10/4/2020: Spiraling Towards "*There*"

Double helical and logarithmic spirals are ubiquitous in nature. They occur in the structure of our DNA, reveal themselves in the flight paths of insects, and form the basis of our Milky Way galaxy. Even our inner ears ,which house our auditory nerves that convert sinusoidal sound waves into neural impulses, take the shape of a spiral not unlike those found in a Nautilus seashell.

There's been plenty of speculation as to why this is. A recently published paper in Nature suggests that double spiral galaxies such as our Milky Way follow a "principle of least exertion" that at the same time gives them "maximal structural stability" (link here). Two variables that evolution appears to favor.

We're talking about spirals because **(1)** I have somewhat of an obsession with their geometry and prevalence in nature, and **(2)** they're a useful framework for viewing politics.
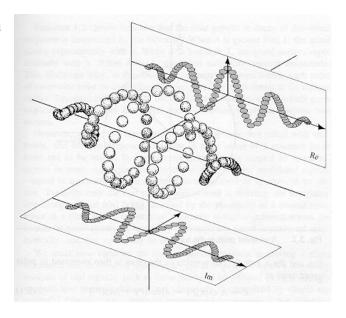
Clear as mud? That's alright, it'll make more sense in a minute.

You see, if we stretch a helical spring and then project its shadow onto the wall and floor. We get two opposing sine waves as shown on the image to the right.

So we can think of a sine wave as just a two-dimensional representation of a helix or spiral.

We've talked quite a bit about sine waves in markets and how a "market is in effect a large complex information transmission system. Where participants make bets using their particular knowledge set which then in aggregate moves the market, providing new information for the actors to incorporate into their decision-making process where they then make new bets. Creating a never ending information feedback loop." This process forms the fractalized sine waves that comprise chart patterns (example on the right).

We've also discussed how the market functions best (ie, efficiently discovers price and allocates capital) when there's a wide dispersion of opinions. Periods of extended consensus, be it too many bulls or too
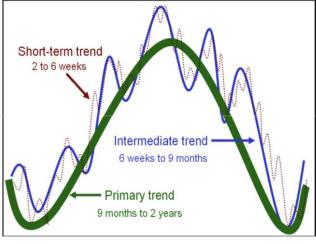

Short-term trend
2 to 6 weeks

Intermediate trend
6 weeks to 9 months

Primary trend
9 months to 2 years

Chart courtesy of Pring.com

many bears, drives wild mispricings thus raising trend fragility and eventuating a swing to the opposing extreme.

The same is true in politics. A democracy functions best when there's a wide range of educated and opposing non-static viewpoints.

Why is this?

Here's three answers:

1. **Complexity = unknown:** In a complex system, the optimal path or outcome can't be known and at best, only vaguely conceptualized.
2. **Iterative feedback loops:** Optimally navigating complex environments requires continuous iteration and course redirection via feedback.
3. **Opposing forces drive self correction:** In a crowd or hive system, opposing forces are required to maintain a kind of healthy equilibrium (ie, effectively harness the wisdom of crowds).
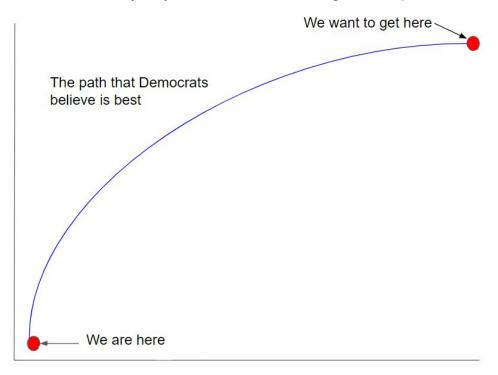
Let's hash this out.

In politics, most of us can generally agree on where we want the country to progress towards. We're here and we want to get *there. There* is maybe strong economic growth, equal access to good education and healthcare, protection of our environment, maintenance of civil liberties and rule of law etc…
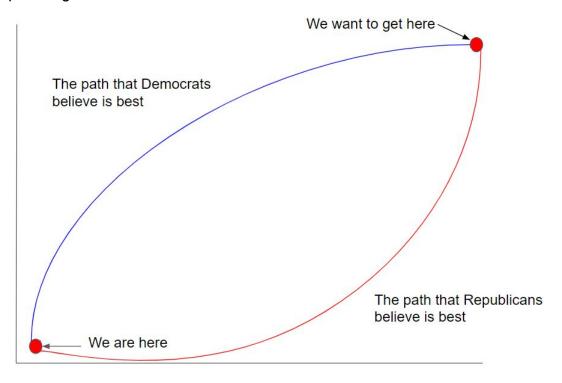
Where we differ is over the path to get there. Now *there* isn't some actual destination but rather just some general ideal, a constantly moving target, a carrot dangling from a stick in front of our socioeconomic hedonic treadmill.
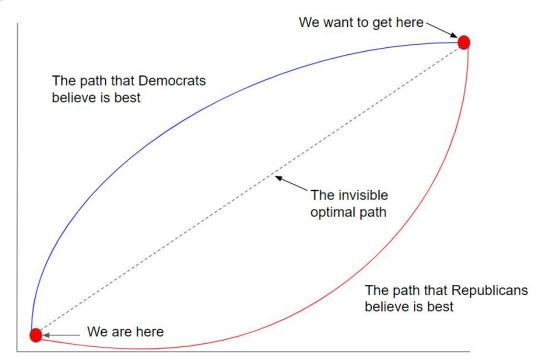
Those on the left think the only way to arrive *there* is through liberal policies.

And, of course, Republicans believe the Democrats are wrong and that you have to follow the Republican path to get to *there*.

What both parties miss is that the optimal path to get to *there* is somewhere in the middle of the two opposing philosophies. This path isn't entirely visible to us. That's because the world and politics are endlessly complex. No one person, group, ideology could possibly have a monopoly on the truth or the optimal path to *there.*

It's our diversity and our democratic system that allows for this diversity that creates a system that tends to trend towards *there* overtime. It harnesses our collective wisdom and as a result we end up with better outcomes than what's seen in alternative forms of government.

Scott Page writes about the incredible wisdom of crowds in his book "The Difference". Here's one of the many examples he presents, this one referring to the game show "Who Wants to Be a Millionaire*".*

> *On the show, a contestant must choose from among four possible answers. If the contestant is correct several times in a row, she can win one million dollars. If the contestant is stumped on a particular question, she can use "lifelines." One lifeline is to call a friend. This friend is presumably an expert, not a buddy from junior high. Another lifeline allows the contestant to poll the audience. By the way, the audience at a game show consists of few editors of the Encyclopedia Britannica or University of California at Berkeley faculty.*

> *Data from the show reveals that the friends (whom we assume were called because they were ostensibly experts) proved correct only two-thirds of the time. We can assume that the experts get the call only on hard questions. No one phones a friend to learn the number of people in the Jackson Five. To paraphrase the 1980s rock icon Meatloaf: on difficult questions, two out of three ain't bad. And yet this level of accuracy pales in comparison to the accuracy of the*
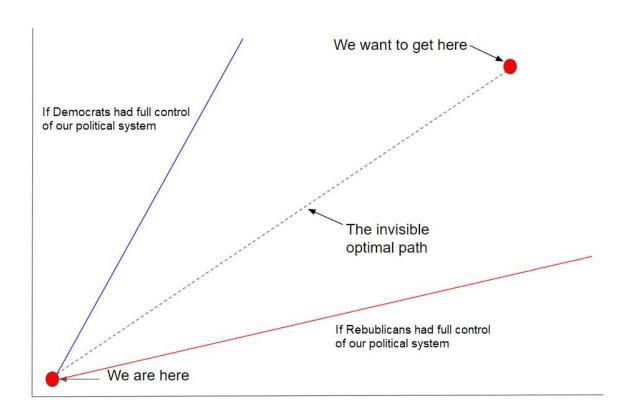
audience's prediction. **When polled, the audience predicted correctly nine times out of ten. Nine times out of ten is far better than ain't bad. It is amazing, astounding, and some might even say magical.** *Though some think that the crowd's accuracy emerges from some deep and mysterious process, we should know better. There's no mystery here.* **Mistakes cancel one another out, and correct answers, like cream, rise to the surface.**

This superior emergent intelligence is seen all throughout nature, from ants and bees collectively identifying the shortest path to food or a new hive location, to Buffalo selecting the quickest route over a mountain pass. It's a simple, beautiful, and messy process. But most importantly, it's robust and extremely effective.

Similar to the natural logic behind the creation of our spiral galaxies, this process appears to be driven by the "principle of least exertion" but yet still somehow creates "maximal structural stability". And this makes sense when viewed through the continuously iterative process of evolution.
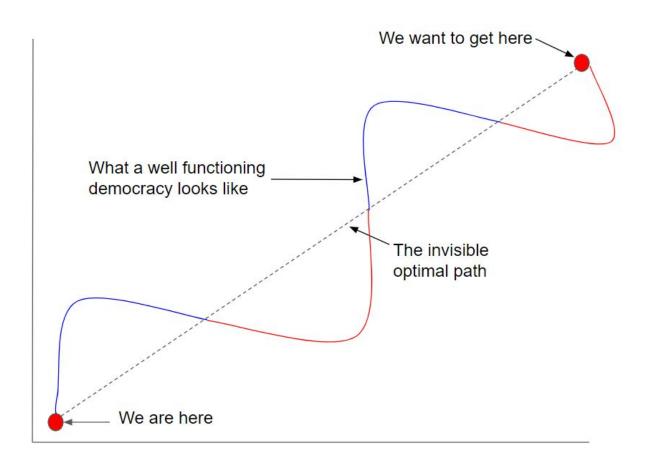
So getting back to our politics. With knowledge of the above, we can see that if only one party were to continuously have its way. We'd end up further and further from *there*. We wouldn't receive the benefit of opposing opinions. There'd be no iterative self-correction or any harnessing of our superior collective intelligence.

This is what happens in authoritarian/single party countries such as China. Over time their system inherently skews further away from optimal, increasing its fragility. This is why the CCP is destined to

eventually fail, like all other top-down rigid political systems before it. Without opposing beliefs, there's no self-correction. Without self-correction, fragility rises. And eventually the endless march of time forces a violent reversion.

Conversely, a well functioning democracy looks something like this.

A healthy political environment follows a sine-wave. A sine is an acceleration opposite to your current position. It's the iterative self-correction that's needed to create stable optimal systems. Up close, it looks random and incredibly inefficient.

But… if you've read any Nassim Taleb you know that randomness isn't something to be tempered but rather harnessed. Taleb writes:

> *This is the central illusion in life: that randomness is risky, that it is a bad thing — and that eliminating randomness is done by eliminating randomness.*

The human instinct is to try and control for complexity. To aggressively manage chaos and eliminate variability. But, like we discussed at the start. This is impossible since we don't even know exactly where it is we want to go, let alone the best path to get there.

To again turn to Taleb, he correctly points out that "In the complex world, the notion of 'cause' itself is suspect; it is either nearly impossible to detect or not really define — another reason to ignore newspapers, with their contant supply of causes for things."

One of my favorite lines ever written is:

> *In turbulence is the preservation of the world…*

That's from Kevin Kelly's dated yet terrific book "[Out of Control](#)". The following paragraph goes:

> *A forest needs the severe destruction of hurricanes to blow down the old and make space for the new. The turbulence of fire on the prairie unloosens bound materials that cannot be loosened unless ignited. A world without lightning and fire becomes rigid. An ocean has the fire of undersea thermal vents in the short run, and the fire of compressed seafloor and continental plates in the long geological run. Flash heat, volcanism, lightning, wind, and waves all renew the material world.*

A certain level of randomness or variability exposes weakness and forces self-correction. That's how evolution works its incredible magic. It's self-defeating to try and eliminate that from nature. Over-optimization of complex systems creates stasis, death. While turbulence is a requisite for stability.

That's the paradox… enduring stability arises from turbulence and fragility is created when turbulence is forcefully dampened — Hello… central bankers are you listening?!

There are a number of things we can take from this.

One, we can clearly see the pointlessness of the petty tribal politicking that's so prevalent today. Our strength comes from our differences of opinion… Conversely, our weakness comes when both sides refuse to actively listen to one another.

Second, it's an entirely new lens for viewing politics and discussions of policy. It's more of a macro position that allows you to pull back and see things from the 30,000ft view. The questions of which party will win this election then slip into irrelevancy. While the questions around the integrity of our institutions and our democratic process become significantly more important.

It's here where decades of gerrymandering and the politicalization of our judicial system become incredibly concerning. Not to mention the dangers posed by those at the extremes who want to silence free speech, punish those with "unpopular" opinions, and who view violence as an acceptable response to those they disagree with.

Third, it opens your mind to seeing old debates from new points of view. When you understand the benefit of differing opinions, you're forced to accept your own fallibility. Hopefully this allows you to disavow yourself of any single party or ideology. Because you now know that handing off your judgement to a label diminishes your critical judgement. It creates not only an unhealthy lens in which to view and interact with the world. It's also pointless and detrimental to you getting closer to truth.

If we accept our fallibility we then naturally respect those on the other side of the aisle. Knowing that a spiral is composed of two opposing forces. These forces are what drive it forward, give it its robust structure, and allow us to spiral closer to **there.**

Lastly, this heuristic (I call it the Middle Way Approach) is a useful one when analyzing any complex argument where there are at least two reasoned opposing majority viewpoints.

Knowing that collectively we're smarter than any one person or group. You can split the difference of any contentious debate involving a complex subject, say climate change for example. And surmise that the truth is likely somewhere in between.

With that, let's move onto the election…

Biden will be our next President

In the lead up to the 2016 election I wrote in these pages that the odds greatly favored a Trump W.

This went against the consensus of the time but it was an easy bet. Not only is it rare for a party to keep the presidency for three consecutive terms — it's happened only once out of seven opportunities since 1950. But there was also just the general zeitgeist which Trump was able to hone in on and exploit way more effectively than the Hillary campaign which seemed blinded by arrogance.

This is less true today. And more importantly, there's been a significant shift in the eligible voting population over the last four years. One that greatly favors the democratic party. Let's run through the numbers:

> ➢ "2020 will be the last stand of the baby boomers, electorally (those born between 1946 and 1964) and **the first poll in which voting will be dominated by generations younger than 40**, especially millennials, defined here as those born between 1981 and 1996" via *The Economist*
> ➢ Baby Boomers have dominated politics since the early 90s when they became the largest living generation. But in 2019 they lost this status and millennials have since overtaken them. According to the Pew Research Centre, **as of 2019 there were 72m millennials aged 23 to 38, 500k more than boomers**

➢ **Millennials and Gen z will comprise almost 40% of the electorate in 2020, giving them enormous power**

➢ "The shift towards the young has occurred surprisingly swiftly, not in tiny steps. In the 2010 mid-terms, boomers and older people outvoted the younger generations almost two to one. As recently as 2014 a disparity remained: boomers cast 57m votes; younger voters, 36m. **Four years later, the three younger generations outvoted the older ones. Not by coincidence, the 2018 midterms were a blue wave, in which Dems regained the House**" via *The Economist*

To win, Trump would need to capture every swing state as well as a couple decent sized blue states. That is going to be almost impossible this time around. In 16' Trump surprised the political punditry with his win because there was a large block of populist voters that pollsters entirely glossed over. That's not the case this time around.
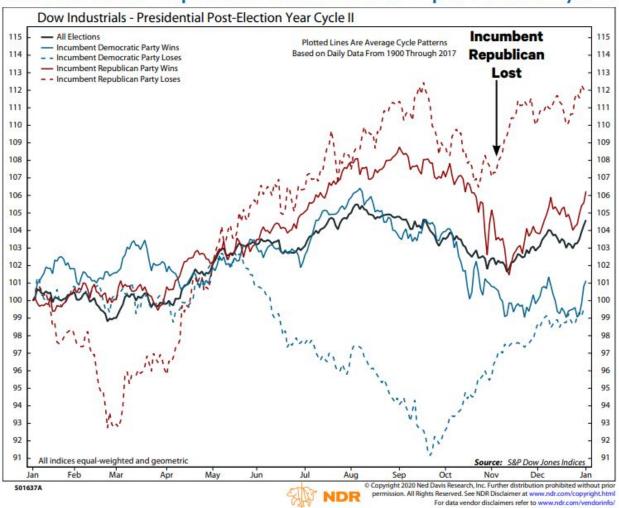
Furthermore, as of June 30th Trump sported an approval rating of just 38%. Ned Davis Research points out that "No president has been reelected with an approval rating that low at the end of June. Truman was close at 39%, but no other president has been reelected with an approval rating below 47%.

Trump's only chance at a win is if something happens to Biden's health in the coming weeks or if he horribly stumbles in one of the remaining two debates; showing debilitating cognitive impairment. And it would have to be really bad since the expectations bar is already set quite low.

Barring that, **Biden is almost certain to win and to win big in the upcoming election.**

From a market perspective, I believe the impact of a Biden win will be muted. Politics are often given far too much weighting in regards to their impact on markets — the result of people projecting their political biases. This Presidential Post-Election Cycle chart from NDR shows that as well.

Weakness after Republican losses reverse in post-election years

Dow Industrials - Presidential Post-Election Year Cycle II

Biden is a fairly centrist candidate, and similar to Trump, he and the Democrats want to spend a lot of money (run a large deficit). That's a big positive for the stock market. I'm currently working on a report that will show the math of how much we should expect the S&P 500 to rise under our current projected deficit scenario.

Stay safe and keep your head on a swivel!

Your Macro Operator,

Alex