Cycles, Civilizations, And Empires

"The fall of Empire, gentlemen, is a massive thing, however, and not easily fought. It is dictated by a rising bureaucracy, a receding initiative, a freezing of caste, a damming of curiosity—a hundred other factors. It has been going on, as I have said, for centuries, and it is too majestic and massive a movement to stop."
— Isaac Asimov, Foundation

A good sci-fi book gives me (Alex) a much needed shot of adrenaline to my imagination that keeps me open to ideas and sparks my creative thinking — both of which are critical to becoming a master trader (at least I think so).

One of my favorite sci-fi series is "The Foundation Trilogy" by Isaac Asimov. The book was first published in 1951 and is a grand "space opera" that takes place in the distant future. At the heart of the series (and what makes it so interesting) is the fictional-philosophy of "psychohistory". Psychohistory is a blend between mass-crowd psychology and probability theory.

It’s founded on the principle that while it’s impossible to predict actions at the singular individual level, it’s possible to successfully apply statistical probability theory at the group level to predict the general flow of future events.

Asimov discusses how he came up with the idea of psychohistory in the following interview:

> *It was, in a sense, the struggle between free will and determinism. On the other hand, I wanted to do a story on the analogy of The Decline and Fall of the Roman Empire, but on the much larger scale of the galaxy. To do that, I took over the aura of the Roman Empire and wrote it very large. The social system, then, is very much like the Roman imperial system, but that was just my skeleton.*
>
> *At the time I started these stories, I was taking physical chemistry at school, and I knew that because the individual molecules of a gas move quite erratically and randomly, nobody can predict the direction of motion of a single molecule at any particular time. The randomness of their motion works out to the point where you can predict the total behavior of the gas very accurately, using the gas laws. I knew that if you decrease the volume, the pressure goes up; if you raise the temperature, the pressure goes up, and the volume expands. We know these things even though we don't know how individual molecules behave.*
>
> *It seemed to me that if we did have a galactic empire, there would be so many human beings—quintillions of them—that perhaps you might be able to predict very accurately how societies would behave, even though you couldn't predict how individuals composing those societies would behave.*
>
> *So, against the background of the Roman Empire written large, I invented the science of psychohistory. Throughout the entire trilogy, then, there are the opposing forces of individual desire and that dead hand of social inevitability.*

Asimov was exploring a question we (humans) have been asking for millennia. That is: Is human history governed by free-will and therefore unpredictable, or is it immutable like the laws of physics? To put it another way: Are we as a species guided down a predetermined path by natural forces larger than our comprehension, or not?

What spawned this question for Asimov was, in turn, another book titled “The Decline and Fall of the Holy Roman Empire” by Edward Gibbons (this is another excellent book that I highly recommend). Gibbons takes a broad-sweeping approach to history in analysing the fall of one of humanity’s greatest civilizations and explores the idea of “inevitability” throughout the narrative of time. Here’s a great summary from [The Atlantic]() (emphasis added by me):

> ***The Decline and Fall instructs that human nature never changes, and that mankind's predilection for faction, augmented by environmental and cultural differences, is what determines history.*** *In this Gibbon was influenced by the Baron de Montesquieu, who saw history not as mere politics and ideas but as a complex of cultural, social, and climatic forces. The brilliance of the Decline and Fall lies in Gibbon's*

ability to build a narrative out of individual agency and the surprises of history -- such as the empire's restoration in the third century under the able rule of Claudius, Aurelian, Probus, and Diocletian -- even as the sheer accumulation and repetition of events over centuries ultimately robs many an effective emperor (each with a distinct personality early in the story) of his identity in the reader's mind, and as the initially successful restoration flows into the larger movement of decline. ***Only patterns, rather than individuals, endure at the end of the three volumes.***

For Gibbon the real changes were not so much the dramatic, "newsworthy" events as the insidious transformations: Rome moving from democracy to the trappings of democracy to military rule; Milan in Italy and Nicomedia in Asia Minor functioning as capital cities decades before the formal division of the empire into western and eastern halves, and almost two centuries before Rome officially ceased to be an imperial capital; the fact that the first fifteen "Christian" bishops of Jerusalem were circumcised Jews subscribing to a not yet formalized religion. ***It seems that the more gradual and hidden the change, the more historically important it turned out to be.***

I hope I haven't lost you yet… I promise I'm not just geeking out on sci-fi and history here, I will tie this to markets.

You see, I was reminded of all this by an article I read in the Times this past week by Robert Schiller (Nobel prize winning economist and inventor of the CAPE ratio). The article was titled “Listen Carefully for Hints of the Next Global Recession” and in it, Schiller discusses his view of psychology’s powerful role in economics and, more specifically, recessions.

Schiller writes that “Economists are good at measuring the past, but inconsistent at forecasting future events, particularly recessions. That’s because recessions aren’t caused merely by concrete changes in the markets. Beliefs and stories passed on by thousands of individuals are important factors, maybe even the main ones, in determining big shifts in the economy.”

He goes on to say “In fact, it’s instructive to remember that global recessions have usually begun suddenly and been a real surprise to most people... such events can largely be ascribed ultimately to contagious stories of wide significance. Basically, global recessions tend to begin when newly popular narratives reduce individuals’ motivation to spend money. Psychology matters a great deal.”

So what Schiller is basically saying is that our narratives, psychology, and confidence play a major role in causing recessions. If only our “animal spirits” wouldn’t cause us to be so irrational, maybe we wouldn’t have these periods where we spend less.

Okay... I don’t think the idea that human psychology plays a “significant” role in economics and markets should be of much surprise to anyone. The fact that this is considered a novel concept, really just tells you a lot about the state of our current economic thinking — it’s piss poor, buy you probably already knew that.

I appreciate Schiller adding human psychology to the discussion of economics though, which has become so removed from, well, reality and humans. But unfortunately he still gets so much wrong by overestimating the directional play between people and markets. His view is too unilateral, believing that these random stories just pop up and congeal within our societal consciousness to the point where they affect our actions… thus, causing recessions and the like.

I think the relationship is much more bilateral. People drive markets and markets drive mass human psychology.

I have a theory, or I should say a “lens” through which I view economics and history. In this lens, both economics and history are completely inseparable.

What is economics anyway... really... besides just the study of human interaction. Economics and markets are, at their most simplified level, built upon the interaction between two parties. This interaction is predicated on the utilization and exchange of scarce resources. You add up a lot of these two party interactions and you have a “market”. Combine a lot of these markets and you have an “economy”.

History is the study of what groups of humans have done and economics is the study of how and why humans do the things they do.

Getting back to my theory. My idea is that large economic shifts are the primary driver of human history. Meaning, that if you pull-out to the 30,000ft view of long-term economic cycles, you can better understand the grand ebb and flow of human history — and also more aptly understand what's unfolding and maybe... predict what's to come.

Through this lens, you get a deeper understanding of how Hitler and Nazi Germany came to power (crippling deflation followed by hyperinflation spawned economic destitution leading to collective hysteria).The fall of the Roman Empire, both World Wars, the rise of communism… all are better understood through the long-term lens of economics.

Events that are unfolding currently; the rise of populist candidates in the U.S., extremist parties in Europe like Podemos and New Dawn, the centralizing of power in China and Russia and the growing sense of "every country for itself". These are all being driven by the turning of the secular long-term debt cycle. Stagnating growth is leading to the slow dissolution of international cooperation, the fraying of the fabric of our societies, and instilling an underlying collective anxiety in entire groups of peoples.

These large economic changes happen so slowly and over such large periods of time that their impact and role in our collective decision making is imperceptible. We look at individuals and singular events as the driving forces of history but really it's the large economic current that ripples through time that drives our important decisions and events.

And, as said in the Atlantic article, "***It seems that the more gradual and hidden the change, the more historically important it turned out to be."***

The large economic forces are the "dead hand of social inevitability" that oppose and overrun our forces of individual desire, as said by Asimov. And maybe… just maybe… it's possible to develop an understanding of these guiding variables in a way that is statistically meaningful — create a science of psychohistory of sorts.

Sound crazy? Well I'm not the only one who thinks like this. In fact, Ray Dalio and Bridgewater use a similar lens to view "The Life Cycles of a Typical Empire". I was fortunate enough to meet Ray a couple of years ago and I really wanted to ask him if he got this framework from reading "Foundation" too, but unfortunately the opportunity did not arise.

Here's a summarized excerpt from "How the Economic Machine Works":

> *As explained, economic conditions affect human nature and human nature affects economic conditions. This typically happens dynamically in a sequence that leads countries to rise and fall for largely the same reasons that families rise and fall over 3 to 5 generations. I believe that countries typically evolve through five stages of the cycle:*
>
> > ***1)*** *In the first stage countries are poor and think that they are poor. In this stage they have very low incomes and most people have subsistence lifestyles, they don't waste money because they value it a lot, and they don't have any debt to*

speak of because savings are short and nobody wants to lend to them. They are undeveloped.

Some emerge from this stage and others don't, with culture and location being the biggest determinants of which emerge and which don't, as these influence people's desires and abilities to compete. For example, in China large percentages of the population are too removed to compete and are likely to remain so for the foreseeable future, so while it is reasonable to expect Chinese incomes in the major cities to approach those in other major cities elsewhere in the world, it is unreasonable to expect the average income of a Chinese person to equal that of an American, or for that matter someone in Beijing, in the foreseeable future.

Because people in this stage value earning money and building savings more than spending money, their governments generally prefer their currencies to be undervalued rather than to be overvalued, and they like to build up their savings/reserves. How fast countries evolve through this stage primarily depends on their cultures and their abilities. I call these countries early-stage emerging countries.

***2)** In the second stage countries are rich but still think they are poor. At this stage they behave pretty much the same as they did when they were in the prior stage but, because they have more money and still want to save, the amount of this saving and investment rises rapidly.*

Because they are typically the same people who experienced the more deprived conditions in the first stage, and because people who grew up with financial insecurity typically don't lose their financial cautiousness, they still a) work hard, b) have export-led economies, c) have pegged exchange rates, d) save a lot, and e) invest efficiently in their means of production, in real assets like gold and apartments, and in bonds of the reserve countries.

You can tell countries in this stage from those in the first stage because they are the ones with gleaming new cities and infrastructures next to old ones, they have high savings rates, they enjoy rapidly rising incomes, and they typically have rising foreign exchange reserves. While countries of all sizes can go through this stage, when big countries go through it they are typically emerging into great world powers. I call these countries late-stage emerging countries.

***3)** In the third stage countries are rich and think of themselves as rich. At this stage, their per capita incomes approach the highest in the world as their prior investments in infrastructure, capital goods and R&D are paying off by producing productivity gains.*

At the same time, the prevailing psychology changes from a) putting emphasis on working and saving to protect oneself from the bad times to b) easing up in order *to savor the fruits of life. This change in the prevailing psychology occurs primarily because a new generation of people who did not experience the bad times replaces those who lived through them.*

Countries that are large and in this stage almost always become world economic and military powers. They typically develop their militaries in order to project and protect their global interests.

Prior to the mid-20th century, large countries at this stage literally controlled foreign governments and created empires of them to provide the cheap labor and cheap natural resources to remain competitive. Since the mid-20th century, when the American Empire ruled by "speaking softly and carrying a big stick," American "influence" and international agreements provided access for developed countries to the emerging countries' cheap labor and investment opportunities without requiring direct control of their governments. In this stage they are on top of the world and they are enjoying it. I call these countries early stage developed countries.

***4)** In the fourth stage countries become poorer and still think of themselves as rich. This is the leveraging up phase—i.e., debts rise relative to incomes until they can't any more. The psychological shift behind this leveraging up occurs because the people who lived through the first two stages have died off or become irrelevant and those whose behavior matters most are used to living well and not worrying about the pain of not having enough money. Because the people in these countries earn and spend a lot, they become expensive, and because they are expensive they experience slower real income growth rates.*

Since they are reluctant to constrain their spending in line with their reduced income growth rates, they lower their savings rates, increase their debts and cut corners. Because their spending continues to be strong, they continue to appear rich, even though their balance sheets deteriorate. The reduced level of efficient investments in infrastructure, capital goods and R&D slow their productivity gains. Their cities and infrastructures become older and less efficient than those in the two earlier stages. Their balance of payments positions deteriorate, reflecting their reduced competitiveness.

They increasingly rely on their reputations rather than on their competitiveness to fund their deficits. They typically spend a lot of money on the military at this stage, sometimes very large amounts because of wars, in order to protect their global interests. Often, though not always, at the advanced stages of this phase, countries run "twin deficits"—i.e., both balance of payments and government deficits. In the last few years of this stage, bubbles frequently occur. By bubbles I mean rapidly increasing debt financed purchases of goods, services and investment assets.

These bubbles emerge because investors, businessmen, financial intermediaries, individuals and policy makers tend to assume that the future will be like the past so they bet heavily on the trends continuing. They mistakenly believe that investments that have gone up a lot are good rather than expensive so they borrow money to buy them, which drives up their prices more and reinforces this bubble process.

As their assets go up in value their net worths and spending/income levels rise, which increases their borrowing capacities, which supports the leveraging-up process, and so the spiral goes until the bubbles burst. Bubbles burst when the income growth and investment returns inevitably fall short of the levels required to service these debts. More often than not they are triggered by central bankers who were previously too easy (i.e., that allowed the bubble to develop by allowing debt growth to increase much faster than income growth) tightening monetary policies in an attempt to rein them in. The financial losses that result from the bubble bursting contribute to the country's economic decline. Whether due to wars or bubbles or both, what typifies this stage is an accumulation of debt that can't be paid back in non-depreciated money, which leads to the next stage. I call these countries late stage developed countries. While countries of all sizes can go through this stage, when big countries go through it they are typically approaching their decline as great empires.

5) *In the last stage of the cycle they typically go through deleveraging and relative decline, which they are slow to accept. Germany in World War I and the UK in World War II were classic examples. After bubbles burst and when deleveragings occur, private debt growth, private sector spending, asset values and net worths decline in a self-reinforcing negative cycle. To compensate, government debt growth, government deficits and central bank "printing" of money typically increase.*

In this way, their central banks and central governments cut real interest rates and increase nominal GDP growth so that it is comfortably above nominal interest rates in order to ease debt burdens. As a result of these low real interest rates, weak currencies and poor economic conditions, their debt and equity assets are poor performing and increasingly these countries have to compete with less expensive countries that are in the earlier stages of development.

Their currencies depreciate and they like it. As an extension of these economic and financial trends, countries in this stage see their power in the world decline.

These cycles have occurred for as long as history has been written. While no two cycles are identical—they vary according to the countries size, cultures and a whole host of other influences—the fundamentals of the long-term economic cycle have remained essentially the same over the ages for essentially the same reasons that the fundamentals of life cycles have remained the same over the ages—i.e., because of how man was built. While no two life cycles are the same, and today's typical life cycle is in *some ways different from that of thousands of years ago, the fundamentals remain the same.*

For example, while families lived in houses that were different ages ago, the cycle of children being raised by parents until they are independent, at which point they work and have their own children which they do until they get old, stop working and die, was essentially the same thousands of years ago. Similarly, while monetary systems were different ages ago (e.g., gold coins were once money), the cycle of building up too much debt until it can't be serviced with hard money prompting those who manufacture money to make more of it (e.g., reducing the gold content in the coins) is fundamentally the same. Because these cycles evolve slowly over long time frames—over at least 100+ years—they are imperceptible to most people.

They are also essentially irrelevant to rulers who typically have time horizons of a couple of years. As a result, they are not controlled, which is the main reason that they are destined to occur. If human nature were different so that debt growth didn't outpace income growth and income growth didn't outpace productivity growth, these cycles would be pretty much eliminated.

Which stage of the cycle would you say America is in... four? Perhaps transitioning to five? I'm not trying to be a downer and I'm definitely not one of these America haters who enjoys bashing and railing about its coming decline.

America is still the most dynamic country in the world and it will likely continue to be so for a long while. But, we most definitely have our share of pressing difficulties, many of which will become more apparent over the next two decades (of course, so too will it for much of the rest of the world).

Anyways, I think understanding economics role in how societies act/interact is a useful mental tool to have. It definitely has helped me understand these larger macro shifts in sentiment (Trump's popularity is a lot less surprising when looked at through this lens).