# America in Crisis

# America in Crisis:

## Insights from New Social Science Disciplines

<sup>By</sup> Michael A. Alexander

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### CHAPTER 1

### INTRODUCTION

America is tearing itself apart. Mass shootings proliferate while our social divisions widen. One might look at the present political landscape and think we are on the brink of civil war.<sup>1,2</sup> Americans see government failing to address society's most pressing problems because politicians prioritize the concerns of major donors needed to fund their campaigns. Political polarization is rising, strangers send death threats to those who speak their mind, while party divisions weaken the state:

While many democracies feature sharp debate and ideological competition between left and right, partisan affiliation in the United States has also become more closely tied to racial, ethnic, and religious identity. This makes it far more difficult for parties to gain supporters through attraction and persuasion, and far easier for unscrupulous politicians to present their opponents as an inherent and existential threat. Critiquing one's own camp or supporting a position associated with the rival party can seem like a betrayal, engendering a blind loyalty that ignores abuse of power and corruption by unaccountable leaders. At its ultimate extremes, politics based on immutable identities can lead to the sort of chronic dysfunction and insecurity seen in places like Bosnia and Herzegovina or Lebanon.<sup>3</sup>

Extreme polarization can potentially lead to some very dark places. Dysfunction in small, weak countries like Lebanon or North Korea does not pose much of a threat to powerful neighbors and so is tolerated by the world's great powers; the same in a global superpower is not. Ninety years ago, political dysfunction led to the rise of a dictatorship in Germany, the strongest power in Europe, which was then the primary arena of great power competition. In the end, a coalition of unaligned powers put aside their differences and united to destroy the German threat. Should the German fate befall America, the world's response would probably be nuclear, from which there would be no meaningful recovery.

I am not alone in thinking a crisis has emerged in America in recent years.<sup>4</sup> This book is an attempt to present what I see as the best science explaining how and why times like the present happen. Assuming the material

assembled possesses the necessary explanatory power, I apply it to provide some insight on how we might obtain a positive outcome to this crisis.

#### 1.1 The flow of history; history as a process

Polls over the last decade have shown a majority of Americans believe the country to be on the wrong track.<sup>5</sup> This question implies that there is such a thing as a "track," a path of the nation through history that goes from one "place" in the past to some future destination. Such a concept invokes the idea of history as a flow of events, a chronological description of past events as stories, some of which are completed, while others are still in progress, with as yet unknown ends.

Since we are all part of these stories during our lifetimes, there is a desire to know something about where we are going in order to plan for our futures, and those of our children. From such a desire comes an interest in learning lessons from the past as a guide to understanding the present and to prepare for the future. As the Spanish philosopher George Santayana wrote "those who cannot remember the past are condemned to repeat it."<sup>6</sup>

Scholars look for historical parallels with our times to make sense of what is often a very confusing present. One type of story is cyclical history. It looks for repeating patterns in history which, if applied correctly, could give insight to the present historical path. I got interested in cyclical history in the mid-1990's when I was trying to learn how to invest a small inheritance. I decided to research historical stock market performance to gain a better understanding of stock market returns over the long run, which would allow me not to panic in market downturns such as the crash of 1987. I noted the existence of a stock market cycle in 1995 which implied that the Dow Jones index was going to peak between 10000 and 15000 over 1999-2001, after which there would be a long period of below-par performance like what had happened in the 1970's.

When the predicted market rise occurred, I published *Stock Cycles*, which forecasted a coming period of poor stock market returns.<sup>7</sup> The collapse of the internet bubble came shortly after the March 2000 submission of the manuscript, and the worst of the bear market followed publication in October, verifying the correctness of the prediction. This confluence of events resulted in modest success for a self-published book by an unknown author.

In writing *Stock Cycles*, I learned a lot about historical cycles associated with stock market patterns, such as the fifty-year Kondratieff cycle and the

#### Introduction

associated War Cycle. Such cycles belong to a category of historical trends known as long cycles, about which I will have more to say in chapter six.<sup>8</sup> Harry Dent's book *The Great Boom Ahead* contained a synthesis of Kondratieff concepts with William Strauss and Neil Howe's generational cycle outlined in their 1991 book *Generations*, and reading this led me to generational cycles, yet another kind of long cycle. Strauss and Howe's cycle has lately achieved some notoriety because it was said to have had a major impact on Trump advisor Steve Bannon's worldview.<sup>9</sup> Their cycle predicted a crisis period would arrive early in the 21<sup>st</sup> century which would feature a pivotal event they called the "crisis of 2020."<sup>10</sup> The last twenty years have certainty been eventful, 2020 especially. It seemed that perhaps these authors were on to something.

After a promising start, the forecast presented in *Stock Cycles* turned out to be wrong. The central prediction was "there is a 75% probability that the S&P 500 index (adjusted for inflation) will be lower twenty years from now than it is today (Jan 2000)." The average value of the S&P 500 index in January 2020 was about 3280. The corresponding value in January 2000, adjusted for inflation, was 2180. Clearly this prediction did not pan out. What went wrong?

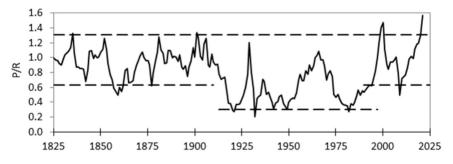


Figure 1-1 Price to Business Resources (P/R) trend 1825-2020.

The centerpiece of *Stock Cycles* was a novel valuation measure called Price to Business Resources (or P/R). Business Resources (R) at a given time were defined as the cumulative sum of S&P 500 retained earnings in constant dollars. One might think if it as kind of an inflation-adjusted book value for the index. Figure 1.1 shows a plot of P/R from 1825 to 2020. Seven well-spaced single peaks and one double peak can be seen where P/R reaches a value about  $1.3\pm 0.2$ . The average 28-year spacing of these cycles up to 2000 (when *Stock Cycles* was published) defines the Stock Cycle and provides an idea of its typical length. I also noted that the behavior of the

cycle after 1900 was different than it had been before, with a longer average length (peak-to-peak) of 30-35 years compared to 23 years before. The cycle amplitude was larger as well.

Thus, I expected the next peak in the cycle to occur in the 2030's, and the P/R trough in between to be lower than the 2009 value, as it had been in the 20<sup>th</sup> Century (see lower dashed line in Figure 1.1). It was not until 2014 that it became clear that events were not moving in the direction consistent with the Stock Cycle model, and I now consider it to have become invalidated at that time. Although the Stock Cycle model has been invalidated, R is still valid and plays a small, but important, role in this book.

In the years after 2000, when I believed the Stock Cycle was valid, I learned a lot about various related long cycles and wrote additional books about these topics. The cycle forecasts presented in these books, like those with the Stock Cycle, have not stood the test of time, but some of the insights gained from this work (Appendices A, C, and D) still have utility in understanding our political and financial situation.

That long-term swings in politics and economics still occur seems undeniable. The recent resurgence of the political left under Bernie Sanders after being moribund for nearly half a century represents such a swing. I retained my fascination with these long-term swings in the zeitgeist after 2014. As I became increasingly concerned about the state of our nation, I continued my exploration of historical cycles and learned about a new social science discipline called *cliodynamics* that I believe provides a sounder basis for historical analysis.

Cliodynamics is the study of historical dynamics. Social life is seen as a process in which discrete elements interact with both each other and an external environment, causing social change. History is a narrative account of this change. The interacting elements are typically complex systems. Human society is like an ecosystem in which many species of animals and plants interact with members of their own and other species as well as the natural environment. Cliodynamics applied to modern societies is concerned with collective behaviors in an "ecology" of humans living in a culturally-created environment. These behaviors, as they evolve over time, constitute a historical process. This process can be analogized to the sort of biochemical processes with which I worked professionally during my career as a biochemical research engineer. One aspect of my professional work was process design, with the aim to produce high quality products at an economical price. The method through which I could most efficiently

#### Introduction

achieve this was determined using the basic science of how the product is made, plus knowledge of the physics and chemistry that describes the interactions of subsystems within the process.

In this book, I proceeded in a similar fashion. I present models and theories from several social science disciplines to find tools that might explain how various aspects of our current political economy work. For example, leftist observers note that worker incomes have not risen over decades, while those of CEOs and financiers have soared, resulting in rising inequality. Chapters three and four explain this development using a process with political decisions as an input. This input is, itself a consequence of the economic consequences of prior political decisions. History is reflexive, full of feedback effects, reminiscent of the famous Escher lithograph depicting a hand drawing a hand that is drawing it.

My plan in this book is to introduce some of these processes as parts of an overarching structure called the secular cycle. Chapter two introduces the secular cycle, with a focus on America. I introduce the political instability indicator (PSI), which is a theoretical measure of the tendency of a society to collapse politically in the form of civil war, revolution, coup, conquest, or constitutional change.<sup>11</sup> Political polarization is an early manifestation of rising PSI. I introduce the capitalist crisis as a financial/economic marker for the start of the crisis period of the secular cycle and note that we entered this phase in 2006. I describe how businessmen and political actors responded to the previous capitalist crisis (in 1907) near the end of the previous American secular cycle, and how the 1929 crash began the secular cycle resolution period in which the crisis problems were solved, ending the old secular cycle without internal war, and beginning the current cycle. At present we are still in the crisis phase of the current cycle, awaiting the start of the resolution

In Chapter three, I introduce another discipline: cultural evolution, which is a core driver of historical change. I show how cumulative cultural evolution can lead to a dramatic shift in the path of social development, using the socalled "Rise of the West" as an example. To explain recent American secular cycle dynamics, I present a cultural evolutionary model that accounts for the trajectory of economic inequality (a key measure of the secular cycle) since 1913.

Chapter four provides monetary and financial characterizations of the secular cycle as a complement to the structural and cultural takes described in chapters two and three. The post-1978 period of rising "shareholder primacy" business culture proposed in chapter three can also be seen as a process of financialization of the economy, as measured by an "enterprise premium" (defined as the difference between return on real capital and financial market returns). As part of this process, corporate debt structures evolve in ways consistent with Hyman Minski's financial instability hypothesis. That is, cultural evolution produces rising inequality, as described in chapter three, which is accompanied by financialization, leading to financial crises. These crises, in turn, can lead to a secular cycle resolution, as happened in 1929, which completes the cycle. I develop a "financial instability indicator", analogous to PSI, to identify conditions conducive to such an outcome as a diagnostic tool.

Chapter five describes the political dynamics that led to the policy responsible for the reversal from falling to rising inequality in the 1970's. No dynamic theory or model was available in the literature, so my presentation is limited to a description of what happened and some suggestions of reasons for why things happened the way they did. I present Stephen Scowronek's political time model which provides a useful vocabulary and framework for describing how the policy choices that (through cultural evolution) lead to the socioeconomic outcomes that define the secular cycle are related to the long-term electoral objectives of political parties. The key idea is that policy and other human behaviors are based on short-term considerations but, through cliodynamic processes, produce the long term historical trends and fluctuations that comprise historical dynamics. The reflexive nature of these processes makes prediction impossible. The potential consequences of political choices can sometimes be predicted, but not which choices will be made.

Chapter six revisits long cycles, largely focusing on a fifty-year cycle defined by periodic outbursts of unrest such as rising mass shootings over the previous decade and the appearance of radical cultural movements such as Black Lives Matter, the alt right, #me too and others at this time. I present Peter Turchin's social contagion theory as a plausible explanation for these cycles. These periodic episodes of heightened radicalization do not reflect any environmental trigger. They arise endogenously, seemingly out of nowhere. The social contagion theory is a comforting way to perceive what seem to be very unsettled times as part of the normal flow of events. They do not, by themselves, indicate that some sort of sudden historical break is in the offing. For example, the last one of these, the 1960's social revolution, more or less faded away after a decade. What is different today from then is our position in the secular cycle. Despite the turmoil of 1968, there was little potential for economic collapse or civil war then, unlike the situation today.

#### Introduction

Having outlined the concepts and tools of cliodynamics I have found useful, I use them to derive some insights into four major issues of our day, (1) racial inequality, (2) an increasingly dysfunctional economy, (3) foreign policy, and (4) the threat posed by global warming.

The discussion on race interprets the modern, structural conception of racism (as opposed to individual racial animus) in light of cultural evolution. Some aspects of structural racism can be interpreted as a product of cultural evolution in the African American population and results from adaptation to historical and current environments. Since cultural transmission has the properties of an inheritance system, some of these structural outcomes have been mistakenly assumed to arise from a biological, rather than a cultural. evolution mechanism.<sup>12</sup> Other racial discrepancies may reflect systemic racism which operates as sort of a generalized unconscious bias. Such biases presumably have underlying cultural evolutionary causes. Structural racism might be addressed by the policy proposed for dealing with economic inequality and the instability it generates. The basic argument is that changes in economic policy made in the 1960's through 1980's created an environment that stopped the convergence between incomes for black men relative to white men. This led to a failure of non-economic racial differences like test scores to converge.

The economics discussion defines capitalism as a cultural system that organizes economic activity to naturally accumulate more means of production (capital), creating a richer society. I present a brief history of the cultural evolution of capitalism, building on the earlier discussion of the Rise of the West. I show how capitalism provided the mechanism through which Western agrarian nations escaped from what is known as the Malthusian trap to become developed nations. The distortion of the capitalist process by the policies leading to financialization gave rise to the current capitalist crisis, which threatens to neutralize the very "nation-enriching" function that made capitalism a successful cultural institution in the first place. Since established alternatives to capitalism (for instance, communism) have poor track records, the threat from the capitalist crisis has serious implications for the future.

The discussion on foreign policy introduces the concept of hegemonic cycles, and argues that the pursuit of hegemony during the Cold War played a crucial role in ending the New Deal order in 1971, which opened the door to later policy that brought about the capitalist crisis, financialization, extreme polarization, and the threat to democracy. Since the end of the Cold War, it has not been clear whether crisis-enhancing economic policies exist in service of foreign policy objectives, or foreign policy (e.g. multiple failed wars) is subservient to economics.

Finally, I describe the development of the idea that the earth is warming because of atmospheric pollution with greenhouse gases, and show why it is a very serious problem. I do so both because humanity cannot avoid dealing with this issue, and if this were done today, it could help resolve the secular cycle crisis and bring great benefits to America. I use a hydrogen pipeline as an example of using economic stimulus in response to an economic crisis (which will be increasingly common, as described in chapter four). This infrastructure then enables a green energy leading industry to form. Such a nascent industry would then advance through the S-curve of economic development, strengthening the economy, while also helping to address the threat of global warming.

The final chapter discusses paths reflecting different kinds of outcomes to the current secular cycle. I also outline some developments that could produce a more positive outcome and discuss, mostly from a financial perspective, how these could possibly happen. Finally, I give some examples of policies that I believe would produce a positive resolution to the present crisis.

### CHAPTER 2

### THE SECULAR CYCLE AND CLIODYNAMICS

The secular cycle is a historical process structure that will serve as the framework for the theoretical material presented in this book. It is defined as a demographic-social-political oscillation of a (centuries) long period. Much of the secular cycle theory described here comes from the work of evolutionary scientist Peter Turchin.<sup>13,14</sup> Secular cycles are typically much longer than long cycles like the Kondratieffs, and are not related to them. They were first identified in agrarian nations and empires as population cycles, and almost all work on secular cycles has been done on such states.<sup>15</sup> Like Kondratieffs, secular cycles are divided into up and down trends. The (rising) *integrative phase* is characterized by a rising population, a strong, often expanding state, and a society relatively free of strife between political factions. The (falling) *disintegrative phase* sees a flat or declining population, a weakening state, and relatively high levels of strife between elite factions. Each phase is divided into two parts for a total of four periods: expansion, stagnation, crisis, and resolution.

#### 2.1 The agrarian secular cycle

Figure 2.1 shows plots of several social variables for England over eight centuries. Population trends fall into three regimes, denoted by the dashed vertical lines, which correspond to secular cycles. There is a rising trend from the late 11<sup>th</sup> Century to the first half of the 14<sup>th</sup> Century. This is the integrative phase of the Plantagenet secular cycle. It is followed by a long decline in population, reflecting the Black Death and subsequent plague recurrences, which finally bottomed out in the mid-15<sup>th</sup> Century, defining the Plantagenet disintegrative phase.

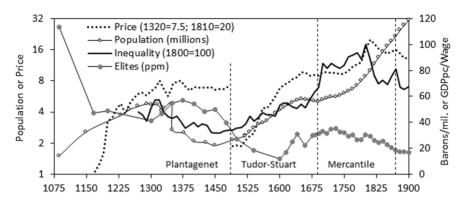


Figure 2-1 English population, price, elite number, and inequality trends.<sup>16</sup> Dashed lines indicate secular cycle boundaries.

The integrative phase of the subsequent Tudor-Stuart cycle is shown by the population rise from the latter portion of the 15<sup>th</sup> Century to the mid-1600's. It is followed by a slight decline to the end of the century, which defines the disintegrative phase. The next population trend was an accelerating rise with no evidence of a cycle, showing the breakdown of the population cycle with the onset of the industrial revolution in the 18<sup>th</sup> century. This rising trend defines the beginning of the Mercantile secular cycle in 1690, which may have ended around 1870, as indicated by a trend change in state revenues following a peak in social unrest a few decades earlier.<sup>17</sup>

Each period has characteristic features. The expansion period sees a rising population, a strengthening state, minimal factional strife, and lower economic inequality. The stagnation period sees slowing population growth, and rising economic inequality as population approaches its cycle maximum. State strength reaches its maximum and begins to decline while increased elite numbers result in increased competition. Close examination of Figure 2.1 shows population growth slowing in the late 13<sup>th</sup> Century, while elite numbers began to grow strongly, showing the transition from the expansion to the stagnation period for the Plantagenet cycle. A similar dynamic can be seen after 1600 in the Tudor-Stuart cycle.

As the population peaks and begins to decline, the integrative phase gives way to the disintegrative phase. The crisis period occurs as inequality reaches a maximal value, state power declines, and elite competition ramps up into conflict. The final resolution period often involves some sort of economic collapse, internal conflict or large-scale war. It sees population reaching a minimum and, frequently, low or declining inequality. The state attempts to reassert its authority, which is complicated by the continued presence of strife amongst elite factions. The resolution period ends when the elite strife is resolved. Often this is accompanied by a reduction in elite numbers due to military or political defeat, as can be seen in the 15<sup>th</sup> Century depression phase of the Plantagenet cycle and during the late Mercantile cycle (see Figure 2.1).

The secular cycle description presented here comes from Turchin and Nefedov's book on secular cycles,<sup>18</sup> with modifications I provided.<sup>19</sup> These cycles, like other cycles discussed in this book, are established from inspection of empirical data, but Turchin also provides a theory derived from work by sociologist Jack Goldstone, which is expressed in mathematical form.<sup>20</sup> I was able to use these equations to fit some of the empirical data in Figure 2.1 to obtain a better fit than an arbitrary curve fitting method.<sup>21</sup> What this means is there is quantitative explanatory power in the Goldstone-Turchin theory, something it has in common with the theories and models I employed in my professional work in natural science, but not present in the material on which my earlier work on cycles was based, leading me to buy into cliodynamics.

Table 2-1 gives dates for 28 secular cycles in six pre-industrial states and empires. They show a wide range of lengths, from 79 to 415 years, with an average length of 220 years. Clearly, these are not regular cycles like long cycles are purported to be. Rather, they are a manifestation of the historical process dynamics that cause them.

Rome <sup>22,23</sup>	China <sup>24</sup>	Egypt <sup>25</sup>	England <sup>26</sup>	France <sup>27</sup>	Russia <sup>28</sup>
650-350 BCE	206-BCE- 25 CE	642-740	880-1070	1150-1450	1460-1620
350-30 BCE	25-220	740-868	1070-1485	1450-1660	1620-1922
30 BCE- 285 CE	618-763	868-970	1485-1690		
285-628	763-960	970-1073	1690-1870		
	960-1279	1073-1171			
	1279-1368	1171-1250			
	1368-1644	1250-1525			
	1644-1864	1525-1737			
	1864-1949				

Table 2-1 Secular cycles in six agrarian states or empires

#### 2.2 Dynamics of the agrarian secular cycle

In an agrarian society, the economy is largely based on agriculture, and GDP is directly related to agricultural output. This means that GDP is fundamentally limited by the maximum amount of arable land in the nation. As the population grows, it eventually brings all the available land under cultivation and economic output peaks. Further population rise leads to labor surplus and reduced real GDP per capita while population-driven demand for goods outstrips fixed supply, causing prices to rise. Thus, periods of rising population tend to be associated with lengthy periods of price inflation known as price revolutions.<sup>29</sup> Figure 2.1 shows how rising population was accompanied by rising price while falling/stagnant population was associated with flat price trends during the Plantagenet and Tudor-Stuart cycles. This correlation broke down during the Mercantile cycle for the same reason that population stopped showing cycles, industrialization.

Rising prices for the output from land combined with fixed supply means rising land values, increasing the wealth of the landowning elite, while labor surplus leads to falling real wages, impoverishing workers. This means times of rising population in agrarian societies translate to times of rising economic inequality. Eventually, worker incomes fall to a level at which further population growth is not possible, so the population peaks. This is known as the Malthusian trap: a fixed level of population (and economic output) beyond which agrarian states cannot rise. Peak population (or inequality) often defines the transition from the integrative to disintegrative phase.

Conversely, times of falling population, such as after the Black Death (see Figure 2.1), lead to labor shortage and rising real wages, as well as land surplus, falling land value, and declining rent. That is, they are periods of falling, or at least not-rising, economic inequality. Thus, the agrarian secular cycle can be considered as an inequality cycle as well as a population and price cycle. Figure 2.1 shows a peak in inequality around the time of the population peak for the Plantagenet cycle, and a pause in rising inequality when population stopped growing in the Tudor-Stuart cycle. The Mercantile cycle shows its own cycle in inequality.

Rising inequality means a larger share of the economic pie goes to elites, who flourish and see their relative numbers grow. With rising numbers, competition between elites rises, particularly after the population peak and the start of the disintegrative phase, when the economic situation becomes more challenging for them. Over time, competition (which manifests as increasing political polarization) shades into political conflict such as assassination, political coup, civil war, or revolution, which typically results in a reduction in elite numbers, through both combat mortality and loss of elite status for the losers of the conflict. Thus, elite numbers should rise and fall with inequality. For example, rising inequality during the Plantagenet cycle saw the number of Barons per million population rise from 40 to 60 (see Figure 2.1). With declining inequality after the plague, the economic situation for elites grew problematic, elite conflict rose, culminating in the Wars of the Roses, which resulted in a fall in elite number from about 55 to 30 per million. A similar rise was seen in the Tudor-Stuart cycle with a brief decline in the wake of the English Civil War. Agrarian elite numbers then gradually grew into the mid-18<sup>th</sup> century, before beginning a long-term decline with the onset of the industrial revolution.

Instability-breeding social forces are tracked by PSI (the Political Stress Indicator). High levels of PSI eventually lead to the secular cycle resolution, often involving state breakdown, civil war, or revolution, which brings the secular cycle to an end. The resolution of the secular cycle may bring a sustained decline in economic inequality, if it has not happened already. A decline in PSI also begins, and with it, the start of the integrative phase of a new secular cycle. PSI is a complex measure involving a variety of contributing factors, the most important of which are economic inequality and elite number. A simplified expression for PSI is given below:<sup>30</sup>

$$PSI = \frac{e^2}{EF(1-EF)}$$
(2-1)

Here, e is elite number as a fraction of population. EF is "elite fraction," which can be thought of as the fraction of GDP that goes to elites (a measure of inequality). A simple relation to model elite number is given below.

$$\frac{de}{dt} = \mu o \left( \frac{(1 - EF)o}{1 - EF} - 1 \right)$$
(2-2)

Here  $\mu_o$ , and (1-EF)<sub>0</sub> are adjustable constants. Between equations 2-1 and 2-2, the value of PSI can be obtained directly from inequality. The process dynamics described by these equations implies that PSI lags inequality. The key idea is that the major pressures leading to political turmoil or complete state breakdown are largely a function of economic inequality. For our purposes, the secular cycle is best thought of as a cycle in inequality or political stress (PSI).

#### 2.3 The post-agrarian (industrial) secular cycle

Peter Turchin has applied the secular cycle concept to a modern industrialized nation, the United States.<sup>31</sup> In lieu of population, Turchin uses measures of economic, physical, and social well-being to track the cycle: relative wage (wage/GDP per capita), male stature, life expectancy, and age at first marriage. A composite of these measures defines the American secular cycles. These measures are indicators of socioeconomic inequality, implying the modern secular cycle is defined in terms of inequality. Two cycles are identified; the first over 1780-1930 and the second from 1930 to the present.

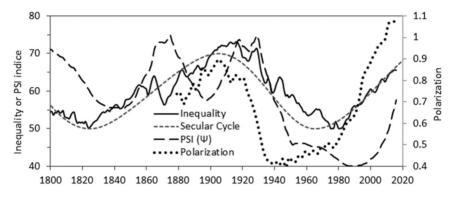


Figure 2-2 The secular cycle and trends in economic inequality, PSI and political polarization

Figure 2-2 shows a plot of the cycle he found along with a measure of economic inequality I developed.<sup>32</sup> A clear correlation between inequality and Turchin's secular cycle can be seen. Also shown is PSI, calculated from my inequality data using equations 2-1 and 2-2, and the DW-Nominate measure of political polarization.<sup>33</sup> As noted earlier, PSI lags inequality and the secular cycle, while political polarization appears to lead it. DW-Nominate measurements are not available before 1879, but using the correlation between polarization and the secular cycle one would expect polarization to be low in the period before the inequality bottom in 1824. The period after the War of 1812 is often called the 'Era of Good Feelings', because the 1816 collapse of the Federalists left a one-party state (1820 presidential candidate Monroe ran unopposed). This name suggests that polarization was low in the period before the 1820's secular cycle/inequality trough, as it was before the one in the 1970's. The early 1860's peak in inequality was followed by a sharp decline reflecting the loss of slaveholder wealth by emancipation. This decline serves to split the long-term rise in inequality after 1824 into two shorter bursts; the rise peaking at the Civil War and a second ending with a dual peak in 1916/29. This second dual peak was preceded by a peak in polarization around 1905, as measured by DW-Nominate. The same probably holds for the first inequality peak; surely high levels of polarization existed in the period before the Civil War.

For example, a degree of polarization must have existed as early as 1836, when discussion about slavery in Congress was forbidden, in an effort not to inflame passions. The source of this polarization may have reflected changing elite power dynamics, leading to increasingly aggressive political behavior on the part of those in the losing position. In 1860, slaveowners were about a fifth of white Southerners. Their average wealth per capita was about the same as that of the top decile of Northerners.<sup>34</sup> Defining Southern slaveholders and the top tenth of Northerners as elites, I estimated how the relative number of elites in the two regions changed over time:

Table 2-2: Northern:Southern elite ratio before the Civil War

Year	1790	1800	1810	1820	1830	1840	1850	1860
North:South	91%	83%	94%	99%	103%	112%	116%	126%

Up until the 1820's, Southern elites outnumbered Northerners and their position was secure. By the 1840's Northerners had grown to outnumber the Southerners, and the latter increasingly feared rising anti-slave sentiment in the now-dominant North. A desire to avoid partisan conflict had led Southern politicians to enact the 1836 "gag order." After its repeal in 1844, increasingly extreme partisanship was openly displayed: a pro-slavery senator pulled a pistol on an anti-slavery senator in 1850, another beat an abolitionist senator senseless with a cane in 1856, and two years after that, thirty congressmen divided along sectional lines brawled on the floor of the House of Representatives. Elite conflict was accompanied by episodes of more widespread political violence such as Bleeding Kansas. The situation came to a head in 1860, when Northern elites won control of the government through the new anti-slavery Republican party. Seeing the writing on the wall, Southern elites rebelled, beginning the Civil War.

Figure 2-2 suggests about 20-40 years elapsed between extremes in polarization and in PSI. Polarization is a measure of the intensity of elite (in this

case political) competition which, as the secular cycle progresses, transforms into rising PSI. Left unchecked, rising PSI will eventually lead to serious civil unrest, state collapse, or internal war. The example of the American Civil War suggests this can happen over as little as 25 years after high levels of polarization are reached, which Figure 2.2 suggests already happened 20 years ago, thereby implying that we may be getting close to a point where internal war becomes possible.<sup>35</sup>

The reader may notice that the 19<sup>th</sup> Century peak in PSI occurred sometime after the Civil War, implying that the war had not resolved the pre-war political stress. This was indeed the case; the war was followed by a period of military occupation necessitated by widespread violence against freedmen. Occupation continued until the beginning of 1877, by which time PSI had started to decline. According to Turchin's dating, the Civil War does not qualify as a secular cycle resolution period. The post-war decline in inequality was short-lived and the decisive victory in the war did not end the violence. It remained for a later resolution period to bring the first American secular cycle to an end.

Today we are in another period of high polarization. The two sides represent a combination of political ideology and cultural identity-based politics that roughly align with the two major parties. The "Blue" side is a combination of liberal or progressive ideology coupled with a "person of color" (POC) identity. It is represented by the Democratic party. The "Red" side is a combination of conservative ideology and a non-Hispanic white identity and is represented by the Republican party. We can represent the Blue group as progressive whites and non-conservative POC and use the sum of 30% of whites and 70% of POC as an estimate of their size. The Red group would then be 70% of whites and 30% of POC. Using these definitions, the ratio of the Blue:Red size is shown in Table 2-3.

Year	1970	1980	1990	2000	2010	2020	2030	2040
Blue:Red	62%	67%	73%	83%	93%	99%	108%	118%

Table 2-3 shows the same declining trend in Red elite power as was seen for Southern elite power during the Civil War period. Extreme levels of polarization are present today. Based on the experience following the introduction of the slavery "gag order" in 1836, we might expect rising political violence in the near future leading to civil war. Also, based on the experience following the 1905 polarization peak, we might expect higher levels