Above the Law

Where Humanity Thrives or Dies

Frederick L. Feldkamp
ffeldkamp@gmail.com
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No agreement has value unless its terms are enforceable. Investments only have value equal to the present value of future cash that is produced by enforceable contract terms. When law supports the collection of lawful contracts, wealth is maximized. When enforcement depends on the will of those in power, recovery is less certain and wealth is reduced. Americans hold about 50% of the world's wealth because the US is "ruled by law, not men."

We assert that "no man is above the law" because that commitment preserves what the citizens of this nation have accumulated. Yet, among those that rule the US, even today, there are people who seek to put themselves "above the law." That is the philosophy of tyrants and exemplifies the life and politics of Donald J. Trump. It is disastrously flawed.

This commentary considers the role of three global wars, two civil wars (UK and US) and six collection cases to establish principles that have guided the US from a group of rival British colonies to unity and exemplary world leadership. Today, the US is at an inflection point similar to what Abraham Lincoln, our greatest president, described at the time of our greatest national divide:

Will "government of the people, by the people and for the people" survive?

As a consequence of these eleven matters, I believe the US became, and should continue to be, the world's leading nation. It must, however, properly resolve the issues it now faces. When asked at our nation's origin, Ben Franklin said the US Constitution gives America a democracy, but it is up to us to "keep it."

For two of the eleven matters that I'll discuss, the path to US success resulted from compromises that required subsequent reversals. Those paths have been rocky and difficult. The work remains unfinished. In all eleven situations, guidance that made the US exceptional arose from principles "above the law" that are commonly referenced among "general principles" that apply to the interpretation of uniform laws recommended for (and adopted by) state legislatures.

In four of the five wars discussed herein, nations successfully rejected tyranny led by autocrats who deemed themselves "above the law." The fifth (second in time) was fought among competing autocrats where each sought to expand power. From its founding, with the notable exception of slavery, America chose the "right" course, one grounded in principles of equity and good faith. For it to continue to lead the world, that is the path the US must choose today and continue to choose in the future.

The most heinous example of tyrannical action taken "above the law" is a war fought for conquest or genocide (Hitler in World War II and Putin in Ukraine today, for example). Tyrants wage such wars for personal gain (the acquisition or retention of money or power). Democratic leaders that recognize the need to invoke principles of "higher law," on the other hand, engage only in wars of defense, to preserve the rights of those they are elected to lead.

All war, domestic and foreign, wastes money. Rather than "add value" to society "for" citizens, war kills citizens and destroys value. Most wars, moreover, are fought with borrowed money to delay the economic consequences of war's wasted value in the hope victory will create less onerous means for recovery.

We will see in this analysis that financial recovery from war is difficult to achieve in victory and impossible in defeat. Thus, most significant wars end in recessions, depressions or worse.

Some will see overriding principles of equity and good faith that exist "above the law" as religious, based on belief in a superior God. If true, God is Good. Others see the roots of these principles in moral philosophies that have been recited in secular societies dating to the earliest human civilizations. In that case, God is Love. In both cases, love is empathy and evil, its absence.

We will show how this explains the history and economics of modern war and US exceptionalism.

Tyranny purports to also be "above the law" but its roots are false exceptionalism. The US chose its path "above the law" to guide democracy – true exceptionalism. Tyranny is a path to extinction. Individual freedom in a republican democracy, I submit, is the only path to unlimited peace and success. A republican democracy, however, is very hard to sustain.

I. History: 1642-1945

Eleven events, ending in 1945, were chosen for discussion in this analysis because each plays a role to define the rule of law in today's US financial markets. Viewed chronologically, the first event is the British Civil War. It established paramount authority of the British Parliament to modify British common law as developed by the interplay of citizens, analyzed and moderated by judges in English courts. The last event is a 1942 U.S. Supreme Court decision that confirms for US bank receivers the historic power to rely, absolutely, on the records of a bank as they are found when the receiver is appointed.

History is a reluctant assistant for those who seek to analyze the rule of law. If one applies logic to explain specific rules, logic depends on how humans perceive the law as applied. Those perceptions have a nasty habit of changing when they are analyzed by different people. If one applies a timeline to their analysis, each new generation of people has the capacity to view the same result differently. So themes that fit particular times get lost, only to come back for reconsideration in a necessarily random manner. No human controls the perceptions of another human.

This discussion interchanges between chronology and logic, shifting from one to another, and often back-referencing. I apologize for any difficulty this presents to readers. In subsequent sections I will combine lessons from these events to explain post-WW II development of US financial markets (on which most of the world relies for efficient "intermediation" between the productive and financial sectors of the economy) and describe present and possible future roles of these markets. My hope is that those sections resolve any confusion this section creates.

To aid readers, here is a chronology of the eleven events:

1. British Civil War, 1642-1651
2. Seven Years War, 1756-1763
3. Somerset Case, 1772
4. Ayr Bank Insolvency, 1772
5. US Civil War, 1861-1865
6. Overend, Gurney and Co. Insolvency, 1866
7. World War I, 1914-1918
8. *Benedict v. Ratner*, 268 U.S. 353 (1925)
9. *Taylor v. Standard Gas & Electric Co.*, 306 U.S. 307 (1939) (Deep Rock)
10. World War II, 1939-1945
11. *D'Oench, Duhme & Co. v. FDIC*, 315 U.S. 447 (1942)

I will start, however, with the impact of George Washington (1733-1799), America's first president (1789-1797). **He refused to become a king and insisted on retiring at the end of his second term as president.**

The First of Three Global Wars

As a young man, George Washington was an officer supporting England during what Americans call the French and Indian Wars. It was a war that originated in centuries of disputes in Europe. Those disputes spread to European colonies in North America and the Caribbean.

Virginians, including Washington's family, had claims to areas from the Ohio River Valley to the Pacific Ocean. Washington was 21 when he successfully commanded a Virginia militia force to oppose French advances in western Pennsylvania. After two failures, his forces retook Fort Duquesne (now Pittsburgh) in 1754.

Washington's victory further stimulated conflicts among England, France, Germany, Austria, Russia and Spain. As armed hostilities expanded, the dispute became the first-ever global war, the Seven Years War. It was fought on several continents and oceans until 1763. Economic and other consequences of that war reverberate even today.

The treaty ending that war expanded British dominion in North America and the Caribbean Sea, primarily at the expense of France and Spain. The result supported land claims of Virginians, including those of George Washington and his brothers.

Washington returned to Virginia and became a legislator. In 1758, he resigned his military position. The next year, Washington married Martha Custis, the widow of one of Virginia's wealthiest men, Daniel Parke Custis. She inherited (for the ultimate benefit of two surviving Custis children) the land-based fortune of their grandfather, John Custis IV. They owned several hundred slaves and more than 17,500 acres of land in six Virginia counties.

George Washington settled into plantation life with Martha and her children until he left Mount Vernon in 1775 to guide colonial forces in the US Revolutionary War.

Martha survived all her children. Her great-granddaughter, Mary Anna Randolph Custis Lee, was married to Confederate General Robert E. Lee, the son of Henry Lee (a wealthy Revolutionary War hero who was a close friend of George Washington) and Ann Hill Carter Lee (also from a wealthy Virginia family). The Custis Lee estate, Arlington, was seized after the Civil War and is now Arlington National Cemetery.

England's success during the Seven Years War was funded by loans from the Bank of England and loyalists. Repayment of the loans seemed, to many people in England, something for which the American colonists should bear at least a portion of the burden.

Needless to say, taxation of colonists (who had no representation in the British Parliament) to pay for a war that primarily benefited wealthy landowners with loyalty and roots in England, did not settle well with self-made merchants in Pennsylvania, New York and New England. Some landowners, like the Penn family, were well served by the war, but they instructed Pennsylvania's representative in London, Ben Franklin, that they would never consent to being taxed for the war. Most colonists had no interest in the newly-conquered areas.

When Parliament enacted a 1765 "stamp tax" to raise revenues that burdened New England trade practices, Bostonians rebelled. British soldiers were sent to quell the unrest and the rebellion grew more intense by 1770. At that point, wealthy Southern plantation owners were flourishing by supplying agricultural products to England and Europe. They showed less interest in the rebellion.

The Somerset Case

The scales favoring revolution changed in 1772, when a British court undermined the economic foundation of the South's slave-based economy. Lord Mansfield, the Chief Justice of England, ruled that James Somerset, a slave that Charles Stewart bought in Virginia and brought to England, became a free man the moment he set foot on British soil.

Somerset had become ill and Stewart threw him out of his London home. However, when Somerset recovered his health with the aid of British abolitionists, Stewart sued by *habeas corpus* to collect the contractual right to Somerset's services that he acquired in Virginia.

Lord Mansfield ruled there was no conceivable interpretation of British common law that would support Stewart's right to the chattel slavery of Somerset, as practiced in Virginia. British common law applied in the American colonies. So, the only way Virginians could "legitimize" the value of chattel slavery was by having a legislature with power to override British common law enact a statute that overrode the preclusion Mansfield found.

Due to ongoing disputes with northern colonists and the efforts of Britain's abolitionists, it would have been obvious to Virginia slave owners that Parliament would enact no law specifically enforcing their practice of chattel slavery. Virginia, however, had standing militias (England provided foreign defense, but militias were needed to quell slave rebellions) and officers trained to lead them. Northern revolutionaries needed Virginia's military leadership to defeat England, a world-leading military power of that time.

Washington proved his military skill at Fort Duquesne. He left Virginia in 1775 and led the colonial army in the battles for independence from England. With aid from France (that Washington defeated at Fort Duquesne) colonial armies eventually surrounded and defeated British forces led by Cornwallis at Yorktown, Virginia, in 1781.

To gain victory over France and Spain in the Seven Years War, England seized Havana as a "bargaining chip" that it later exchanged for Florida. That seizure rebounded to Britain's detriment in 1781.

France's Caribbean fleet required resupply so it could maneuver into place and block the entrance to Chesapeake Bay. Spanish Cubans in Havana provided the needed supplies. The French fleet's blockade prevented Cornwallis from escaping (or being supported by Britain's Atlantic fleet).

When the Congress established under the original Articles of Confederation adopted the Northwest Ordinance, drafted by Thomas Jefferson (1787), it included a prohibition of slavery in all territory northwest of the Ohio River. In 1791, the US Constitution replaced the Articles of Confederation. The new Constitution deferred debate over slavery in southern states and required US enforcement of slavery contracts. That ended with Lincoln's Emancipation Proclamation during the Civil War. The US now celebrates Juneteenth to commemorate the day in 1865 when slaves in Texas were finally told they were free.

Thus, the US gained independence from England with a stain of enforcing chattel slavery. That concession to privileged southerners appears to have been required to obtain military support from Virginia in order to gain independence. The concession continues, however, to mar US success. The 1791 Constitution continued British common law, except for that odious modification.

By another compromise, British banking practices that allowed England to borrow to fight both the Seven Years War and the Revolutionary War were adopted in the US. Alexander Hamilton understood the value of a sound financial system and a central bank but encountered understandable opposition to British banking practices from those who saw how the Bank of England was used to support autocrats. The US has experimented with means to improve on that system ever since.

A 1790 compromise reached among Hamilton, Jefferson and Madison allowed the new US government to "nationalize" colonies' debts (incurred to pay for the Revolutionary War). In exchange, the nation's capital was established on land that was adjacent to Virginia rather than in New York or Philadelphia. Except for John Adams and his son, John Quincy Adams, the first US presidents were slave owners who continued policies to allow fellow southerners the ability to enforce chattel slavery for decades thereafter.

Except for a privileged few, slavery quickly proved as debilitating to the South's economic growth as Northern abolitionists predicted. With the base of slave labor, in states where slavery was allowed the practice created a ceiling on the wages of non-slaves. For all types of labor that slaves performed, the price to buy and keep slaves capped the wage that businesses were willing to pay free men and women. As a result, many free people in the South languished in poverty until vestiges of slavery finally began to disappear after enactment of US civil rights laws in the 1960s.

The US cannot change history. In this case, however, there remain many lessons for us to learn.

Meanwhile, Back in England, Capitalism and Finance are Molded

England's American colonies were initially settled by people fleeing European religious upheavals of the 16th and 17th Centuries.

After more than a century of strife, a British Civil War (1642-51) between Royalists and Parliamentarians established the paramount authority of the British Parliament. A few decades later (1689), Prince William of Orange (Netherlands), a Protestant, was crowned as king of England.

A Dutch central bank had been integral to funding the decades-long process of building dikes and creating farmland in areas of Holland reclaimed from the North Sea. The Bank of England was created under William (1694) to finance British government endeavors (including longstanding disputes with France and Spain). In 1701, responding to religious aspects of various disputes, the Act of Settlement declared that only Protestants could ascend to the British throne.

When William's successor, Queen Anne, died in 1714, her nearest Protestant heir, the Prince Elector of Hanover, Germany, became George I of England. In 1727, his son, George II, succeeded him. The last challenge to Hanoverian rule in England was the Battle of Culloden in Scotland (1745). The British army defeated the forces of "Bonnie Prince Charlie" Stuart, who claimed the British throne and was supported by France and some Scottish Highlanders.

It is notable that leaders of the Scottish Enlightenment in Edinburgh did not support Bonnie Prince Charlie. This helps to explain England's acceptance of advice on moral philosophy and economics that those leaders offered.

France's support of the rebellion further stoked disputes between England and France and contributed to the Seven Years War a decade later. George II died during the Seven Years War and was replaced by George III in 1760. George III ruled until 1820. During his reign England lost two wars with its American colonies.

In the mid-1700s, Ben Franklin was the most famous American colonist. He lived in London from 1757 to 1775 and presented the views of Pennsylvanians (and other colonists) to the British throne and Parliament. In 1775, he was compelled to return to the colonies due to his advocacy of the colonies' independence.

While in England, Franklin became friends with British intellectuals, including several in Edinburgh who were part of the Scottish Enlightenment, led by philosophers David Hume and Adam Smith. During that period Smith ventured from teaching moral philosophy to become the originator of capitalist economics.

While Franklin's expulsion precluded giving him credit, scholars observe parallel concepts in the trade and economic practices that Franklin understood from his business interests in the colonies and those that appear in Smith's seminal 1776 economic treatise, *The Wealth of Nations.*

In finance, funding wars burdened British banks, citizens and their business interests, but it was treason to directly challenge actions of British monarchs. Many Scottish lairds and other friends of Smith lost fortunes during the 1772 collapse of Douglas, Heron & Co, also known as Ayr Bank. The crisis was precipitated when the Bank of England raised interest rates to recover costs of the Seven Years War and Ayr Bank could not increase rates it earned on the investments it had made (either by contract or borrowers' inability to pay).

The consequences of raising rates on a bank's borrowing, but not on its assets, are plainly described in Smith's analysis of the role of banks in the creation of national wealth. The US has suffered many similar bank insolvencies (*e.g.*, the Great Depression and in the early 1980s at thrifts that were established to make long-term fixed-rate home mortgage loans and could not pay high interest rates on short-term deposits influenced by rate increases to end high rates of inflation).

Smith observed that the role of banks is to serve as a "Great Wheel of Circulation" to support commerce and the production of national wealth. He also cautioned that each penny by which the cost to sustain that "Great Wheel" exceeds the minimum amount needed to keep money circulating was a detriment to generation of a nation's wealth. In current jargon, the "cost" of that "wheel" is the differential ("spread") between rates paid by banks for money and the rate at which banks loan money.

It is said that 20-60 years were required to resolve the 1772 Ayr Bank crisis. We will later see that a similar crisis affected London lenders soon after the US Civil War. Ayr Bank's demise destroyed not just the wealth of Scottish lairds, it derailed the development of Scotland. The 1866 British banking crisis was resolved differently, so it presented different problems.

While the British Civil War (1642-51) was won by Parliamentarians and established that body's laws as paramount, Ayr Bank's demise proved the capacity of kings to override that rule of law by an expedient to operate a central bank in response to the monarch's wishes. These circumstances continue throughout the world today (for example, Thailand in 1997). The consequence confirms the US commitment to create a Federal Reserve System that is ruled by law and acts within its mandate demonstrably independent of interference from other government functions.

British scholars like Smith could not directly challenge the costly conduct of King George III to suppress the American colonies. Before the US Revolutionary War ended, however, Smith led a commission that advised George III it would be far more profitable for England to trade with independent American colonies than to continue a war to retain dominion over them.

Scotland and the British American colonies shared an interest in creating financial and monetary policies that balanced legitimate needs of government with private-sector business development. Scotland's experience with Ayr Bank explains the aversion of many leaders in the post-Revolutionary War US government to create a US central bank.

Ayr Bank's "mistake" was likely that it acquired equity investments or originated long-term fixed-rate loans that it funded with variable-rate borrowings from British banks. When rates rose to recover the cost of wars or to fight inflation, therefore, Ayr Bank had no capacity to raise the rates on its assets and went broke.

The British Civil War is the first of two civil wars we will discuss that affect the development of US financial markets. The Ayr Bank liquidation is the second of the six "collection" matters that contributed to America's economic "exceptionalism." The Somerset case by Lord Mansfield and the insolvency of Ayr Bank occurred in 1772. The last of the six cases was decided in 1942. All contributed to the US leadership role after WW II.

Slavery and Finance Collide – The US Civil War

As the 19th Century began, France (led by Napoleon) sold the US (while Jefferson was President) more than 800,000 square miles of land in 1803 for $15 million (about $320 million today) and George III wanted to reverse US independence. The War of 1812 sought that result. England lost and the US industrial revolution began the process of mechanizing agriculture and building intercity and cross-country roads and railroads.

Disputes over slavery and the US financial system multiplied as the Constitution-mandated deferral of debate over slavery neared its end. By the 1850s, the Whig Party faded and the Republican Party gained support. In 1860, Lincoln won the US presidency as a Republican when the Constitutional compromise to defer debate over Southern slavery came to a close.

Disgruntled Southern slave states began to secede before Lincoln took office in March 1861. The South sought to use its world-leading cotton production and export dominance to gain financial advantage by persuading other nations to back it in exchange for favorable treatment in purchasing cotton. The Confederacy ended up hoarding the commodity and losing any financial advantage it might have enjoyed.

The Union learned that the US banking system (controlled by state laws with different rules in each state) was less than fully cooperative with funding the Union war effort at minimal cost. Under the Treasury leadership of Salmon Chase, the US imposed an income tax on high income earners, created a system of nationally-chartered private banks to supplement state banks and deemed US currency "…legal tender for all debts, public and private."

Whether intended or not, the consequence was to create: (1) competition among banks that lowered the Union's cost to intermediate wartime borrowings; (2) taxation that imposed (a) the highest cost on those who made the most money while the Civil War was fought (*e.g.*, war suppliers and financiers) and (b) little or no burden on those who fought for the Union or engaged in regular commerce; and (3) assurance that dollars received in commerce would perpetually match dollar liabilities incurred by the Union and its supporters.

The third of these is the most difficult result for people to understand. The initial reaction to the "legal tender" clause that appears on each dollar-denominated US note is often a large yawn: "What does THAT mean?" The next reaction is often: "Duh; that's obvious." Then: "That's meaningless – it just commits to replace a dollar paid for a dollar received."

The initial negative response is: "Where's the commitment to pay in gold or another 'good and safe' commodity?"

That negative response is both historic and psychological nonsense. For millennia, thoughtful moral and economic thinkers have understood that reliance on the "convertibility" of currency to any commodity is dangerous for the society that relies on the currency. It creates a false sense of stability – by which currency users have regularly been defrauded throughout history.

There is no conceivable commodity that creates a greater assurance of financial stability than the economy which functions in reliance on the currency. No currency, therefore, is more (or less) well-supported than it is by the "legal tender" commitment printed on US currency.

Convertibility to, for example, gold merely says that holders are reliant on the governing authority's capacity to maintain that convertibility. Moreover, convertibility to whatever value "market participants" bid for a currency (*e.g.*, the promise of a "crypto currency") is meaningless. In law, each such promise is illusory. There is no effective recourse when the promise is broken.

History demonstrates that no government guaranty of convertibility to a commodity works at the time when it is most needed. The point when the promise has its essential "value" is the point when governments have consistently abandoned the obligation to convert. Worse yet, recent history demonstrates that promise will most likely be kept only for autocrats with knowledge and control (to protect themselves), and abandoned for the remainder of the population (*e.g.*, Thailand and Mexico).

By assuring only that a currency WILL discharge an equal sum of debt, the US assures that private-sector commerce will not be disrupted by the whims of the governing body to change the price of convertibility. It thereby places a currency above the fray of commerce.

The legal tender obligation Chase adopted during the US Civil War is both (i) an oxymoron (it imposes only an obligation to moderate disputes on value between holders of currency and holders of debt denominated in the currency – not an economic obligation) and (ii) the most important commitment a government can make to those that invest in its currency. It obligates enforcement of the currency holder's ability to convert currency assets to equal liability reduction. **It is a commitment to assure setoff under the rule of law.**

Confederate states sought to project (and benefit by) dominance of the world cotton market (not unlike Russia's present effort to project control of oil and gas reserves) in a way that forced commodity purchasers to absorb the Confederacy's war cost. It was a fool's game because there is always cross-elasticity in commodity pricing.

Adam Smith's greatest contribution to macroeconomics was a 1776 observation that, at equilibrium, the price of a commodity, in all its alternative uses, will be equal. In trade, equilibrium is the state of balance that optimizes the value of a commodity for the production of wealth. **Any effort to tip a commodity's equilibrium price to particular advantage necessarily reduces the aggregate value of the commodity to all other participants. That induces all others to find alternative applications that reduce the use of the affected commodity.**

Therefore, rather than give the Confederacy an advantage, all efforts to control cotton's value forced the value of the commodity to fall. The identical consequence is now at work to adversely affect Russia. By seeking to control oil and gas supplies to support its war in Ukraine, Russia is forced to accept discounts on the value of those commodities in order to make sales. Users of the Confederacy's cotton (and users of Russian oil and gas) necessarily seek alternative commodities, forcing the price of the controlled commodity to fall.

Smith saw this at the time of the US Revolutionary War. He applied it to explain that England's pursuit of dominion over the American colonies was lunacy. England was wasting money seeking control when, in fact, to surrender control was demonstrably (indeed, infinitely) superior as an economic matter. By this fundamental and indisputable economic principle, trading with an independent US was better for ALL parties than England seeking to control the US.

A disrupted equilibrium cannot maximize economic value. To do so wasted the Confederacy's agricultural advantage in the same way Russia's attack on Ukraine is wasting Russia's advantages in oil, gas and grain production. Both strategies are doomed to fail eventually. The Confederacy was, therefore, doomed by the lunacy of its economics.

In a very real sense, the combined genius of Salmon Chase and stupidity of Confederate economic policy won the Civil War for the Union. Had slavery and its vestiges ended when the Confederacy collapsed, moreover, the US would be much further advanced today.

The same principles will apply in the debate that now begins over the U.S. Supreme Court's ending the right of American women to control their child-bearing choices. Nothing has ever been gained by seizing rights from citizens or customers.

The Overend, Gurney Insolvency, 1866

We do not know whether financial practices of the Confederacy or the post-Civil War decision of the Union to disavow Confederate obligations had an impact, but within the year after the end of that war, a major wholesale note discounter located on Lombard Street in London became unable to pay liabilities that it incurred to fund its business. It bought loans backed by pledges of notes that other lenders had funded (the main business GMAC was formed to conduct with US automobile dealers[1]).

To prevent a cascade of similar failures (as the value of purchased notes fell in response to the collapse of Overend, Gurney), the Bank of England decided to lend whatever money was needed by similar note wholesalers who would pledge "good" notes as collateral and pay "punitive" interest rates to reflect their mistake in the calculation of the risks of their business.

The activity was reported by Walter Bagehot in *Lombard Street: A Description of the Money Market* (1873) and is commonly referred to as "Bagehot's dictum." Except that the loans are

[1] The similarity of GMAC's business and circumstances in 1993 to the equitable insolvency of Overend, Gurney in 1866 explains reactions of major banks and the Fed noted at p. 23.

done at market rates, this practice is how the US Fed successfully liquefied and preserved US and world financial markets in response to (1) the financial crisis of 2008 and (2) the 2019-20 COVID-19 blunders of the Trump administration. We are now learning the process for unwinding such efforts.

In 1866, the Bank of England received the "good" assets of borrowers by endorsement and retention of the notes it purchased. By doing so, a lender that took advantage of the loans but went insolvent anyway was left with only "bad" assets to pay other creditors.

Money borrowed by the troubled creditor came from the government entity which was that lender's "last resort." That created a moral hazard bias to favor the Bank of England with collectible assets. Doing so assured borrowers that loans would be available if the problem occurred again. Non-favored lenders would be the losers if the process failed to save the borrower.

The US did not have a central bank in 1866 (the US Federal Reserve System was created in 1913). If a US bank got in trouble before the Fed came into existence, only its shareholders or competitors would likely be available to provide liquidity. Shareholders would know the bank's best customers and insist that loans be secured by only the best collateral. Competitors would likewise seek access to the best credits of the bank in trouble, for the purpose of taking over those arrangements if the borrowing bank failed.

Applied to the US bank system of 1866-1913, Bagehot's dictum was likely to cause as many bank insolvencies as it resolved.

In response to abuses by grants of security to preferred creditors that left only unsaleable assets for unsecured creditors, it was common by the start of the 20th Century that US wholesale loan purchasers (*e.g.*, GMAC) made commitments that effectively precluded secured borrowings. Likewise, many banks were restrained by law from borrowing on a secured basis (the fiction of a "sale and repurchase agreement" was invented to permit banks to avoid legal restraints and liquefy US Treasury debt and certain other bank assets without making actual sales). Commercial finance companies would commit that no assets could be pledged unless the pledge secured all creditors equally.

A series of bank crises (most notably among New York City banks in 1907, where J. Pierpont Morgan played the role of a central banker) led to the 1913 law creating the Federal Reserve System.

In 1909, moreover, President Taft got Congress to pass a constitutional amendment to support a federal income tax law, because the U.S. Supreme Court had ruled a similar law violated provisions of the Constitution limiting the types of taxes the federal government could enact. The income tax amendment was ratified February 3, 1913, a month before Woodrow Wilson replaced Taft as President, just in time to permit funding US involvement in WW I by an income tax along the lines Salmon Chase used to fund the Union during the US Civil War.

In 1914, WW I began and European demand for US products buoyed the American economy until the war ended in the midst of a flu pandemic. A recession began in January 1920 and lasted 18 months. It was severe enough that, according to the US Department of Commerce, prices fell by 18%. That is reported to be the largest one-year decline in prices in nearly 140 years of data. The recovery was equally large. The AT&T Index of Industrial Production declined by 29.4% followed by a 60.1% recovery the next year.

Warren Harding replaced Woodrow Wilson in 1921. Harding nominated Taft to be Chief Justice of the US. On approval of his nomination, Taft became the only American to serve as President and as Chief Justice. His unmatched influence on US taxation and financial markets peaked soon thereafter.

***Benedict v. Ratner*, the Hub Carpet Insolvency, 1921-25**

In September 1921, Hub Carpet Company filed for bankruptcy. Hub was a victim of the short but severe recession of 1920-21 that had, it appears, received loans from a private lender on terms similar to the 1866 loans the Bank of England made to Overend, Gurney. More than four months prior to filing, Hub made a common law pledge of its accounts receivable. The receiver challenged the security interest as a fraudulent transfer under New York law. In April 1922 the US Court of Appeals ruled in favor of the secured party. The U.S. Supreme Court accepted the case and it was argued October 5, 1923.

When the case reached the Supreme Court, former President Taft was Chief Justice and led its conservative majority. Oliver Wendell Holmes, Jr., was the Court's senior Associate Justice and Louis Brandeis (a highly regarded Boston commercial lawyer reported to have had the highest-ever grade point average at Harvard Law School) led the moderate wing of the Court. Brandeis wrote a unanimous opinion overruling the Court of Appeals. The opinion was delivered May 25, 1925, more than nineteen months after the case was argued.

The Court ruled Hub's common law pledge of accounts was a fraudulent transfer under New York law because it allowed the debtor (Hub) to retain "dominion" over the transferred assets. In the Court's opinion, Hub's retained dominion "imputes fraud conclusively" and was avoidable by its receiver under the New York fraudulent transfer law.

As a consequence, Hub's "secured creditor" became unsecured and participated in the value of the pledged assets only *pro rata* with Hub's unsecured creditors. The most prominent application of a common law pledge was to secure central banks and prevent a run on deposits (*e.g.*, the 1866 Overend, Gurney situation, Bagehot's dictum from *Lombard Street*). The same process was used when a bank's shareholders or competitors provided liquidity in time of need, taking a lien on the debtor's best assets in the event (as occurred with Hub) the borrower did not recover financially. Without security, why would any new investor take the risk to "catch a falling sword" when a bank was in trouble?

Many economists and writers that describe events leading up to the 1929 stock market crash and the Great Depression are critical of the Fed's failure to liquefy banks in the US. But, the only safe way to do that was by the pledge of "good" assets that the Bank of England used in the Overend, Gurney crisis of 1866. The Court saw the potential for abuse and ruled the transaction fraudulent "conclusively."

Few, if any, economists have noted the dual predicament the Fed faced if it chose to make such loans to prevent the Great Depression.

The 1913 Federal Reserve Act did not grant authority for the Fed to pay interest to raise deposits and fund its "lender of last resort" role. In every bank crisis of which I am aware, less well-capitalized banks (that want funds to continue serving customers' borrowing needs) cannot raise money except at punitive rates. At the same time, some large conservatively managed banks (notably, for this analysis, J. P. Morgan's bank) are flooded with money by customers (including other banks) that wish only to preserve wealth in a time of crisis.

With the Fed precluded from paying interest, by the lowest imaginable interest payment all funds that banks and customers did not want to risk on loans or investments would go to the few J. P. Morgans of the private bank world. There is no proof Morgan or his bankers "intended" to restrain the Fed from performing its function to stop bank runs, but that was an effect of precluding the Fed from paying interest. That issue was only resolved by granting the Fed power to pay interest under the TARP law passed during the 2008 Great Financial Crisis.

As a result, the Fed could only raise deposit funds for the purpose of liquefying the system by raising the level of mandatory bank reserves. Unfortunately, doing that would further reduce systemic leverage and restrict investment.

Once the Supreme Court held that a common law pledge of security was fraudulent "conclusively," no loan made to banks secured by pledged assets (or by banks to their customers) was truly secure. As lending was curtailed, assets lost value. That, in turn, called ever more loans into question.

To address the Court's concerns, however, the laws of each US state needed revision. Since almost nobody understood the problem, creating a proper solution required decades of legal reform work to assure the problem was correctly addressed and uniformly applied throughout the nation.

If the Fed accepted a pledge and loaned money to a bank for liquidity and the bank nevertheless became insolvent and placed under state receivership, the effect of invalidating the Fed's security would be to enrich the bank depositors (concentrated in the state where the bank is located) at the expense of US taxpayers. That's not a result likely to impress Congress.

Under this combination of circumstances, it is hard to imagine that the Board of Governors of the Federal Reserve System would (or should) follow Bagehot's dictum in an effort to prevent the Great Depression. It was a matter that only Congress could have addressed, and literature from that time establishes that almost nobody had any idea what was happening.

John Maynard Keynes was acknowledged as the world's leading economist of the 1930s. He could not fully explain what caused the collapse. He concluded the world had "blundered in the control of a marvelous machine the working of which we do not understand."

Abusive insider preferences by pledging assets were also precluded by the *Benedict* ruling, but the ruling did not restrict "pyramid" leverage by the use of non-consolidated affiliates. Banks and other firms could, therefore, use transfers of assets to subsidiaries that, being precluded from making other borrowings, became a preferred means for leveraging through holding companies.

Keynes labeled the crash a "colossal muddle." Until uniform state laws rebuilt means for assuring the validity of security interests (the commercial lending foundation on which banks rely to safely lend), that "muddle" just kept expanding.

The unfortunate result of properly applying the *Benedict* decision was the preclusion of (1) means to liquefy banks in crisis and, over time, (2) the ability of banks to lend to customers in reliance on even the most saleable assets. A primary reason for creating the Fed was thereby prevented from becoming operational and nobody seems to have been capable of explaining what needed to be resolved.

As the ability to secure loans contracted, the option of pyramidal corporate leverage remained available. However, by over-reliance, that process soon became excessive and, in the end, collapsed.

When FDR was inaugurated in March of 1933 the US financial system was in ruins. An alternate resolution process was required to allow a full restructuring of the bank system. That process began in 1933 and was not complete, in my view, until 2016.

Laws enacted in 1933 had the effect of federalizing US finance. It then took several decades to repair weaknesses in state laws and reinstate reliable secured commercial lending.

The Banking Laws of 1933 – A Controlled Solution

Today, daily data informs investors at the first sign of credit market contraction.[2] In 1929 to 1933, no such data existed.

The 1933 bank holiday allowed authorities to examine banks for safety and soundness, but no bank was actually safe until the collapse reversed. Experts saw no solution except to start over. But how could that happen if loans could not be secured by the pledge of demonstrably saleable assets?

The chosen solution was simple in hindsight. If the US guaranteed deposits of the vast majority of retail bank customers, there would be no need for frightened depositors to line up and demand payment. If deposits were insured, the US would become the primary creditor of an insolvent bank by acquiring the rights of the insured depositors it pays. If the US was the bank's primary creditor, of course, then the US should be the sole receiver appointed for an insured bank.

That's what happened to start the rebuilding process.

If the US became the receiver for a bank that obtained secured loans from the Fed, would it really take the Fed's collateral just to give it to another branch of the same federal government? Of course not.

[2] *See* p. 26, below, and Federal Reserve Bank of New York Staff Report, no. 957 (rev. June 2022).

Since FDR campaigned on a platform that said federal deposit insurance would lead to excessive bank risk-taking, however, the concept of insuring bank deposits could not originate with FDR. A Michigan Republican, Sen. Arthur Vandenberg, was approached in the spring of 1933 and told that, if he offered his proposal for FDIC's creation as an amendment to the administration's banking law proposal, it would be allowed to be brought to a vote.

It passed and, in the case of bank insolvencies, the *Benedict* decision was not raised by FDIC as a basis for avoiding any pledge of assets to the Fed.

Since that process could not be made available for secured loans made by banks to their customers, however, it was only after adoption of a new Uniform Commercial Code (UCC) that secured commercial lending began to recover. That adoption did not start until 1954, however, and was not completed until 1972.

As WW II heated up, it became recognized that defense production could only be pushed to sufficient levels if US obligations of payment could be pledged to banks as collateral for loans to contractors that facilitated production improvements. Thus, the combination of war production and compliance with the Assignment of Claims Act of 1940 became a substantial area of compliance practice for bank lawyers. Many other laws that lowered the cost to fund WW II similarly increased bank lending.

Once the US resolved secured lending issues raised by the *Benedict* case, what may have been the primary concern of Chief Justice Taft became the primary legacy of the Court's decision.

Benedict ruled that any transfer of assets with dominion retained by the transferor "imputes fraud conclusively." One consistent factor in all significant tax shelter schemes is a method for the transferor to retain dominion over assets while assigning income the assets produce to another person or entity.

The application of *Benedict*'s holding to unravel tax shelters was confirmed by all US Courts of Appeal before 2016 and, as of January 10, 2017, the U.S. Supreme Court had (at least twice) refused to question those appellate court decisions. The next day, then-President-elect Trump's tax lawyers confirmed all his significant assets were placed in trust. I do not think that's a coincidence. *Benedict* will have lasting and significant benefits for all Americans.

From Assets to Liabilities, the Deep Rock Case (1939)

With vast bank assets subjected to state bank holidays in 1933, it is understandable that many firms were placed in receivership that year, including Deep Rock Oil Corp., a subsidiary of Standard Gas & Electric Company that drilled oil wells in Oklahoma.

On January 5, 1939, two Detroit lawyers, Jason L. Honigman and Milton J. Miller, argued the position of a group of preferred shareholders in Deep Rock before the U.S. Supreme Court. They were opposed by William Sidley, who led one of Chicago's largest law firms, and Jacob Javitts of New York, later a highly-regarded US Senator. They represented the parent company that was also the largest creditor of Deep Rock.

A month later, in a seminal unanimous decision written by Associate Justice Owen Roberts, the USSC reversed lower courts and ruled that Deep Rock's common stock shareholder could not employ its rights as the unsecured creditor of Deep Rock to overcome the rights of the preferred shareholders represented by Honigman and Miller. The decision established the doctrine of equitable subordination, commonly called the Deep Rock doctrine.

The case relied on facts establishing practices amounting to fraud by the parent firm that were gathered by Honigman and Miller in hearings conducted in an Oklahoma bankruptcy court. The Court's opinion is seminal in that it cites no prior case law.

The critical ruling was that the doctrine of entity, normally and generally recognized for all purposes, is ignored when necessary to avoid fraud or injustice.

The ability of affiliates to secure loans made to Deep Rock was precluded by the *Benedict* ruling. Rather than fund Deep Rock by injections of capital, Standard Gas & Elec. Co. maintained an open account through which it made unsecured loans that increased and declined with variations in Deep Rock's drilling and extraction costs and the price and quantity of oil Deep Rock sold.

These practices, the preferred shareholders noted, made Deep Rock a mere instrumentality of its parent firm and had the effect of denying all rights of preferred shareholders. Profits were paid to the parent as interest on an open account the parent provided and as dividends on common stock. All operations were conducted by officers the parent elected. Losses were funded by loan advances. The result was that preferred shareholders had no opportunity to exercise preferred rights to manage Deep Rock when it could not afford to pay preferred dividends.

As Deep Rock's only shareholder and exclusive creditor, the parent asserted rights superior to the preferred shareholders' under any and all circumstances. By equitably subordinating the parent firm's debt to the rights of preferred shareholders, the fraud was resolved.

As a consequence of the Deep Rock doctrine, hopelessly insolvent pyramid ownership structures that could not be resolved otherwise were provided a path for reconciling the conflicting rights between shareholders and unsecured creditors.

When production demands of WW II greatly increased the cash flows of US commerce, the combined impact of *Benedict* and Deep Rock offered the means for restructuring firms that were hopelessly mired in bankruptcy disputes. As a result, the US financial system crept back to life.

Meeting the Demands of World War II (1939-1945)

Beginning with a "lend-lease" program to assist England, and ending with the post-WW II Marshall Plan, the manufacturing and production capacity of the US was both massive and instrumental for the defeat of Japan and Germany.

The Assignment of Claims Act of 1940 gave banks a federally prescribed process for circumventing the weaknesses of state security interests noted in *Benedict.* Pressure from the US Treasury to keep federal borrowing costs down was formalized in an agreement between

Treasury and the US Fed. Thus, as demands on the productive sector rose to support business borrowing, banks found means for increasing revenues by defense production lending.

At a time when it did not appear the US would enter the war against Hitler, Keynes wrote a volume explaining how the UK could borrow and spend whatever it needed to continue its war with Germany. He called for high income tax rates to be paid by those that made lots of money (on war production for example) and for strict limits on wage and salary increases in exchange for increased promises of retirement compensation and health care benefits for workers.

Keynes' analysis followed the prescriptions of Salmon Chase that supported the Union in the US Civil War and was consistent with both the competition model Smith originated in 1776 and with the moral foundation for a free enterprise republican democracy that Smith outlined in the last section of his last publication, the 1790 edition of his philosophy text, *The Theory of Moral Sentiments*.

After Pearl Harbor brought the US into the war, a 1942 Defense Production Act put US production on a "cost-plus" basis. For major producers, health care and retirement benefits became costs reimbursed by the government with an added return through the prices they received for war materials. The policy helped to support the infinite production needed to prevail in history's most deadly worldwide conflagration. The policy also left industries saddled with legacy costs that took decades to sort through.

The pattern proved difficult to unwind during the post-war period when the Marshall Plan successfully stimulated economic development and reconstruction at a time when the war had destroyed production in much of the world. US manufacturing was the primary (and sometimes only) available source for capital goods.

This market dominance helped create a wage-price spiral that extended into the 1960s and 70s. Eventually, competition from reconstructed foreign plants eroded US dominance. The residual impacts of combining wage-price controls with cost-plus supply contracts, however, remained a major factor for US inflation problems encountered through the 1980s. Legacy effects of these wartime practices continued at some of the largest war-supply firms until the 2008 crisis compelled their reorganization.

During the war, many economists were hired at the federal level to regulate costs and prices and preclude excessive inflation pressure. Once the war ended, of course, many of them returned to civilian jobs.

D'Oench, Duhme & Co. v. FDIC **(1942)**

By this case, the Supreme Court affirmed many earlier decisions in receivership cases where parties that contracted with the entity prior to receivership claimed defenses to collection by the receiver based on oral agreements or documents that, for whatever reason, were not found in records obtained by the receiver. In this particular case, the receiver demanded repayment based on a note the defendant endorsed as a guarantor.

The defendant's asserted defense was compelling. It had already paid the note in full, responding to an earlier demand by the pre-receivership bank. Rather than insist on receiving the borrower's note when the obligation was paid (to facilitate a future claim by subrogation to the bank's rights as lender), however, the guarantor only offered its records as proof that the money was paid to the bank. The receiver found no evidence of payment in the bank's records.

The Supreme Court ruled in favor of the FDIC. Since a bank is an instrument of government monetary policy, the public is responsible to assure an accurate record of transactions conducted with the bank. While *D'Oench* regularly surprises those who fail to assure adequate proof of bank transactions, the case states a longstanding rule built around the fact that receivers, unlike bankruptcy trustees, obtain and can exercise all rights of innocent creditors of the entity in receivership.

In bankruptcy law, absent a court determination that a receiver should be appointed or that a receiver's powers should be exercised in a particular transaction, the trustee is deemed to stand in the shoes of the debtor. Thus, a bankruptcy trustee remains subject to defenses that others may have to obligations owed to the debtor.

The Supreme Court's decision in *D'Oench* is used, for example, to dismiss any case where a debtor to a bank in receivership asserts defenses to liability by any means other than the specific record held by the receiver. It proved essential to sorting out thousands of cases affecting banks that became insolvent during the Great Depression and in each bank crisis thereafter.

In the aftermath of the residential mortgage market collapse of 2007-9,[3] an inverse application of the *D'Oench* doctrine became important. It may have ramifications in current disputes over collection of student debt.

In foreclosure proceedings after the mortgage market collapsed in 2007, debtors began to notice lenders sought collection based on digital copies of mortgage notes, not signed originals. Soon lawyers sensed that original notes may have been destroyed after being digitized. In some cases, moreover, several parties claimed to be owners of the actual notes (arousing suspicion that some digital notes were sold more than once).

The only way to protect debtors from double claims under the *D'Oench* ruling is to demand presentation of proof that the creditor claiming to own the note is, in fact, the actual (and only) owner of the debt. Otherwise, a note obligor may be subject to double collection if a bank receiver later presents an original note on behalf of another bank that became insolvent.

D'Oench confirmed the FDIC's power to maximize recoveries from insolvent banks. That, in turn, minimizes the adverse moral hazard consequences of deposit insurance that caused FDR to oppose establishment of government deposit insurance. The 1942 decision, therefore, completed the foundation of the Depression-era solution to the "muddle" Keynes described in 1930.

Many other common law principles and statutes govern financial markets. They are not discussed here. After five decades of financial market legal practice and analysis, I find these

[3] An event comparable to the demise of Ayr Bank, *see* p. 7.

eleven matters to be the most significant. As WW II ended, the enormous cost of war recapitalized US banks and the war's destruction propelled US manufacturers to world dominance.

As is common, victory brought a post-war contraction while "swords" became "plowshares." That contraction became the trigger for what may be the most astonishing concept to support post-war market growth in economic history.

Unlike the retribution commonly imposed on enemies at the end of prior wars, in 1948 the US backed a plan originated by America's leading wartime general (then Secretary of State), George C. Marshall. American money was used to rebuild friends and enemies alike. Since US businesses survived relatively unscathed, the plan produced miraculous growth domestically and throughout the world.

In finance, the fully-controlled market necessitated by the collapse of 1929-33 continued to operate relatively effectively (depicted in Frank Capra's movie, *It's a Wonderful Life)* until new laws were put in place to rebuild secured lending practices throughout the US. By the 1960s, however, growth outpaced the capacity of that controlled system. In 1970, Nixon created a presidential commission to study how the US financial system should change to further advance development of US markets and support continued growth.

After an introduction, the next section will begin with a discussion of the December 1972 report of that commission.

II. Market Reconstruction: 1972-2016

The crown jewel for consumers in fully-regulated financial markets the US created to begin rebuilding its financial system during the 1930s was a 30-year fixed-rate home mortgage. The US savings and loan industry was re-constructed to originate and own the instruments after thrift supporters explained to Congress that far fewer long-term fixed-rate mortgages defaulted in the crash of 1929-33 than was the experience for mortgages originated and owned by commercial banks (that generally limited home mortgages to shorter-term "rollover" loans).

Long-term fixed-rate mortgages make little sense as investments. They are an asset that repays ever more slowly when market interest rates rise, and exceedingly rapidly when rates fall. Neither result is desirable. In market terms, the investment has "negative convexity."

Holders of those mortgages found, however, that in a time of great stress borrowers could be excused from making payments until they could regain jobs and then catch up with their duty to repay loans. As a consequence, during the crash institutions that specialized in those loans experienced far lower failure rates and foreclosure costs than commercial banks.

The consequence is well-depicted near the end of *It's a Wonderful Life* by scenes of new homes (constructed to house returning war veterans and their families) built on land that the local bank had foreclosed during the Great Depression. The development was "Potter's Field" (named for the movie's local bank owner).

During the 1960s, despite efforts to support those instruments, there were two instances of near-collapse for US homebuilders (1966 and 1968). The macroeconomic consequences of those periods and the 1970 default on $200 million of short-term commercial paper issued by Penn Central Railroad were important to convince Nixon to create "The President's Commission on Financial Restructure and Regulation" in 1970. It rendered a report December 22, 1972. Congress began the work to change America's financial system in 1973.

That commission is commonly referenced by the effect it sought to create, a level playing field in finance. It recommended replacing the chain of financial mini-monopolies constructed to start rebuilding markets in the 1930s with a fully integrated single market where all participants would compete freely.

As with all things new in finance, each step forward exposes new hurdles. After many failures (most notably the Great Financial Crisis of 2007-9), a sound working model finally came together in 2016 (when the SEC reformed 1998 rules that had allowed a fraud-filled bank-controlled monopoly to develop in short-term funding). The US must now deal with strains due to a pandemic and armed hostilities in Eastern Europe, but the model now seems complete (or nearly so). Its operation is well described in *21st Century Monetary Policy* (2022, Ben S. Bernanke).

My Perspective

Perhaps fate pushed me into this fray from birth. My ancestors migrated to the US from Germany, settling in several areas of Wisconsin during the 19th Century.

My mother's family arrived first and settled in the area of Ripon College, where and when the Republican Party was formed. I and my wife were conceived, respectively, shortly after Eisenhower's army crossed the Rhine River to conquer Germany in March 1945 and in September 1945, after two nuclear bombs brought the Allies victory over Japan.

We share the same school year as Presidents Trump, Bush ("W") and Clinton. They are 1, 2 and 3 months younger than my wife, respectively. The latter two were born to returning WW II veterans, placing them among the first post-war baby boomers.

JFK was killed during our last year of high school. MLK, Jr., and RFK were killed during our final year of undergraduate college. During that 1967-8 school year I took part in an econometric forecasting seminar that explained how Lyndon Johnson's administration was lying to the nation about its plans for the Vietnam War. Two decades later, our eldest son took a college history class devoted entirely to 1968.

I graduated law school as the level playing field commission was doing its work. My law professors and partners at the firms where I worked spent decades working on legal reform to resolve issues raised in 1925 by *Benedict*. I clerked for the men that won the 1939 Deep Rock case and my brother worked for the law firm headed by one of the men who advocated the other side of that case to the U.S. Supreme Court.

While carpooling, an associate lawyer at the law firm where I worked in 1972 sought help on a transaction where lawyers representing underwriters were questioning a mortgage-related transaction one of our clients sought to fund. They were raising the *Benedict* case as a barrier. I blandly responded: "I think we've overcome that problem."

I was rewarded with a year-long research assignment that resulted in my firm rendering a 48-state opinion (confirmed by local counsel in each state where we did not have lawyers) that the kind of security interest invalidated by *Benedict* had, in fact, been restored by enactment of the UCC and other nationwide law reforms. Rating agencies accepted that opinion and our client reopened the market for private-sector mortgage-backed bonds that had closed nearly fifty years earlier.

Events described below follow from that rating agency action and are reviewed from that perspective. The law firms I served were fortunate to have clients that included the FDIC and America's largest (i) private mortgage insurer, (ii) manufacturer, (iii) homebuilder and (iv) bank.

During the next five decades, the resulting transactions have been presented to nations and institutions around the world. While each sovereign state must decide how to create its own financial market, the US offers its history in hope that others will learn from (and avoid) our mistakes. This history of market development is entirely public, yet it really belongs to the clients who gave us their work.

Reconstituting the Long-term Fixed-rate Mortgage Market – 1972 to 1987

To restart banking after 1933, the US imposed maximum rates of interest on bank deposits under the Federal Reserve Board's Regulation Q and precluded the payment of interest on demand deposits at banks. The rules helped to control bank speculation because no bank could compete for funds by overpaying its competitors' deposit interest rates. Combined with the limits of *Benedict* and Deep Rock, limiting speculation had the impact of limiting growth of the productive sector of the economy by limiting leverage.

Combining those limits with an agreement between the Fed and the U.S. Treasury Department to minimize the US cost to fund WW II, banks' normal ability to use interest compounding to fund ever-greater sums of systemic capital was stymied, except for government-sponsored projects. By the 1950s, banks that loaned 80% or more of their assets to bank customers before the 1929 crash had very limited customer loan portfolios. In the case of a bank my firm represented that was in an FDIC conservatorship from the 1930s to the 1950s, roughly half its assets were "cash in vault" when the conservatorship ended, and most of the rest of its assets were obligations of the US or state and local bonds.

Housing was financed by "thrift" firms that had tax and other incentives to put roughly 80% of their assets in long-term fixed-rate home loans. As businesses found ways to directly access funds and circumvent Reg. Q limits (*e.g.,* Penn Central commercial paper), market rates for money went above the rate paid by banks and thrifts and money stopped flowing to the regulated institutions.

In the mid-1960s, regulators decided to give a special preference (a slightly higher rate limit) to thrifts. That, of course, further cut off funds for banks that did not have the preference.

Nixon's level playing field commission cited examples from 1966 and 1969 to show that Reg. Q needed to be phased out. But what should be put in its place to contain speculation? Once Reg. Q ended, there would be no "level playing field" unless all the various asset and liability limits imposed to restart the US financial system were replaced.

The commission's report was completed December 22, 1972, before rating agencies accepted the 1973 opinion that reopened US markets for privately issued and traded mortgage-backed securities. The report encouraged continuing development of markets that three government-sponsored mortgage enterprises (GSEs) had begun to create (using provisions of federal law that overrode state laws affected by *Benedict*), but it had no basis to consider the re-emergence of private-sector issuers.

The first of five attached charts tracks what is now the standard 30-year fixed-rate mortgage pricing relationship (the difference between 10-year US Treasury debt and the rate at which a GSE will agree to buy a "when issued" 30-year fixed-rate home mortgage that conforms to GSE standards within the next 60 days) from 1963 to 1989. By the 1970s, major homebuilders realized that whenever this rate difference was 1.5% (150 basis points) or less, homebuilding thrived (buyers found it attractive to borrow money to build homes). If this measure exceeded 2% (200 basis points), that trend reversed and homebuilding slowed.

Through experience, we learned that each improvement in the efficiency of mortgage markets caused the differential to fall and each new-found method to gain control of the mortgage market caused the differential to rise.

The chart confirms a conclusion of the level playing field commission. Housing thrives when there are means for stabilizing that differential.

The key event for rebuilding this market occurred in 1983. A major homebuilder created a mortgage-backed structure known as the "stand alone CMO." The instrument used GSE-guaranteed mortgages to generate a transaction where mortgage prepayments were allocated among investors based on individual investor repayment preferences. Those who preferred rapid payment were paid first and those that preferred delayed payment received payment later.

The immediate result was miraculous. By the expedient of favoring payments based on the timing preferred by investors, one could profit merely be reallocating the cash flows from a financial instrument. That notion was considered impossible in the existing accounting literature, but it worked.

As the commission predicted, each time an entity or group found a way to corner the CMO market, the differential quickly rose and housing markets tanked. It was 2012 before that market fully stabilized, with help from the Fed's QE (quantitative easing) program. That stability is currently challenged by worldwide financial disruption, but stability should return as that is resolved.

With CMOs stabilizing mortgage markets, completing the level playing field commission's plan required extension of those market enhancements to shorter-term consumer products and, ultimately, to commercial enterprise liabilities. As always, each enhancement achieved becomes a target for new abuse, but the world has greatly advanced the process.

Major Crises and Solutions – 1993 and 2008

Before he passed, the outstanding leader of JPMorgan Chase's commercial lending group, Jimmy Lee, told reporters the most important achievement of his career was a 1993 worldwide debt restructuring package negotiated among General Motors Corp., its affiliates and banks throughout the free world. The transaction created facilities whereby CMO technology could be safely expanded to apply to any and all well-supported financial assets GM used for its business. Several trillion dollars of liabilities (fixed and revolving) were supported by that transaction, between 1993 and GM's 2009 reorganization.

The facility permitted creation of short-, medium- and long-term structures whereby commercial banks were used to provide only stand-by market support for "good" assets, and at "market" rates rather than the "punitive" rates suggested by Bagehot's dictum from the 1866 Overend, Gurney resolution. With care, the structure could be applied to all financial instruments offered by productive sector firms for the financing of their production needs and sales.

As the transaction was negotiated (the end of 1992 and the first four months of 1993), GM's legacy commitment for employee health care (which had built up since WW II) was forced to recognition at year-end 1992, causing the firm a consolidated corporate loss of more than $20 billion. GM operated with roughly $24 billion of working capital funded by the sale of short-term commercial paper (CP) that would become due during the first three months of 1993. That was a significant reduction from the roughly $40 billion of CP the firm had outstanding several years earlier. The reduction was achieved by the issuance of asset-backed securities (ABS).

As 1992 ended, GM's CP had already been downgraded by one rating agency and another downgrade was expected early in 1993. **No corporation in history had ever sold more than $4 billion of CP at the lower rating level that GM anticipated, so $20 billion of debt would come due with no known market capable to sustain the firm.**

As the administration of GHW Bush was ending, the SEC (chaired by Richard Breeden) issued a long-negotiated rule that allowed expansion of the ABS market. To use those rules effectively for an enterprise the size of GM, however, cooperation from banks was needed.

An aide to Mr. Lee later reported that the bank received a weekly call from the office of Alan Greenspan (then Chair of the US Fed) asking if "the deal" was finished. Negotiators meeting in New York soon realized their negotiation was the only major debt transaction being negotiated. If GM went bankrupt by failing to pay CP, major underwriters predicted an economic calamity.

The transaction worked. Finance processes it allowed meant GM could greatly reduce its cost of debt compared to competing firms. It provided means for the firm to continue until 2009. That's when the Great Financial Crisis of 2007-8 forced GM's Chapter 11 bankruptcy reorganization. The success of that reorganization was aided by the 2008 TARP law. GM was finally able to unwind decades of legacy costs. The reorganized firm continues as a leader in the US and worldwide automotive market.

Those events of 1993, combined with the 1983 CMO technology applied in mortgage markets and innovations created by the US Fed to resolve the Great Financial Crisis, support the *21st Century Monetary Policy* former Fed Chair Bernanke describes in his recent book. Many people took the steps to complete new US financial markets during the half century between publication of the level playing field commission's December 22, 1972, report and today. The market that Ben Bernanke well-describes, however, originated in the work of that commission.

Democracy over Autocracy

The power of autocracy to absolutely corrupt, and the ability of democracy to out-maneuver corruption, is exemplified by America's successful development of today's financial markets.

A Beijing group once asked me to explain the difference between capitalism and the socialism of China. I responded that China has always followed a designated leader. When its leaders err, they are nevertheless followed, and all collectively suffer. In a republican democracy like the US, everyone is placed on a level field of competition and allowed to operate as they determine. Those that fail are restructured and put back on the level field where those that did not are examples to follow.

When corrupt leaders acquire autocratic power, they corrupt everyone. When corruption seeps into a republican democracy, they are voted out or jailed and the rest of society picks up the pieces. For example, Trump was dumped, but Putin will carry Russia down with his demise.

III. Today and Tomorrow

This presentation outlines eleven disputes (wars and debt collection proceedings between 1642 and 1945) between advocates who placed themselves *Above the Law* and opponents who advocated principles *Above the Law* to support policies that benefit all people. These are events that created a post-WW II world of unmatched economic growth, wealth and life expectancy, interrupted by periodic financial crises. **The US is entering one of those periods. How will it be resolved?**

Four attached charts explain today's US financial markets. These markets developed after Nixon's level playing field commission published the December 1972 report that explained the need to eliminate serial financial monopolies that the US created to rebuild after the massive 1929-33 collapse. The Great Depression began with the crash of 1929. The seeds for that began to germinate when markets could not overcome the 1925 *Benedict* decision regarding fraud. Absent reform of state and federal law, creditors were left with no means to safely secure loans, and markets did not recover until WW II uplifted markets by necessary government controls and war production.

Following publication of the level playing field commission's report, in 1973 US rating agencies agreed that what concerned the Supreme Court in 1925 had been cured by federal and state reforms enacted by the intervention of thousands of lawyers and legislators. That began a process to construct new markets to intermediate loans which concluded in October 2016.

Between 1973 and 1987, the US rebuilt markets for 30-year fixed-rate residential mortgages. Though disrupted by crises on several occasions after 1987 (including one that began during the past month), the transactional foundation of US mortgage markets remains sound. When today's inflation concerns ease, those markets will recover.

Following 1987 and 1990 market crises, technology that supports residential mortgage markets began to be applied to markets for all other consumer liabilities and all forms of commercial/corporate debt. That process will require future reforms and we must expect normal give and take will generate future crises. Basic market structures, however, fell in place about a month before the 2016 US presidential election when 1998 rules that led to the collapse of several major hedge funds were amended.

In June 1983, the *American Economic Review* published an article by a professor at Stanford University, Ben S. Bernanke. Princeton University Press republished that article in Bernanke's *Essays on the Great Depression* (2000, pp. 41-70). His analysis explains all damage of the Great Depression (and the brief but severe recession of 1920) by tracing the effect of differences in market rates (spread) between corporate bonds (rated Baa by Moody's Investor Service) and long-term US Treasury bonds.

Bernanke's study revealed that the spread he tracked grew to 250 basis points (bps) in 1929-30 (after the 1929 crash) and rose to nearly 800 bps in 1932. For comparison, he found the same spread rose to around 350 bps in the severe recession of 1920. He then explained the competitive and overall macroeconomic forces by which spreads translate into market conditions and total wealth. Those forces were first discussed in Adam Smith's 1776 economic treatise, *The Wealth of Nations.*

The second of the five attached charts uses a standard business valuation model to illustrate the separate mathematical impacts of rising Treasury rates and corporate credit spreads on business values (wealth). The chart shows how the law of compound interest confirms what Smith and Bernanke found.

The third attached chart tracks two spreads: (1) a key spread that drives US residential mortgage markets and the US housing industry and (2) the spread between the "High Yield" (HY) corporate bond index (a rate for US growth companies) and AA-rated corporate bonds. It compares that data with the S&P 500 stock index. The chart spans the period from 1987 to 2012 (from (a) completion of new US mortgage markets to (b) resolution of the 2008 Great Financial Crisis). It illustrates the same consequence Bernanke discovered in 1983: **US wealth and economic performance (i) rise when spreads are stable and low and (ii) fall when spreads are high or rising.**

The fourth chart compares an index that aggregates six spreads that exist between HY, BBB and AA corporate bonds and 10-year US Treasury bonds to performance of the S&P 500 Index between 2007 (the start of the Great Financial Crisis) and July 5, 2022. The fifth chart uses the same data as the fourth chart to show details for the period after completing reforms of corporate credit markets. That chart begins in November 2020 (when Trump lost to Biden).

These charts illustrate (and confirm) that all US financial crises arise and recede with credit spreads. This result is mandated by two irrefutable principles: (y) investments have value ONLY equal to the present value of their anticipated future cash flows and (z) the law of compound interest.

By this standard, the US is in (or heading into) a recession today because credit spreads have roughly doubled between the end of 2021 and July 4, 2022. For example, the spread Bernanke tracked in 1983 has risen from 108 bps to 215 (compared to 350 bps that Bernanke observed for 1920, and 250 bps for 1929). For those that suggest this is more contraction than necessary to reduce US inflation, however, at the peak of the recession created by the Trump administration's failure to slow importation of COVID-19 (March 23, 2020) this spread was 480 bps, about double the level today and one-third higher than the level Bernanke observed for the 1920 recession. The spread level of March 23, 2020, was just about half the peak Bernanke observed in the Great Depression (a level repeated during the Great Financial Crisis of 2008).

By the mathematics of the attached charts, US wealth production is now about $4.5 trillion per year less than what it was at the end of 2021, but still about $8.5 trillion per year higher than at March 23, 2020, and $20 trillion per year higher than at the 2008 peak of the Great Financial Crisis.

The "bad" news is that today's recession was, it appears, made inevitable by the combined impact of: (i) stimulus enacted in 2020 (to recover from the disastrous US COVID-19 blunders of Trump's administration between December 30, 2019, and April 2020) and (ii) Russia's unlawful 2022 invasion to conquer Ukraine.

The "good" news is that the US now understands the process for identifying and moderating underlying causes of rising credit spreads. Therefore, the situation we face today can be cured without repeating past blunders that have caused depressions and global wars.

For those interested in details, I recommend Bernanke's 2022 book, *21st Century Monetary Policy*, and a recent research report published by the staff of the Federal Reserve Bank of New York (*Measuring Corporate Bond Market Dislocations*, Boyarchenko, Crump, Kovner and Shachar, Federal Reserve Bank of New York Staff Reports, no. 957, January 2021; revised June 2022).

Conclusion

Inflation the US is experiencing today results from: (1) expenditures in 2020 and 2021 (necessitated by egregious public health errors the Trump administration made at the end of 2019 and during the first three months of 2020) that prevented a repeat of the calamitous 1920 recession following the 1918-9 flu pandemic and blunders made in resolving WW I and (2) worldwide supply disruptions aggravated in 2022 by Russia's unlawful invasion and occupation of Ukraine. **The US must reverse inflation trends and expectations, but must not permit**

current recessionary trends (rising spreads) to accelerate to such a degree as to cause a harmful recession.

This analysis and the resources cited herein (and the addendum hereto) demonstrate that, after millennia of effort, the US and the world can overcome these matters.

Law, Finance and Religion Before 1642
An Addendum to "Above the Law"

Democracy in England has origins in the first millennium, the Anglo-Saxon Code of Comitatus. My commentary for *Above the Law* starts 380 years ago, with the British Civil War, because it gave Parliament power to control autocratic instincts of British kings.

For religious reasons, similar processes for elected legislatures to gain control over autocrats began later on mainland Europe. That process remains incomplete in many areas of the Eurasian land mass (*e.g.*, in Russia, the last large nation to end European feudal serfdom).

Proceeding backwards, Christian religious disputes in Europe became outright wars after 1517, when Martin Luther expanded a schism over autocratic rule that had festered for many centuries within the Catholic Church. In England, Henry VIII decided to formally split from the Roman Catholic Church by establishing the Church of England in 1534. That put the UK toward the sideline as religious wars raged on the mainland.

The 1648 Treaty of Westphalia established a rebalance of European church-state relations, ending the Reformation wars. The Westphalian solution is fundamental to understanding the modern international order, as well-analyzed by Henry Kissinger. Kissinger's analysis arises from his German roots within mainland Europe.

Reading a biography of Kissinger, it became apparent he had not specialized in the unique common law background that supports much of law, finance and practice in England and the US. The arc of worldwide democratic progress spans both the Westphalian and Anglo-American schools of thought. I focused on the latter.

England emerged from religious strife after the Protestant Reformation began in 1517 in a different way than mainland Europe. Henry VIII severed British ties with the Roman Catholic Church 108 years before the British Civil War began and 114 years before the Treaty of Westphalia. The British Civil War was fought between royalists supporting the autocratic powers of British kings and supporters of a republican democracy in Parliament.

That focus on ending secular autocracy did not come to mainland Europe until the French Revolution.   I decided, therefore, to begin my focus with the British Civil War.

Religion and Finance Before the Reformation

In September 2009, as the world economy was beginning to recover from the Great Financial Crisis of 2008, Goldman Sachs CEO Lloyd Blankfein said banks were doing “God’s work.” Most scoffed at the notion Goldman Sachs did anything so holy.

Doing research for a book I co-authored in 2005, I discovered there have always been religious leaders who regularly conflate money with the will of God, particularly when the money can be made to flow to them.

The history of religion, as with secular society, is conflict between freedom and the tyranny of autocracy. Some interpretations put God in charge of finance to enrich themselves. Others place religious freedom above self, a gift from God.

As in secular society, religious autocrats assert their work is *Above the Law* on a path by which money reaches God and forgiveness is granted to humanity. In *Thus Spoke Zarathustra: A Book for All and None*, Friedrich Nietzsche describes this conflict using fiction to explain the life and thoughts of Zoroaster, an early monotheist religious leader (around 1000 BCE) from the eastern Iranian plateau. After a long search, the “superman” Zarathustra finds is humble and eternally forgiving.

Religious battles eventually pit freedom against slavery.

Usury, for example, is a restraint in financial law that, when abused, gives creditors control over debtors. Religion generally gives control to a god or gods, not humans. Usury, therefore, supports religion by removing one means by which men control other men. Usury follows distinctly different paths, however, in the three main Abrahamic faiths.

In Judaism, no interest can be charged to other Jews, but it is acceptable to charge interest to non-Jews.   This creates a financial advantage for Jews and contributed to disputes defining who can or cannot be a Jew.

When Jesus of Nazareth lived, Hillel the Elder supported expansion of the faith to all that learned Jewish law and wished to join the faith. Shammai, who succeeded Hillel as chief Rabbi of Jerusalem, sought to limit members of the faith only to those with proven Jewish ancestry.

Battles ensued between their students. A Jewish partner of mine once framed the result by noting he was aware of no Jewish facilities today that are dedicated to Shammai.

Christianity prohibited charging interest until John Calvin said it was acceptable to charge “reasonable” interest as a condition to forebear from demanding repayment of a debt.

Before Calvin, many secular Christian leaders relied on Jews to be bankers for their communities. That, of course, created an opportunity to blame Jews when debt became due and could not be paid because the leader’s secular economic policies did not work as planned.

Islam prohibits both the receipt and payment of interest, but earning a rate of return for accepting financial risk is allowed. The Islamic formula for compound interest, therefore, replaces "i" (interest rate) with "r" (rate of risk return).

Since risk is naturally uncertain, this makes it mathematically difficult for Islamic banks to identify what distinguishes "principal" from "compound risk returns added to principal" without arousing criticism for collecting prohibited "interest."

These differences have led to horrible consequences through the ages. Medici bankers in Florence connived to have family members become Popes with an abnormal motive to help them recover debt incurred by the Papacy to pay artisans that made Rome the world's most beautiful Christian city during the Renaissance. Without interest to motivate repayment, why pay the debt?

Popes, of course, asserted it was a Catholic duty for bankers to charge them no interest.

Without interest, Christian society had no need for the math used to calculate compound interest. During one early Crusade, however, a British group discovered the process using Arabic numbers and formulae in books about math taken from a library at Antioch. To understand what that discovery changed, try compounding a debt for 30 years using Roman numerals.

The Protestant Reformation began in Germany in 1517. Henry VIII ended his debate with Catholic Popes by creating the Church of England in 1534, as Calvin was just beginning to establish his church in Geneva. Christian banks soon flourished in Switzerland. The logic of allowing interest on debt permeated merchant communities, contributing to the growth of the Protestant faith and banks. Using the formulae Crusaders found, most hand-held calculators in use today will instantly calculate compound interest.

Religion-based usury laws have been largely eliminated from US law since the Great Depression, but that was not an easy task. The automotive business made Michigan a major state for banking early in the 20th Century. Well into the 1980s, however, Michigan's usury law was almost impossible to decipher. Among other concerns, an early 20th Century Michigan Supreme Court decision declared that interest compounding would so excite the greed of lenders and endanger borrowers that it must be deemed unlawful.

During the 1980s, a group sought to gather business, finance and union leaders and agree to eliminate Michigan usury laws. A major hurdle became clear when a union economist (who accepted the assertion that usury laws harmed Michigan commerce) explained that union members saw usury at work when emergencies necessitated borrowing from "paycheck lenders." For them, usury was enforced at the next pay day using a baseball bat.

Any local union president would get booted, therefore, if he or she agreed to eliminate usury laws.

Michigan eventually repealed usury laws (except to retain a 25% "criminal usury" cap) for the same reason that the US has reformed many laws restricting finance. The 1972 report of the level playing field commission discussed in *Above the Law* explained how capital growth had been unreasonably restrained. Creating a demonstrably competitive unified national financial market has produced a far lower debt cost and far more capital investment. For the most part, usury is now preempted by federal law.

The Continuing Problem of Fraud

An unfortunate consequence of market enhancement success in the US is that fraud sometimes increases at any point when markets are functioning near optimal efficiently. When the cost of credit intermediation (CCI) is very low, as it was before the 2008 crisis, risky loans become overly attractive and fraudulent transactions flourish.

Some fraud is facilitated by religion. Jewish tradition that favored other Jews by banning interest was, for example, significant to permit Bernard Madoff to attract money from Jewish charities. He pretended to achieve higher-than-market returns by trading rather than by leveraging and paying interest. In fact he was simply stealing money (taking it under false pretenses).

Fraudulent money practices permeated many primitive religions. Priests got food by accepting sacrificial offerings in exchange for interceding to gain forgiveness from one or more gods. They lived off the sacrifices worshipers surrendered and some became extremely good at this.

For example, Herod reconstructed the Jewish Temple in Jerusalem (starting in 20 BCE) and Ananus became rich as the Temple's high priest. When tradition required appointment of a successor, Ananus arranged for his sons and a son-in-law to succeed him.

The family developed farms to raise sacrificial offerings that were assured as pure. A Temple currency, trading floor and control of purity determinations combined to assure that pilgrims arriving at the Temple with money to seek forgiveness in exchange for purchased sacrifices left with little more than the taxes Rome insisted on collecting as worshipers left Temple grounds.

For Ananus and those around him, Roman tax avoidance meant that money collected but not spent on traders' pay and the costs to raise pure sacrifices had to be hidden, hoarded as gold in the Temple treasury. When a young preacher scattered the traders using a bullwhip, he received close observation.

He was paraded into Jerusalem a week before a once-per-decade market opportunity (when the first feast of Passover occurred on the Jewish Sabbath, the traditional lamb to be roasted had to be slaughtered and stored in oil before sundown on what became known as Good Friday in Christianity). The preacher gained closer examination.

When he scattered traders by merely standing in the trading area at the start of that week, then hosted a Seder on Thursday because he was a firstborn Jew, it was clear to Ananus that the preacher needed to be eliminated before trading opened that Friday.

If that preacher cleansed the Temple market Good Friday, an estimated 250,000 "pure" lambs Ananus arranged for delivery to pilgrims that day might go unslaughtered. They would then need to be fed to become cheap mutton, ruining Temple finances and perhaps rendering Ananus and his family insolvent.

When the preacher announced that he could rebuild the Temple in three days, Ananus would see that the preacher understood exactly how to ruin the fortune Ananus had carefully built over the prior decades. So his group of merchant priests and money exchangers got Rome to arrest and kill the preacher.

What Ananus missed was that the preacher would declare God's eternal, full, free and unfettered forgiveness for all people, including the Roman soldiers who killed him, then die to become the sacrificial "lamb of God who takes away the sin of the world."

That declaration spread like wildfire, destroying the fraudulent business of Ananus and every similarly crooked priest thereafter. More than two billion people now purport to follow that preacher. The world labels them "Christians."

The simplicity of what Jesus did on Good Friday reached Malta, for example, when his disciple, Paul, was being taken to Rome (as a Roman citizen, Paul was allowed to appeal his death sentence to Caesar). Paul's ship was wrecked on Malta.

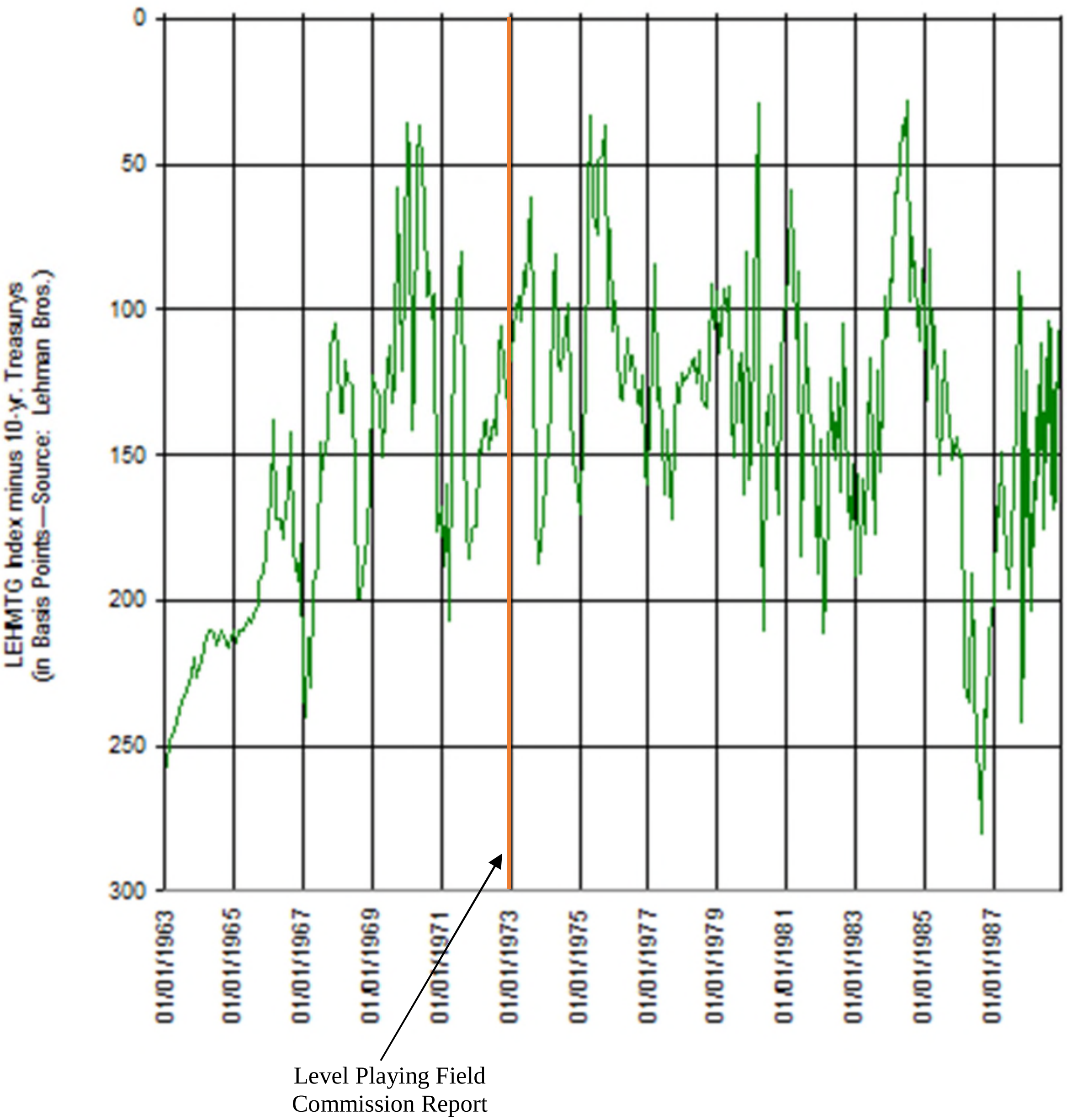
While they waited for a ship from Rome, Paul converted Malta to Christianity. The island's primitive sacrificial temple worship was replaced by the declaration of freedom from sin Jesus offered for everyone. The same pattern carried this new religion all the way to the top of Scotland in a very short time. By declaring that freedom from human sin was granted by God and "above the law," Jesus gave religion a pathway that was never taught before.

His message ended the extortionate power of priests over humans. It would take millennia for the message to sink in, however, where autocrats ruled.

Appendix of Charts and Explanations

Article
<u>Pages</u>

MORTGAGE SPREADS (INVERTED SCALE)
January 1963 to December 31, 1988



Residential Real Estate Cycles and Mortgage Market Development

Building new US secondary financial markets (after the 1972 level playing field commission's report was presented and accepted) began with 30-year fixed-rate residential mortgages, the means by which most Americans acquire and maintain the largest investment they will make, their homes.

It is mortgage finance that has led the US into and out of each financial crisis and recession since the Fed was founded (1913). Long-term fixed-rate mortgages are the instruments that best match consumers' long-term investment risk of home ownership with long-term funding. They minimize the risk of home ownership and thereby make homes more readily saleable.

It is mortgage markets, therefore, that set the pace for expansion and contraction of US home ownership. When mortgage markets are stable and secure, consumers spend more and the economy grows. When mortgage markets are restricted or unstable US markets and the US economy deteriorate. Therefore, homebuilding is widely recognized as a primary "leading" macroeconomic indicator.

This chart of mortgage spread was prepared to explain post-Depression redevelopment of US secondary mortgage bond markets for a 2005 book (*The Law and Economics of Financial Markets*). The spread tracked is the difference between: (i) the rate at which a US government sponsored mortgage enterprise (GSE) will agree to purchase, at par, a new 30-year fixed-rate home loan to be funded during the next 60 days (allowing consumers to negotiate and close their home purchases with assurance of a mortgage and its cost) and (ii) the current market interest rate for 10-year US Treasury bonds.

The spread reflects the yield investors demand, from time to time, to accept negative convexity risk (see p. 19) associated with investing in US-guaranteed certificates (MBS) that pay interest monthly and repay principal in alignment with principal repayments from a pool of 30-year fixed-rate mortgages rather than purchase a fixed-rate US debt that will pay, in full, in 10 years.

Mortgage bonds were a large part of the US bond market during the "Roaring Twenties." In 1928, three years after *Benedict* declared that a common law pledge "imputes fraud conclusively," the National Bureau of Economic Research (NBER) observes that this spread began to widen significantly, "nearly a year before the stock market collapsed in October 1929." Moreover, NBER notes that mortgage bond prices fell to less than 25% of par value by April 1933. Thus, a collapse of mortgage bond values played a significant role in the economic collapse of the 1930s. The mortgage bond market defied all efforts at rebuilding before 1973.

The level playing field commission was appointed following two collapses (1966 and 1968) of the regulated thrift-funded mortgage banking system designed in the 1930s. Those appear as significant downward "spikes" in mortgage spreads on this chart. The commission published its report December 22, 1972. The private sector MBS market would not begin to reopen until 1973, after US rating agencies finally agreed with a legal opinion that the foundation of the *Benedict* ruling (that a common law pledge "imputes fraud conclusively") had been adequately addressed by uniform legal reforms in all states (pp. 21 and 22).

Invention of the “stand alone CMOs” (p. 22) in 1983 is associated with a dramatic decline in this spread (upward spike on the chart). That was followed by expanded housing demand. It was soon followed, however, by a much more dramatic downward spike (rise in spread, decline in housing) that began in 1984 and reversed in 1986.

These correlate with creation (1984) and partial resolution (1986) of an artificial “whole pool” monopoly associated with an outdated SEC rule. Similar to 1928, this “whole pool” debacle predates the October 1987 stock market crash by about a year. The monopoly ended after the SEC studied the value of “whole” and “partial” mortgage pools, found the instruments identical and changed the rule to allow partial pools. That “cured” mortgage finance but the cure left financial instruments to support corporate debt without similar secondary markets. That is what led to the 1987 stock market crash.

The 1987 crash began a multi-year reform process at the SEC. At the end of 1992 (following a crisis precipitated by Saddam Hussein invading Kuwait in 1990 – similar to Putin invading Ukraine in 2022), the SEC adopted a rule allowing well-structured ABS transactions for all financial assets, including corporate debt. That rule allowed GM and its affiliates to restructure in 1993 using CMO technology for instruments that, over the next 25 years, developed to support secondary (non-bank) markets for efficient intermediation of all US financial assets (pp. 21 to 24).

The process was interrupted again in 1998. Despite warnings, the SEC adopted rules that permitted a few banks to obtain both a monopoly and a monopsony over short-term funding markets. The 1998 hedge fund crisis began as markets implemented the new rules. That monopoly was not overcome until further rule changes were made in October 2016, after the SEC staff member that managed the 1998 rulemaking retired.

CONVERTING DISCOUNT RATE TO FAIR VALUE

VIRTUOUS ECONOMIES

[1997 & 2004]

Rule of Law
"Free and…brave"

Gold Standard & Stagflation → **BONDS**

Base Rate:

2005

"B-BOYs"[1] VEs [2013 & 2016]

Volcker 1979-82

INVESTORS

"Freedom From Fear" & TARP to Dodd-Frank

Spread: Crises

	0%	5%[2]	10%
Complete Market[3]	$168.5 / $118.5	$100 / $50	$70.1 / $20.1
Low	$151.8 / $101.8	$93.8 / $43.8	$67.5 / $17.5
High	$105.4 / $55.4	$77.3 / $27.3	$61.7 / $11.7
Armageddon (Nov. 2008)	$75.4 / $25.4	$62.5 / $12.5	$53.5 / $3.5

Total Wealth / Equity

"Money Trust" & Smoot-Hawley

INTERMEDIARIES

Nov. 2008

($ Trillions Omitted)

Putin's Russia & 1932-39

STOCKS ← **Dis-inflation & Fiscal Responsibility**

DEPRESSIONS

"Fraud and…bribe"
Law Thieves

[1] Before 2019, B. Bernanke, G. W. Bush (after Lehman failed), B. Obama and J. Yellen. After 2018, J. Powell has followed similar policies to preserve growth.

[2] 2005 rate base of 5% generated a total Capital Market with roughly $100T, divided roughly 50/50 Debt/Equity (as of prior book publication).

[3] A "Complete Market" (A. Smith/1969 "Level Playing Field" com'n) produced 150 bp spread for l.t. debt and 250 bp spread for equity CFs.

Applying Business Valuation Models to Macroeconomics and Capital Market Value

Using a simplified DuPont/Sloan business valuation model, this chart starts with the top/center box of the 12 shown on the chart. That box shows results determined by applying financial market conditions in 2005 to create a 20-year cash flow that supports $100 trillion of total US capital market (with 50% leverage – $50 trillion of first priority bonds), consistent with capital market aggregates for 2005.

The other eleven boxes are the calculated present values of the same cash 20-year flows using discount rates that reflect market yields derived using base rates (top axis) and credit spreads (left axis) on the chart. Within each of the 12 boxes, the upper left is "total capital" and the lower right is the value of equity after paying $50 trillion of leverage (debt).

The box immediately to the left of the top center box assumes very low base rates (represented by the market rate of 10-year US Treasury bonds) and very low "Complete Market" spreads. The result in that box is consistent with (i) observations at the end of 2021 and (ii) Adam Smith's finding that, at equilibrium, the value of a commodity (in this case money) will be equal in all its different uses for investors. The assumptions provide a present value to equity cash flows of $118.5 trillion (after repayment of $50 trillion of debt), a 137% increase over equity value in the 2005 box. That is close to the value of US stock markets at year-end 2021.

The three boxes that are below the upper left corner assume ever-increasing spreads, respectively. The lowest left box is consistent with very low rates and very high spreads in November 2008. Under those circumstances, the value of US equities is $25.4 trillion, a bit less than a 50% drop from the 2005 box. That level is consistent with stock market values at the end of 2008.

The upper right corner of the chart uses the same cash flows with a 10% base rate and very low spreads, consistent with market conditions when Paul Volcker's Fed caused base rates to exceed 10%. US equity values declined by roughly 60%, close to that box's equity value.

Finally, the lower right corner box assumes high base rates and very high spreads, consistent with the peak of the Great Depression and currently in Russia, under Putin. Under those conditions, the value of cash flows for equity is reduced by 93%. That box is also consistent with actual US equity valuations at the worst point of the 1930s.

Conditions that move base rates and spreads in each direction on the chart are indicated by notes surrounding the 12 boxes.

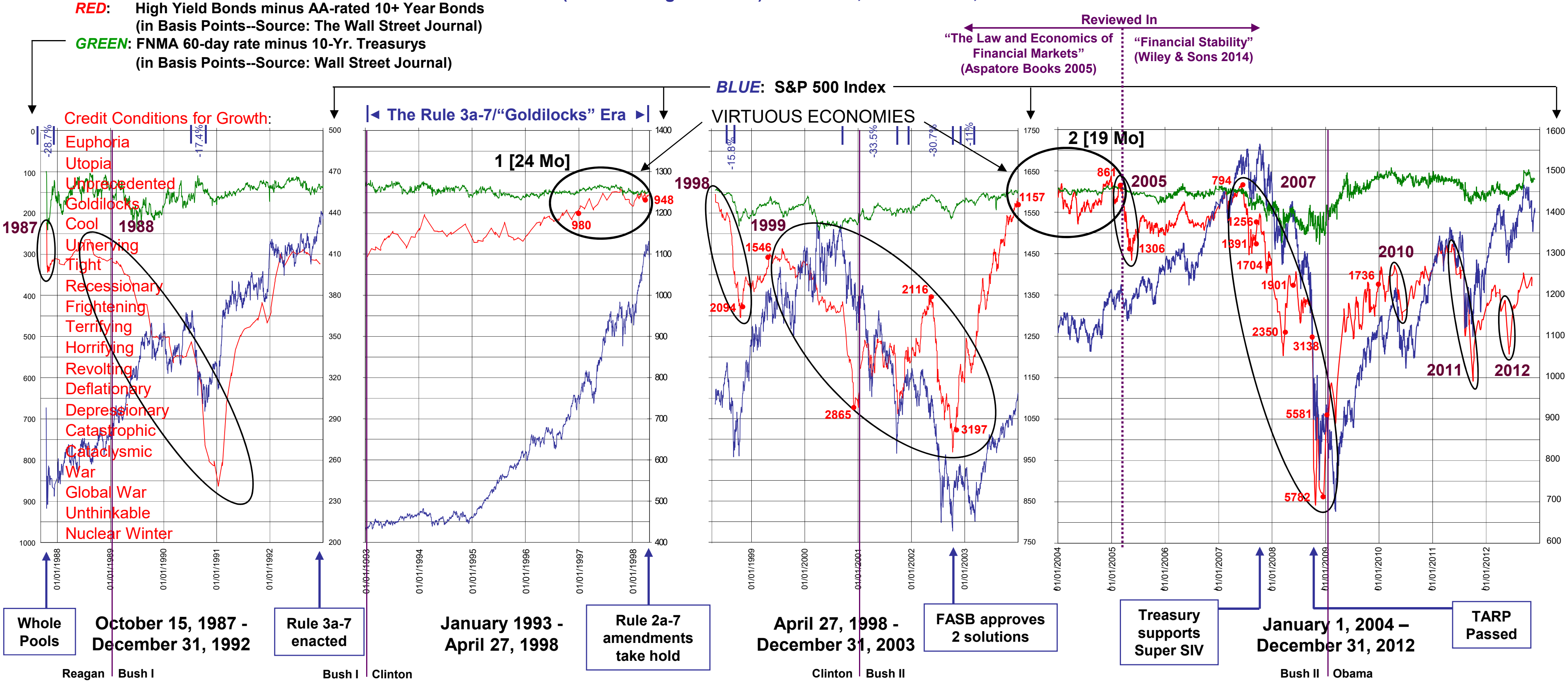
The chart is consistent with the impacts of policy changes observed since the Fed was formed in 1913.

TWO-SPREAD ANALYSIS

NINE CRISES AND TWO VIRTUOUS ECONOMIES, 1987 – 2012

Stocks (blue), Bonds (red) and Mortgages (green)

Left axis (for red and green lines) is inverted; UP IS GOOD; DOWN IS BAD



Mortgage Market Completion and Commercial Lending Market Development

This chart tracks: (i) the mortgage spread used for the first chart (green line) and (ii) the daily spread between an index of market yields on AA-rated US corporate bonds and an index of market yields on High Yield US corporate bonds (red line – a spread that reflects intermediation for corporations dominated by large, well-capitalized US banks). The blue line on the chart is the S&P 500 stock index. The chart is divided into four periods, from the 1987 stock market crash until December 31, 2012.

As the chart begins, a secondary market for US mortgages was complete (after the SEC allowed "Partial Pools"). As the chart ends (the start of 2013), disruptions of mortgage and corporate bond markets generated by the Great Financial Crisis of 2008 were moderated. The green line on the chart remained low and stable (until 2022) after the start of 2009, when the Fed exercised discretion to stabilize US mortgage markets by trading US Treasury debt and US-guaranteed GSE MBSs in a manner that helped moderate and stabilize US housing markets.

The Fed's ability to do that for commercial bond markets remained unclear, however, by (1) its limited power, except in defined emergencies, to buy and trade corporate debt and (2) the SEC's continuing failure to resolve the short-term credit monopoly/monopsony it mistakenly created in 1998. Thus, as the chart ends, equilibrium was restored to mortgage markets, but secondary corporate financial asset markets remained disrupted.

After the 1987 crash, the chart shows how markets were adversely affected in 1988 and 1989 by the S&L Crisis. Rampant fraud and speculation, primarily arising from loans made in Texas and other SW states between 1982 and 1985, caused great damage to all financial market participants. The damage compounded in 1990 after Saddam Hussein's invasion of Kuwait. This is similar to what Putin is causing in 2022 by Russia's obviously illegal invasion of Ukraine. Hussein's damage receded in 1991, as soon as Operation Desert Storm removed Iraqi forces from Kuwait.

Markets continued to improve after 1992 ended with "Rule 3a-7 enacted" by the SEC. A few years later, an equilibrium formed in secondary bond markets, leading to the first post-WW II "Virtuous Economy." It ended with the disruption caused by the SEC's 1998 mistake regulating short-term credit markets. That forced: Russia to default and Long Term Capital Management (LTCM) to be liquidated.

Spreads temporarily recovered for about a year after September 1998 when the SEC allowed temporary "grandfathering" rules to help resolve the LTCM problem. The SEC, however, refused to amend its disruptive 1998 money market rule. When the grandfathering impact wore off (about a year later), a new crisis developed – the "dot/com" bubble burst.

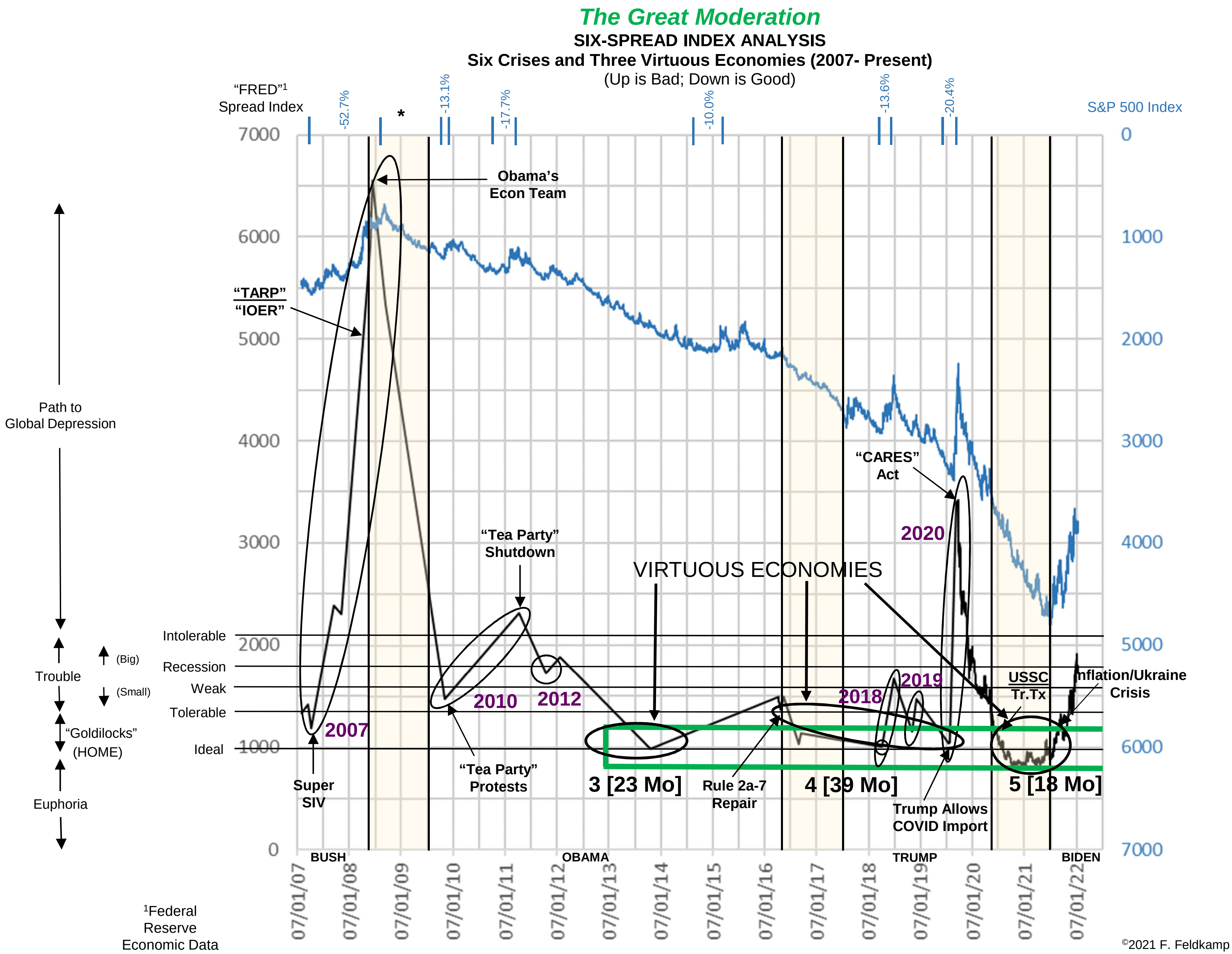
Spreads rose until off balance sheet accounting solutions were approved by the Financial Accounting Standards Board (FASB) in 2002. The rules stabilized markets for a short (19 month) second "Virtuous Economy" that began at the end of 2003.

This chart (to March 14, 2005) is the wrap-around "dust cover jacket" for *The Law and Economics of Financial Markets.* A co-author of the book described it as "a book about its cover." Soon after the book was published, another crisis ended that second post-WW II Goldilocks period in 2005. New efforts by the government to control and expand US housing finance soon exploded into a “sub-prime” mortgage crisis (2006-7), the precursor to the Great Financial Crisis of 2007-9.

The cataclysmic rise of corporate bond spreads shown for 2007-8 was triggered by a US Treasury Department mistake in October 2007. Ignoring a basic rule of Bagehot’s dictum (the 1873 explanation of the 1866 Overend, Gurney crisis in London p. 10), Treasury proposed that the government back a fund to absorb bad loans made by off balance sheet entities that Citigroup controlled. That repeated the calamitous 1982 mistake that had caused the S&L crisis.

This idea was so flawed that it never even reached formation. The notion that the US Treasury would stoop to that level, however, started a “run” on US markets that peaked at the end of 2008. The “Great Financial Crisis” only reversed when new Treasury leadership was announced and TARP gave the Fed authority to pay interest on excess reserves and expand its balance sheet to fund a resolution (led by Ben Bernanke, Don Kohn and Kevin Warsh).

That October 2007 mistake begins the next chart.



* "Transitions," shaded yellow, start with elections and end with the first legislative calendar year thereafter.

The Great Financial Crisis, the Great Moderation, COVID-19 Pandemic and War
Completing Markets and 21st Century Monetary Policy

When Adam Smith wrote that any sum by which: (i) the cost to operate financial markets exceeds (ii) the minimum amount needed to preserve efficient intermediation of credit, is a drain on the growth of a nation's wealth, he included all forms of intermediation.

On the "level playing field" of deregulated US secondary corporate bond markets, all sorts of firms and individual investors now serve as lenders to US businesses, from suppliers that defer payment of receivables due from manufacturers to overnight interbank account adjustments between and among the world's largest regulated banks.

To create a mirror of the actual "cost" of intermediation, one should, therefore, create an index of "spreads" among market yields for a group of credits that reflect this diversity. Searching the Federal Reserve Economic Data (FRED) library of statistics, it has reports of daily market index yields representing many grades of corporate bonds regularly traded in the US. The spread used for this chart is an aggregate of the six spreads that exist between and among (i) 10-yr US Treasury bonds, and (ii) AA, (iii) BBB and (iv) High Yield corporate bonds.

The daily sum of those six spreads is reflected by the left axis of this chart (and the next chart). Using this aggregate of spreads as s surrogate for the cost of intermediating all US corporate bonds, each basis point of increase in that index (above what Smith labeled the minimum level needed to keep money circulating) decreases the annual growth capacity of the US productive sector by approximately $5 billion. **Using statistical regression analysis, changes in this aggregate spread index have a 97% coefficient of inverse correlation with changes in the S&P 500 stock index.**

Thus, at the peak of the "spike" of spreads associated with the Great Financial Crisis of 2007-9, high intermediation costs reduced US growth capacity by about $26 trillion per year. If, as it did in 1929-33, that kind of increase in intermediation cost continued for 4 years, it is understandable why US stock markets declined by 93% during the Great Depression. Because the 2007-9 trend reversed quickly when new leadership took over at the Treasury Department, the 2007-9 crisis caused "only" a 50% drop in market value.

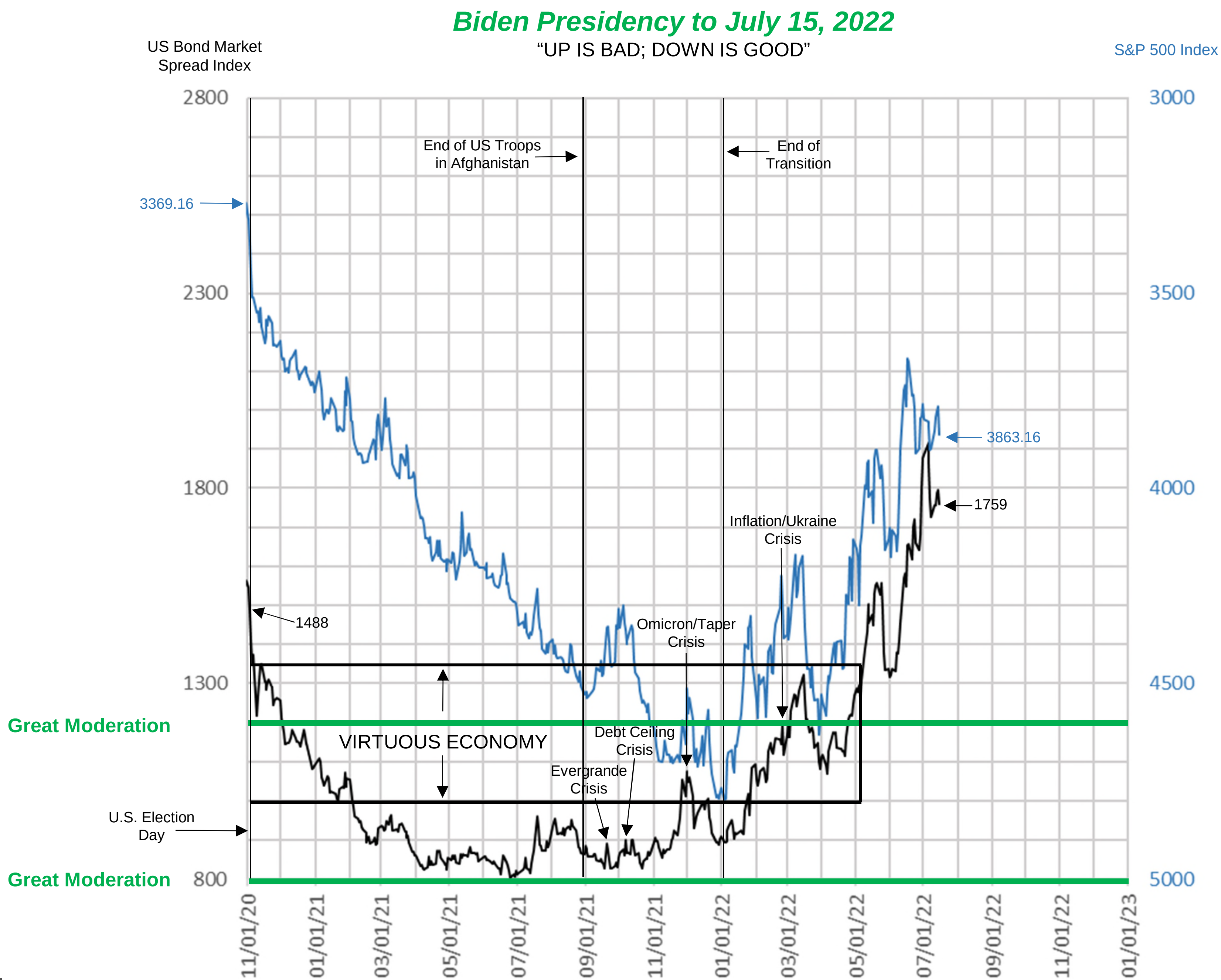
By similar analysis, the excess intermediation cost of the COVID-19 spike in the first quarter of 2020 peaked at $11.5 trillion per year. By virtue of knowledge gained during the Great Financial Crisis, the Fed and most major investment advisors understood the damage this event triggered. That explains why it was easy, even for a president who caused the debacle, to convince Congress to enact the "CARES" Act in 2020.

The magnitude of that blunder, by that man, fully explains why he lost his re-election bid six months later.

Some might assert that CARES Act spending worked "too well." The US now faces inflation because demand for goods and services exceeds the pandemic-plagued ability of producers to efficiently meet that demand. Therefore, the US needs to slow the economy to contain inflation.

So far, it appears that represents “small change” compared to the nearest comparable economic event, the sharp recession of 1920. The 1920 recession caused a 29% decline in US manufacturing.

Issues Mr. Biden now faces as a result of combining Mr. Trump’s mistakes with Mr. Putin’s unlawful invasion of Russia’s neighbor, Ukraine, are discussed using the next (final) chart.


Biden Presidency to July 15, 2022
"UP IS BAD; DOWN IS GOOD"
US Bond Market Spread Index
S&P 500 Index
2800
2300
1800
1300
800
3000
3500
4000
4500
5000
3369.16
3863.16
1759
1488
End of US Troops in Afghanistan
End of Transition
Inflation/Ukraine Crisis
Omicron/Taper Crisis
Debt Ceiling Crisis
Evergrande Crisis
VIRTUOUS ECONOMY
Great Moderation
Great Moderation
U.S. Election Day
11/01/20
01/01/21
03/01/21
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Surviving a Needless Pandemic and Facing Global War/Famine

Maintaining the Great Moderation: Overcoming Dictators and Would-be Dictators

Because the Trump Administration refused to follow longstanding US public health laws enacted to avoid importation and interstate transmission of deadly pathogens, during the first year of the COVID-19 pandemic, the US death rate from COVID was roughly 3,000 times the rate observed by our democratic ally, Taiwan. That occurred even though Taiwan does far more trade and tourism, *per capita,* with China (where COVID originated) than the US.

The explanation for this astonishing difference in death rate is action taken by Taiwan on December 31, 2019. At about 3 a.m., the deputy head of Taiwan's version of our CDC saw a widely distributed email from a doctor in Wuhan with an attached a CT scan of the lungs of a COVID patient. The email explained that the deadly condition shown on the scan was caused by a new form of viral pneumonia.

Applying principles established under US law that the Trump administration ignored, Taiwan required isolation of all visitors from Wuhan until they were confirmed as virus free. The Wuhan doctor's message circulated in the US at 3 p.m. on December 30, 2019. The Trump administration, however, was seeking a deal to have China purchase perhaps $200 billion of US soybeans as an "October surprise" to assure Trump would win the US election in November.

Taiwan reacted with a standard public health response to new pathogens that has saved nations since the 14th Century. The US did nothing to prevent COVID-19 importation.

As the virus subsequently mutated to less deadly but more contagious forms, Taiwan's deaths per million residents have risen from 1/3000th that of the US to 1/10th. That still means US importation and interstate transmission of the contagion is primarily responsible for the needless loss of more than 1,000,000 US lives and a nearly unheard of drop of more than 2 years in US life expectancy.

Each of those statistics is a factor that is almost certain to trigger "wage-price" inflation in any affected economy, as fewer workers logically insist on higher pay and lost workers create supply chain log jams. Combine that with the inflation pressure on necessary resources caused by war disruptions of food and fuels, etc., and one fully explains the difficult issues of today.

Were it not for Putin's illegal attack on Ukraine and its impact to add famine, conquest and genocide to COVID's pestilence, there are economic guidelines for managing inflation pressures. To save US and worldwide freedom, however, those added factors make it appear that a greater cost will be required.

The US has more effective "weapons" to apply in an economic emergency than any nation in world history. The final chart confirms that, while all people gripe over the impact of inflation on daily life, the nation's capital markets gave a "standing ovation" to Biden over Trump.

Putin (as was the case with Hitler and the US Confederacy before him) has followed an obviously flawed economic agenda. However, Russia is a sovereign state and, unless it attacks the US or allies to whom we owe allegiance (NATO nations), Russia will suffer the natural consequences of its unlawful conduct, but will not likely be militarily attacked by the US or its allies. **Unlike Russia, US leaders understand that no war is "won." Victors may suffer less in the short run, but war does not change long-term problems.**

US markets have reacted negatively, but that's probably necessary to contain US inflation and inflation expectations. Recent data suggests markets are aligning behind necessary policy decisions.