised of a persistent trade deficit funded by returns on overseas investments. The income from the current account surpluses funded an increasing share of global cross-border investment as other countries become more attractive to invest in.



In 1818, the English Rothschild bank made its first major government loan, to Prussia. As the pound became increasingly liquid, a wave of other sovereign borrowers followed, and global debt, global trade, and global capital flows all came to be increasingly denominated in sterling.[4] Trust in the pound was bolstered by the economic management of the Bank of England, which increasingly operated as a "lender of last resort" to mitigate the effects of banking panics.[5]

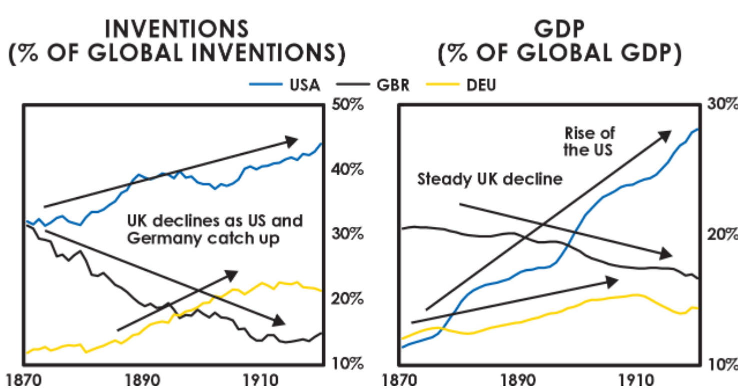


Even as the British Empire continued to expand its territorial and financial reach over the final decades of the 19th century, the seeds of its fall were evident, driven by the classic factors of 1) declining

competitiveness, 2) rising inequality and conflict, and 3) the rise of new rivals, particularly Germany and the US.

Declining Competitiveness

Stepping back, the broader story of economic growth in the mid-to-late 1800s was the Second Industrial Revolution, a sustained period of innovation in which science as well as engineering played a major role, as synthetics and new alloys were produced and the use of new energy sources like petroleum and electricity exploded. This was when the telephone and the incandescent light bulb were developed and automobiles soon followed. **Transportation, communications, and infrastructure improved**, and the rise of corporate capitalism enhanced productivity. **The result was a sizable increase in output per worker in the countries able to make the switch efficiently—primarily the US and Germany.** The UK didn't keep up, even though British inventions were key to many of these new developments. The UK's failure to reorganize its industries led to marked declines in output per worker relative to the other leading industrial powers. You can see the secular shift in innovation and economic power in these charts.

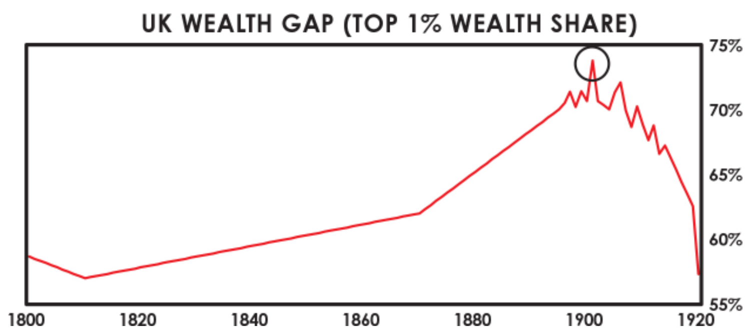


[6]

Rising Inequality

The gains from industrialization were distributed very unevenly in the UK, producing extreme levels of inequality. By the late 1800s, the top 1 percent of the population owned over 70 percent of all wealth, more than in peer countries. The

UK's top 10 percent owned an astounding 93 percent of its wealth.[7] As shown in the next chart, the peak in the wealth gap coincided with the peak in the British Empire around 1900, which was the beginning of the next wave of conflict over wealth and power due to large wealth gaps and the classic late Big Cycle conditions described in Part I.



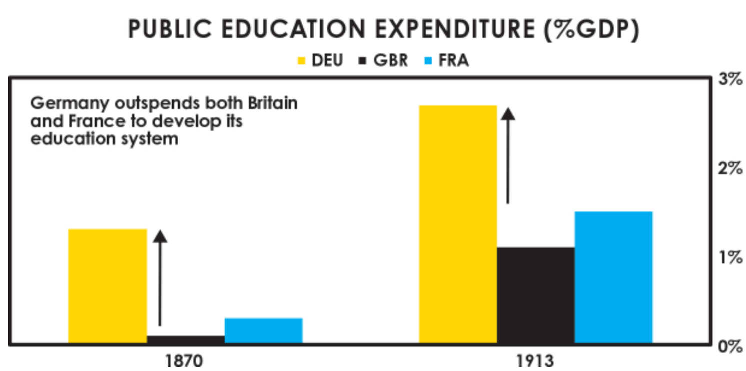
The combination of social change and rising inequality sparked significant tensions. England's policy response in the mid-1800s focused largely on reform bills that expanded voting rights and reduced the corrupt practices that had made elections less democratic. By the early 1900s, those political reforms were followed by social reforms, which included the introduction of a public pension system, medical and unemployment insurance, and the provision of free lunches for school children. Organized labor was also on the rise, strengthening workers' bargaining power. By 1911, around 25 percent of eligible men were union members, and the Labour Party became a significant force in politics. This greater power took the form of increasingly large strikes—for example, the first national strike by coal miners in 1912, which led to a minimum wage for miners.

Geopolitical Rivals Emerge

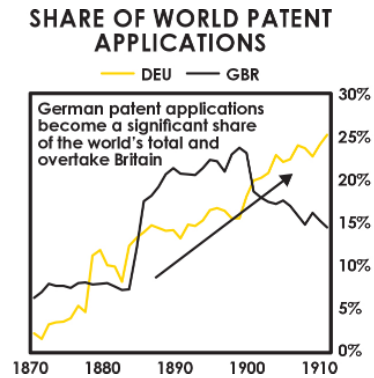
In addition to its domestic issues, the UK faced challengers to its empire abroad, competing for influence with France in Africa, Russia in the Middle East and Central Asia, and the US in the Americas. **Its most significant rivalry, however, was with Germany.** The United States, the other great rising power, remained blissfully isolationist with a big ocean allowing it to largely ignore the conflicts in Europe.

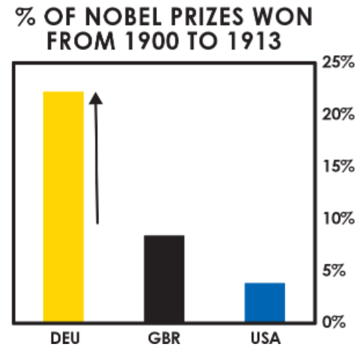
When the new world order began at the Congress of Vienna, Germany was still divided into a number of smaller states. While the Austrian Empire, ruled by the Habsburgs, had a lot of influence, Prussia was swiftly rising and had one of the strongest armies in Europe. **Over the next century, it successfully unified the other German states, becoming a first-rate power. It achieved this thanks in large part to Otto von Bismarck's brilliant strategic and diplomatic leadership[8] and the other classic ingredients for success: strong education and competitiveness.**

Once unified, Germany experienced the classic virtuous cycle of a power on the rise. Viewing an effective education system as a crucial step in its quest to raise its economy to the level of Great Britain's, the new Germany—and its predecessor states—built one from the ground up, focusing on teaching both practical trade skills and high-level scientific knowledge, theoretical and applied. Starting in the 1860s, primary education was mandatory for all and enforced by law. Germany also established three new research universities.

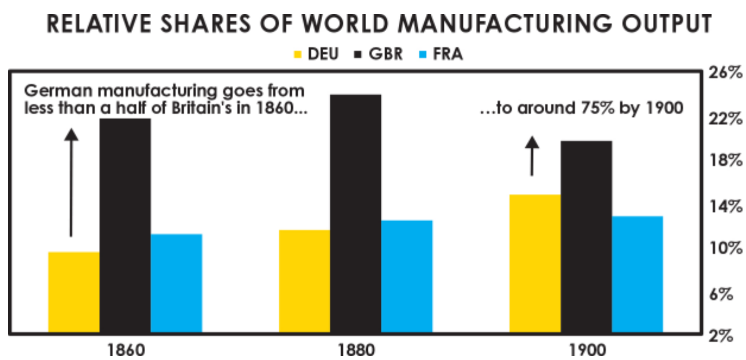


In order to create a culture of innovation, the German government provided credit to corporations, along with technical advice and assistance; awarded grants to inventors and immigrant entrepreneurs; bestowed gifts of machinery; and allowed rebates and exemptions of duties on imports of industrial equipment. Germany also maintained a strong rule of law, which was explicitly aimed at economic development.

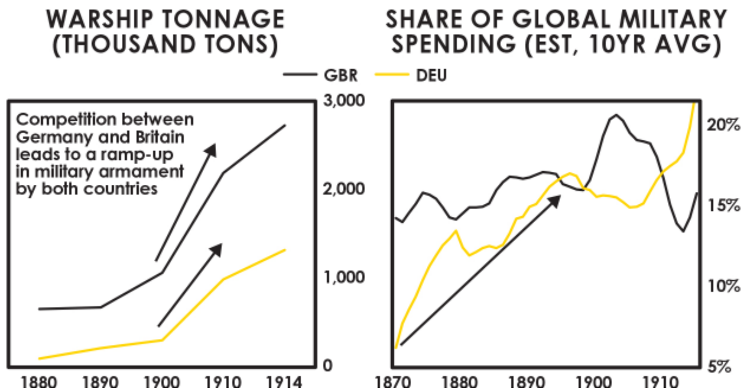




As a result of these efforts, Germany's share of the world's manufacturing output increased from about 5 to 13 percent between 1860 and 1900 while the other European powers' shares stagnated or decreased. **By 1900, Germany's GDP had surpassed Britain's (excluding its empire), although the latter was still the leading trading nation in the world.**



While Bismarck was a skilled diplomat who prioritized economic development and diplomacy with international competitors, his successors were less skilled and more aggressive. **When Wilhelm II became emperor in 1888, he forced Bismarck to resign and adopted a policy of turning Germany into a world power.** This led other powers, primarily Russia and the UK, to increasingly align with France (a bitter rival of Germany since the Franco-Prussian War in 1871) in an effort to contain Germany. **Wilhelm moved to build up Germany's military, particularly its navy, setting off an arms race with the UK.** This began the next rivalry between great powers.



The UK retained its naval advantage, but the arms race strained the finances of the major powers and further destabilized the geopolitical order. **The rivalry between the UK and Germany was just one of many building across Europe—France and Germany were at odds, Germany was increasingly concerned about Russian industrialization, and Austria and Russia were struggling for influence in the Balkans. Though these countries were intertwined through marriage and commerce more than ever before, and despite most people believing it wouldn't happen, in 1914 the powder keg exploded into all-out war. This was the first world war because this was the first time the world had become so small and so interconnected that most of the major parts of the world were involved in one way or another.**

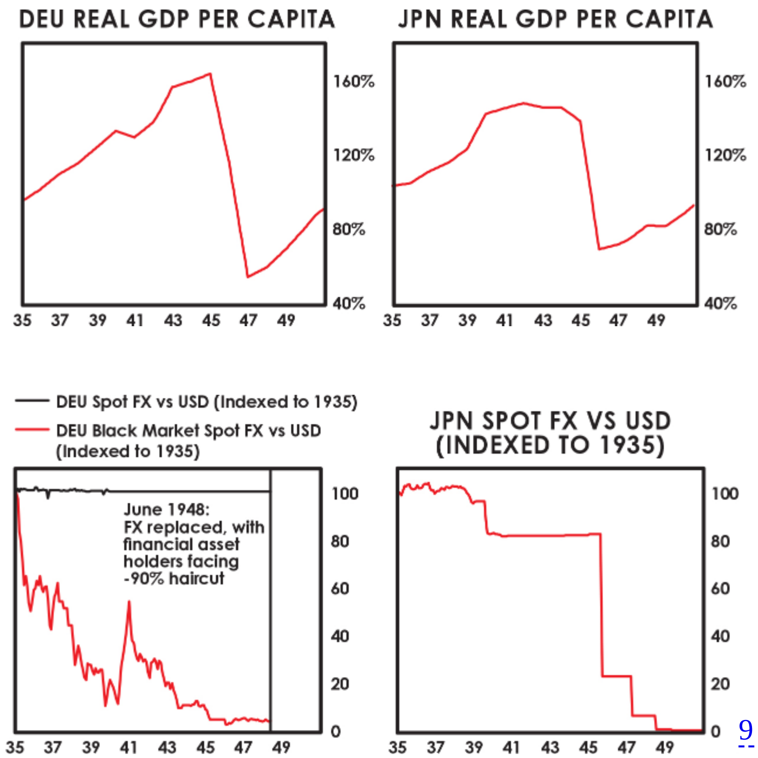
Given the complexity and scale of World War I, and how extensively it has been written about, I will just attempt to convey the big picture: it was terrible. **The war killed about 8.5 million soldiers and 13 million civilians, leaving all of Europe exhausted, weakened, and indebted.** Russia devolved into revolution in 1917; in 1918, the Spanish flu arrived, killing an estimated 20–50 million people around the world over the next two years. As a percentage of the European population, more people died during this period than in either the Napoleonic Wars or Thirty Years' War. But the war ended and the next new world order was created.

In 1919, the victors—the US, Britain, France, Japan, and Italy—met at the Paris Peace Conference to lay out the new world order in the Treaty of Versailles. The United States, now recognized as a leading power, played a big role in the negotiations. In fact, the term "new world order" was coined to describe US President Woodrow Wilson's vision for a global governance system (the League of Nations, though this quickly failed). If the Congress of Vienna in 1815 had created a relatively sustainable order, the terms of the Paris Peace Conference did the opposite— it made a second war inevitable though it wasn't apparent at the time. The territories of the losing powers (Germany, Austria-Hungary, the Ottoman Empire, and Bulgaria) were carved up, and they were forced to pay reparations to the victors. **Those debt burdens contributed to an inflationary depression in Germany from 1920 to 1923. Elsewhere, much of the world entered a decade of peace and prosperity, the Roaring '20s. As is typical, the debts and the wealth gaps that were built up burst in 1929, causing the Great Depression. These two big boom and bust cycles came unusually close together, though they followed the classic stages. I won't digress into the 1920s boom to bust sequence here as it was covered elsewhere in this book. But I will pick up the story in the Great Depression.**

The Great Depression coupled with the large wealth gaps led to a rise in populism and extremism in nearly every major country. In some countries—e.g., the US and the UK—this led to big redistributions of wealth and political power while capitalism and democracy were maintained. In others, particularly those with weaker economies (Germany, Japan, Italy, Spain), populist dictators seized control and sought to expand their empires.

Classically, before all-out wars begin, there is typically about a decade of economic, technological, geopolitical, and capital skirmishing. The time between the depression and World War II was consistent with this rule. As Germany and Japan became more expansionist, they increasingly competed with the UK, the US, and France for resources and influence over territories. Ultimately, those tensions boiled over into war.

World War II, just two decades after World War I, was even more costly in lives and money. Germany and Japan lost and the US, the UK, and the Soviet Union won, though economically the UK and the Soviet Union lost too and the US gained enormously in relative wealth. GDP per capita in Germany and Japan fell by at least half, and their currencies collapsed in the aftermath of the war, as these charts show. **As is typical, the winners of the war got together and determined a new world order in 1945.**



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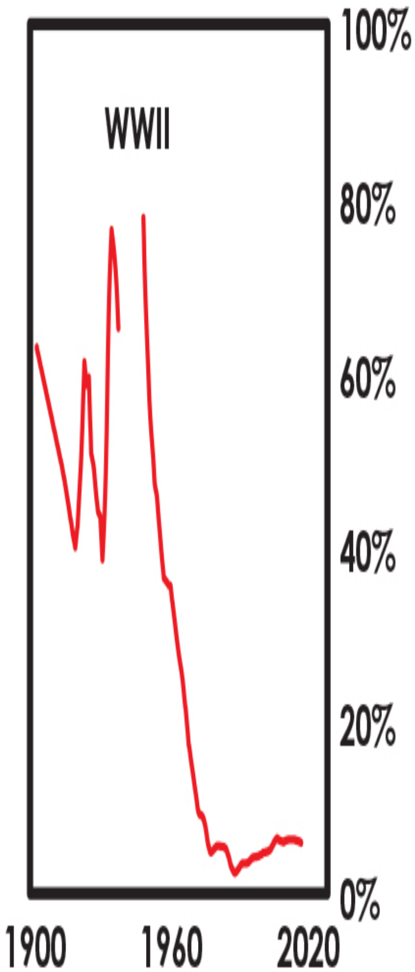
THE DECLINE

The Allied victory in 1945 produced a tremendous shift of wealth and power, with the US emerging as the world's dominant empire just as the British had after the Napoleonic Wars. The British were left with large debts, a huge empire that was more expensive to maintain than it was profitable, numerous rivals that were more competitive, and a population that had big wealth gaps that led to big political gaps.

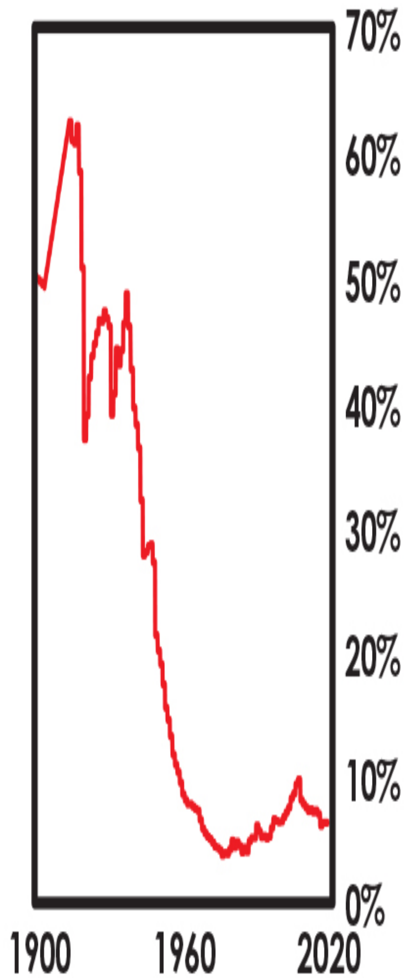
It took another 20 years for the British pound to fully lose its status as an international reserve currency. Just as the English language is so deeply woven into the fabric of international business and diplomatic communications that it would be difficult to replace, the same is true of reserve currencies. Other countries' central banks continued to hold sizable shares of their reserves in pounds through the 1950s, and a third of all international trade was still denominated in sterling in 1960. **But the pound had been losing status since the end of the war** because smart investors recognized the great contrast between the UK's and the US's financial conditions, the UK's increased debt load, and the UK's low net reserves, which would make holding pound sterling debt a bad deal.

The decline in the British pound was a protracted affair that involved several significant devaluations. After attempts to make the pound convertible failed in 1946–47, it was devalued by 30 percent against the dollar in 1949. Though this worked in the short term, over the next two decades Britain's declining competitiveness led to repeated balance of payments strains that culminated with the devaluation of 1967. Around this time the deutschemark took the pound's place as the world's second most widely held reserve currency. The following charts paint the picture.

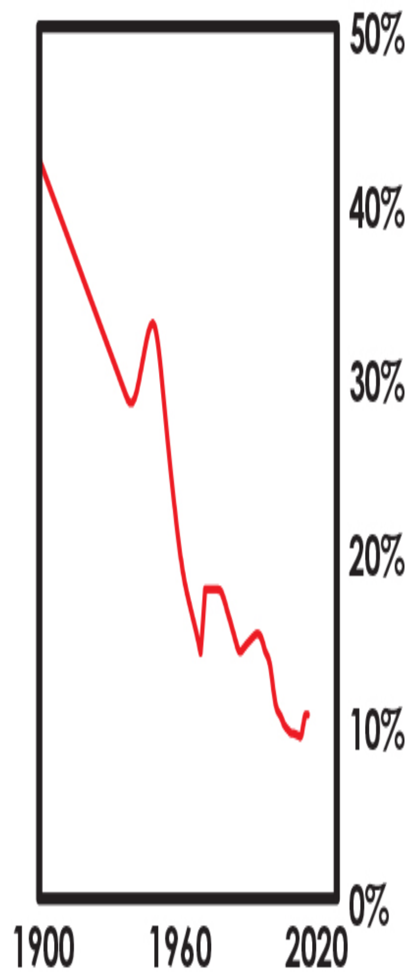
GBP SHARE OF GLOBAL RESERVES (EX-GOLD, EST)



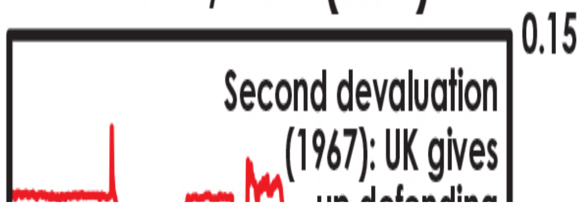
GBP SHARE OF GLOBAL DEBT (EST)



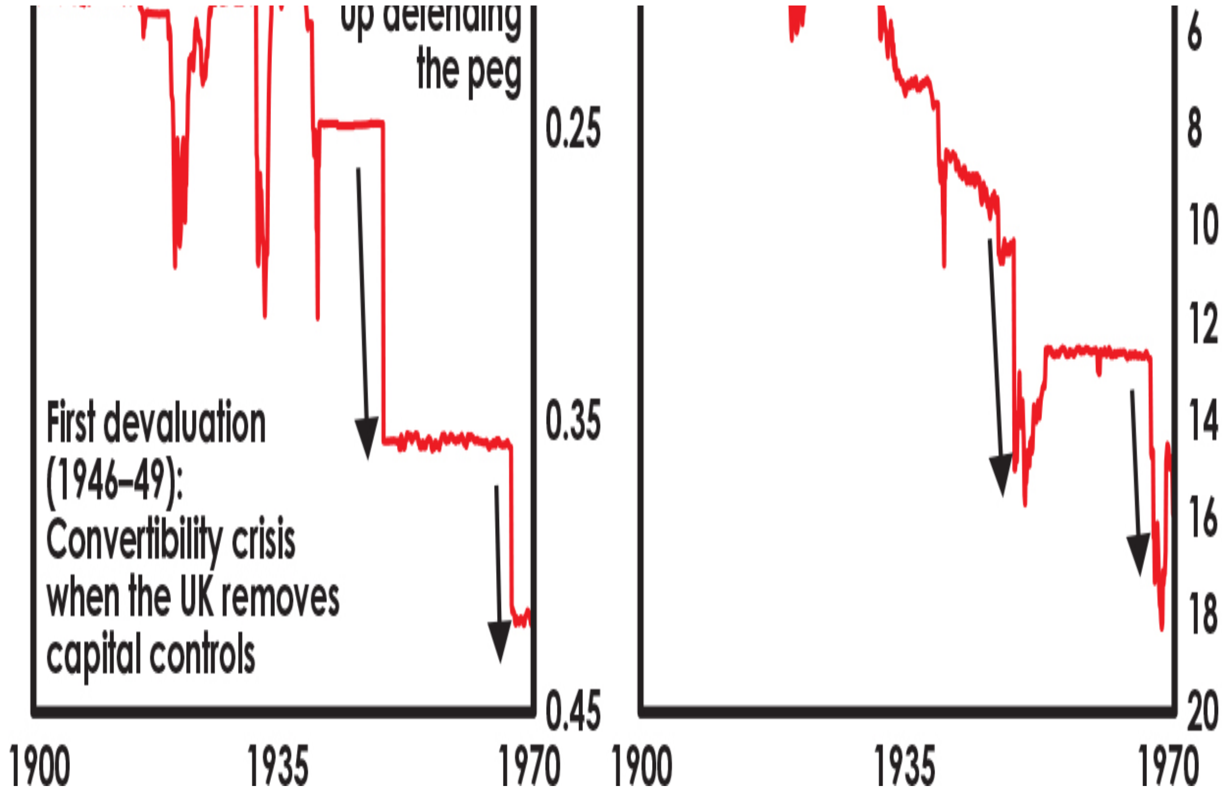
GBP SHARE OF GLOBAL TRANSACTIONS (EST)



USD/GBP (INV)



GBR FX VS GOLD (£/OZ, INV)

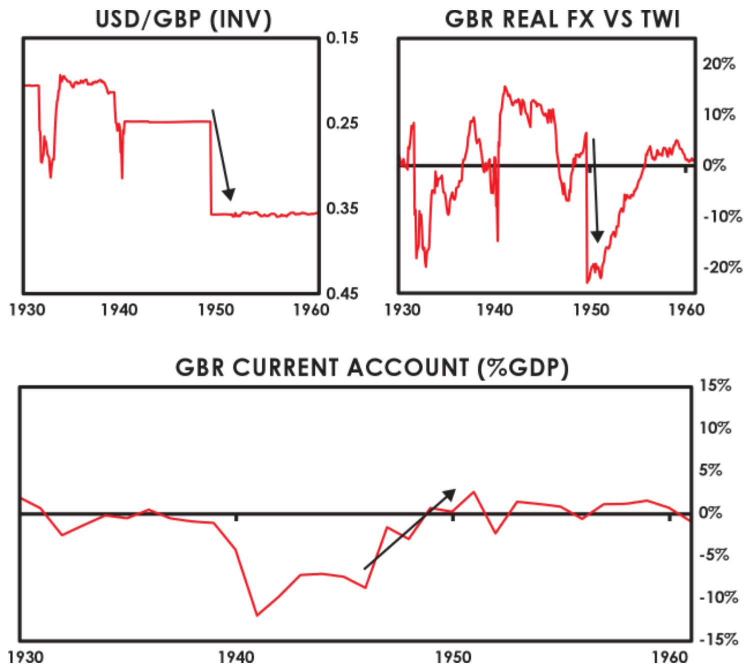


The Pound's Suspended Convertibility in 1947 and Its Devaluation in 1949

The 1940s are frequently referred to as "crisis years" for the pound. The war required the UK to borrow immensely from its allies and colonies, and those obligations were required to be held in sterling. When the war ended, the UK could not meet its debt obligations without either raising taxes or cutting government spending, so it necessarily mandated that its debt assets (i.e., its bonds) could not be proactively sold by its former colonies. The US was anxious for the UK to restore convertibility as soon as possible, as the restrictions were reducing liquidity in the global economy, affecting the US's export profits. The Bank of England was also eager to remove capital controls in order to restore the pound's role as a global trading currency, increase financial sector revenues in London, and encourage international investors to continue saving in sterling. **In 1946, an agreement was reached in which the US would provide the UK with a loan of $3.75 billion (about 10 percent of UK GDP)** to offer a buffer against a potential run on the pound. As expected, the pound came under considerable selling pressure when partial convertibility was introduced in July 1947, and the UK and the Sterling Area countries turned to austerity to maintain the pound's peg to the dollar. Restrictions were imposed on the import of luxury goods, defense expenditures were slashed, dollar and gold reserves were drawn down, and agreements were made among sterling economies to not diversify their reserve holdings to the dollar. Prime Minister Clement Attlee gave a dramatic speech calling for the spirit of wartime sacrifice:

> We are engaged in another battle for Britain. This battle cannot be won by the few. It demands a united effort by the whole nation. I am confident that this united effort will be forthcoming and that we shall again conquer.

Immediately following the speech, the run on the pound accelerated. **By the end of August, convertibility was suspended, much to the anger of the US and other international investors who had bought sterling assets in the lead-up to convertibility.** The governor of the National Bank of Belgium threatened to stop transacting in sterling, requiring a diplomatic intervention. **The devaluation came two years later, as policy makers in both the UK and the US realized that the pound couldn't return to convertibility at the current rate.** Competitiveness returned, the current account improved, and by the mid-to-late 1950s full convertibility was restored. The following charts paint the picture.

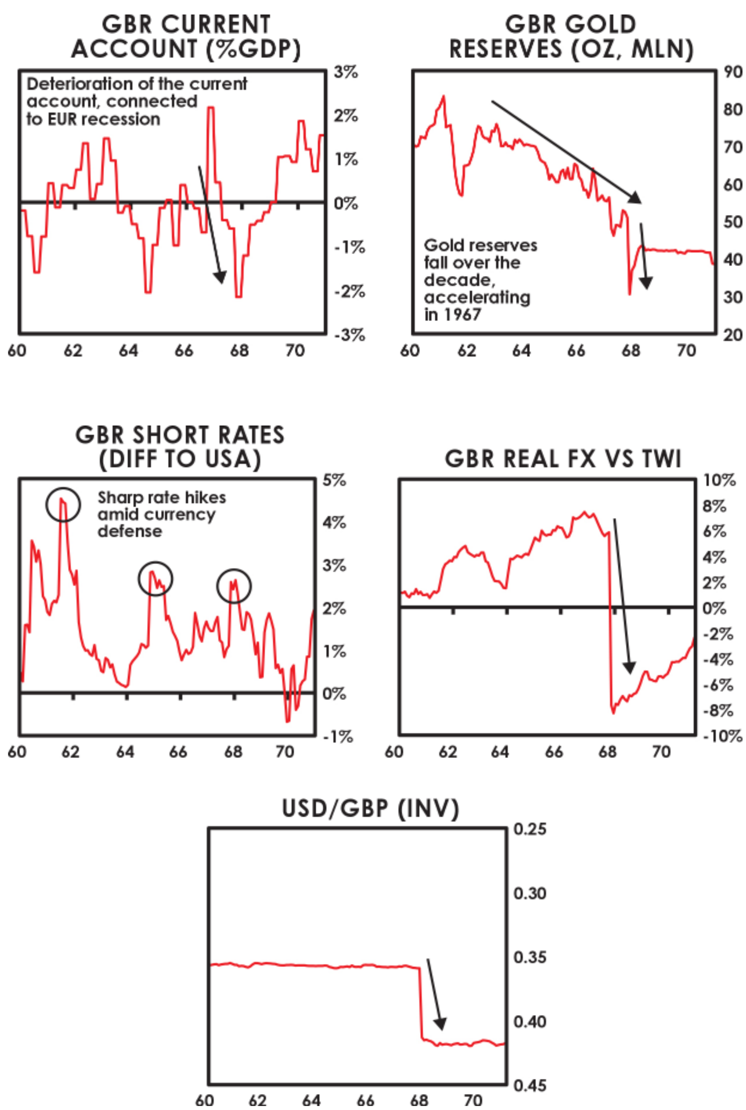


The devaluation did not lead to a panic out of sterling, even though the fundamentals remained poor, because a very large share of UK assets was held by the US government, which was willing to take the valuation hit in order to restore convertibility, and by Sterling Area economies, such as India and Australia, whose currencies were pegged to the pound for political reasons. Still, **the immediate post-war experience made it clear to knowledgeable observers that the pound would not enjoy the same international role it had prior to World War II**.

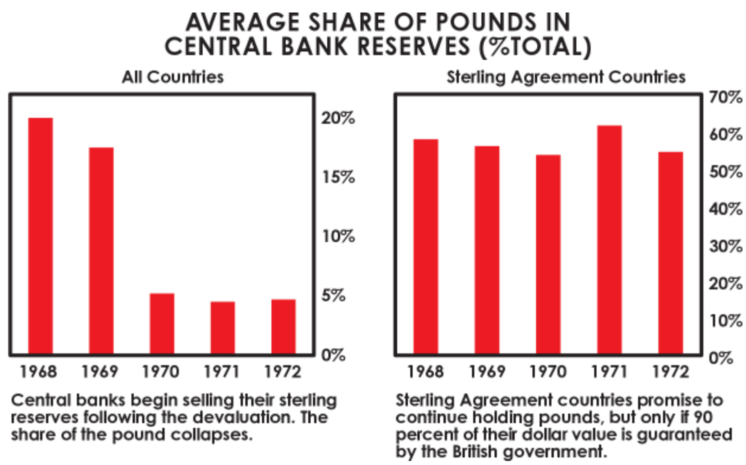
The Failed International Efforts to Support the Pound in the 1950s and 1960s and the Devaluation of 1967

Though the 1949 devaluation helped in the short term, the pound faced recurring balance of payments strains. These were very concerning to international policy makers, who feared that a collapse in the value of sterling or a rapid shift to the dollar could prove highly detrimental to the new Bretton Woods monetary system (particularly given the backdrop of the Cold War and concerns around communism). **As a result, numerous efforts were made to shore up the pound and preserve its role as a source of international**

liquidity. In addition, the UK mandated that all trade within the Common Market would be denominated in pounds and all its currencies pegged to sterling. The result was that for the 1950s and early 1960s, the UK was best understood as a regional economic power and sterling as a regional reserve currency. Yet those measures still didn't fix the problem: the UK was too indebted and too uncompetitive; it couldn't pay its debts and still buy what it needed to import. Sterling had to be devalued again in 1967. **After that, even Sterling Area countries were unwilling to hold their reserves in pounds unless the UK guaranteed their underlying value in dollars.**



After the devaluation, little faith remained in the pound. Central banks began to sell their sterling reserves and buy dollars, deutschemarks, and yen, as opposed to simply accumulating fewer pounds in new reserve holdings. The average share of sterling in central bank reserve holdings collapsed within two years. **Countries that continued to hold a high share of their reserves in pounds after 1968 were holding de facto dollars because the Sterling Agreement of 1968 guaranteed 90 percent of their dollar value.**



Europe after World War II

As we've seen again and again, the terrible costs of war push countries to create new world orders in their aftermaths in an attempt to ensure that such wars can never happen again. Naturally, new world orders revolve around the victor, which is often the newly ascendant empire. After World War II, that was clearly the US.

The most important geopolitical elements of the post-war order were:

- **The US was the dominant power, which made it the de facto global police force.** Naturally, tensions almost immediately arose between the US and the world's second leading power, the Soviet Union. The US and its allies formed a military alliance called NATO and the Soviet states formed the Warsaw Pact, and the two faced off in the Cold War.

- **The United Nations was established to resolve global disputes.** As is classic, it was headquartered in the heart of the ascendant empire (in this case, New York), with its main power organ, the Security Council, dominated by the war's victors, as is also classic.

The most important financial elements of the new world order consisted of:

- **The Bretton Woods monetary system, which established the dollar as the world's reserve currency.**
- **The IMF and the World Bank, designed to support the new global financial system.**
- **New York as the new global financial center.**

From the European perspective, the key aspect of the new world order was the shift from a balance of power in which the preeminent European powers were on top to a world in which they were exhausted and overshadowed by new superpowers that dwarfed any one European state (especially as their colonies gained independence). Given these pressures and the clear lesson of the costs of division that the World Wars had taught, the value of European unity was clear. That was the impetus for the new European order that gradually developed into the European Union.

The story of Robert Schuman, a key founder of the EU, helps explain why Europe came together. Schuman's father was a French citizen who became a German citizen when his home region of Alsace-Lorraine was annexed by the Germans in 1871. Schuman was born a German citizen, but became a French citizen when Alsace-Lorraine was returned to France after World War I. As a politician in World War II, he joined the Vichy government before abandoning it for the French Resistance. He ended the war in hiding, with a 100,000 Reichsmark bounty on his head. A key partner to Schuman was West Germany's first post-war chancellor, Konrad Adenauer. A centrist mayor, he had been driven from political life by the Nazis and sent to a concentration camp in 1944. Following his election as chancellor as a Christian Democrat in 1949, his policies focused on rebuilding the German economy, reconciling with other European powers, and opposing communism. Schuman and Adenauer's project, along with the rest of the EU's founders, was to make war "not merely unthinkable, but materially impossible."

Their first step was to create the European Coal and Steel Community. It sounds like a narrow economic pact, but its explicit goal was to create a European federation. From the Schuman Declaration:

> The pooling of coal and steel production should immediately provide for the setting up of common foundations for economic development as a first step in the federation of Europe, and will change the destinies of those regions which have long been devoted to the manufacture of munitions of war, of which they have been the most constant victims.

The agreement created supranational bodies—a High Authority, a Common Assembly, and a Court of Justice—that bound individual countries to its decisions and regulations, had the ability to levy taxes, could issue loans, and set up programs for worker welfare. Six nations signed on, and more joined over time. Eventually, it evolved into a customs union (in 1957, via the Treaty of Rome), opened up countries' borders (in 1985, via the Schengen Agreement), and eventually agreed on the framework for a political and economic union, including a shared European citizenship (in 1992, via the Maastricht Treaty).

As is classic, this new European geopolitical order came with a new financial/economic order. The Maastricht Treaty created the basis for a new common currency (the euro) and common economic rules, including rules around government deficits. The integration of its 27 member states (and their more than 400 million people), many of whom had been at war with one another in the past, is an impressive feat—one that puts the EU on a similar standing to the other great powers.

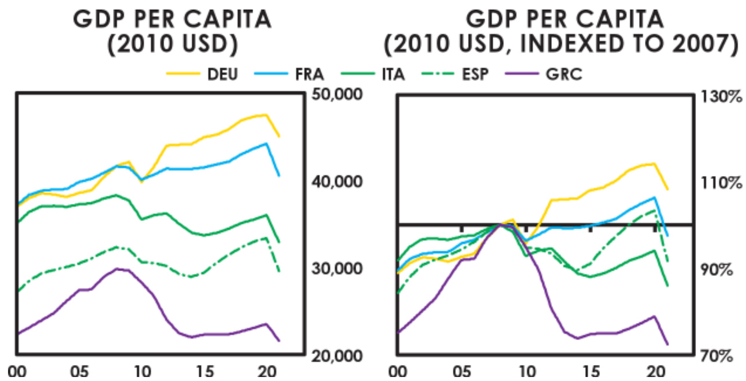
THE EUROZONE COMPARED TO THE US AND CHINA

	EUR	USA	CHN
Empire Score (0 to 1)*	**0.55**	**0.87**	**0.75**

GDP Per Capita (2017 USD, PPP Adj)	**41,504**	**60,236**	**16,411**
GDP (%WLD, PPP Adj)	**13%**	**17%**	**23%**
Population (%WLD)	**4%**	**4%**	**18%**
Exports (%WLD)	**12%**	**11%**	**15%**
Military Spending (%WLD)	**9%**	**28%**	**19%**
College Grads (%WLD)	**13%**	**20%**	**22%**
Patents (%WLD)	**11%**	**17%**	**41%**
Nobel Prizes (%WLD)	**11%**	**32%**	**2%**
Equity Mkt Cap (%WLD)	**8%**	**55%**	**10%**
Intl Transactions in Currency (%WLD)	**28%**	**55%**	**2%**
Official Reserves Held in Currency (%WLD)	**21%**	**62%**	**2%**

***Europe Empire Arc treats major Eurozone countries as of comparison.**

The European Union's relative declines and crises in the early 21st century occurred for the classic reasons Big Cycle declines occurred, which are reflected in the eight measures of power and other indicators described in Chapter 2. These are the same reasons that other empires have experienced crises. More specifically, Europe's debt is large, its economy is fundamentally weak, its internal conflicts are relatively large, its vitality and level of inventiveness are relatively weak, and its military is not strong. The wealth and income inequalities between and within its member countries have fueled the rise of populists, many of whom oppose the European Union, and who succeeded in causing the UK to leave it. In short, from its position of a leading empire not long ago, Europe as a whole (and the UK with it) has slipped to a position of secondary power.



Let's now turn our attentions to the American and Chinese powers.

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[1] This law created monopolistic joint-stock companies to trade in both the East and West Indies. Colbert's ordinance was motivated by the desire to fund the trading companies using private funds, and not through the government.

[2] The Treaty of Paris in 1814 saw France restore its borders to what they were in 1792, which meant France actually got back some of the colonial territories that the UK had taken during the wars. The Treaty of Paris in 1815, after Napoleon returned from exile and was defeated a second and final time, was less favorable, requiring France to pay a large indemnity, accept an army of occupation, and cede some additional territory, but still left France with the vast majority of the land it had controlled at the time of the French Revolution.

[3] A crucial dimension of the UK's early expansion was the role played by the British East India Company, which starting in the late 18th century and continuing into the 19th century consolidated its political and economic control of modern-day India, Pakistan, and Bangladesh. This vast area remained under the private control of the company until a major rebellion in 1857 led the British state to step in and take over India as a British territory.

[4] While there were widespread private holdings of pounds internationally, it's worth noting that for most of the 1800s there wasn't much in the way of central bank holdings, particularly relative to the role that the dollar plays in central bank portfolios today. Through World War I, central bank assets outside their own currency were generally held in precious metals.

[5] The Panic of 1866 demonstrates this well. To simplify the events, the London money markets were the most liquid markets for trade finance, but after a decade of boom lots of lenders were overextended and a big one (Overend, Gurney & Co.) went bust. It was the 19th century equivalent of Lehman Brothers. However, the crisis resolved within days as the Bank of England's demonstrated willingness to serve as the "lender of last resort" stemmed the loss of confidence in the system.

[6] GBR GDP share includes income of countries controlled by the British Empire.

[7] For comparison, the top 1 percent's share of wealth in the UK today is about 20 percent and the top 10 percent's share is about 50 percent.

[8] While Prussia, and later the German Empire, were monarchies ruled by the Hohenzollern family, Bismarck had immensely effective powers, having been appointed by the monarch first as minister president of Prussia, and then as chancellor of Germany from unification in 1871 until 1890. According to historian Eric Hobsbawm, "[Bismarck] remained undisputed world champion at the game of multilateral diplomatic chess for almost twenty years after 1871."

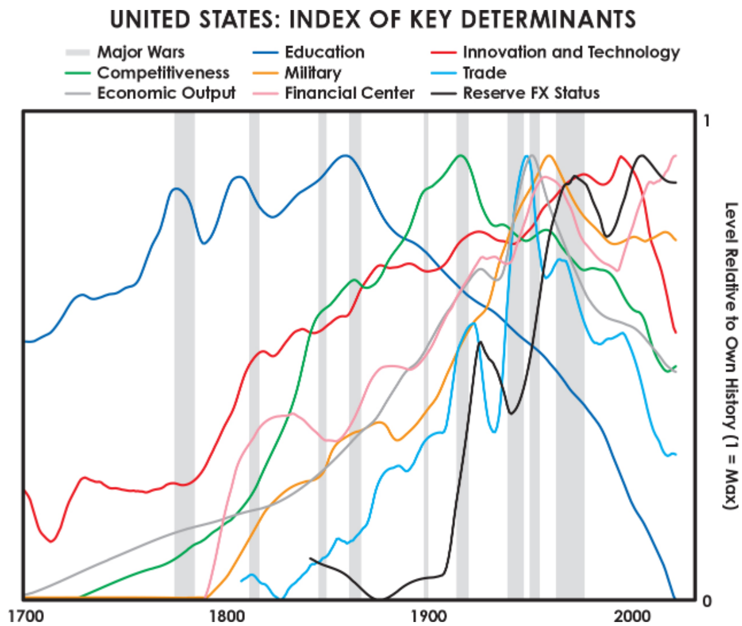
[9] This chart shows the official exchange rate between dollars and deutschemarks as well as an unofficial (black market) rate that was based on actual transactions between New York and Germany during that time period. The unofficial rate shows that the true value of the deutschemark was collapsing during the period.

CHAPTER 11

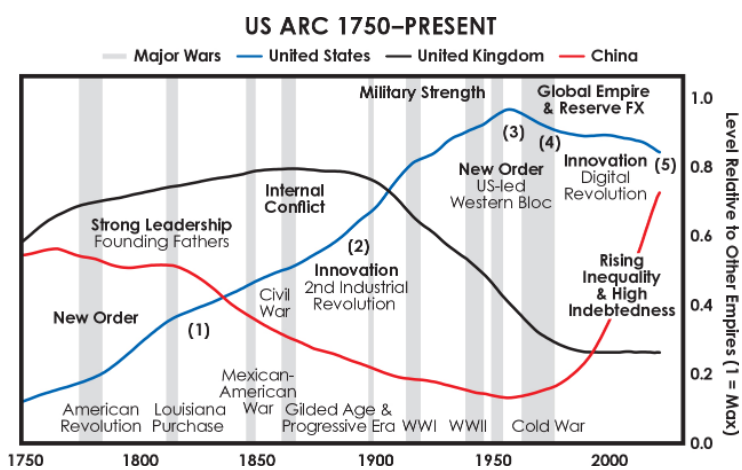
THE BIG CYCLE RISE AND DECLINE OF THE UNITED STATES AND THE DOLLAR

This chapter covers the Big Cycle rise of the US beginning in the 19th century, its gradual surpassing of the UK as the world's most powerful empire, and its recent decline. As the story of the US as the world's leading empire is still unfolding and is highly relevant to the world today, I will be going through its Big Cycle in more detail than I did for the Dutch and British, especially as it relates to the dollar's status as a global reserve currency and the economic and monetary policy forces that have impacted it.

The chart on the next page shows the eight types of power that make up our overall US arc. **In them you can see the story behind the US's rise and decline since 1700.** The strong development and excellence in education led to advances in innovation and technology, competitiveness in world markets, and economic output, all of which fueled the development of financial markets and the US as a financial center, its leadership in military strength and world trade, and, with a significant lag, the emergence of the dollar as a reserve currency. The relative advantages in education, competitiveness, and trade have fallen, while those in innovation and technology, reserve currency status, and financial markets and financial center status remain strong. **What this chart doesn't show are the deviations in the US income and balance sheet conditions and its internal conflicts, both of which are more concerning.** (For a more complete current picture, see the final chapter of this book.)



This next chart combines all the factors to show the overall arc of the US from before the Revolutionary War, marking the key events along the way. The numbers mark the approximate times of the six stages of the internal order cycle.



Now we will go through the US's story from the beginning until the time of my writing.

THE RISE

As with all new countries and dynasties, **the US went through the usual revolution and post-revolution process in which it created a new domestic order as 1) a coordinated group of strong leaders fought to gain control, 2) that group won and consolidated control, 3) the new leadership had a vision supported by the population, but 4) it split into factions that had conflicts over how the government should work to implement that vision. Eventually, these factions 5) figured out the system for control and laid it out in agreements (in the US case, at first in the Articles of Confederation and then in the Constitution), 6) set up the parts of government (e.g., the money and credit system, the legal system, the legislative systems, the military, etc.), and 7) put people in jobs and made it work well.** The US did these things in a uniquely peaceful way through negotiations, near-total respect for agreements, and good designs for governance that gave it a great start.

In the chart showing the eight types of power, you can see that rapidly improving levels of education preceded the big rises in innovation, technology, and competitiveness, which lasted until the World Wars, with an interruption during the US Civil War. There were many ups and downs in both domestic and external money/debt, economic, and military circumstances. I won't take you through them in detail, though I will note that all of them followed the archetypical patterns driven by the same basic cause/effect relationships previously described here. While the ascent of the US was most pronounced after World War II, it really started in the late 1800s. That's where we'll pick up the story.

After the US Civil War came the Second Industrial Revolution, which was one of those classic times in which the peaceful pursuit of wealth and prosperity created great gains in incomes, technologies, and wealth in England, continental Europe, and the United States.

In the US, these gains were financed through a system of free-market capitalism that, as is classic, produced both lots of wealth and big wealth gaps. These gaps led to discontent and Progressive Era policies that broke up rich and powerful monopolies ("trust busting") and raised taxes on the rich, starting with the passage of a constitutional amendment to allow federal income taxes in 1913. The US's increased strengths were reflected in its rising shares of global economic output and world trade, as well as its growing financial strength (exemplified by New York becoming the world's leading financial center), continuing leadership in innovation, and great usage of its financial products.

The Long Ascent of the Dollar and US Capital Markets

The dollar's path to being the world's dominant reserve currency was far from straightforward. In the US's first century of existence its financial system was completely underdeveloped. Banking worked in the United States in the classic ways it did in most countries, as I described in Chapters 3 and 4. In other words, hard money was put into banks that together lent out much more than they had. That Ponzi scheme unraveled, so banks failed to meet their commitments and devalued the money. The US had no central bank to control financial markets or act as a lender of last resort. **The US went through many boom/bust cycles, in which classically a flurry of debt-financed investments (into land, railroads, etc.) became overextended, leading to credit losses and a credit crunch. As a result, banking system panics were extremely common.** In New York alone, eight significant banking panics occurred between 1836 and 1913, and regional banking panics were also common. This was because the highly fragmented banking system had a rigid amount of currency, no deposit insurance, and a pyramidal reserve system (with a small number of large banks in New York serving as "correspondents" or holding reserves for a high percentage of the nation's banks) that heightened the risk of contagion from one bank going under.

Like London, New York was well-established as a trading center long before it became a global financial center, a development that didn't occur until after the turn of the 20th century. Only two US banks made the list of the top 20 largest global banks in 1913, at numbers 13 and 17. In comparison, British banks occupied nine slots, including three of the top five. For perspective, at this point the US was far larger than the UK in economic output, and they were neck and neck in export market share.

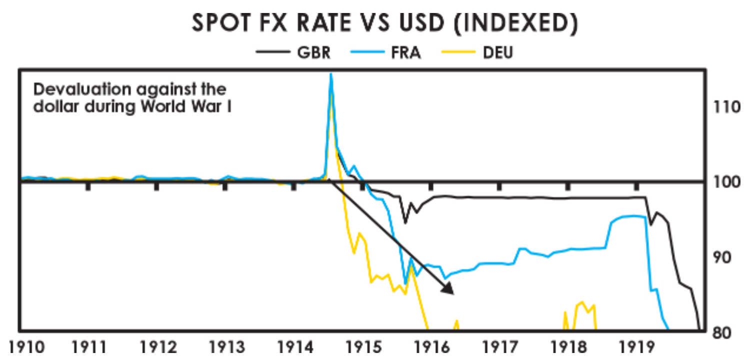
Many of the most important financial innovations in the emerging New York financial center came out of its needs as a large trading center. Investment banking took off in the US and emerged in the 1800s as a clearinghouse for capital—much of it flowing from Europe—to finance the US boom over the period. Like in London earlier, insurance companies developed more rapidly than banking; in the pre-war period the large insurance trusts were bigger than the large banks.

The fact that the US economy was more dynamic and rapidly changing compared to European and British markets was also reflected in the US stock market, which boomed starting right after the US Civil War. As previously explained, **the second half of the 19th century was a boom period of peace and prosperity that has been called "the Second Industrial Revolution," "the Gilded Age," and "the Robber Barron Era" because it was the period in which capitalism and innovation flourished, wealth gaps widened enormously, decadence was apparent, and resentment built**. The backlash started around 1900, and there was a classic debt bust in 1907. This turbulence led to the creation of the Federal Reserve central banking system in 1913. By 1910, US stock market capitalization had surpassed that of Great Britain. New sectors and companies rose to prominence quickly, such as US Steel, which was founded in 1901 and became the most valuable US company only 15 years later.

Then World War I, the war few people expected to happen and nobody expected to last so long, began in 1914 and ended in 1918. The US was not in World War I for most of it and was the only major country to maintain convertibility to gold during the war. Not only were the economies and markets of Europe badly hurt from the wartime efforts, but the policies undertaken by European governments also further undermined the faith in their currencies. In contrast, the United States' relative financial and economic position benefited from the war. That the Allies' wartime debts were largely owed to the US boosted the use of the dollar for denominating global government debt.

Following the standard script, the winning powers—in this case the US, Britain, France, Japan, and Italy—met after the war to set out the new world order. That meeting, called the Paris Peace Conference, took

place in early 1919, lasted for six months, and led to the Treaty of Versailles. In that treaty, the territories of the losing powers (Germany, Austria-Hungary, the Ottoman Empire, and Bulgaria) were carved up and put under the control of the winning empires. The losing powers were put into deep debt to the winning powers to repay the winning countries' war costs. These debts were payable in gold.



Geopolitically, the United States also benefited because it played a key role in shaping the new world order, though it remained more isolationist while Britain continued to expand and oversee its global colonial empire. The monetary system in the immediate post-war period was in flux. While most countries endeavored to restore gold convertibility, currency stability against gold came only after a period of sharp devaluations and inflation.

As is typical, after the war years and with the new world order came a period of peace and prosperity fueled by great innovations and productivity and a capital markets boom that produced big debts and big wealth gaps late in the upswing. In the Roaring '20s a lot of debt (promises to deliver paper money that was convertible to gold) was created to buy speculative assets (particularly stocks). To curtail that, the Federal Reserve tightened monetary policy in 1929, which caused the bubble to burst and the global Great Depression to begin. It brought economic suffering to virtually all nations, which led to fighting over wealth within and between countries, which led to the hot wars that began a decade later.

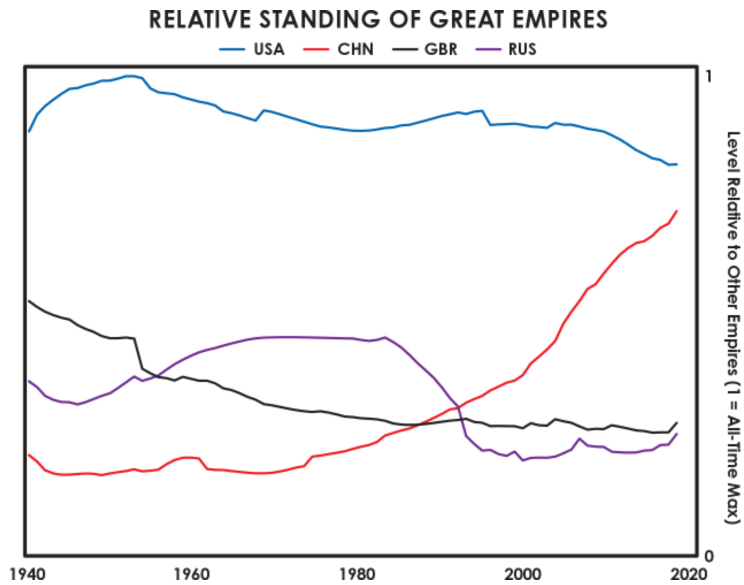
I covered the events leading up to and during World War II in depth in Chapter 6 as an example of the war period of the big external order/disorder cycle. The important thing to remember here is that the Allied victory in 1945 produced the next shift in the world order. It was a tremendous shift of wealth and power. **On a relative basis the US came out the big winner because the US sold and lent a lot before and during the war, basically all of the fighting took place off of US territory so the US wasn't physically damaged, and US deaths were comparatively low in relation to those of most other major countries.**

THE TOP

The Post-War Geopolitical and Military System

Following the standard script, the victorious powers met to determine the new world order and its new money and credit systems.

The US, Russia (then the USSR), and Great Britain emerged from the fighting as the world's great powers with the US clearly the richest and most powerful militarily. Germany, Japan, and Italy were largely destroyed; Great Britain was essentially bankrupt, and France was devastated by the war and contributed little to the victory. China was in civil war, which resumed right after Japan's surrender. **While there was relatively good cooperation between the US and Russia immediately after the war, it didn't take long for the two greatest powers with opposing ideologies to enter a "cold" war.** The next chart shows the aggregate power indices for the US, the UK, Russia, and China since the end of World War II. As you can see, Russia rose relative to the US until 1980 but it was never nearly as powerful, though it was much more powerful than China. After 1980, Russia began its decline while China then began its rapid ascent and the US continued its gradual decline.



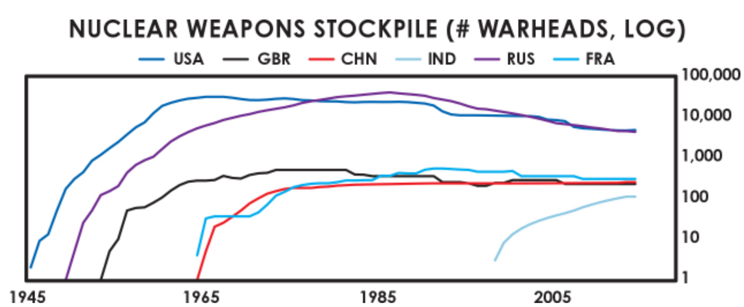
The split between the US- and Russian-controlled blocs had been clear from the outset. President Harry Truman outlined what is now referred to as the Truman Doctrine in a March 1947 speech:

> Every nation must choose between alternative ways of life. The choice is too often not a free one. One way of life is based upon the will of the majority, and is distinguished by free institutions, representative government, free elections, guarantees of individual liberty, freedom of speech and religion, and freedom from political oppression. The second way of life is based upon the will of a minority forcibly imposed upon the majority. It relies upon terror and oppression, a controlled press and radio, fixed elections, and the suppression of personal freedoms. I believe that it must be the policy of the United States to support free peoples who are resisting attempted subjugation by armed minorities or by outside pressures.

As I explained in Chapter 6, compared to domestic governance, ● ***international relations are driven much more by raw power dynamics.*** **That is because there are laws and standards of behavior within countries, whereas between them raw power matters most, and laws, rules, and even mutually agreed-upon treaties and organizations for arbitration (such as the League of Nations,**

the United Nations, and the World Trade Organization) don't matter much. That is what makes having a strong military and strong military alliances so important. In 1949, 12 countries in the US camp (with more joining later) formed the North Atlantic Treaty Organization (NATO) military alliance, and in 1954 the Southeast Asia Treaty Organization (SEATO) was established among the US, the UK, Australia, France, New Zealand, the Philippines, Thailand, and Pakistan. Eight countries in the Soviet camp formed the Warsaw Pact in 1955.

As shown in the following chart, the Americans and Soviets invested massively in building up their nuclear weapons and a number of other countries followed. Today, 11 countries have nuclear weapons or are on the brink of having them, in varying amounts and degrees of capability. Having nuclear weapons obviously gives one a big negotiating chip in the world power game, so it's understandable why some countries would want to have them and other countries would not want other countries to have them. While there have been no nuclear wars, the US has fought a number of conventional wars since World War II, most notably the Korean War in the 1950s, the Vietnam War in the 1960s and 1970s, the two Gulf Wars in 1990 and 2003, and the War in Afghanistan from 2001 to 2021. These were costly in terms of money, lives, and public support for the United States. Were they worth it? That's for others to decide. For the Soviet Union, which had a much smaller and weaker economy than the US, spending enough to compete with the US militarily and maintain its empire pushed it into bankruptcy.



Of course, military power consists of a lot more than nuclear weapons and a lot has changed since the Cold War. While I'm no military expert, I get to speak to some who have led me to believe that, while the US remains the strongest military power overall, it is not dominant in all parts of the world in all ways, and military challenges to it are rising. There is a significant chance that the US would lose wars against China and Russia in their geographic areas of strength—or at least would be unacceptably harmed—and it could also be unacceptably harmed by some second-tier powers too. This is not the good ol' days of right after 1945 when the US was the sole dominant power. While there are a number of high-risk scenarios, in my opinion, the most worrying is a forceful move by China to bring Taiwan under its control.

What will the next high-stakes military conflict look like? Because of new technologies, it will be very different from previous ones. Classically the country that wins wars spends more, invests more, and outlasts the opposition. But it is a delicate balance.

- ***Because spending on the military takes government money away from spending on social programs, and because military technologies go hand in hand with private sector technologies, the biggest military risk for the leading powers is that they lose the economic and technology wars.***

In dealings between countries the transactions are more at arm's length. That means it is less easy to make the currency artificially cheap, harming the holders of it, so internationally traded currencies are more likely to be better value currencies. This is relevant when currencies are a storehold of wealth in the form of debt denominated in them. Sometimes there is too much debt around the world and it is in all governments' interests to devalue their currencies. At such times gold (and recently digital currencies) can be preferable. Also at such times governments are more likely to outlaw these alternative currencies, though they can't fully outlaw them. When the money and credit systems based on fiat currencies break down, it eventually leads to hard money monetary systems.

The Post-War Monetary and Economic Systems

As for the new post-war monetary and economic systems, there was one for the US-led camp and one for the Soviet-led camp, though there were also some nonaligned countries that had their own nonaligned currencies that were not widely accepted. Representatives of 44 countries gathered in Bretton Woods, New Hampshire, in 1944 to make a monetary system that linked the dollar to gold and other country's currencies to the dollar. The Soviet Union's system was built around the ruble, which nobody wanted. • ***Transactions between countries are very different from transactions within countries.*** Governments want to control the money that is used within their borders because by increasing and decreasing its supply, its cost of borrowing, and its value the government has enormous power.

Because money and economics are so important I want to return to the subject, revisiting how the system works and is working. In the post-war monetary system, within countries, people and companies used the government-controlled paper money. **When they wanted to buy something from another country, they typically exchanged their own country's paper currency for the other country's paper currency with the help of their central bank that settled with the other country's central bank in gold.** If they were American, they paid in dollars and the seller from another country either exchanged them at their central bank for the local currency or held on to them believing that they were better storeholds of wealth than their own money. The results were that gold left the US central bank's reserve account and went into the accounts of other country's central bank and dollars accumulated abroad.

As a result of the Bretton Woods Agreement, the dollar became the world's leading reserve currency. This was natural because the two World Wars had made the US the richest and most powerful country by far. By the end of World War II the US had amassed its greatest gold/money savings ever—about two-thirds of all the government-held gold/money in the world, the equivalent to eight years of import purchases. Even after the war, it continued to earn a lot of money by exporting.

The economies of Europe and Japan had been destroyed by the war. As a solution, and to fight the spread of communism, the US supplied them with massive aid packages (known as the Marshall and Dodge plans), which were a) good for these devastated nations, b) good for the US economically because these countries used the money to buy US goods, c)

good for the US's geopolitical influence, and d) good for reinforcing the dollar's position as the world's dominant reserve currency.

As for monetary policy, from 1933 until 1951, the amount of money, the cost of money (i.e., interest rates), and where that money went was controlled by the Federal Reserve to serve the greater objectives of the country rather than the free market.[1] More specifically, the Fed printed a lot of money to buy debt, capped interest rates that lenders could charge, and controlled what money was allowed to go into, so high inflation did not drive interest rates to unacceptable heights and government regulations prevented other investment options from becoming much more attractive than the debt the government wanted people to save in. **Following a brief post-war recession that was due to the decline of military spending, the US entered a prolonged period of peace and prosperity as is typical when a new Big Cycle begins.**

The post-war recession saw the unemployment rate double (to around 4 percent), as around 20 million people needed to find employment outside of the military and other adjacent jobs. But at the same time, the removal of rationing laws, which had limited people's ability to buy consumer goods, fueled a consumer spending surge. Cheap mortgages were also available for veterans, which led to a housing boom. The return to profit-making activities raised the demand for labor, so employment rebounded very quickly. Exports were strong because the Marshall and Dodge plans fueled foreign appetite for US goods; also the US private sector went global and invested abroad from 1945 through the 1970s. Stocks were cheap and dividend yields were high; the result was a multidecade bull market that reinforced New York's dominance as the world's financial center, bringing in still more investment and further strengthening the dollar as a reserve currency. All of this was classic; it was a mutually self-reinforcing Big Cycle upswing.

There was enough money for the US to improve education, invent fabulous technologies (e.g., those that allowed it to go to the moon), and a lot more. The stock market hit its high in 1966, which marked the end of the good times for 16 years, though nobody knew it then. That was around the time that my own direct contact with events began. I started investing in 1961 at age 12. Of course, I didn't know what I was doing and had no appreciation for how lucky my contemporaries and I were. I was born at the right time and in the right place. The United States was the leading manufacturing country, so labor was valuable. Most adults could get a good job, and their kids could get a college education and rise without limitation. Since the majority of people were middle class, the majority of people were happy.

The US did all the classic things that helped the world become more dollarized. Its banks increased their operations and lending in foreign markets. In 1965, only 13 US banks had foreign branches. By 1970, 79 banks had them, and by 1980 nearly every major US bank had at least one foreign branch, and the total number of branches had grown to 787. Global lending boomed. However, as is also typical, a) those who prospered overdid things by operating financially imprudently while b) global competition, especially from Germany and Japan, increased. As a result, American lending and America's finances began to deteriorate as its trade surpluses disappeared.

Americans never thought about how much the space program, the War on Poverty, and the Vietnam War would cost. Because they felt so rich and the dollar seemed secure as a reserve currency Americans assumed they could afford a "guns and butter" fiscal policy indefinitely. As the 1960s came to a close, real GDP growth was near 0 percent, inflation was around 6 percent, the short-term government interest rate was around 8 percent, and unemployment was around 4 percent. During this decade, US stocks returned 8 percent on an annual basis while bonds trailed, with equity-volatility-matched bonds returning -3 percent annually. The official gold price remained fixed in dollar terms, with some modest market price appreciation later in the decade, and commodities continued to be weak, returning 1 percent annually.

The 1970s: The Balance of Payments Problem Unfolds—Low Growth, High Inflation

As explained in Chapter 3, when claims on hard money (i.e., notes or paper money) are introduced, 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 soon discover the wonders of credit and debt. Debt holders like it because 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 can lend the money to others, who pay a higher interest rate so the banks make a profit. 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 asset prices and productivity rise.

After 1945, foreign central banks had the option of holding interest-rate-paying debt or holding non-interest-rate-earning gold. Because dollar-denominated debt was considered as good as gold, was convertible to gold, and was higher-earning because it provided interest, central banks shrank their gold holdings relative to their dollar-denominated debt holdings from 1945 until 1971. **As explained in Chapter 4, investors making such a move is a classic behavior and ends when a) the claims on the real money (i.e., gold) substantially exceed the amount of real money in the bank and b) one can see that the amount of real money in the bank (i.e., gold reserves) is going down. That is when no interest rate can be high enough for it to make sense to hold the debt (i.e., claims on the hard money) rather than to turn one's paper money in for gold. At that time a run on the bank occurs and a default and debt restructuring have to happen. That is what led to the breakdown of the gold-linked Bretton Woods monetary system.**

As inflation accelerated and the economy weakened in 1969–70, the Fed could not afford to maintain a tight monetary policy, so the US's balance of payments worsened and the dollar took a nosedive. Rather than running surpluses, the US ran unsustainably huge balance of payments deficits (i.e., the US bought more from the rest of the world than it sold to the rest of the world). In the summer of 1971, Americans traveling in Europe had difficulty exchanging their dollars for German marks, French francs, and British pounds. **The Nixon administration vowed not to "devalue" the dollar, but in August 1971, the US defaulted on its commitments to pay in gold, offering paper money instead.** Money and credit growth were no longer constrained, and the decade of stagflation had begun. At the same time, other industrialized countries had regained their economic strength, becoming very competitive in the world markets.

Rather than seeing these problems as signs of things to come, Americans viewed them as nothing more than a temporary setback. Yet as the decade progressed, economic problems contributed to political problems and vice versa. The Vietnam War and the Watergate affair dragged on, and there were OPEC-induced oil price increases and drought-induced food price hikes. As costs rose, Americans borrowed more in order to maintain their lifestyles, and the Fed allowed accelerated money supply growth to accommodate the high borrowing and prevent unacceptably high interest rates.

The dollars these deficits produced went to countries that were running budget surpluses, which deposited them in American banks, which lent them to Latin American and other emerging, commodity-producing countries. Savings and loan associations borrowed short to make longer-term mortgages and other loans, using the positive spread between short rates (which they borrowed at) and long rates (which they lent at) as a source of profits. Inflation and its effects on markets came in two big waves that were bracketed by periods of extreme monetary tightness, steep stock market declines, and deep recessions. **Early in the 1970s, most Americans had never experienced inflation, so they weren't wary of it and allowed it to blossom. By the end of the decade, they were traumatized by it and assumed that it would never go away.**

By the end of the 1970s real GDP growth was around 2 percent, inflation was around 14 percent, short-term interest rates were around 13 percent, and unemployment was around 6 percent. Over the decade, gold surged and commodities kept up with rising inflation, returning around 30 percent and 15 percent on an annualized basis, respectively. But the high rate of inflation wiped out the modest 5 percent annual nominal return for stocks and 4 percent return for treasuries matched to equity volatility.

The Post-Bretton Woods System

After the 1971 delinking of the dollar and other currencies from gold, the world moved to an unanchored fiat monetary system (or, Type 3, as I explained in Chapter 3) and the dollar fell in value against gold, other currencies, stocks, and eventually just about everything. The new monetary system was negotiated by the leading economic policy makers of the United States, Germany, and Japan.[2] Paul Volcker was Nixon's undersecretary of international monetary affairs when Nixon severed the link with gold, and he was head of the Federal Reserve from 1979 until 1987. He did more to shape and guide the dollar-based monetary system before, during, and after these years than anyone. I was lucky enough to know him well so I can personally attest that he was a person of great character, capabilities, influence, and humility—a classic hero/role model in a world that lacks hero/role models, especially in economic public service. I believe that he and his thinking deserve to be studied more.

I remember the inflation psychology of that time very well; it led Americans to borrow money and immediately take their paychecks to buy things to "get ahead of inflation." They also bought things that you couldn't make more of, like gold and waterfront properties. The 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 $850 in 1980.

While most people didn't understand how the money and credit dynamic worked, they felt the pain of it in the form of high inflation and high interest rates, so it was a chronic political issue. At the same time, there was a lot of conflict and rebellion due to the war in Vietnam, oil embargoes that led to high gas prices and gas rationing, labor union fights with companies over wages and benefits, Watergate and the Nixon impeachment, etc. These problems peaked in the late 1970s when 52 Americans were held hostage for 444 days at the US Embassy in Tehran. Americans felt that the country was falling apart. But what most Americans didn't understand was that economic conditions in communist countries were even worse.

As we'll see in the next chapter, Mao Zedong's death in 1976 brought Deng Xiaoping to power in a China that was stumbling economically and facing internal conflict. Deng's market reforms led to a shift in economic policies that included capitalist elements like private ownership of businesses, the development of debt and equities markets, entrepreneurial technological and commercial innovations, and even the flourishing of billionaire capitalists—all under the strict control of the Chinese Communist Party. This shift in leadership and approaches,

while seemingly insignificant at the time, would germinate into the biggest single force to shape the 21st century.

The 1979–1982 Move to Tight Money and Conservatism

President Jimmy Carter, who like most political leaders didn't understand the monetary mechanics very well, knew that something had to be done to stop inflation and appointed a strong monetary policy maker (Volcker) as head of the Federal Reserve in August 1979. In October 1979, **Volcker announced that he would constrain money (M1) growth at 5.5 percent.** I ran the numbers, which led me to figure that, if he really did what he said he was going to do, there would be a great shortage of money that would send interest rates through the roof, bankrupting debtors who could not get the credit they needed to cover their debt-service expenses. Volcker stuck to the plan despite great political backlash, driving interest rates to the highest levels seen "since Jesus Christ," according to German Chancellor Helmut Schmidt.

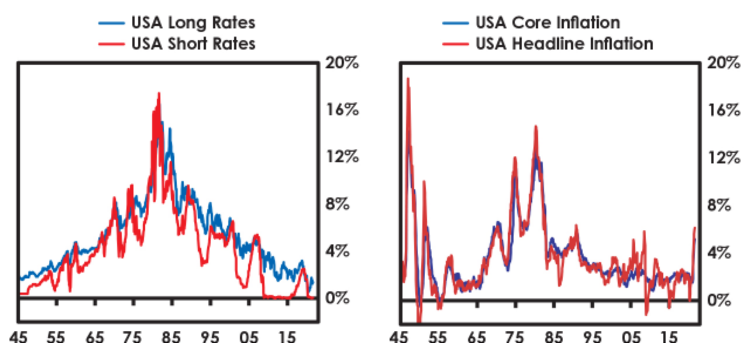
In the 1980 presidential election Carter was voted out and Ronald Reagan, who was perceived as a conservative who would impose discipline where it was needed, was elected. Leading countries at the time (reflected in the G7, which consisted of the US, the UK, Germany, Japan, France, Italy, and Canada—which shows how different the world power balance was 40 years ago versus today) made analogous moves in electing conservatives to bring discipline to their inflationary chaos. Early in their terms, both Reagan in the US and Margaret Thatcher in the UK had landmark fights with labor unions.

• ***Economics and politics have swings between the left and the right in varying extremes as the excesses of each become intolerable and the memories of the problems of the other fade.*** **It's like fashion—the widths of ties and the lengths of skirts change through time. When there is great popularity of one extreme, one should expect that it won't be too long before there will be a comparable move in the opposite direction.** The move to monetary tightness broke the backs of debtors and curtailed borrowing, which drove the world economy into its worst downturn since the Great Depression. The Federal Reserve slowly started to cut interest rates, but the markets continued to decline. Then Mexico defaulted on its debt in August 1982. Interestingly, the US stock market rallied in response.

What happened next created a jarringly painful learning experience for me. While I was able to anticipate the debt crisis, which was profitable for me, it also led me a) to anticipate a debt-default-triggered depression that never came and b) to lose a lot of money betting on it. As a result of my personal losses and the losses of clients, I had to let everyone in my fledgling company, Bridgewater Associates, go and was so broke I had to borrow $4,000 from my dad to help pay my family's bills. At the same time this was one of the best things that ever happened to me because it changed my whole approach to decision making. What I had missed was that when debts are in the currencies that central banks have the ability to print and restructure, debt crises can be well-managed so they are not systemically threatening. Because the Federal Reserve could provide money to the banks that made the loans that weren't being paid back, they didn't have a cash flow problem, and because the American accounting system didn't require the banks to account for these bad debts as losses, there was no big problem that couldn't be worked out. I learned that **the value of assets is the reciprocal of the value of money and credit (i.e., the cheaper money and credit are, the more expensive asset prices are) and the value of money is the reciprocal of the quantity of it in existence, so when central banks are producing a lot of money and credit and making it cheaper, it is wise to be more aggressive in owning assets.**

The Disinflationary and Booming 1980s

In the 1980s there was a stock market and economic boom that was accompanied by falling inflation and falling interest rates in the United States at the same time as there were inflationary depressions in the debt-burdened emerging economies that didn't have central banks to bail them out. The debt-restructuring process progressed slowly from 1982 until 1989 when an agreement called the Brady Plan, named after Nicholas Brady, who was the US Treasury secretary at the time, was created and started to bring an end to the "lost decade" in these countries (as agreements were reached with different countries through the early '90s). **This whole 1971–91 up-and-down debt cycle, which profoundly affected just about everyone in the world, was the result of the US going off the gold standard, the inflation that followed it, and having to break the back of the inflation through tight monetary policies that led to the strength in the dollar and the dramatic fall in inflation.** In the markets that big cycle showed up via a) the soaring of inflation and inflation-hedge assets and bear markets in bonds in the 1970s, b) the 1979–81 bone-crushing monetary tightening that made cash the best investment and led to a lot of deflationary debt restructuring by non-American debtors, and then c) falling inflation rates and excellent performance of bonds, stocks, and other disinflationary assets in the 1980s. The following charts convey this very well, as they show the swings up and down in dollar-denominated inflation rates and interest rates from 1945 to the present. One needs to keep these moves and the mechanics behind them in mind when thinking about the future.



Through it all, the dollar remained the world's leading reserve currency. The entire period was a forceful demonstration of the benefits to the US of having the currency that most of the world's debts are denominated in.

1990–2008: Globalizing, Digitalizing, and Booming Financed by Debt

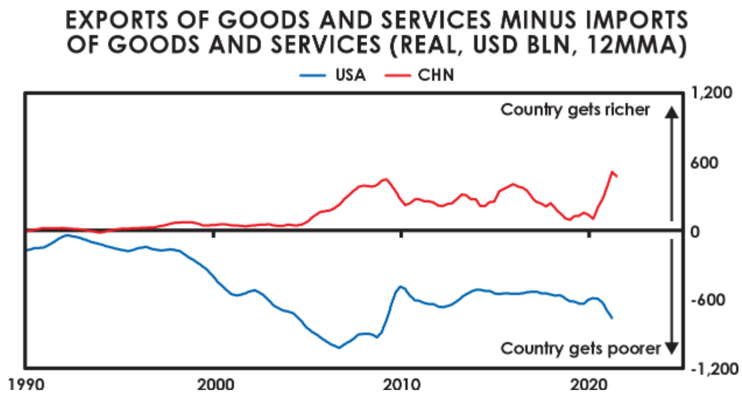
Because of its economic failures, the Soviet Union could not afford to support a) its empire, b) its economy, and c) its military in the face of

Reagan's arms-race spending. As a result, the Soviet Union broke down in 1991. It was apparent that communism had failed or was failing everywhere, so many countries moved away from it and the world entered a very prosperous period of globalization and free-market capitalism.

Since then, three economic cycles have brought us to where we are at the time of my writing—one that peaked in the 2000 dot-com bubble that led to the recession that followed, one that peaked in the 2007 bubble that led to the 2008 global financial crisis, and one that peaked in 2019, just before the 2020 coronavirus-triggered downturn. In addition to the decline of the Soviet Union, this period also saw the rise of China, globalization, and advances in technologies that replaced people, which was good for corporate profits but widened wealth and opportunity gaps.

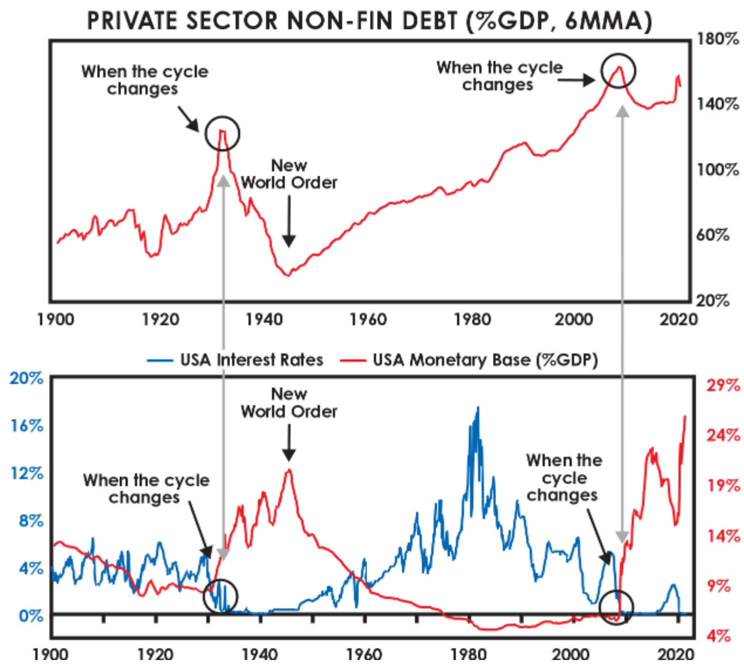
Countries and their borders faded in importance; goods and the incomes they produced were generally made wherever they could be most cost-effectively produced, which led to production and development in emerging countries, accelerating mobility of people between countries, narrowing wealth gaps between countries, and ballooning wealth gaps within them. Lower- and middle-income workers in developed countries suffered, while workers in productive emerging countries saw big relative gains. Though a bit of an oversimplification, it's accurate to say that **this was a period in which workers in other countries, especially those in China, and machines replaced middle-class workers in the United States**.

The following chart shows the balances of goods and services[3] for the United States and China since 1990 in real (i.e., inflation-adjusted) dollars. As you will see when we look at China in the next chapter, China's economic reforms and open-door policies after Deng Xiaoping came to power in 1978 and China's being welcomed into the World Trade Organization in 2001 led to an explosion of Chinese competitiveness and exports. Note the accelerations in Chinese surpluses and the US deficits from around 2000 to around 2010 and then some narrowing of these differences (which have recently ticked up during the pandemic), with China still tending to run surpluses and the US still running deficits. These surpluses have given China big savings that are a great financial power.



● ***Most people pay attention to what they get and not where the money comes from to pay for it, so there are strong motivations for elected officials to spend a lot of borrowed money and make a lot of promises to give voters what they want and to take on debt and non-debt liabilities that cause problems down the road.*** That was certainly the case in the 1990–2008 period.

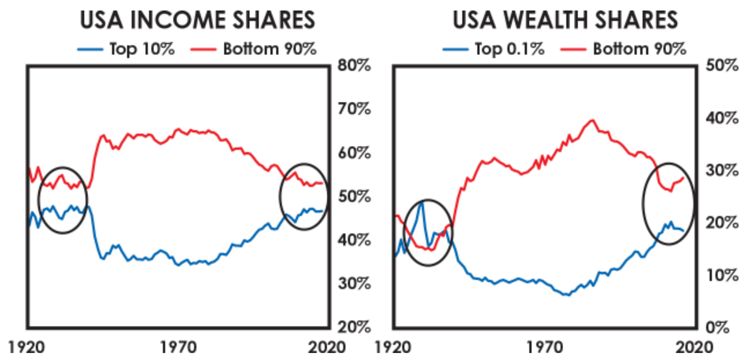
Throughout the long-term debt cycle, from 1945 until 2008, whenever the Federal Reserve wanted the economy to pick up it would lower interest rates and make money and credit more available, which would increase stock and bond prices and increase demand. That was how it was done until 2008—i.e., interest rates were cut, and debts were increased faster than incomes to create unsustainable bubbles. That changed when the bubble burst in 2008 and interest rates hit 0 percent for the first time since the Great Depression. As explained more comprehensively in my book *Principles for Navigating Big Debt Crises* there are three types of monetary policy: 1) interest-rate-driven monetary policy (which I call Monetary Policy 1 because it is the first to be used and is the preferable way to run monetary policy), 2) printing money and buying financial assets, most importantly bonds (which I call Monetary Policy 2 and is now popularly called "quantitative easing"), and 3) coordination between fiscal policy and monetary policy in which the central government does a lot of debt-financed spending and the central bank buys that debt (which I call Monetary Policy 3 because it is the third and last approach to be used when the first two cease to be effective). The next charts show how the debt crises of 1933 and 2008 both led to interest rates hitting 0 percent and were followed by big money printing by the Federal Reserve.



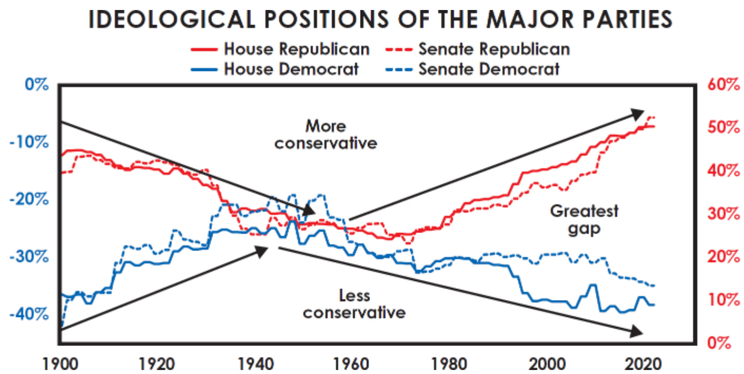
This change in monetary policy had big effects and implications.

The 2008–2020 Money-Financed Capitalist Boom

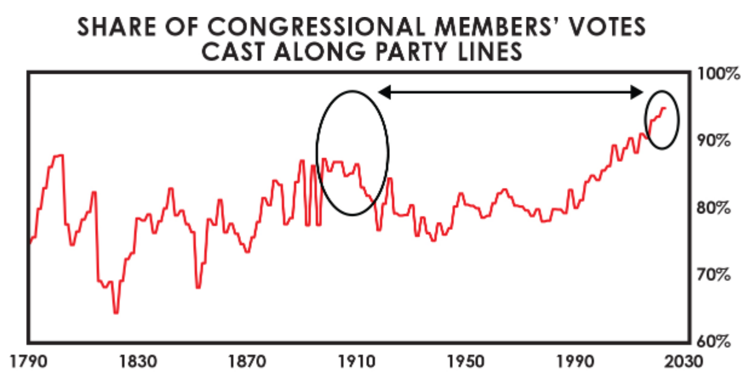
In 2008 the debt crisis led to interest rates being lowered until they hit 0 percent, which led the three main reserve currency central banks (led by the Fed) to move from an interest-rate-driven monetary policy to a monetary policy of printing money and buying financial assets. Central banks printed money and bought financial assets, which put money in the hands of investors who bought other financial assets, which caused financial asset prices to rise, which was helpful for the economy and particularly beneficial to those who were rich enough to own financial assets, so it increased the wealth gap. Basically, borrowed money was essentially free, so investment borrowers and corporate borrowers took advantage of this to get it and used it to make purchases that drove stock prices and corporate profits up. This money did not trickle down proportionately, so wealth and income gaps continued to grow. Wealth and income gaps grew to the largest since the 1930–45 period.



In 2016, Donald Trump, a blunt-speaking businessman and capitalist/populist of the right, led a revolt against establishment politicians and "elites" to get elected president by promising to support people with conservative values who had lost jobs and were struggling. He went on to cut corporate taxes and run big budget deficits that the Fed accommodated. While this debt growth financed relatively strong market-economy growth and created some improvements for lower-income earners, it was accompanied by a further widening of the wealth and values gap, leading the "have-nots" to become increasingly resentful of the "haves." **At the same time, the political gap grew with increasingly extreme Republicans on the one side and increasingly extreme Democrats on the other.** This is reflected in the next two charts. The first one shows how conservative Republicans in the Senate and House and how liberal Democrats in the Senate and House have become relative to the past. Based on this measure they have become more extreme, and their divergence has become larger than ever before. While I'm not sure that's exactly right, I think it's by and large right.



The next chart shows the percentage of votes along party lines for the average representative, which is the highest ever. This continues to be reflected in the reduced willingness to cross party lines to compromise and reach agreements. In other words, the political splits in the country have become deep and intransigent.

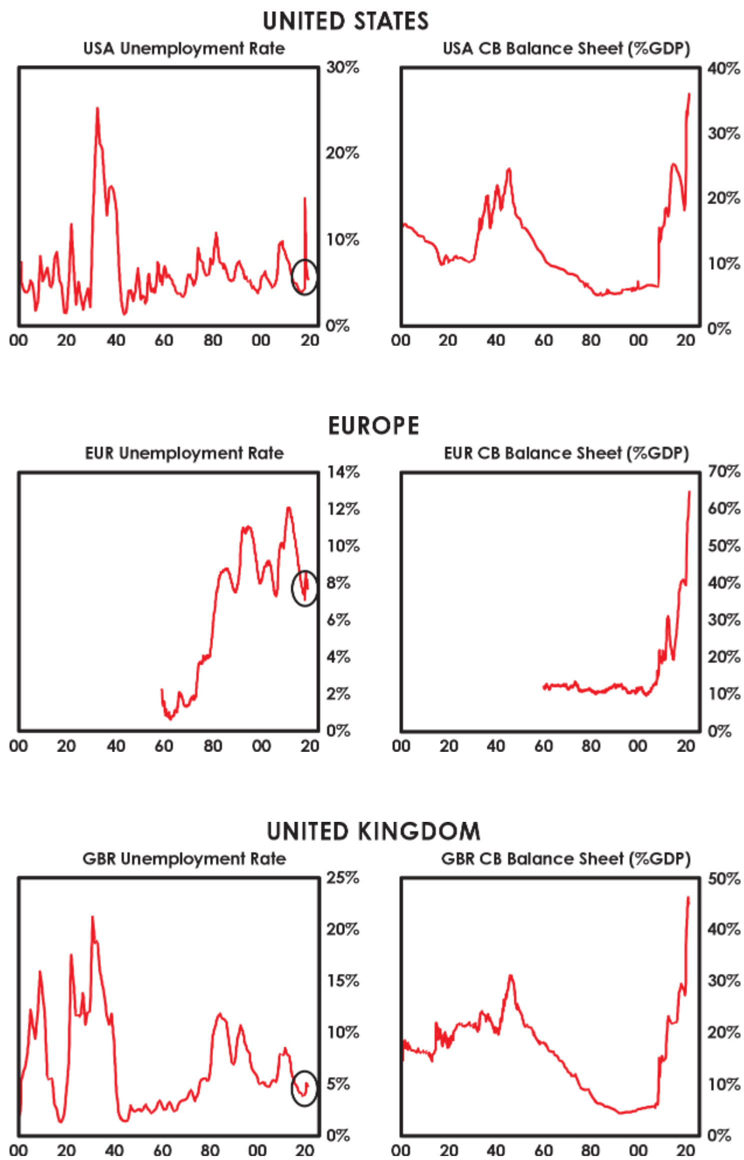


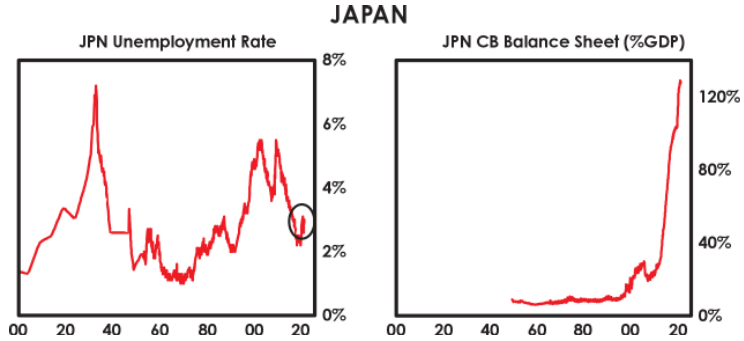
This chart shows the average predictiveness of a given member's left/right ideology in determining their vote across chambers for each congressional session as measured by NOMINATE, an academic model of ideological preference.

Trump took a more aggressive negotiating posture concerning economic and geopolitical disagreements with international rivals, particularly China and Iran, and allies such as Europe and Japan regarding trade and paying for military expenditures. The conflicts with China over trade, technology, geopolitics, and capital were intensifying as his term ended in 2021; economic sanctions such as those that were used in the 1930–45 period were being used or put on the table for possible use.

In March 2020 the coronavirus pandemic hit, and incomes, employment, and economic activity plunged as the country (and much of

the world) went into lockdown. The US government took on a lot of debt to give people and companies a lot of money, and the Federal Reserve printed a lot of money and bought a lot of debt. So did other central banks. As a reflection of this, the following charts show the unemployment rates and central bank balance sheets of major countries for as far back as data is available. As shown, all the levels of central banks' printing of money and buying of financial assets rose to near or beyond the previous record amounts in the war years.





As history has shown and as explained in Chapter 4, ● ***when there is a great increase in money and credit, it drives down the value of money and credit, which drives up the value of other investment assets.***

The printing and buying of debt that the Fed undertook in 2020 was much like Roosevelt's March 1933 move, Nixon's August 1971 move, Volcker's August 1982 move, Ben Bernanke's November 2008 move, and Mario Draghi's July 2012 move. It has become standard operating procedure for central banks, and it will persist until it no longer works.

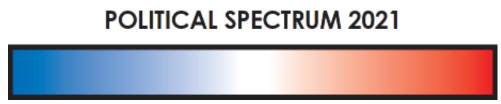
WHERE THE US IS NOW IN ITS BIG CYCLE

The stats in my model suggest that the US is roughly 70 percent through its Big Cycle, plus or minus 10 percent. The United States has not yet crossed the line into the sixth phase of a civil war/revolution, when the active fighting begins, but internal conflict is high and rising. The recent elections show how split the country is—almost 50/50, along seemingly irreconcilable lines.

The next graphic represents what the population looked like 50 years ago—i.e., the majority of each party were moderates and the extremists were less extreme.

POLITICAL SPECTRUM 50 YEARS AGO

Now it looks like this—i.e., with a greater concentration and number of people at the extremes.



[4]

History has shown us that ***greater polarization equals either a) greater risk of political gridlock, which reduces the chances of revolutionary changes that rectify the problems or b) some form of civil war/revolution.***

In Chapter 5, I described the classic markers signaling the probabilities of escalation from Stage 5 to Stage 6. **The three most important markers I am watching now are: 1) the rules being disregarded, 2) both sides emotionally attacking each other, and 3) blood being spilled.**

In the final chapter of this book, I will share the quantitative measures that I use to track how things are going. I will continue to watch these and share what I'm seeing with you at economicprinciples.org. But first, we will look at a rising world power, China, and the ways in which it is coming into conflict with the US.

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[1] While 1933 to 1951 was the period from the Roosevelt peg break to the Monetary Accord between the Federal Reserve and Treasury, the policy of explicit yield curve control, in which the Federal Reserve controlled the spread between short-term and long-term interest rates, lasted from 1942 to 1947.

[2] 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 and Toyoo Gyohten.

[3] This measures whether the country as a whole is spending more than it's earning.

[4] Shading indicates degree of polarization.

CHAPTER 12

THE BIG CYCLE RISE OF CHINA AND THE RENMINBI

Emotions have been running so high between the US and China that many people have urged me not to publish this chapter. We are in a kind of war, they say; any complimentary things you write about China will alienate US readers, while criticism of China will infuriate the Chinese—and the media will make things worse by distorting everything you say. That's probably true, but I can't not speak openly because the US-China relationship is too important to be left unmentioned by anyone who knows both countries as well as I do. To not speak honestly would cost me my self-respect.

I'm not afraid of criticism; I welcome it. What I am passing along here is just the latest iteration of my learning process, which is to develop my perspectives through direct experiences and research, to write up what I learn, to stress test it by showing it to smart people, to explore our differences if and when we have them, to evolve my thinking some more, and do that over and over again until I die. While this study reflects nearly 40 years of doing just that with China, it is still incomplete; it is right and wrong in ways that have yet to be discovered, and it is provided to you to use or criticize in the spirit of finding out what's true.

This chapter is focused on China and Chinese history; the following chapter is on US-China relations. What I hope to provide in this chapter is a better understanding of where the Chinese are coming from—of how they see us and themselves as a result of having lived through their history. While I'm not a scholar of Chinese culture and the Chinese way of operating, I believe that my numerous direct encounters with China, my historical and economic research, and my US and global perspective give me a unique sense of its past and present. After you read this, you can decide for yourself whether or not that's true.

China's culture, by which I mean its people's innate expectations about how families and communities should behave with each other and how leaders should lead and followers should follow, evolved over thousands of years through the rises and falls of its many ruling dynasties and the development of Confucian and Neo-Confucian philosophy as well as other beliefs. I have seen these typical Chinese values and ways of operating manifested over and over again; for example, in the economic and leadership approaches of two men: Lee Kuan Yew, the former long-time prime minister of Singapore, and Deng Xiaoping, who initiated China's reform and opening up. Both combined Confucian values with capitalist practices, in Deng's case creating a "socialist market economy with Chinese characteristics."

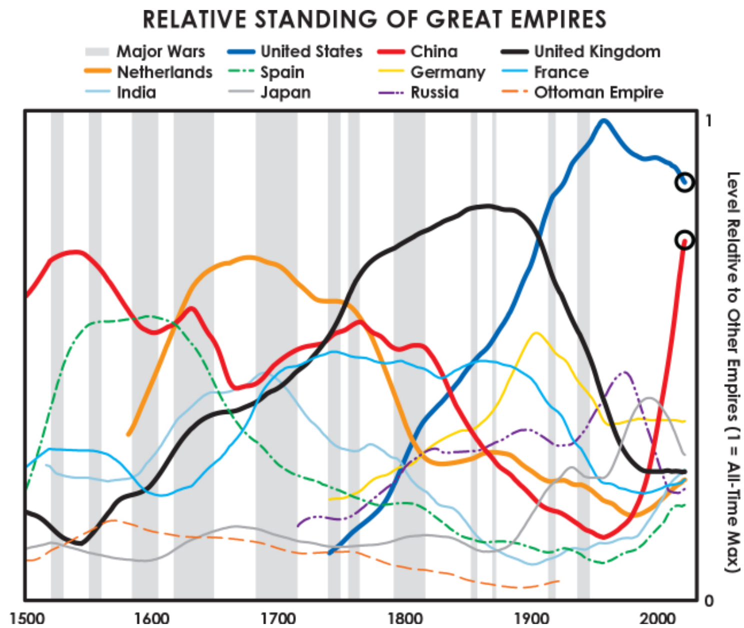
Over the last couple of years, as part of my study of the rises and declines of empires and their currencies, I have also undertaken a study of Chinese history to help me understand how the Chinese think—especially their leaders, who are greatly influenced by history. I began my research with the year 600, just before the Tang Dynasty.[1] While I can be pretty certain about my impressions of the people and things that I have had direct contact with, I of course can't be as certain about those I haven't. My thoughts about historical figures such as Mao Zedong are based on facts gathered, experts' thinking gathered from conversations and books, and conjecture. What I can say is that between my own experience, the efforts of my research team, and my extensive triangulation with some of the most knowledgeable China scholars and practitioners on the planet, I have a high degree of confidence in my conclusions.

Since my first trip to China in 1984, I have come to know many Chinese, from the lowest to the highest in rank, in an up-close, personal way, and I have experienced their recent history as directly as I have experienced America's. As a result, I believe that I understand both the American and Chinese perspectives pretty well. I urge those of you who haven't spent considerable time in China to look past the caricatured pictures that are often painted by biased parties and rid yourself of any stereotypes you might have that are based on what you thought you knew about the old "communist China"—because they're wrong. Triangulate whatever you are hearing or reading with people who have spent a lot of time in China working with the Chinese people. As an aside, I think the widespread media distortions and the blind and near-violent loyalties that stand in the way of the thoughtful exploration of our different perspectives are a frightening sign of our times.

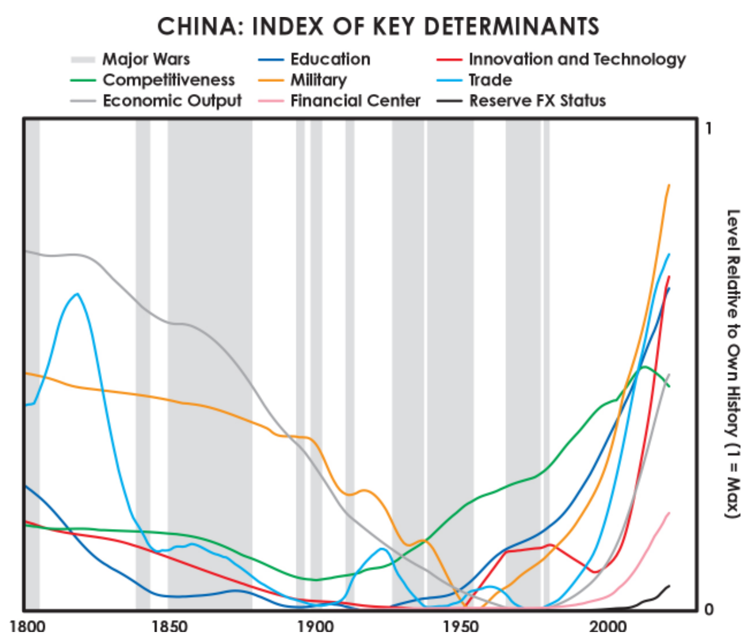
To be clear, I'm not ideological. I don't choose a side on an issue based on whether it aligns with American, Chinese, or my own personal beliefs. I'm practical; I approach things like a doctor who relies on logic and cause/effect relationships and believes in what works well through time. The only thing I can do is beg for your patience and open-mindedness as I share what I've learned with you.

I laid out the factors that I believe are most important to a country's health when I discussed the 18 determinants at the beginning of this book. Of those, I highlighted eight measures of power: education, competitiveness, innovation/technology, trade, economic output, military, financial center status, and reserve currency status. When I judge China's strengths and weaknesses, it is through the lens of those factors. I also try to understand China's circumstances as the Chinese themselves do, through their eyes.

To refresh your memory, this chart shows the relative standing of the world's leading countries as measured in indices that measure eight different types of power. In examining the rises and declines of the great empires since 1500, I looked at each of these measures. I will now do the same for China, briefly conveying the long arc of its history while diving into its highlights in a more granular way.



Breaking this rise down further, the following chart shows the eight measures of power for China between 1800 and the present.



Unlike the cycles for the Dutch, British, and American empires, which began with their rises and were followed by their protracted declines, China's cycle over the past 200 years was a long decline followed by a

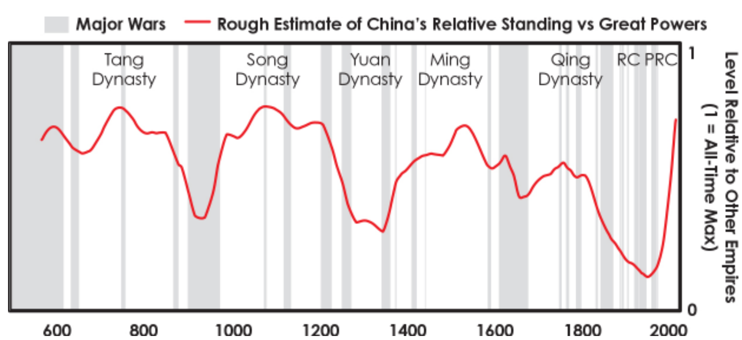
rapid rise. Though the order is reversed, the same forces drove the cycle. Seven of the eight powers hit their lowest points in the 1940–50 period. Since then, most of them—notably, economic competitiveness, education, and military power—improved gradually until around 1980, when China's economic competitiveness and trade took off. That was right after Deng Xiaoping's open-door and reform policies began. That is no coincidence. From my first visit to China in 1984 until about 2008, debt growth was in line with economic growth, which was very strong. In other words, extremely rapid improvements were made without loading the economy up with debt. Then the 2008 financial crisis came along and China, like the rest of the world, used a lot of debt to stimulate its economy, so debts rose relative to incomes. When Xi Jinping came to power in 2012, he improved China's debt and economic management dramatically, continued growth in innovation and technologies, strengthened education and the military, and encountered greater conflict with the US. **China is now roughly tied with the US in being the leading power in trade, economic output, and innovation and technology, and it is a strong and quickly rising military and educational power. It is an emerging power in the financial sector but is lagging as a reserve currency and financial center. We will explore all of this in more detail later in the chapter, but in order to understand China's present we first need to wade into its tremendous history.**

CHINA'S GIANT HISTORY IN A TINY NUTSHELL

Anyone who wants to have a fundamental understanding of China needs to know the basics of its history, the many patterns that repeat within it, and the timeless and universal principles that its leaders have gained from studying those patterns. Getting even a basic understanding of Chinese history is a considerable undertaking. Spanning some 4,000 years, it is so vast and complicated, and has inspired so many different and sometimes contradictory interpretations, that I am confident that there is no single source of truth—and I am especially confident that I'm not it. Still, there is a lot that knowledgeable people agree on, and many scholars and practitioners, both Chinese and non-Chinese, have shared valuable insights with me. Trying to piece together all that I have learned has not only been a valuable experience for me but also a fascinating one. While I can't guarantee that my perspectives are the best, I can guarantee that they have been well-triangulated with some of the most informed people in the world.

China's civilization began around 2000 BCE with the Xia Dynasty, which lasted about 400 years and is credited with bringing the Bronze Age to Asia. Confucius, who developed the philosophy that most influences how the Chinese behave with each other to this day, lived from 551 to 479 BCE. The Qin Dynasty united most of the geographic area that we now call China around 221 BCE and was followed by the 400-year Han Dynasty, which pioneered governance systems that are still in use. The Tang Dynasty came to the fore in 618 CE.

This chart applies to China the same overall power gauge that I showed you in the chart of great empires, covering the more than 1,400 years between 600 and today. With the notable exception of the period from around 1840 to 1950, when it experienced a steep decline, China has historically stood among the most powerful empires in the world. As it emerged from civil war, it began to rise again, at first slowly and then very rapidly. Today it is second only to the US and is poised to surpass it.



Most of the dynasties that ruled China over the course of this time span were as cultured as they were powerful. (I only name the most prominent in the chart; there were many others.) Each of these dynasties has its own fascinating story, but to do those stories justice would take far more space than can fit in this chapter.

- **The Tang Dynasty (618–907) is considered by many Chinese to be a high point of Imperial China.** The Tang came to power after a prolonged period of disunion and civil war, which had culminated in China being reunified by the short-lived Sui Dynasty, which immediately preceded the Tang. The dynasty was established by a father-son pair of strong leaders—with the son, the Tang's second Emperor Taizong, being especially notable. They not only militarily unified China, but also established a stable government system and policies that were highly effective, producing quality education, excellent development of technologies, international trade, and diverse ideas. Taizong was a great revolutionary leader who was able to consolidate power, build a great dynasty, and transition well so that the dynasty remained strong without him. A period of great prosperity lasted about 150 years, with a particularly strong military that helped the Tang control valuable trade routes in Central Asia. By the late 700s, however, the Tang slipped into decline for the classic reasons: the quality of governance fell, fragmentation over economic and values gaps led to a weakened and corrupt central government (which, combined with internal conflict, led to a series of rebellions), its finances deteriorated, and natural disasters increased in impact.
- **Then came the Northern and Southern Song dynasties (960–1279), during which China was the most innovative and dynamic economy in the world.** The deterioration of the Tang Dynasty led to its own period of civil war and disunion in the 900s. Out of this conflict the Song Dynasty came to power under the rule of Emperor Taizu in 960. Taizu was one of those classic strong revolutionary leaders who needed to and could bring order to chaos. He successfully rose to power as a military leader and, when in power, implemented widespread reforms to a) bring together the different factions that had previously fought for power, b) create a centralized, top-down system of military and civilian governance,

and c) expand education and the quality of governance (particularly through reforming the imperial examination system). These investments in education and meritocracy under Taizu and his successors set the Song Dynasty on the classic good path that led to immense scientific and technological advancement.[2] However, after a few generations, around the year 1100, the dynasty declined due to a combination of weak leadership, financial problems, and other classic factors. In its weakened state, it became vulnerable to external powers. During the 1100s and 1200s, the Song first lost control of the northern half of China, then, after a revival period known as the Southern Song Dynasty, were conquered by Mongol leader Kublai Khan.

- **Kublai Khan founded the comparatively short-lived Yuan Dynasty (1279–1368).** For much of his rule, Kublai Khan governed well and behaved like a classic dynastic founder: he encouraged education, unified the state, and, relative to many other Mongol leaders, stood out for his meritocratic and open-minded style of governing. Under Kublai Khan, China's economy and trade strengthened after a long period of conflict. At the same time, the Yuan pursued expensive wars of conquest. Corruption grew later in his rule, and the failure to establish a stable succession structure led to frequent civil wars and crises after his death. This corruption and instability helped produce rebellions that ended the dynasty after less than a century.
- **The Ming Dynasty (1368–1644) presided over an empire that was largely prosperous and peaceful. It was founded by the Hongwu Emperor, who was born into poverty and rose to be a great general who captured Beijing and threw out the Mongol rulers. He consolidated power in a 14-year purge that led to about 30,000 executions.** After winning power through a successful rebellion against the unpopular Yuan Dynasty, early Ming leaders built a meritocratic society with excellent education and civil behavior that fostered innovation. Over time the Ming Dynasty expanded trade with Europe (as Chinese goods were of superior quality), which brought in enormous amounts of silver and redirected the nation's energies from subsistence

agriculture to industry. However, the Ming's failure to manage monetary and fiscal policy well, to consistently support China's influence over international trade, and to adequately respond to a series of crises left China exposed and vulnerable. To make matters worse, the Little Ice Age led to agricultural disaster and famine. In the end, war, famine, and ecological disaster—combined with a rigid and ineffectual state—created an unrecoverable catastrophe that led to the collapse of the nearly three-centuries-old Ming Dynasty by 1644.

- **The Qing Dynasty (1644–1912) came to power when the neighboring Manchu people capitalized on instability and rebellions in Ming China to challenge it.** This culminated in the sacking of Beijing by rebels during which the last Ming emperor committed suicide. **Then the cycle began again under the Qing Dynasty. China achieved its maximum territorial expansion, governing over a third of the world's population while reforms under the reigns of three long-ruling emperors led to an extended period of economic prosperity.**[3] Then the European powers arrived. Earlier in this book we saw how the European powers, in the Age of Exploration, used their military strength to trade with and exploit resource-rich but militarily weaker foreigners. That's what happened starting in the early 1800s, which began what is called the Century of Humiliation in China. The Europeans came offering to trade but the Chinese didn't want anything they had to offer. This led to the British bringing opium into China to get the Chinese addicted, so that they would trade for it. A series of military confrontations followed during the 1800s (most notably the Opium Wars), which sped China's decline. Chinese moves to stem their decline failed and there was great internal conflict and uprisings (most notably the Taiping Rebellion), which continued until the collapse of the Qing Dynasty in 1912.

The lessons this history provides remain very much in the forefront of the minds of China's current leaders and are fascinating to me, especially in the context of the patterns of history.

How the Typical Dynastic Cycle Transpires

The typical major Chinese dynasty, like the typical empire, lasted about 250 years, give or take 150 years, and by and large followed the same pattern of rises and declines.[4] You can especially see the internal order cycle, described in Chapter 5, at play time and time again. As a reminder of that cycle:

- **Stage 1, when the new order begins and the new leadership consolidates power**, which leads to…
- … **Stage 2, when the resource-allocation systems and government bureaucracies are built and refined**, which if done well leads to…
- … **Stage 3, when there is peace and prosperity**, which leads to…
- … **Stage 4, when there are great excesses in spending and debt and the widening of wealth and political gaps**, which leads to…
- … **Stage 5, when there are very bad financial conditions and intense conflict**, which leads to…
- … **Stage 6, when there are civil wars/revolutions**, which leads to…
- … Stage 1, which leads to Stage 2, etc., with the whole cycle happening over again.

Let's review this cycle quickly. **The typical cycle begins with strong leaders who win control and implement improvements needed to build a great empire**. As with most other empires, the initial winning of the war for control is typically followed by **struggling to get most of the population in line and united** (often through conflict to establish the leadership's power). That is typically followed by a peace that is due to no entities wanting to challenge the dominant power (Stage 1).

Then the new ruler turns to building up the empire. To be successful an empire needs **a smart and determined population that works well with each other**. It also needs to be **strong financially**. These things are obtained by systems that train and produce people who have **strong education and self-discipline. Getting the most capable people into the most important roles requires the meritocratic selection of people. In Chinese dynasties, the**

imperial exams often played that role, and it was common for new dynasties to implement educational reforms. It also requires **an effective resource-allocation system** (Stage 2).

During that period of peace and rising power, the empire typically works well economically and improves its financial condition. While the empire typically starts with limited financial resources and low debts because the previous empire's debts have been wiped out, in some cases it has assets that were acquired as an outcome of the prior war that it won. In the case of Chinese history, key variables were the distribution of land ownership and taxation of it —often the arrival of a new dynasty weakened or overturned the "corrupt elites" of the prior system, vastly improving the resources available to the state. With these resources, the dynasty profits and expands. It builds commercial, technological, and military strengths that reinforce each other. For example, having strong technologies helps the dynasty economically and militarily because they can be used for both purposes and because being strong militarily protects the country's commercial interests (e.g., protects trade routes), which also strengthens the dynasty financially. At its peak, the dynasty's government is functioning well, its resources and people are employed productively, and prior investments are yielding new gains. The economy is strong and self-sustaining, and the people are prosperous and produce great achievements in scholarship, the arts, trade, architecture, and other elements of great civilizations (Stage 3).

The decline of the empire typically happens because the forces that strengthened it fade and a rival power emerges. Leadership weakens, often becomes corrupt, and/or allows corruption in others.[5] Also, the dynasty typically becomes overextended and quite often becomes heavily indebted, which causes it to have debt problems that are typically dealt with by printing lots of money, which in turn devalues the money. The dynasty's population also becomes increasingly fragmented and loses its unity of purpose and ability to work well together. The wealth gap increases, which undermines productivity and leads to political conflict. Often there is some form of natural disaster, frequently a drought or a flood that exacerbates the dynasty's problems. The more of these that happen at the same time, the greater the chance that the dynasty will fall.

The fall itself comes with escalating rebellions and then a bloody civil war (Stage 5 and Stage 6). Eventually a strong new leader emerges, wins the conflict, and begins the cycle again with a new dynasty (Stage 1 again).

There are **common themes in the decline of the different dynasties—themes also visible in the decline of some of the other powers mentioned in this book**:

1. **Growing inequality and fiscal problems over the course of the dynasty are critical drivers of the decline.** Dynasties often started with more equal land and wealth holdings, as the concentrated holdings of the old dynasty's elites were redistributed—which helped with preventing social conflict and helped the fiscal position (because elites often were more able to shelter themselves from taxes than the broader base of small landholders). But over the years, land became concentrated in fewer and fewer families, who could evade taxes (via bribery, using official influence, and finding other ways to hide/shelter their wealth from taxation)—which in turn allowed them to build their wealth further. The inequality this produced helped directly spawn conflict, and the weakening tax base of the state made the state weaker and more vulnerable to crisis.
2. **Monetary problems were common contributors to the decline of the empires.** In the Song, Yuan, and Ming dynasties, the government struggled to maintain a large enough money supply in metal coins and resorted to money printing, especially in times of war and natural or human-caused disaster. The problems with collecting taxes made the incentive to print even stronger. This caused high inflation or hyperinflation, making matters worse.
3. **The quality of governance and infrastructure tended to rise early in each dynasty and then fall over the course of the dynasty.** Later in the Song, Ming, and Qing dynasties, years of underinvestment in public works built up, leaving China vulnerable to famines and floods. And while it's hard to generalize over dozens of emperors, the visionary founder of the dynasty (e.g., the founders of the Song and Yuan dynasties who embraced technology and science) was typically succeeded by rulers

who were more rigid and conservative (e.g., in the Qing Dynasty), too focused on imperial riches and luxuries (e.g., the last rulers of the Northern Song Dynasty), and/or less supportive of foreign trade (in the Ming Dynasty).

4. **Internal conflict usually arose from economic differences combined with bad times (most typically caused by agricultural problems, high debts, poor governance, and natural disasters, and sometimes by conflicts with outside forces).** Significant natural disasters and periods of quick climate change that were painfully disruptive often coincided with the fall of dynasties. The classic downward spiral has been that 1) inadequate technology and investment (both new projects and maintenance) leaves infrastructure susceptible to natural disasters; 2) a disaster hits (in China's case this was typically via droughts and flooding from the major rivers), which damages crop yields and, in some cases, destroys communities, as lower crop yields lead to food scarcity and famine; and 3) domestic populist uprisings result from the disasters. This process played a significant role in the declines of the Song, Yuan, Ming, and Qing dynasties.
5. **Bad conditions and large wealth gaps led to the most significant uprisings**, which were due to the common man rebelling against the excesses of the elite (e.g., the Fang La Rebellion in the Song Dynasty, the Red Turban Rebellion in the Yuan Dynasty, and the White Lotus Rebellion in the Qing Dynasty). Conversely, domestic stability arising from good conditions for most people was a key characteristic of the more prosperous periods.
6. **Isolation and Confucian cultural influences that favored scholarship over commerce, technology, and military strength led to China's weaker competitiveness in business, technology, and the military, which led it to be beaten by or fall behind stronger "barbarians"—e.g., the Mongols, the foreign powers in the Opium Wars, and the rest of the world in the Mao isolation period.**

China's physical geography and geology have also had a big impact on the rise and fall of dynasties. The main thing to know is that China's terrain is varied and often volatile. For example, the north is colder, flatter, and drier, and the south is more mountainous, much warmer, and wetter, which leads to China's different areas having often inconsistent crop production. However, a united China is largely self-contained because the diversification and coordination of the parts make it that way. Still, these conditions plus shortages of clean water, cropland, and coastal marine fisheries have historically made China vulnerable to food shortages. For that reason, **China has often been food-insecure** and even today imports a lot of food. **China also has shortages of important natural resources**, such as oil, some minerals, and some foodstuffs. **It also has bad air pollution that adversely affects the health of its people and its agriculture, though it is quickly improving these conditions.**

Such events led **past and current leaders of China to learn lessons and establish protections against these natural and political disasters** being repeated or leading to unacceptable consequences. In other words, there are many lessons embedded in these histories, and—believe me—all of them influence the decision making of China's leaders today, whether they are planning for the long term or dealing with cases at hand.

What is especially interesting to me is seeing how far back in history the patterns of the archetypical Big Cycle go, since China's history is both so ancient and so well-documented. I was also fascinated to see what happened when the Eastern and Western worlds interacted more significantly from the 17th through the 19th centuries, and how, as the world became much smaller and more interconnected, the Chinese and Western Big Cycles affected each other.

Probably the most important thing I gained from studying the history of so many countries is the ability to see the big patterns of causes and effects. Shifting my perspective to the very long term felt like zooming out in Google Maps because it allowed me to see contours that I couldn't see before and how the same stories play out over and over again for basically the same reasons. I also came to understand how having so much history to study has affected the Chinese way of thinking, which is very different from the American way of thinking, which is much more focused on what is happening now. Most Americans believe their own history is just 300 or 400 years old (since they believe the country began with European settlement), and they aren't terribly interested in learning from it.

Whether they are interested or not, 300 years seems like a very long time ago to Americans, but for the Chinese, it isn't long at all. While the prospect of a revolution or a war that will overturn the US system is unimaginable to most Americans, both seem inevitable to the Chinese because they have seen those things happen again and again and have studied the patterns that inevitably precede them. While most Americans focus on particular events, especially those that are happening now, most Chinese leaders view current events in the context of larger, more evolutionary patterns.

Americans are impulsive and tactical; they fight for what they want in the present. Most Chinese are strategic; they plan for how they can get what they want in the future. I have also found Chinese leaders to be much more philosophical (literally, readers of philosophy) than American leaders. For example, I had a meeting with a Chinese leader who had just met President Donald Trump and had concerns about the possibility of a US-China conflict. He explained how he approached the meeting, which struck me as starkly different from how President Trump likely had. This leader and I have known each other for many years, during which time we have talked mostly about the Chinese and world economies and markets. Over those years we have developed a friendship. He is a very skilled, wise, humble, and likable man. He explained that going into his meeting with Trump, he was concerned about the worst-case scenario where tit-for-tat escalations could get out of control and lead to war. He referred to history and gave a personal story of his father to convey his perspective that wars were so unimaginably harmful and the damage of the next war could be worse than the last war, which had killed more people than any other. He focused on World War I as an example. He said that to calm himself down and gain equanimity he read *Critique of Pure Reason* by Immanuel Kant, and he realized that he could only do his best and then the outcomes would take their course. I told him about the Serenity Prayer[6] and suggested meditation to him. I went home and read *Critique of Pure Reason* again, which I found challenging. I did, and still do, admire him and value his perspective greatly.

I tell this story to share with you one Chinese leader's perspective on the risk of wars and to also give one example of the many interactions I've had with this leader and of the many interactions I've had with many Chinese leaders and Chinese people in order to help you see them through my eyes and through their eyes.

Chinese history and philosophy, most importantly Confucian/Taoist/legalist/Marxist philosophies, have a much bigger influence on Chinese thinking than American history and its Judeo-Christian/European philosophical roots have on American thinking. An esteemed Chinese historian told me that Mao read the mammoth 20-volume chronicle *Comprehensive Mirror for Aid in Government*, which covers the 16 dynasties and 1,400 years of Chinese history from around 400 BCE to 960 CE, and the even more mammoth *Twenty-Four Histories* several times, as well as numerous volumes about Chinese history and the writings of non-Chinese philosophers, most importantly Marx. He also wrote and spoke philosophically, wrote poetry, and practiced calligraphy. If you are interested in what Mao thought or, more importantly, how he thought, I suggest you read *On Practice, On Contradiction*, and of course *The Little Red Book*, which is a compendium of his quotations on a number of subjects.[7]

The planning horizon that Chinese leaders concern themselves with is well over a century because that's at least how long a good dynasty lasts. They understand that the typical arc of development has different multidecade phases in it, which they plan for.

The first phase of the current Chinese Empire occurred under Mao when the revolution took place, control of the country was won, and power and institutions were solidified. The second phase of building wealth, power, and cohesiveness without threatening the leading world power (i.e., the United States) occurred under Deng and his successors up to Xi. The third phase of building on these accomplishments and moving China toward where it has set out to be on the 100th anniversary of the People's Republic of China in 2049—which is to be a "modern socialist country that is prosperous, strong, democratic, culturally advanced, and harmonious"—is occurring under Xi and his successors. **Its ultimate goal is to make the Chinese economy about twice the size of the US's and to have the benefits of its growth broadly shared.**[8] Nearer-term goals and ways to achieve them were set out in the Made in China 2025 plan,[9] Xi's new China Standards Plan 2035, and the usual five-year plans.[10]

Chinese leaders don't just try to implement their plans; they set out clear metrics by which to judge their performance, and they achieve most of their goals. I'm not saying that this process is perfect because it isn't, and I'm not saying that they don't have political and other challenges that lead to disagreements, including some brutal fights over what should be done, because they do (in private). What I am saying is that the Chinese have much longer-term and historically based perspectives and planning horizons, which they break down into shorter-term plans and ways of operating, and they have done an excellent job of achieving what they have set out to do by following this approach. Coincidentally, my own search for patterns in history and my way of dealing with tactical decisions has had a similar effect on how I see and do things—e.g., I now view the last 500 years as recent history, the most relevant historical arcs seem about 100-plus years long, and the patterns I've gleaned from this perspective help me anticipate how events are likely to transpire, and how I should be positioned for them over the coming weeks, months, and years.

CHINA'S LESSONS AND ITS WAYS OF OPERATING

Chinese culture developed as an extension of the experiences the Chinese had and the lessons they learned from them over the course of millennia. These were set out in philosophies about how things work and what ways work best in dealing with those realities, which made clear how people should be with each other, how political decision making should be done, and how economic systems should work. In the Western world, the dominant philosophies are Judeo-Christian, democratic, and capitalist/socialist, and each individual pretty much chooses from them to come up with a mix that suits them. In China, the main philosophies were Confucian, Taoist, and legalist until the early 20th century, when Marxism and capitalism entered the mix. Emperors typically choose their own preferences, put them into practice, learn, and adapt. If the mix works, the dynasty survives and prospers (in their parlance, it has the "mandate of heaven"). If it doesn't, it fails and is replaced by another. This process has gone on from before history was recorded and will go on for as long as there are people who have to decide how to do things collectively.

While I can't do these philosophies justice in a couple of sentences, here are my attempts:

- **Confucianism seeks to bring about harmony by ensuring that people know their roles in the hierarchy and how to play them well**, starting from within the family (between the husband and the wife, the father and the son, the older sibling and the younger sibling, etc.) and extending up to the ruler and their subjects. Each person respects and obeys those above them, who are benevolent and at the same time impose strict standards of behavior. All people are expected to be kind, honest, and fair. Confucianism values harmony, broad-based education, and meritocracy.
- **Legalism favors the rapid conquest and unification of "everything under heaven" by an autocratic leader.** It argues that the world is a kill-or-be-killed jungle in which strict obedience to the emperor's central government is required, without much benevolence given in return. The Western equivalent of legalism is fascism.
- **Taoism teaches that it is of paramount importance to live in harmony with the laws of nature**. Taoists believe that nature is composed of opposites—yin and yang—and that harmony is achieved when they are balanced well.

Until the early 20th century, when Marxism gained favor with Mao and his successors, Confucianism and Neo-Confucianism were the most influential philosophies, usually with some legalism thrown in. I will briefly explain Marxism when we get into the 20th century.

All of these Chinese systems are hierarchical and nonegalitarian. Wang Qishan, the vice president of China and a remarkable historian and explorer of different cultures, told me that the core difference between Americans and the Chinese is that Americans hold the individual above all else while the Chinese put the family and the collective above everything. **America is run from the bottom up (e.g., democracy) and optimized for the individual; China is run from the top down and optimized for the collective.** The Chinese word "country" consists of the two characters for "state" and "family," he explained, so Chinese leaders seek to run their state the way they think parents should run their families, with each person knowing their place and having filial respect for those above them. As a result, the Chinese are more humble, respectful, and rules-bound, while Americans are more arrogant, egalitarian, and rules-averse. I've observed that while the Chinese are more interested in asking questions and learning, Americans are more interested in telling you what they think.

As for governance structure (i.e., who reports to whom within the hierarchy of the central government and how that extends down to interactions with regional and local governments), the Chinese have evolved well-developed approaches over many dynasties and thousands of years; to go into them in depth would require too great a digression.

Unlike other great empires that have conquered and occupied other countries, it was relatively uncommon for China to occupy distant states. **China is basically a giant plain surrounded by big natural borders (mountains and seas), with the bulk of its population spread across the plain. Most of China's world was confined within those borders, and most of its wars were fought for control of it, mostly among the Chinese, though sometimes between foreign invaders and the Chinese.**

Traditional Chinese military philosophy teaches that the ideal way to win a war is not by fighting but by quietly developing one's power to the point that simply displaying it will cause an opponent to capitulate. It also calls for the extensive use of psychology to influence opponents' behaviors.[11] **Still, there have been numerous violent dynastic wars inside China. The few wars that were fought outside China were for the purpose of establishing China's relative power and opening trade.**

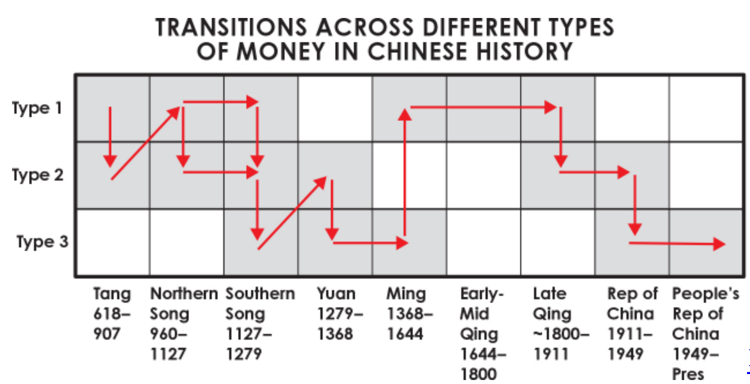
Scholars believe that China was loathe to expand its empire because its land mass was already so large and difficult to control and because they have preferred to maintain a cultural purity that is best achieved through isolation. **Traditionally the Chinese have preferred to enter into relations with empires outside their borders in a manner that is similar to what one might expect from the previously mentioned philosophies—i.e., with the parties knowing their places and acting accordingly.** If China was more powerful, which was typically the case, the less powerful states paid "tribute" with gifts and favors and typically received guarantees of peace, recognition of their authorities, and trading opportunities in return. These subordinate countries typically maintained their customs and experienced no interference in how their countries were run.[12]

CHINA'S MONETARY AND ECONOMIC HISTORY

As for money, credit, and the economy, the history is very long and complicated. That said, China has gone through the full range of money/credit/economic systems and cycles that I described earlier when discussing the big cycle of money and credit. The currency the Chinese used the most was metal (mostly copper coins, and some silver, domestically), which continued long after China invented paper money in the 9th century, until the introduction of the yuan in the late 19th century. Silver was the main currency used internationally, though gold was also sometimes used.

Understanding the different systems is especially important for China, as they shifted frequently between them and it helped produce prosperity or ruin in different periods, depending on how the system was managed. China experienced several cycles of 1) transitioning from hard currency to paper backed by hard currency (Type 1 to Type 2), then 2) seeing trust in the currency increase until the paper currency was circulated with no backing, (Type 2 to Type 3), then 3) having the paper currency collapse due to overprinting and loss of faith, leading to the return to a hard currency (Type 3 to Type 1).

As I explained in Chapter 3 there are three basic types of monetary systems. In the first, which I call a Type 1 monetary system, money has intrinsic value (because the coins are made from gold, silver, and copper). In the second, which I call a Type 2 monetary system, money is linked to assets that have intrinsic value (typically in the form of paper notes that can be exchanged for gold or silver at a fixed price). In a Type 3 (or fiat) monetary system, money is not linked to anything objective. The following diagram conveys an ultra-simplified picture of how these currency systems rotated throughout China's history since the Tang Dynasty. In fact, different parts of China had different currencies and at times used coins and ingots from other countries (e.g., Spanish silver dollars in the late 16th century). Still **the diagram is broadly indicative and meant to show that China had the same range of monetary systems as the rest of the world, and they worked in essentially the same ways, most importantly, with cycles in which hard money was abandoned due to debt problems, leading to inflation, hyperinflation, and finally a return to hard money**.



[13]

At the start of the Tang Dynasty, money primarily consisted of copper coins (i.e., hard currency). But as is classic, the supply of hard currency proved to be constraining—China was growing quickly, and the supply of copper wasn't keeping up to provide enough money. Additionally, each copper coin was of low value, and so to trade, merchants had to physically carry perhaps hundreds of thousands of copper coins, which was impractical. These pressures led to the invention of the earliest forms of non-hard, money-like instruments. "Flying cash" started out as essentially drafts from a bank (like checks), but merchants would circulate them like money. Eventually, the Tang government started to supervise their issuance and use.[14] That said, day-to-day monetary transactions continued to be mainly in copper coinage.

True paper money (i.e., designed to be in widespread use as legal tender) came a bit later in Chinese history. In the early 1100s during the Song Dynasty, the government took over the money-making industry and created the first commodity-backed paper money. The paper money soon was accepted and what it was backed by took on a subordinate importance. Thus began an early version of a fiat monetary system. However, similar to bonds, the paper money had a maturity date, after which it was retired.

The Song Dynasty not only invented fiat money, they also were the first to overprint and devalue paper money. By the mid-1100s the financial demands on the Song treasury were extremely high, due to foreign wars and domestic revolts. As is quite typical of the declines of empires, rather than increasing taxes or cutting spending, which they didn't want to do because it would have increased discontent, they printed fiat currency to fund their deficits. Initially, the monetization of deficits was manageable—the first fiat currency, known as huizi notes, was issued in modest quantities starting in 1160 and traded at near face value for more than 30 years. But the Song government soon printed more freely, more than tripling the amount of huizi in circulation. As internal and external conflicts continued to strain the imperial treasury, the money supply nearly tripled again between 1209 and 1231. As a result, the market value of that paper money (measured in specie coins) fell by over 90 percent between 1195 and the 1230s.

The same patterns repeated several more times. The Yuan Dynasty, feeling constrained by metal currency, created a new paper currency (which Marco Polo marveled at), but then overprinted it, causing the currency to eventually collapse. The early Ming Dynasty, also feeling constrained by metal currency, created paper money to provide funds to establish a new state, but then overprinted it, eventually causing the currency to collapse. These are fascinating stories I won't delve into now.

Following the failure of fiat money at the start of the Ming Dynasty, China gave up experimentation with paper currencies until the 20th century. Instead, from the mid-14th century to around 1933, China had different types of metal coins, primarily silver. The intrinsic value of that silver constituted the significant majority of their value, though there was some premium placed on the coins themselves. For a major portion of that time, largely up until 1933, China didn't mint, and the coins came first from Spain, then Mexico, then North America. In 1933, the Chinese chose to create their own national coinage, which began to circulate. Two years later, the Chinese government decided to replace the yuan with the fabi (which means "legal tender"), in order to move from a currency they couldn't print to one they could. The fabi in turn experienced increasingly rampant hyperinflation due to overprinting by the Republic of China government in World War II and the final phases of the Chinese Civil War that followed. Following the foundation of the People's Republic of China (PRC), the renminbi was introduced and remains in use to this day.

As for China's broader economy, it went from being primarily agricultural and feudal through a variety of manufacturing incarnations, such as the Bronze Age and the Iron Age, and developed various approaches to trading with foreigners (most importantly through the Silk Road). This gave rise to a rich merchant class, producing cycles in which big wealth gaps developed followed by uprisings in which their wealth was seized. Since China has always been an intelligent and industrious society, numerous technological inventions moved its economy forward. Private entrepreneurial businesses also arose at different times in China's history, producing cycles in which wealth disparities grew, until governments expropriated and redistributed wealth in countless ways. China experienced debt cycles like those described in Chapter 3 as well, which took place for the same reasons. There were stable periods within these big debt cycles when debt growth wasn't excessive; bubble periods when it was; crisis periods when there wasn't enough money to service debt; and inflationary (and sometimes hyperinflationary) periods when money was printed to alleviate the debt crises.

It's interesting to note that while the most powerful empires had global reserve currencies, this has not been true for China's most powerful dynasties.

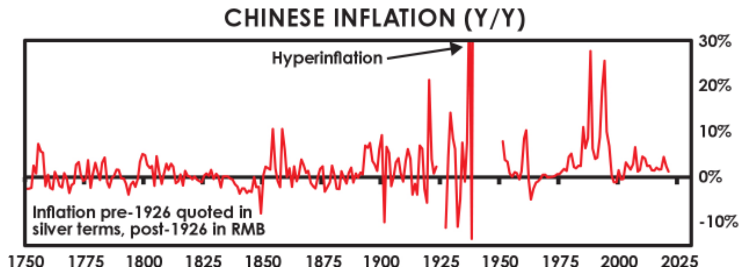
That is because:

- In the years prior to frequent oceanic travel, there was no such thing as a global reserve currency (trade was limited and generally conducted in precious metals), and throughout its history, China never became such an extensive empire (i.e., a "world power") that a large portion of the world wanted to transact with and hold its promissory notes as storeholds of wealth. China never established a financial center rivaling those in Europe, and it was much less commercial. While China was ahead in financial market development in the Song Dynasty (establishing the first stock companies and using paper currency), by the 1600s financial/capital market developments in China were far behind those in Europe. Culturally, being commercial was not held in high regard by China's leaders so there was less development of the commercial legal system and the financial markets. Because of that lesser commercial development and its more isolationist policies, China generally fell behind Europe in terms of innovation, which we will discuss later.
- Further, China's support for private commerce and financial markets was inconsistent—stronger in the Song and Tang periods and then more hostile in the Ming and Qing, when global trade empires were first being established. As a result, the social and legal structures were less conducive to capital accumulation/investment (e.g., corporate law was much less developed than in Europe and Chinese businesses tended to be family-owned). Also, the state overall was less willing and able to invest in strategic industries or push innovation. Confucian ideology probably played a role in this, as merchants/businesspeople were of lower status compared to scholars, a viewpoint that strengthened as more conservative strains of Confucianism gained sway in the Ming and Qing dynasties.

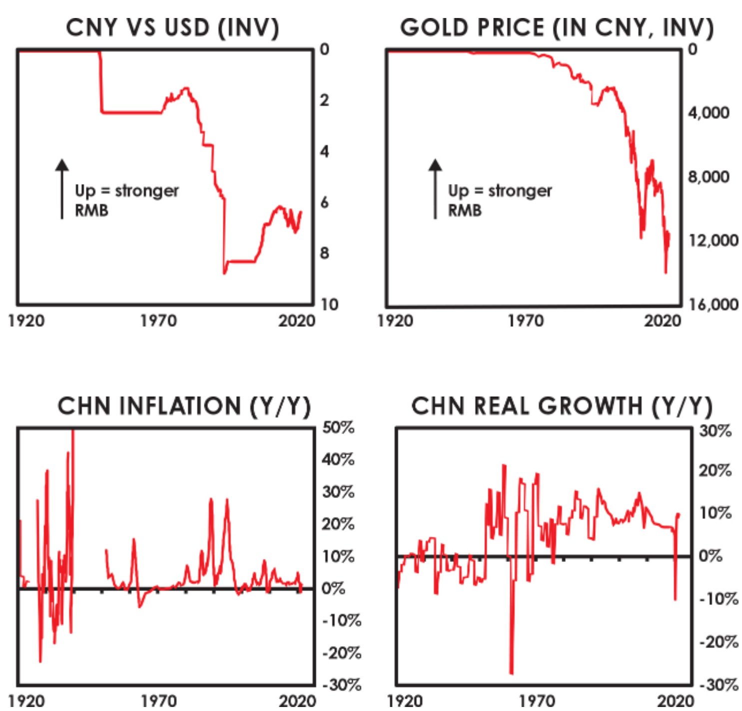
Debt grew dramatically during the civil unrest and wars of the 1920s and '30s, which led to the classic cycle in which promises to deliver money far exceed capacities to do so. This caused widespread defaults, which classically led to the abandonment of the metal standard and the outlawing of metal coins and private ownership of silver. As previously explained, **currencies are used for 1) domestic transactions, which the government has a monopoly in controlling (and hence can be carried out with fiat or even flimflam currencies) and 2) international transactions, in which case the currencies must be of real value or they won't be accepted. The test of the real value of a currency is whether it is actively used and traded at the same exchange rate internationally as domestically. When there are capital controls that prevent the free exchange of a domestic currency internationally, that currency is more susceptible to being devalued. By definition reserve currencies have no such controls. So, as a principle:** • ***when you see capital controls being put on a currency, especially when there is a big domestic debt problem, run from that currency.***

China had two currencies in the 1930s—a fiat paper one for domestic transactions, and a gold one for international payments. The fiat paper one was printed abundantly and frequently devalued. After the turbulence of World War II and the Chinese Civil War, in December 1948, the first renminbi was issued as a fiat currency and it was kept in limited supply to end the hyperinflation. In 1955, a second issuance of renminbi was made, and in 1962 a third. From 1955 to 1971 the exchange rate was fixed at 2.46 to the US dollar. Then there was another round of high inflation in the 1970s and '80s, which was caused by the global devaluation of money against gold in 1971, global inflationary pressures, China phasing out its price controls, easy credit, and a lack of spending controls among state-owned enterprises. In 2005, the peg to the dollar was ended.

The next chart shows Chinese inflation rates going back to 1750, including the periods of hyperinflation. The era of relatively stable inflation early on was largely the result of China using metals (silver and copper) as money, which were valued by weight. When the Qing Dynasty broke down, provinces declared independence and issued their own silver and copper coins, which were also valued by their weights. This is why there were not exceptionally high levels of inflation, even during this terrible period.



The following charts show the value of Chinese currency in dollar and gold terms since 1920, plus the inflation and growth rates over that period. As you can see, there were two major periods of devaluation: the first when the new exchange rate was set up in 1948, and between 1980 and the 1990s when there was a series of devaluations aimed to support exporters and manage current account deficits,[15] which caused very high inflation. As shown, growth was relatively fast and erratic until around 1978, then fast and much less erratic until the recent brief plunge due to the COVID-19 pandemic.



While most Chinese have a strong desire to save and an appropriate sense of risk that innately drives them to store their wealth in safe liquid assets (e.g., cash deposits) and tangible assets (e.g., real estate and some gold), some investors have limited experiences with riskier assets such as equities and risky debt and so can be naïve, though they are learning very fast. But when it comes to Chinese policy makers' understanding of money, credit, monetary policy, fiscal policy, and how to restructure bad debts, I have found them to have the same kinds of deep and timeless perspectives that they have for the rest of their history.

FROM 1800 UNTIL NOW

I'll begin with a brief overview of the period between 1800 and the foundation of the People's Republic of China in 1949, examine the Mao period a bit more closely, then take a deeper look at the period spanning the rise of Deng Xiaoping (from 1978 to 1997) and the advent of Xi Jinping (in 2012) until now. Then, in the next chapter, we will look at US-China relations.

The Decline from 1800 until 1949

China's post-1800 decline began when a) the last Chinese royal dynasty (the Qing Dynasty) became decadent and weak at the same time that b) the British and some other Western countries became strong, which led British and other capitalist/colonialists to increasingly take control of China economically. Meanwhile, c) China's financial and monetary system broke down under the burden of debts that couldn't be paid and the printing of money that caused a collapse in its value, while d) there were massive domestic rebellions and civil wars.[16] **That severe Big Cycle decline, in which all the major strengths were in mutually reinforcing free falls, continued from around 1840 until 1949.** The end of World War II in 1945 led to the repatriation of most foreigners in China (except for Hong Kong and Taiwan) and a civil war to determine how the wealth and power would be divided—i.e., a war between the communists and the capitalists—on the Chinese mainland. **This long period of decline was a classic case of the archetypical Big Cycle, and it was followed by an equally classic case of a Big Cycle upswing, in which a new leader wins control, consolidates power, and begins building the basic structures that are passed on to succeeding generations, who build on each other's accomplishments.**

As discussed in previous chapters, the early 1800s was the time of Britain's rise and expansion across the globe—which brought the rising British Empire into greater contact with China. The British East India Company wanted tea, silk, and porcelain from China because it was extremely lucrative to sell back home. However, the British didn't have anything that the Chinese wanted to trade for so they had to pay for these goods in silver, which was a global money at the time. When the British began to run out of silver, they smuggled opium into China from India, which they sold for silver, which they then used to pay for Chinese goods. The Chinese fought to stop those sales, which led to the First Opium War, in which **the technologically superior British Navy defeated the Chinese in 1839–42, leading Britain to impose a treaty that gave the British Hong Kong and opened up a number of Chinese ports, most notably Shanghai, to traders from Britain (as well as other powers in subsequent treaties), which eventually led to the loss of large parts of northern China to Russia and Japan and the loss of what we now call Taiwan to Japan**.

The Qing government borrowed heavily from foreigners to fight internal rebellions. Reparations, especially after the Boxer Rebellion (a Chinese rebellion against foreigners in 1901), also created huge liabilities. When the rebellion failed, the victorious foreign powers demanded the equivalent of about 18,000 tons of silver, which was structured around a 40-year debt that was guaranteed by the tariff income on the ports they controlled. The Qing government, starved of financial resources, faced many uprisings over the couple decades following the Opium Wars and spent down their savings to finance fighting them. **The combination of 1) not having strong leadership, 2) not having sound finances, 3) having internal rebellions that undermined productivity and were costly in money and lives, 4) fighting foreigners, which was costly**

financially and in lives, and 5) experiencing some big disruptive acts of nature produced the mutually and self-reinforcing decline known as the Century of Humiliation.

It is easy to see the important role that period has played in shaping Chinese leaders' perspectives—e.g., why Mao saw capitalism as a system in which companies pursued profits through imperialism (i.e., through the control and exploitation of countries, just as the British and other capitalist powers did to China), enriching the greedy elites while exploiting workers. Mao's view of capitalism differs from my own because his experience with it was so different, though both of our views of it are true. Capitalism has provided me and most others I know, including immigrants from all over the world, with enormous opportunities. The America I came of age in was the land of opportunity, in which one could learn, contribute, and be rewarded fairly and without boundaries. This experience of seeing through another's eyes was another reminder for me of how important radical open-mindedness and thoughtful disagreement are to finding out what is true. It led me to study Marxism a bit, so I could understand why it made sense to Mao and others as a philosophy. My inclination up until then was to think of it as at best impractical and at worst a potentially evil threat, yet I was ignorant about what Marx had actually said.

Enter Marxism-Leninism

Before I examined it for myself, I'd assumed that Marxism-Leninism was a dysfunctional system in which resources were theoretically distributed "from each according to his abilities, to each according his needs" that failed to produce much because of its lack of incentives to be inventive and efficient. I didn't appreciate that Marx was a brilliant man who came up with some good theories and some seemingly bad ones that he would probably agree were not adequately tested and refined by the evolutionary system he espoused. Now I wonder how Marx, a very practical man who believed that philosophies should only be judged by the successes and failures they produce, would have diagnosed communism's near total and universal failure and changed his thinking as a result.

Marx's most important theory/system is called "dialectical materialism." "Dialectical" refers to how opposites interact to produce change, and "materialism" means that everything has a material (i.e., physical) existence that interacts with other things in a mechanical way. **In a nutshell, dialectical materialism is a system for producing change by observing and influencing the "contradictions" of "opposites" that produce "struggles" that, when resolved, produce progress. Marx meant it to apply to everything. The conflict and struggle between the classes that is manifest in the conflict between capitalism and communism is just one of many such examples.**

Much of that sounds right to me.

Though I'm no expert on Marxism, the process of dialectical materialism is similar to the process that I discovered for myself and explained in my book *Principles: Life and Work*, in which I struggle with conflicts, reflect on them, write down the principles I derive from them, and then improve them—and do that over and over again, in a never-ending, evolutionary way that I describe as "looping." In other words, I believe, and it sounds like Marx believed, that learning and evolving from conflicts and mistakes is the best approach.

It is also my opinion that capitalism—an incentive system that rewards the people who are most inventive and productive, and that has capital markets that reward good capital allocation decisions and penalizes bad ones—will lead to a) more productivity over the long run (and hence a bigger total pie), b) big wealth differences, and c) capital markets (especially debt markets) that become overextended and then break down. When there is a capital market/economic breakdown at the same time that there are big wealth and values disparities, that is likely to lead to some form of revolution. Such revolutions can end harmoniously and productively, but most are preceded by great conflict and destruction. So, thus far the way Marx appeared to see things and the way I see things aren't radically different, though what we would choose and what we would think should be done are probably radically different. If you asked me a) whether I'd rather have what capitalism has delivered or what communism delivered and b) if I think the capitalist path we have now is more logical than the communist path we have seen, I'd choose capitalism as my answer to both.

On the other hand, if you asked me a) if both the capitalist and the communist systems need to be reformed to make the pie grow more effectively and to be distributed more fairly and b) if Marx's dialectical materialism approach to evolving and my 5-Step Process to evolving are broadly similar and the best ways of evolving well, I would say yes to both questions (without getting hung up on how, exactly, our two approaches are different). Also, as far as the wealth gap goes, I share the view that it has been a big issue throughout history that can threaten all systems. I too believe that conflicts produce struggle and that working through struggle produces progress. I consider the conflicts between the classes (i.e., the "haves" and the "have-nots") to be among the main drivers of the rise and decline of empires, and hence the progress of history, with those drivers being the three big cycles—money and credit, internal order/disorder, and external order/disorder—discussed earlier in this book.

All of those cycles across the leading countries were in their decline/conflict phases between 1930 and 1945, which led to revolutions and wars in China and all over the world. But as always happens, the forces of decline ran their course and new domestic and world orders began. More specifically, the external war ended in 1945 and foreign forces left most of mainland China. China's communists and capitalists then fought an internal war that ended in 1949, which led to a new domestic order, which was communism under Mao. Put yourself in Mao's position during the 1900–49 period. Imagine him reading what Marx wrote, and think about his actions during that period and in the post-1949 period. It makes sense that Mao was a Marxist and held the established Confucian approach to harmony in disdain. Democracy as we know it doesn't have any roots in China. Legalism, with its autocratic approach, does. Capitalism, on the other hand, is growing and becoming much more deeply rooted today.

Lenin built on what Marx said to create a two-step process for building the state, in which there is at first a vanguard of workers though "democratic centralism" (in which only members of the party vote), which eventually leads to a higher communist state in which there is common ownership of the means of production, social and economic equality, and general prosperity. **Mao liked**

the Marxist-Leninist approach, in which the achievement of the communist ideal came at the end of a very long evolutionary process. Deng Xiaoping reiterated this view in an interview with "60 Minutes" in 1986, in which he said that the capitalism he was adopting and communism were not incompatible. "According to Marxism," he said, "communist society is based on material abundance... Only when there is material abundance can the principle of a communist society—'from each according to his ability, to each according to his needs'—be applied. Socialism is the first stage of communism..." Maybe that's true and maybe it's not. Time will tell. To me, thus far capitalism—in China or anywhere else—is winning the competition. However, there can be no question that the Chinese mix of communism and capitalism has produced remarkable economic results over the last 40 years.

In the next section I will very briefly summarize what happened between 1949 and now. Then I will delve into each of its phases in greater detail.

The Rise from 1949 until Now

Though it's a bit of an oversimplification, we can think of China's evolution from 1949 until now as occurring in three phases:

1. **The Mao phase, from 1949 to 1976.**
2. **The Deng and Deng's successors phase, from 1978 to 2012 when Xi Jinping came to power.**
3. **The Xi Jinping phase from 2012 until now.**

Each phase moved China along the arc of its long-term development, building on its earlier accomplishments. In brief, events transpired as follows:

- **From 1949 until he died in 1976, Mao (with his various ministers, most importantly Zhou Enlai) consolidated power; built China's foundation of institutions, governance, and infrastructure; and**

ruled China as a communist emperor. Isolated from the rest of the world, China followed a strict communist system in which the government owned everything and maintained tight bureaucratic controls. Immediately following the deaths of Mao and Zhou Enlai, there was a power struggle in 1976–78 between the Gang of Four hardliners and the reformists. Deng Xiaoping and the reformists emerged victorious in 1978, leading to the second phase.

- **Deng and his ministers ran China directly or indirectly until his death in 1997.** During this phase China moved to a more collective leadership model, opened up to the outside world, introduced and developed market/capitalist practices, and became much stronger financially and more powerful in other ways that didn't appear threatening to the United States or to other countries. To finance what was then viewed as a symbiotic relationship in which the US bought items that were attractively priced from China, China lent Americans money. As a result, the US acquired US dollar-denominated debt liabilities and the Chinese acquired dollar-denominated assets. After Deng's death his successors Jiang Zemin and Hu Jintao (and those who led China with them) continued in the same direction so China's wealth and power grew in fundamentally sound ways that did not appear threatening to the US. In 2008, the global financial crisis came along, which led to greater tensions over wealth in the United States and other developed countries, increased resentment at the flight of manufacturing jobs to China, and increased debt-financed growth in all countries, including China.
- **Xi Jinping came to power in 2012, presiding over a richer, more powerful China that was becoming overly indebted, too corrupt, and increasingly at odds with the United States.** He accelerated economic reforms, took on the challenge of trying to contain debt growth while aggressively reforming the economy, supported the building of leading technologies, and took an increasingly global stance. He also became more proactive in reducing China's gaps in education and its income inequality, in protecting the environment, and in consolidating political control. As China's powers grew and Xi's bold objectives (e.g.,

the Belt and Road Initiative and the Made in China 2025 plan) became more apparent, tensions with the US rose, especially after Donald Trump was elected president (a populist/nationalist who campaigned on stanching the US's loss of manufacturing jobs to China). China's position vis-à-vis the US became one of a rapidly strengthening power challenging the dominant one.

Now let's take a closer look.

Phase One: Building the Foundation (1949–1976)

Mao and the communists won the civil war and started the People's Republic of China in 1949 and quickly consolidated power. Mao became the de facto emperor (titled "chairman of the People's Republic of China") and Zhou Enlai his prime minister (titled "premier"). Domestically, the new government quickly repaired transportation and communications infrastructure and nationalized the banking system under the aegis of the new central bank, the People's Bank of China. To bring down inflation it tightened credit and stabilized the value of the currency. The government also nationalized most businesses and redistributed agricultural land from large landowners to the peasants who farmed the land. Whether one worked or not, one received basic pay. There was no merit-based pay. The protections that these guaranteed basic incomes and benefits provided everyone were collectively called "the iron rice bowl." These changes created a stable economy but little motivation.

Internationally, China was isolationist, though it wasn't long before the new government found itself in a war. As explained in the last chapter, in 1945 the new world order divided the world into two main ideological camps—the democratic capitalists led by the United States and the autocratic communists led by the Soviet Union—with a third group of countries that were not committed to either side. Many of these nonaligned countries had until recently been colonies, most notably under the declining British Empire. China was clearly in the Soviet-led camp. On February 14, 1950, Mao and Stalin signed the

Treaty of Friendship, Alliance, and Mutual Assistance to cooperate and come to each other's aid militarily.

At the end of World War II, Korea was divided at the 38th parallel, with the Russians controlling the north and the Americans the south. In June 1950, North Korea invaded South Korea. The Chinese stayed out of the fighting initially, as they were preoccupied with their own challenges and didn't want to be drawn into a war. In conjunction with the United Nations, the United States responded by bringing its forces into the fighting, taking the war into North Korea, which borders China. The Chinese viewed this as a threat, especially since US General Douglas MacArthur made it clear that he would attack China. Though the Soviets and the Chinese had a pact to support each other, Stalin didn't want to go war with the United States so he didn't provide China with the military support it expected. Though the Chinese were ill-prepared for war against the much greater (and nuclear-armed) American power, the Chinese entered the war, pushing the American and UN troops back to the previously established border. This was Mao's first great challenge, and it is considered a great victory by the Chinese.

Between the PRC's founding in 1949 and Mao's death in 1976, the Chinese economy grew rather quickly, at an average annual rate of about 6 percent, with an average annual inflation rate of around 1–2 percent, accumulating around $4 billion dollars in foreign exchange reserves. This represented a modest improvement, but China remained poor. And there was a lot of volatility along the way. Specifically:

- Between 1952 and 1957, with the help of the Soviets, industrial production grew at 19 percent a year, national income grew at 9 percent a year, and agricultural production grew by 4 percent a year. The Chinese government built industrial facilities and imported lots of equipment from the Soviets. It also reformed its agricultural practices and methods by creating cooperatives to achieve economies of scale by having farmers work together. These were highly productive years. However, after Stalin's death in 1953, Nikita Khrushchev came to power, criticized Stalin and his policies, and alienated Mao, which led to these Chinese and Soviet leaders openly criticizing each other, which began a period of reduced Soviet support.

- Around 1960 the Soviet Union shifted from being an ally to being an enemy and withdrew economic support.
- From 1958 through 1962, due to a drought, economic mismanagement from the top-down mandated attempt to become an industrial power called the Great Leap Forward, and reduced Soviet economic support, the economy contracted by 25 percent and an estimated 16–40 million people died of famine. Estimates suggest that over that period industrial output fell by 19 percent in aggregate, with a fall of around 36 percent from the 1959 peak. Historians agree that it was a terrible period, though there is some disagreement about how much it was terrible because of terrible management by Mao versus other causes.
- Between 1963 and 1966, the economy recovered and went to new highs. But then came the Cultural Revolution.

As is classic in all cycles, challenges to Mao's leadership and ideology arose. Since most Chinese emperors were taken down by insiders, this risk had to be on Mao's mind (and everyone else's). So from 1966 until 1976, he fostered a political revolution, called the Cultural Revolution, to "purify class ranks" and reinforce "Mao Zedong Thought." Mao won the political/ideological battle, purging his rival Lin Biao, who died in a plane crash during a botched coup he was accused of organizing, and "Mao Zedong Thought" was written into the constitution. The cost of Mao's triumph was appalling. The Cultural Revolution curtailed education and damaged or cost countless lives (estimates range from hundreds of thousands to as many as 20 million dead) and dealt a huge blow to the Chinese economy. By the early 1970s the situation had begun to stabilize under the operational leadership of Premier Zhou Enlai. In 1969, there were clashes between Chinese and Russian troops along the border.

1971 was a year of great change in China. The Cultural Revolution was producing turmoil and Mao's health was declining. That contributed to Zhou Enlai playing an increasing leadership role from the background, which led to him being elected "vice chairman of the Communist Party" in 1973, putting him in the position of appearing to be Mao's successor. Also in 1971 China was threatened by the Soviet Union, which was militarily much more powerful and shared a 2,500-mile border with China, leading to increasing border threats. In 1975, after the US withdrew from Vietnam, which shares a 900-mile border with southern China, Russia built an alliance with Vietnam and moved in troops and arms. Mao had a geopolitical principle to identify the main enemy, neutralize the enemy's allies, and draw them away from the enemy. Mao identified the Soviet Union as China's main enemy and recognized that the Soviets were in a war with the United States that hadn't yet turned hot but could. That led him to make the strategic move of approaching the US. Henry Kissinger quoted Chinese officials as saying, "The last thing the US imperialists are willing to see is a victory by Soviet revisionists in a Sino-Soviet war, as this would [allow the Soviets] to build up a big empire more powerful than the American empire in resources and manpower."

I also know that Zhou Enlai, a reformist, had wanted to build a strategic relationship with the United States for decades because a close Chinese friend of mine, Ji Chaozhu, who was Zhou Enlai's interpreter for 17 years and interpreted in the first Kissinger-Zhou Enlai talks, told me that that was the case.[17] China wanted to open a relationship with the United States to neutralize the Russian threat and to enhance its geopolitical and economic position. **Because in 1971 it was especially clear that it was in the interests of China and the United States to build a relationship, they both made overtures to establish relations.** In July 1971 Kissinger—and then in February 1972 President Richard Nixon—went to China and in October 1971 the United Nations recognized the Mao-led communist Chinese government and gave China a seat on the Security Council. **During Nixon's visit, Nixon and Zhou Enlai signed an agreement—the Shanghai Communique—in which the US stated that it "acknowledges that all Chinese on either side of the Taiwan Strait maintain that there is but one China and that Taiwan is part of China.** The United States government does not challenge that position. It reaffirms its interest in a peaceful settlement of the Taiwan question by the Chinese themselves." **Despite those assurances, reunification with Taiwan**

still remains the most consistently contentious issue between China and the US.

Following those moves of rapprochement, US relations with China and trade and other exchanges began.

Then, in January and September 1976, first Zhou Enlai and then Mao died and communist China faced its first succession crisis. From 1976 to 1978, there was a fight for power between the Gang of Four (hardline conservatives who fostered the Cultural Revolution) and the reformists (who wanted economic modernization and an opening up to the outside world). The reformists won, and Deng Xiaoping became the paramount leader in 1978.

Phase Two: Deng and His Successors Gain Strengths Through Economic Reforms and Opening Up Without Creating Threats to Other Countries (1978–2012)

Deng Xiaoping was 74, with a wealth of experience under his belt. From 1978 until he died in 1997 his most important policies were conveyed in a single phrase: reform and opening up. "Reform" meant market reforms, using markets to help allocate resources and incentivize people, and "opening up" meant interacting with the outside world to learn, improve, and trade. Capitalism became a part of the communist mix. China was still extremely poor—its per capita income was less than $200 a year. Deng knew these moves would make China financially stronger if they were not disrupted by the far stronger foreign powers who wanted China to remain weak; the key was to pursue them in ways that benefited and didn't threaten them. **In 1979, he established full diplomatic relations with the US.**

Early on, Deng set out a 70-year plan to a) double incomes and ensure that the population would have enough food and clothing by the end of the 1980s, b) quadruple GDP per capita by the end of the 20th century (which was achieved in 1995, five years ahead of schedule), and c) increase per capita GDP to the levels of medium-level developed countries by 2050 (on the 100th anniversary of the PRC). He made it clear that China would achieve those goals by having a "socialist market economy," which

he also referred to as “socialism with Chinese characteristics.” He made that radical shift without criticizing Marxism-Leninism; indeed, as noted earlier, he did not see the two systems as fundamentally at odds, but rather viewed them through the lens of dialectical materialism, as opposites that could be resolved, leading to progress along the long arc toward communism’s ideal state.

During his term, Deng also reformed the decision-making structure of government. More specifically, he moved its decision-making process from one that was dominated by a single leader (previously Mao) to one in which the Politburo Standing Committee took votes when a consensus couldn’t be reached. He also changed the system of choosing the standing members of the Politburo from one in which the supreme leader personally selected them to one in which candidates—generally qualified government officials—were chosen via consultation and negotiation with experienced party elders. To institutionalize his governing philosophy, Deng shaped the new Chinese constitution, which was adopted in 1982. This new constitution also made a number of changes to facilitate the economic reforms and open-door policies that Deng wanted. It established term limits for leaders (two five-year terms) and discouraged autocratic decision making by formalizing his “collective leadership/democratic centralist” policies. The new constitution also provided for greater freedom of religion, opinion, speech, and the press, to encourage the Chinese to “seek truth from facts.” **These reforms enabled the first orderly transition of power to the next-generation Politburo Standing Committee, led by Jiang Zemin, and then on to Hu Jintao, with their transitions following the prescribed two five-year terms. Each successive leadership team kept to Deng’s basic path of making China richer and more powerful by making its economy more market-driven/capitalist and by increasing China’s trade with and learning from other countries, with those in other countries feeling more excited than threatened by their interactions and trade with China.**

Regaining territories it lost during its Century of Humiliation was also a very important long-term goal. In 1984, after a lot of haggling with the UK, it was agreed that Hong Kong would return to Chinese sovereignty in 1997, with a “one country, two systems” approach. Then in 1986, China reached an agreement with Portugal to obtain Macau's return to Chinese sovereignty in 1999.

In 1984, I had my first direct contact with China. I visited China at the invitation of the China International Trust Investment Corporation (CITIC), China's only "window company" (which meant that it was allowed to deal freely with the outside world), whose leaders had asked me to help them understand how world financial markets work. The company had been set up as an extension of Deng's reform and opening-up policies and was run by Rong Yiren, an old Chinese capitalist who had chosen to stay in China even after his family's business was nationalized.

China was very poor and backward then. However, it was immediately clear to me that its people were smart and civilized and its poverty was widely shared. In this regard, it wasn't like most other undeveloped countries I'd been to, where the poor seemed to live in a different century. China's backwardness stemmed from a general lack of access to what was available in the outside world and from its demotivating system. For example, I gave out $10 calculators as gifts, and even the highest-ranking people thought they were miraculous devices. At the time, all businesses (including small restaurants) were government-owned and bureaucratic. The Chinese couldn't choose their jobs, never mind their careers, and received no financial incentives for working well. There was no private ownership of property, such as one's home, and there was no contact with what the world had to offer in terms of best practices and products.

Because it was clear to me that the closed door was the reason for China's poverty, I believed that its removal would naturally equalize its standards of living with the developed world, just as unconstrained water naturally seeks the same level. It was easy to visualize that happening. I remember being on the 10th floor of CITIC's "Chocolate Building" to give a lecture. I pointed out the window at the two-story *hutongs* (poor neighborhoods) below us and told my audience that it would not be long before they would be gone and skyscrapers would stand in their place. "You don't know China," they said in disbelief. I told them that they did not know the power of the economic arbitrages that would occur as a result of opening up.

While the opening up created a great natural opportunity, the Chinese made the most of it and performed even beyond my highest expectations. They did that by making and implementing Deng's reforms, supported by uniquely Chinese cultural influences. The expressed goal that I heard a lot of in those early days of reform was to "break the iron rice bowl," which was to no longer provide demotivating guaranteed employment and ensured basic benefits and replace them with more incentive-based compensation. Globalization also helped a lot; the world wanted to include China.

Deng was an eager learner and he directed his policy makers to learn from outsiders in the same way that he did. He especially relied on Lee Kuan Yew of Singapore and other leaders of the culturally aligned "Asian Tiger" economies for advice. I remember a dinner with the head of China's MOFTEC (which was their ministry of commerce), in which he rattled off details about the operations of Singapore's airport (including how long a passenger had to wait to get their bags at the baggage claim), how Singapore achieved such great results, and how China was going to implement those practices itself. Many years later I had the opportunity to host Lee Kuan Yew at my house, along with some other esteemed guests. We asked him to share his thoughts about leaders of the present and past. We were eager to get his perspective because he had known most of them over the last 50 years and was one of the greats himself. Without hesitating, he said that Deng was the greatest leader of the 20th century. Why? Because he was smart and wise and open-minded, he was extremely practical, and he delivered great results for his country of a billion people.

While Deng formally stepped down from the Politburo's Standing Committee in 1987, he remained the de facto leader of China, which continued to open up and become more capitalist at a breakneck pace. I played a small part in its evolution over the years. In 1989, my CITIC friend Wang Li (who was responsible for bond trading) introduced me to the group of people who, along with her, had been designated to create the organization that would set up the first stock markets in the new China (the Stock Exchange Executive Council, known as SEEC). They had been appointed by seven companies at the request of the visionary economic reformer and historian Wang Qishan.

China was still very poor, and SEEC's office was in a dingy hotel because the group lacked adequate funding. Still, they had what mattered most—a clear mission to create big changes, smart people of good character, open-mindedness to allow rapid learning, and determination to achieve their goals. This was not a job to them; it was a noble mission to improve their country. I was thrilled to help them. And over the decades that followed, I saw how they and many others built the Chinese financial markets to become among the largest in the world.

Then, a shock happened that led everyone to question just about everything. In 1989, a movement to democratize China grew into the demonstrations that led to the crackdown known as the Tiananmen Square incident. The leadership was split on how to handle the movement. Deng made the defining choice, which was to sideline the liberal forces and go ahead with the conservatives' crackdown. Most Chinese people I spoke with at the time were worried that China would slip back into its old Mao/Gang-of-Four-type ways. A very close friend from CITIC, Madame Gu, whose brother was China's minister of defense, happened to be staying with my family at the time, so I saw events unfold through her eyes as well as through the eyes of other Chinese friends. Madame Gu had been an idealistic follower of Mao in the early years after "liberation." When the Cultural Revolution came along she lost her husband to persecution and was shunned by friends. She got past that terrible experience to work on behalf of the country she loved and rose to a senior job at CITIC. She cried at the prospect of a return to those terrible old days. Tiananmen Square significantly set back most countries' relationships with China, but it didn't keep Deng and his government from continuing their reforms. Over time, most of my Chinese friends who were heartbroken about the crackdown came to believe that the government had made the right move because their greatest fear was revolutionary disorder.

Over the next decade, the economy continued its strong growth, and relations and trade with the West became better than ever. Globalization, which helped China immensely, can be said to have begun in 1995 with the formation of the World Trade Organization (the epoch effectively ended with the election of Donald Trump in 2016). China joined the WTO in 2001 and its position in world trade soared. That year, the United States had more trade than China with

80 percent of WTO member countries. Now China is a larger trading partner than the United States for about 70 percent of those countries.

During this period of globalization, a symbiotic relationship developed between China and the US in which the Chinese manufactured consumer goods in an extremely cost-effective way and loaned the US money to buy them. It was a hell of a "buy now, pay later" deal for the Americans, and the Chinese liked it because they built their savings in the world's reserve currency. It struck me as odd that the Chinese, who were earning about a 40th of Americans on average, would be lending money to Americans, since rich people are in a better position to lend than poor ones. To me, it was a shocking reflection of how deeply Americans were willing to get into debt to finance their overconsumption and how much more the Chinese valued saving. It was also a reflection of how emerging countries that want to save in the bonds/debt of the leading reserve currency countries can lead those countries to become overindebted.

In 1992, China's "triangular" debt crisis came to a head. These were debt and economic problems that arose from China's five major government-owned banks lending to large, inefficient, and unprofitable state-owned enterprises with the implicit guarantee of the central government. Zhu Rongji, a bold reformer at the top of the party, led the efforts to restructure the economy to become more efficient. This process was extremely controversial and hurt a lot of people who had benefited from the old system, so it took a lot of courage and intelligence, as well as support from the top, to execute. Best practices (e.g., using "bad banks" to take, sell off, and wind down the bad debts) were used and modified for the Chinese environment. Zhu became premier in 1998 and in that capacity continued to aggressively pursue reforms to modernize and make the Chinese economy more efficient, until he retired in 2003. Many of his former aides are among China's senior economic policy makers today.

In 1995, I sent my 11-year-old son Matt to China, where he lived with Madame Gu and her husband and attended what was then a poor local school (*Shi Jia Hu Tong Xiao Xue*). Matt had been to China with me many times since he was 3 years old and had gotten to know Madame Gu well. He didn't speak the language, so he would have to learn through immersion, which he did. Though his school was poor (for example, there wasn't heat until late November, so students wore their coats in class), it had smart and caring teachers who provided the children with an excellent, complete education that included character development. Though Matt was deprived of some comforts he was used to (he couldn't take hot showers because the old apartment building he lived in only had hot water two days a week, for example), he was superbly educated, loved, and better developed than he would have been in our rich community. He built deep attachments with his teachers and friends that still exist. The experience led him to set up a foundation to help Chinese orphans that he ran for 12 years. Around that time I also **hired a Chinese team to invest American institutional money in Chinese businesses. I pursued the effort for a couple of years but had to discontinue it because I found it too difficult to run it and Bridgewater at the same time.**

In 1995–96 it became widely known that Deng's health was failing. Chinese leaders worried that his death would be viewed as an opportunity to challenge Chinese authority. They were especially worried that the Taiwanese would hold a referendum in favor of independence. President Lee Teng-hui, whom China regarded as a pro-independence leader, had just made a controversial visit to the US, shortly in advance of his nomination for Taiwan's 1996 presidential election. Madame Gu knew the Chinese official in charge of relations with Taiwan and arranged for me to meet with him. He told me that China would do anything, including going to war, to prevent Taiwanese independence. Should a new Chinese leader permit a referendum, he explained, the Chinese people would regard him as too weak to lead. China had seen how Russia's brutal suppression of rebels in the Chechen Republic had led to reduced support for independence; the Chinese hoped that a series of missile tests in the Taiwan Strait would similarly dampen Taiwan's enthusiasm. In March 1996, President Bill Clinton, who was facing re-election, sent two aircraft carriers into the Taiwan Strait. Further military movements and threats on both sides followed. At the end of the day, the Taiwanese never held the referendum, so my Chinese friends thought their moves had been successful, while the Americans believed that they had humiliated the Chinese (which I only recently found out from an American friend who was involved in the decision to send in the American warships). As a result of the “Third Taiwan Strait Crisis,” the Chinese significantly built up their military capabilities in the region. I point this out to convey a) how important Taiwan’s reunification with China is and b) how risky the situation was 25 years ago, when China was not nearly as strong militarily as it is now. In short, **I would worry a lot if we were to see a “Fourth Taiwan Strait Crisis.”**

Deng died on February 19, 1997, having transformed China almost beyond recognition. When he came to power, 90 percent of the population lived in extreme poverty; at the time of his death that number had fallen by more than half, and as of the most recent data is below 1 percent. From the start of his reforms in 1978 until his death in 1997, the Chinese economy grew at an average rate of 10 percent a year, sextupling in size while experiencing an average inflation rate of just 8 percent. Its reserves grew from $4 billion to nearly $150 billion (inflation-adjusted to today’s dollars, its reserves grew by over $250 billion). Those reserves covered 60 percent of annual imports in 1978. By 1998, they covered more than 125 percent of imports (and nearly 800 percent of foreign debt service).

Deng’s successors Jiang Zemin and Hu Jintao and their teams continued the reforms and the advances through many ups and downs (though more ups than downs). In 1997, the Asian financial crisis came along. With Zhu Rongji assigned to run the effort, China did a very successful debt and corporate restructuring, which included sales of unprofitable state-owned enterprises, the building up of exports and foreign exchange reserves, a crackdown on corruption, and the further development and improvement of markets and market functioning. These and other changes were all important evolutionary steps. I felt lucky to be intimately involved at the grassroots level with some of them—e.g., the debt restructuring and asset sales. Though these events seemed bigger at the time than they appear in retrospect, they were all significant achievements. I also ran into cases of corruption and bad behavior, and witnessed close-up the ongoing struggle between the good and the bad that led to further reforms.

As is typical of post-war periods of peace and prosperity, when the leading power isn’t threatened and emerging countries aren’t yet

threatening, emerging countries can learn a lot from the leading powers as they work together in a symbiotic way, until the emerging power becomes powerful enough to threaten the leading power. In addition to benefiting from the learning, they benefit from trading with each other (until that becomes disadvantageous), and they benefit from using the capital markets to their mutual benefit (until that becomes disadvantageous).

More specifically, the 1978–2008 period of fast growth in China came about because 1) the world was still in the peace and prosperity phase of the Big Cycle in which globalization and capitalism—i.e., the belief that goods and services should be produced wherever is most cost-effective, there should be free flows of talented people without prejudice toward their nationalities, nationalism is bad, and global equal opportunity and profit-seeking capitalism are good—were understood to be the widely accepted paths to a better world, while at the same time 2) Deng Xiaoping swung the pendulum from communist and isolationist policies that worked terribly to market/state-capitalist and open-door policies that worked terrifically. That led China to learn a lot, attract a lot of foreign capital, and become a giant exporter and big saver.

As the Chinese became more capable of producing cost-effectively, they provided the world with inexpensive goods at first and more advanced goods later, becoming much richer in the process. Other emerging countries did so as well, the world expanded, and the wealth gaps between the richest countries and the poorest countries narrowed as the poorest countries rose the most while the richest countries grew at slower rates. These circumstances lifted most boats, especially the boats of the global elites. China rose to be a nearly comparable power to the United States, and together they created most of the world's new wealth and new technologies. Europe, which had been the source of the greatest global powers from the 15th to the 20th centuries, became relatively weak, and Japan and Russia became secondary powers. All other countries were peripheral. While emerging countries like India improved their conditions, none of them achieved world power status.

Phase Three: The Emergence of US-China Conflicts and the End of Globalization (2008–Present)

As is classic, periods of prosperity financed by debt growth lead to debt bubbles and large wealth gaps. In the US, the bubble burst in 2008 (as it did in 1929), and the world economy contracted and middle-class Americans and those in other countries were hurt (as in 1929–32). Interest rates were pushed down to 0 percent (as in 1931), which still wasn't enough easing, so central banks printed a lot of money and bought a lot of financial assets after 2008 (like in 1934), which drove up their prices in most countries starting in 2009 (as happened in 1933–36). This benefited the "haves" (people who had financial assets) more than the "have-nots" (those without them) so the wealth gaps grew wider still (as they did in the 1933–38 period). The "have-nots," especially those whose jobs were being taken by the Chinese and immigrants, began to rise up against the elites who were benefiting from globalization. As is typically the case when economic bad times coincide with large wealth gaps, populism and nationalism grew around the world (as they also did in the 1930s). That is when the threat the rising powers pose becomes more apparent to the leading powers. **The era of peace, prosperity, and globalization began to wane, giving way to an era of conflicts between the rich and the poor within countries and between the rising country (China) and the dominant world power (the US).**

The Chinese were holding a lot of US dollar-denominated debt—especially from US government agency lenders Fannie Mae and Freddie Mac. For quite a while, the US government didn't let the Chinese holders of this debt know whether it would stand behind it. I had conversations with top Chinese holders of this debt, as did David McCormick (who is now CEO of Bridgewater and was the US Treasury's undersecretary for international affairs at the time) and Hank Paulson (who was the US Treasury secretary). We were all impressed with the consideration and cooperation with which the Chinese approached the dilemma that the US had caused them. They were calm, empathetic, and cooperative.

In November 2008, leaders of the G20 countries gathered in Washington, DC, and agreed to jointly stimulate their economies through aggressive fiscal and monetary policies. These required a substantial increase of government debt, which was financed by having central banks create more money and credit. **Debt growth in China was significantly faster than economic growth between 2009 and 2012 as a result of those policies.**

Becoming a World Power

In 2012, Xi Jinping came to power and a new administration was chosen. Following the well-established sequence, first Politburo members were chosen, then ministers, vice ministers, and their senior subordinates. Then the first rounds of plans were made. As when most new leaders take power, there was a lot of excitement and an eagerness to strengthen both the rule of law by purging corruption and China's economy by strengthening and adding to its market-based reforms. There were a number of brainstorming sessions, and I was lucky enough to participate in a few. They were wonderful collaborations of people with different perspectives who wanted to help; the frankness, open-mindedness, friendliness, and intelligence that they brought to the table was remarkable.

Since then, I have closely followed China's financial and economic circumstances and have had numerous conversations with its top economic policy makers about such matters as excessive debt growth, the development and management of their shadow banking system, the vulnerabilities in their financial systems, their trade disputes with the US, and more. I always tried to see things from their perspective and think about what I would do if I were in their shoes. I shared what I saw with them as frankly as a doctor discussing a medical case with colleagues, in much the same way as I am sharing it with you in this book.[18] As you probably know by now, I believe that everything works like a machine, with timeless and universal cause/effect relationships. Chinese leaders do too, so we almost always came to similar conclusions.

Over the years, the Xi administration has aggressively pursued policies to reform and open up its markets and its economy; manage its debt

growth; more flexibly manage its currency; support entrepreneurship and market-oriented decision making, especially in industries that China wants to be world leaders in; establish sensible regulations run by well-developed regulatory organizations; build its capabilities in the technologies and industries of the future; broaden the economic benefits extended to the people and regions that were lagging the most; and control pollution and environmental degradation. Yet many people don't see it that way, which I suspect is because a) the reforms are coming at the same time as other controls are tightening up, b) some of the supports (like credit availability) for small- and medium-size organizations are not as good as they are for larger state-owned enterprises (which has more to do with technical challenges than any reduced desire to foster the development of small- and medium-size organizations), c) the government directs the economy from the top down, sometimes expecting banks and companies to make uneconomic loans (because it wants to do what is best for the country as a whole), d) China coordinates with its businesses in pursuit of national goals, e) it doesn't let some foreign companies operate on the same terms as Chinese companies, and f) it coordinates fiscal and monetary policy to regulate the economy much more than is done in the major reserve currency countries—all of which are typically unpopular with capitalist outsiders.

Certainly many Americans are critical of these policies. While I won't delve into the merits of them, I will say that **we should expect all countries' leaders to try to get the best balance between "state" (government influence and control of the economy) and "capitalism" (free-market control of the economy and capital markets) through the proper management and coordination of monetary and fiscal policies, and we should try to understand the thinking behind their approaches.** For example, President Xi has said he wants to a) reduce the government's role in pricing and allocating resources, develop the capital markets, and stimulate entrepreneurship while also b) strongly directing the macro economy and regulating markets and other aspects of life to be what he and the party believe are best for most Chinese. In other words, he wants a mix of capitalism and Marxist communism. This is understandably confusing to those who aren't used to seeing capitalism and communism go together, aren't watching closely, and haven't spoken with the policy makers to understand their circumstances and perspectives, **so they can't see the consistencies that exist amid the seemingly great inconsistencies (i.e., "the dialectics" as Marx and the Chinese leaders would call them)**.

To understand their circumstances and perspectives, I suggest that you not view what they are doing through stereotypes (e.g., of "what communists do") and accept that they are trying, and will continue to try, to juggle these two seemingly inconsistent things. In their view capitalism is a way of raising the living standards of most people and is not meant to serve capitalists. Whether one thinks this approach is good or bad, their results have been extremely impressive so we should not expect the Chinese to abandon it for an American or Western approach. Rather, we should study it to see what we can learn from it, the same way that the Chinese have studied and learned from the West. After all, what we have is a competition of approaches that we need to understand in order to play this competitive game well.

As far as foreign policy is concerned, China has become stronger and more forceful while the United States has become more confrontational. More specifically, from 2012 until the time of my writing China's strengths have grown, which has become increasingly apparent and more openly shown (e.g., the Made in China 2025 plan trumpets its plans to dominate certain industries that the United States currently controls). This has sparked a strong reaction in the US, which became most evident after the election of Donald Trump in 2016.

Trump tapped into the resentments of those left behind by globalization, who believed that China was unfairly competing and stealing their jobs, and nurtured a new spirit of protectionism and nationalism. **It wasn't just Trump. China's strength had become a provocation for more moderate policy makers as well. Where there had been synergy there was now raw competition.**

Basically China does not want to be contained and the United States (and some other countries) want to contain it. What does that mean geopolitically? As you know by now, countries' boundaries have

constantly changed over time, they are often in dispute, and international law isn't worth a hill of beans relative to power in resolving these disputes. In 2009 China declared to the United Nations that it has "indisputable sovereignty over" an area in the East and South China Seas. The area is marked by a "nine-dash line" on a World War II era map presented by China; it covers offshore waters east of Vietnam, north of Malaysia, and west of the Philippines, which include a bunch of islands, are important for shipping that China needs, and are believed to have undiscovered oil reserves, which I imagine China would love to have given its huge imported oil needs and the risk of oil imports from the Middle East being cut off. If you read the World War II case study in Chapter 6 and saw how the US cut off resources to Japan, you know the issue: China has a great need for oil and other imports that currently come through a choke point at the Strait of Malacca.

As a result of all of this and other assertions, the perception of China as a threat/enemy has emerged, globalization has reversed, and "wars" have intensified, starting with the trade and economic wars, expanding to the technology and the geopolitical wars and, most recently, to the capital war. All remain relatively mild in relation to what they could be, but they should be watched closely. Eventually the actual powers of a country that are recognized become consistent with the actual powers that exist. The actual powers that exist are reflected in the gauges and other facts that I'm watching for guidance.

China has continued to grow internally and to expand its investment and business activities outside its borders. **It has invested heavily in the developing world, most notably through the Belt and Road Initiative, which extends through Central Asia, starting with the countries on its border (Kazakhstan, Pakistan, Tajikistan, and Afghanistan) to Europe, and through the Arabian Peninsula and South Asia into the Mediterranean and Africa. The amounts invested and earmarked for investment are enormous—the largest such program since the Marshall Plan. It is a good demonstration that wealth = power.** While these moves have been appreciated by the countries that received the benefits from roads and other infrastructure, resources, and trade, they have also sparked resentments from recipient countries who are having problems paying back their loans and find that China is too controlling, and from the United States because China's assertions of soft power have lessened American influence in those countries.

As far as China's internal politics are concerned, in 2018 Xi a) consolidated power around himself and his supporters (called "the core" leadership), b) amended the Chinese constitution to make it clear that the Chinese Communist Party has control over everything, c) eliminated term limits for the president and vice president, d) created supervisory commissions to ensure that government officials are operating consistently with the party's wishes, and e) enshrined Xi's perspective, called "Xi Jinping Thought," into the constitution. As of this writing, big political changes, increased controls, and wider distribution of wealth are all underway. Some people are concerned that Xi is becoming more autocratic than Mao. I'm no expert on Chinese politics so I don't have much to offer when it comes to China's internal political matters, but I will pass along what I am told, which is that Xi's controversial moves to tighten his control came about because of the belief that China is entering a more difficult phase in a more challenging world, and that at such times, unity and continuity of leadership are especially important, and that will be the case even more over the next few years. As mentioned earlier, ● ***during periods of great crisis, more autocratic and less democratic leadership tends to be preferred.***

Then, in late 2019, the COVID-19 pandemic began in China, sparking a worldwide economic downturn in 2020 and the massive printing and creation of money and credit, which coincided with various types of conflicts in the US (most obviously, protests related to racial injustice, and a very contentious presidential campaign). That brings us up to today.

Looking back over the last four decades, China's shift from isolation to opening up and from hard-core communism to "market reforms" and capitalism have had a greater impact on the economies of China, the US, and the rest of the world than anything else. China transitioned from one of the most backward countries in the world to one of the two most powerful economically, technologically, militarily, and geopolitically. Most of that progress occurred during an era of peace and prosperity, when the leading empire wasn't threatened and globalization and cooperation flourished. The period lasted until the bursting of the debt bubble in 2008, when the United States and much of the rest of the world became more nationalistic, protectionist, and confrontational, following the archetypical Big Cycle progression.

The results of China's reform and opening up are reflected in the following table, which shows just a few representative statistics. Output per person has increased 25 times, the percentage of people living below the poverty line has fallen from 96 percent to less than 1 percent, life expectancy has increased by an average of about 10 years, and the average number of years of education has increased by 80 percent. I could go on and on, rattling off equally impressive statistics in virtually every area.

CHINA'S DEVELOPMENT SINCE 1949 AND 1978

	1949	1978	2018	Δ Since 1949	Δ Since 1978
RGDP Per Capita*	348	609	15,243	44x	25x
Share of World GDP	2%	2%	22%	12x	11x
Population Below the Poverty Line ($1.90/Day)**	—	96%	1%	at least -96%	-96%
Life Expectancy	41	66	77	+36 Yrs	+11 Yrs
Infant Mortality Rate (per 1,000 Births)	200	53	7	-96%	-86%
Urbanization	18%	18%	59%	+41%	+41%
Literacy	47%	66%	97%	+50%	+31%
Avg Yrs of Education	1.7	4.4	7.9	+6.2 Yrs	+3.5 Yrs

*USD 2017, PPP-adjusted

**The World Bank only has poverty data back to 1981

While the indicators of China's rise are broadly representative, they aren't precise because the powers can't be precisely measured. Take education, for example. While our index for education rises at a fairly brisk pace, it fails to fully capture the relative improvements in China because it is made up of average as well as total levels of education. This distortion is best conveyed in the next table. As you can see, while the average education level in China is considerably below the average education level in the US, China's total number of people who have attained higher-level education is significantly greater than the United States'. Its total number of STEM (science, technology, engineering, and math) graduates is about three times the United States'. At the same time, there are reasons to believe that the average quality of Chinese education isn't as high, especially at the college level. For example, in a recent ranking, only two Chinese universities appeared among the top 50 universities in the world (Tsinghua University at number 29 and Peking University at number 49) while 30 American universities did. This picture, in which the average of something in China is below the average of the same thing in the United States but the total in China is greater than the total in the US, is because the average level of development in China is lower while the Chinese population is more than four times as large as the American population. That comes across in a number of stats. For example, while the United States is militarily stronger in total all over the world, the Chinese appear to be militarily stronger in the East and South China Seas area, and there is a lot that is unknown about both countries' military powers because they are kept secret.

	UNITED STATES				CHINA			
	1980	Today	Change	Change (%)	1980	Today	Change	Change (%)
Average Years of Schooling	11.9	13.6	+1.7	+14%	4.6	7.9	+3.3	+72%
Govt Spending on Education (% of GDP)	5.30%	5.50%	0.20%	+4%	1.90%	5.20%	3.30%	+174%
Est Population w/ Tertiary Education (Mln)	25	60	+35	+140%	3	120	+117	+3,900%

	UNITED STATES				CHINA			
	1980	Today	Change	Change (%)	1980	Today	Change	Change (%)
Population w/ Tertiary Education (% Working-Age Pop)	17%	28%	11%	+68%	1%	12%	11%	+2,272%
Population w/ Tertiary Education (% World)	35%	15%	-20%	-57%	4%	31%	+27%	+590%
STEM Majors (Mln)	3	8	+5	+141%	1	21	+21	+4,120%
STEM Majors (% World)	29%	11%	-18%	-62%	5%	31%	+26%	+535%

In conclusion, this modern era for China has led to some of the most rapid improvements in basic living conditions in history as well as an obvious climb in the factors that create powerful empires. In all respects, China is now a major and expanding power. Next we will turn to the US-China relationship in light of where it is now and what matters most to Americans and the Chinese.

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[1] The entire report on China's dynasties is available at economicprinciples.org.

[2] Among the many inventions of the Song Dynasty were the moveable-type printing press, a compass for navigation, and paper currency.

[3] China's share of world GDP rose to 30 percent and the population more than doubled during the 1700s.

[4] To clarify, most dynasties were minor, short-lived dynasties or regional dynasties that swiftly rose and fell during periods of instability in China. Different sources give different numbers for the total number of dynasties because it's not even clear what constituted a minor or regional dynasty versus some other form of administration. Concerning the major dynasties, there were roughly nine that unified China and often ruled for extended periods. This group includes the five our case study focuses on from 600 to the present (the Tang, Song, Yuan, Ming, and Qing), and four from the 800 years prior (the Qin, Han, Jin, and Sui).

[5] Typically, the "bad" emperors were distant from managing the affairs of the empire and tolerated—or even participated in—corruption while ignoring public investment needs. Several were known for greater ideological rigidity, for their poor judgement and the poor judgment of their top advisors, and for being

preoccupied with the luxuries that their positions afforded them. The last emperors of most dynasties often came after the dynasty was already weakened and often had limited control or even involvement in political events (e.g., child emperors).

[6] "God, grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference."

[7] I'd like to thank Kevin Rudd, former prime minister of Australia and current president and CEO of the Asia Society Policy Institute, for pointing me to these books and helping me understand Chinese politics.

[8] Because China's population is about four times as large as the US's, it only takes an income that is half as much per capita to have twice as much in total. There is nothing that I can see that stands in the way of China and the US having comparable per capita incomes over time, which would make China four times bigger.

[9] The Made in China 2025 plan is for China to be largely self-sufficient in most areas and to be world leaders in high-tech fields, including artificial intelligence, robotics, semiconductors, pharmaceuticals, and aerospace.

[10] In March 2021 China released their 14th Five-Year Plan and targets for 2035.

[11] If you haven't read Sun Tzu's *The Art of War*, I suggest you do to get the flavor of what I am referring to.

[12] In his excellent book *The Chinese World Order: Traditional China's Foreign Relations*, the historian John Fairbank described China's relations with non-Chinese states as follows: "The graded and concentric hierarchy of China's foreign relations included other peoples and countries which we may group into three main zones—first, the Sinic Zone, consisting of the most nearby and culturally similar tributaries, Korea and Vietnam, parts of which had anciently been ruled within the Chinese empire, and also Liu-ch'iu (Ryuku) Islands and, at brief times, Japan. Secondly, the Inner Asian Zone, consisting of tributary tribes and states of the nomadic or seminomadic peoples of Inner Asia who were not only ethnically and culturally non-Chinese but were also outside or on the fringes of the Chinese cultural area, even though sometimes pressing upon the Great Wall frontier. Third, the Outer Zone, consisting of the 'outer barbarians' (wai-i) generally, at further distance overland or sea, including eventually Japan and other states of Southeast and South Asia and Europe that were supposed to send tribute when trading."

[13] I produced this diagram working with Professor Jiaming Zhu.

[14] These promissory notes were similar to what today would be called a bill of exchange. Earlier promissory notes were denominated in variable units, but eventually government-issued notes were in fixed denominations. The government office issued these notes (known as jiaozi and huizi) in exchange for cash coins.

[15] The devaluations in 1985–86 and 1993 came after a period of opening up trade and an expansion in Special Economic Zones. These openings created immense demand for foreign currency and imports to build production capacity—but it would still be a couple more years before those zones yielded much higher exports. That mismatch contributed to China's growing current account deficit.

[16] The massive Taiping Rebellion—one of the bloodiest wars in human history, which led to an estimated 20–30 million killed—caused a giant fiscal crisis that led to an issuance of debt that got monetized and led to high inflation.

[17] Ji Chaozhu was raised in the United States until he was a junior at Harvard. His brother was close to Zhou Enlai, who sent the brother and Ji Chaozhu to the United States to try to build good relations with Americans. When the Korean War broke out he returned to China, became Zhou's interpreter, and later served in the first Chinese delegation to the UN and as China's ambassador to England. While he told me a lot that I won't discuss to respect his privacy, I don't believe that this is sensitive information.

[18] I never ask questions that put them in the awkward position of having to choose between conveying confidential information and having to decline my request. I make it clear at all times that my sole desire is to understand and help.