Hello Everyone,

"The main purpose of the stock market is to make fools of as many men as possible." American Financier, Bernard Baruch.

The value of Apple stock surpassed the combined (!) value all 2000 stocks in the Russell 2000 Index this week. For better or worse, today's market is defined by a handful of stocks that have become Godzillas in the land of Lilliputians.

And, yes, I know Godzilla and Lilliputians aren't in the same story; but it's the best I could do on a Friday before a long weekend. :>)

Today's missive will look at how the mechanics (and technology) of Wall Street helped create the mega-stocks that stomp unimpeded through the indexes today.

I hope you like it. And I wish you all a wonderful Labor Day weekend!

Signed, Your If-Godzilla-Came-Back-Today-Would-He-Be-Forced-To-Wear-A-Mask? Financial Advisor,

Grea

KKOB 09.04.2020 Feedback Loops

Brandon: So, Greg, my understanding is you want to talk about grasshoppers and the stock market this morning. Right?

Greg: Right. I know it sounds odd; but I believe your listeners will quickly see the connection.

Brandon, I want you to imagine beautiful fields of corn spreading across the horizon. Now, let's suppose suddenly a swarm of grasshoppers descends on the edge of one field.

And let's say there are no natural predators to impede the grasshoppers. What do you suppose would happen?

Brandon: Well, first they would devour the field where they landed. Then, without anything to stop them, they would eat and reproduce. So, the swarm would grow. Eventually, you would have grasshoppers devouring everything in sight.

Greg: Right. This is called a positive feedback loop. The action of the first swarm leads to the breeding of more swarms. Those swarms then breed more.

Thus, it is a positive feedback loop for the grasshoppers, but a negative loop for the corn --- and the farmers.

Now, let's start over.

As the first grasshoppers descend on the corn field, a flock of birds flies over and notices the tasty grasshoppers below. The birds then fly down and start feasting. That attracts more birds, who join the party. Eventually, the birds eat all the grasshoppers. With all the grasshopper-food gone, the birds fly away, and equilibrium is restored.

In this case, the birds are an example of a negative feedback loop impeding (or stopping), the positive feedback loop of the grasshoppers.

Brandon: So, I think I see where you are going with this. You are going to say there can be positive feedback loops in the stock market--- and that momentum can feed on itself.

For example, rising prices in a stock will attract more buyers, which will lead to

higher prices. That then, will attract more buyers boosting prices even higher.

It's like the grasshoppers without the birds around.

Greg: I am getting way too predictable. Right.

So, let's look at Apple stock. Since March, the stock has gone from \$57 to \$122. And over the past five years, the stock has quintupled. Yet, sales over those five years have grown by just over 3% per year.

So, what is driving Apple's positive feedback loop?

And no, it's not corn. It is computers.

Brandon, there are computer algorithms that feed off only momentum. Fundamentals mean nothing. When certain price points are hit, they trigger automatic buying. And that buying begets more buying. And up, up, up you go. You get a self-reinforcing-positive feedback loop that can take a stock parabolic.

Brandon: So, what would be the natural predator that would spark the negative feedback? What "birds" would stop the computer buying?

Greg: Great question. It could be anything. For instance, everyone points to Apple's \$200 billion cash pile as evidence of strength. But the Federal Reserve just announced they want inflation to run. And you and I know, inflation devours cash the way a grasshopper devours corn. In an inflationary world, cash isn't an asset.

Or, it could be a disastrous sales report out of China. Or an earthquake near their headquarters in California. Who knows?

And, it kind of doesn't matter. Whatever sparks the algorithms to stop buying can also trigger a negative feedback loop that starts them selling.

Thus, Brandon, the very computers that fed Apple on the way up, can become the birds that eat Apple on the way down.

Brandon: This is little off tangent. But, aren't there feedback loops in other things, too? For example, the violence in Portland. Rioters burning buildings isn't much different than grasshoppers devouring a field. They won't stop unless stopped.

Greg: Sure. Now eventually equilibrium will be restored, since no feedback loop can have either infinite growth or regression. But how much damage occurs in the meantime is the issue.

Therefore, as your intrepid listeners head into the long weekend, they might want to ask:

- Where do I see feedback loops?
- Are they positive for me? Or negative?
- Based on that, what decisions should I make professionally, mentally, emotionally, financially, etc.

Anyway, you get the idea.

Brandon: I do. Although, I'm not sure I want to think about that over Labor Day.

I'm not even sure I want to eat corn-on-thecob now. How do people reach you?

Greg: Funny. My number is 250-3754. Or go to my website at <u>zanettifinancial.com</u>.

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