

The Cure for Inflation

By Steve Valentor

As pointed out in the paper [Looking for Evidence of Inflation in 2021](#), when the money supply was increased by 50%, rampant inflation became a certainty.

While many of our most respected leaders declared that there was a 'small risk' of inflation, that it would be 'temporary,' that it was 'worse everywhere but here,' and 'transient,' I argued in the afore mentioned paper, that inflation was inevitable. Many of these same experts have now admitted that they may have been wrong.

I for one (tongue in cheek) am relieved that our leaders have reassured us that two quarters of negative growth is no longer a recession. Further, our government has passed the Inflation Reduction Act which by all estimates will have a net effect on GDP of somewhere between minus 0.1% to plus 0.2%.

Our country's economy, to say nothing of the world economy is incredibly complicated. It is at best impossible to predict. There are many reasons for this. For example, let's examine the recent student loan forgiveness plan. Those loans were originally funded by banks willing to lend money to students with risky credit because the loans were guaranteed by the full faith and credit of the United States government.

The loan is processed and the student gets the money. They head off to a Big Ten university and spend most of the money on university tuition, a bit on an Amtrak ticket, some at the bookstore, the rest on student housing and maybe a Big Ten football jersey. Now let's follow that money a bit further.

The university pays professors, security guards, administrators, student employees, maintenance

personnel and football coaches, etc. Some of that borrowed money actually lands in the bank account of a Big Ten football coach who receives an average annual salary of \$4,797,050. The coach doesn't really need all of the money to keep food on the table, so they invest in a hedge

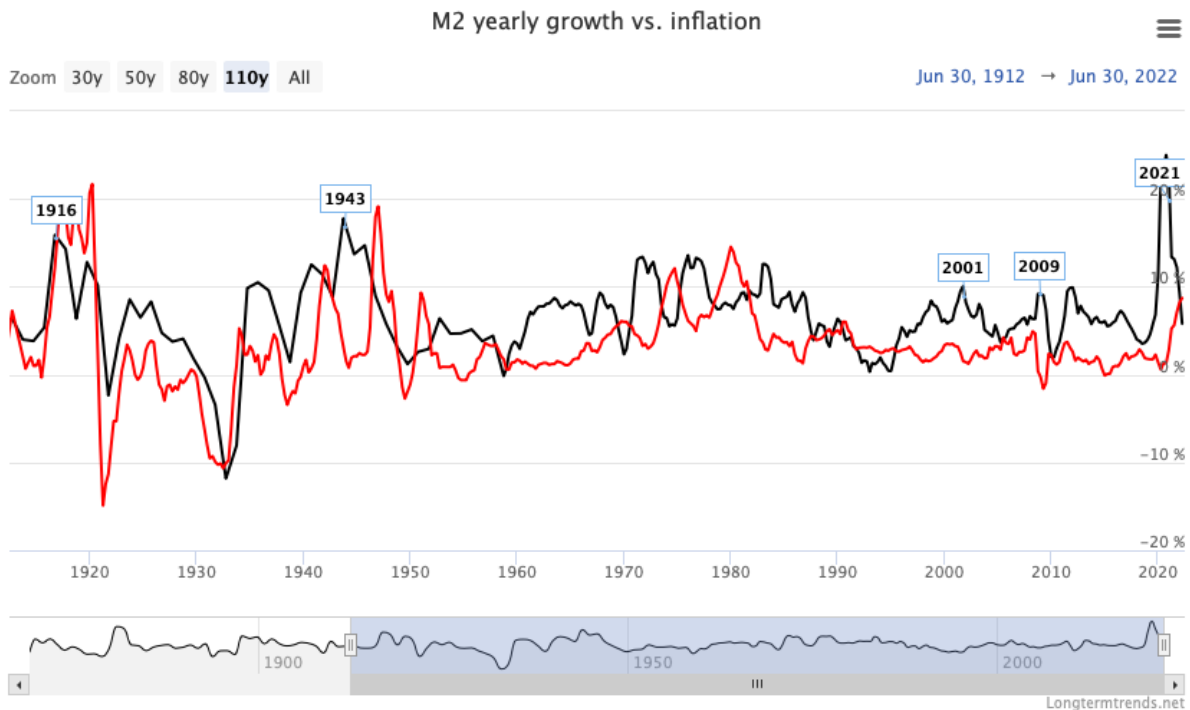


fund after making mortgage payments and buying a few Teslas for their family. Most of the coach's money will go in the bank. It can then be used for more student loans.

Meanwhile, the government has just forgiven a lot of student loans. What that really means is that the government will have to repay those loans to the banks that lent the money to the students. Sources estimate that this may cost the government between \$500 billion and \$1 trillion. Some of that is certainly going to be deficit spending – which puts more money in circulation and increases inflation!

As university faculty, I appreciate that our government is making education possible for more Americans through this program. The country benefits from a better educated population.

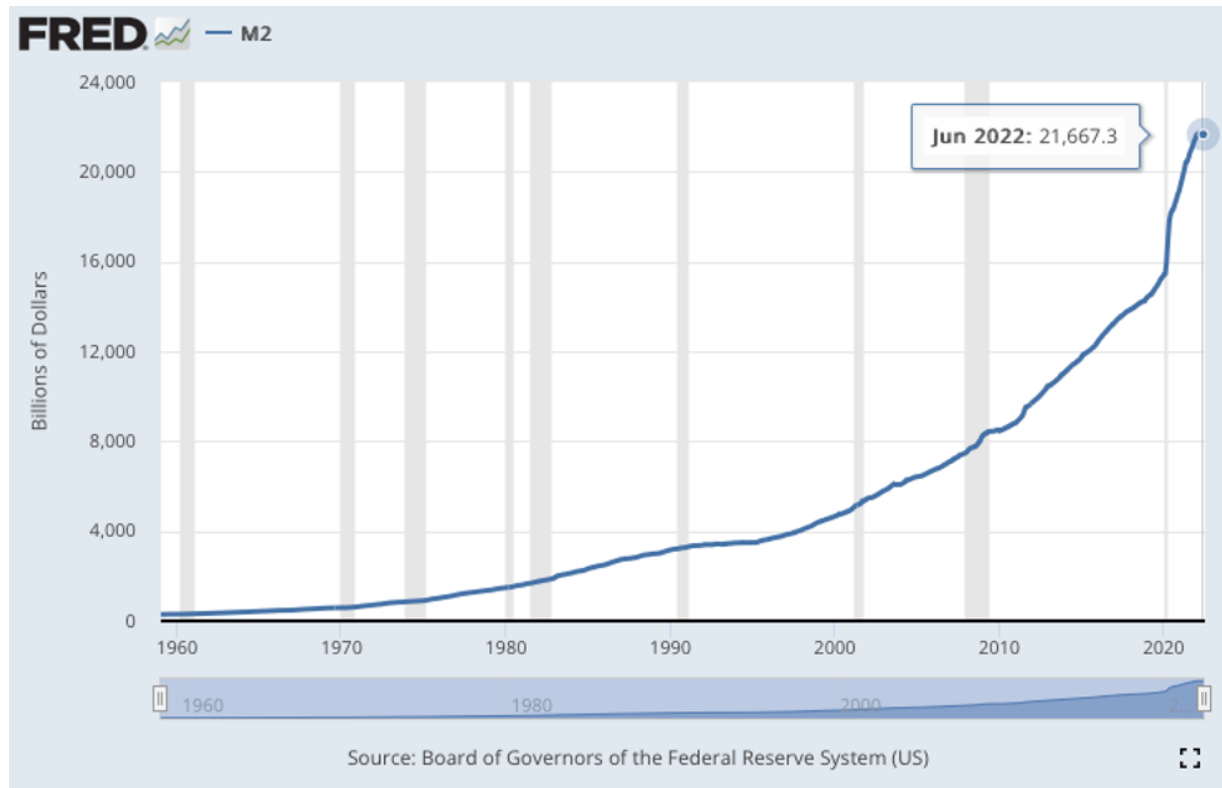
However, the correlation between the money supply and inflation is clear as this chart shows. Note that each change in the money supply (black line) is followed invariably by a spike in inflation (red line).



That brings us to the burning question “What will cure inflation?”

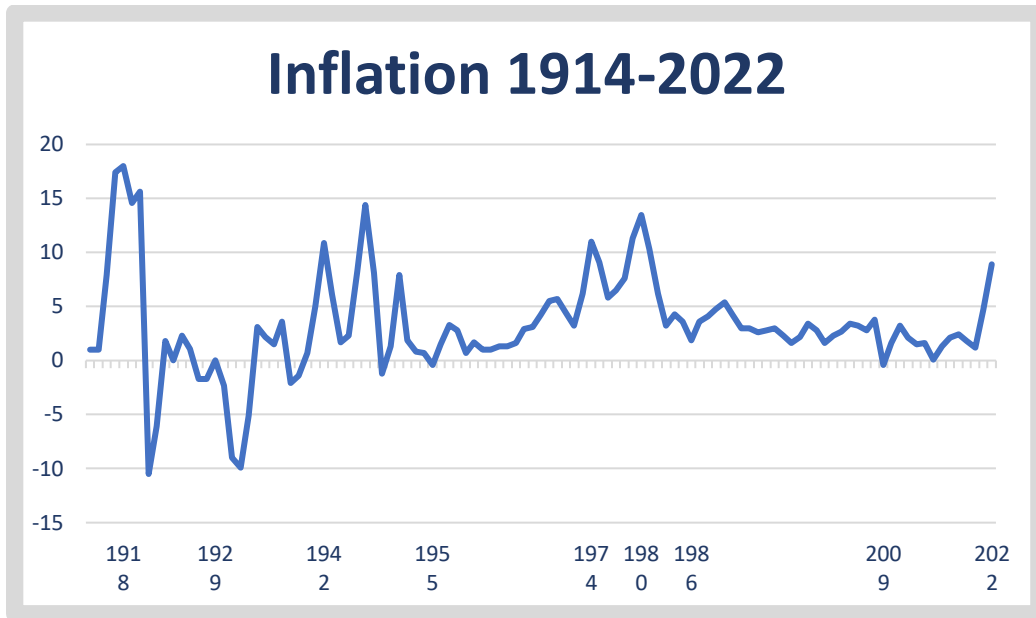
Let's look at the history of inflation. Since 1900, we have had a world war, a stock market crash, another world war, an oil embargo, a dot.com bubble, a sub-prime loan crisis, and a pandemic. Each of these have had significant effects on inflation. The chart below shows inflation and recovery. Recovery seems to always follow inflation spikes. These correspond to the spikes in the chart above. The cause and effect is clear. Increasing the money supply predicts inflation.

But does restricting monetary policy cause inflation to recede? Certainly. Most of the downward black slopes are closely associated with downward red slopes. But this doesn't tell the entire story. The following chart shows the aggregate money supply. Once money is put into circulation, it is never removed. Its flow can be slowed a bit by increasing interest rates. But once the government has sent checks to its citizens, it is unlikely that they will reverse the process and ask the citizens to write checks to the government. Politicians like to be re-elected.



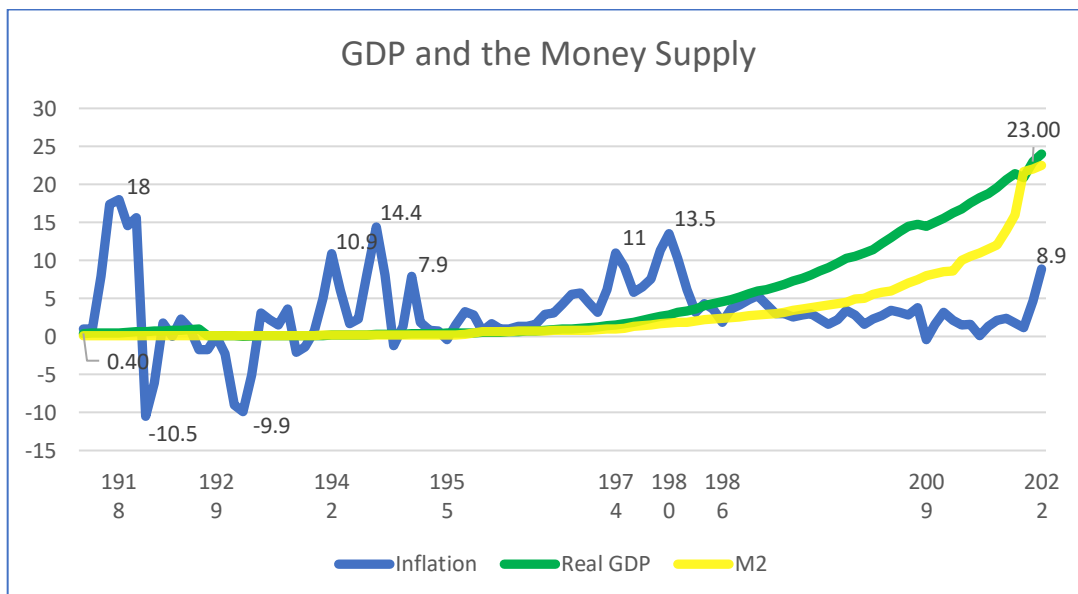
If the money supply is continually increased and never actually constrained, then how can inflation ever subside? One way is for the aggregate goods and services produced, the Gross Domestic Product (GDP) to expand to match the money supply. This is not something that the federal reserve can directly control. However, as every finance student is taught, when capital is readily available, every project with a positive net present value should be undertaken.

This chart shows the swings of inflation from 1914 through 2022. As we mentioned earlier, wars, catastrophes, and pandemics require a lot of cash relief, and the correlation is apparent. There is also an interesting correlation between inflation reduction and explosive new industries. Since 1914, we have seen significant new wealth generated in huge industries producing telephones, automobiles, radios, televisions, communication equipment, aerospace, semiconductors, mainframe computers, personal computers, cell phones, smart phones, the internet of things, and social media.



Wait a minute! How can the GDP change so quickly with the money supply? This is quite counterintuitive. Most people would expect the value of goods and services to remain the same. More money means that they can afford more of them. When they go to buy more goods and services with their found money, they are shocked to learn that prices have increased.

At the beginning of 2020, all of the goods and services traded in the country were supported by \$14 trillion in circulation. When the US government added an additional \$7 trillion for the various forms of COVID relief, the value of the goods and services shouldn't change immediately. Yet the chart below shows that as the money supply increased rapidly in 2020, it rose exactly the level to meet the GDP at approximately \$23 trillion.

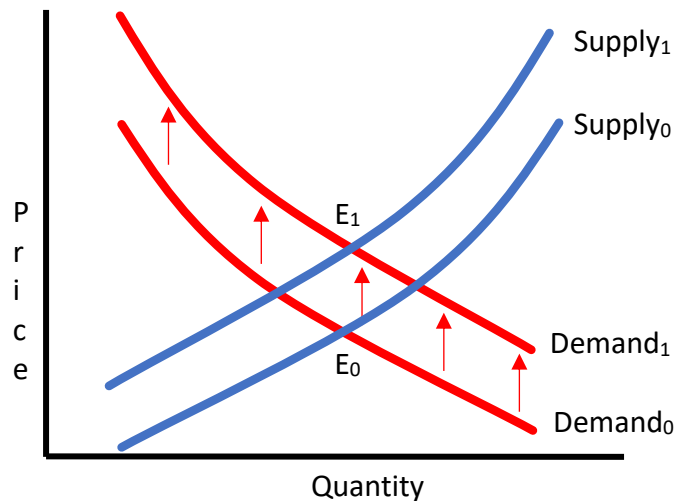


Let's go through the steps of what actually happened in 2020 that sparked inflation.

PPP loans, student loans, rent suspensions, suspended student loan payments, constraints that prevented landlords from evicting delinquent tenants, and number of other government protection programs provided more money to the citizens. Checks were mailed, due dates for payments were suspended, loans were forgiven, and rent payments were deferred or cancelled entirely. This gave people more money and made them feel better about their financial situations.

It is not a surprise that people with more money could afford to make changes in their lives. Record numbers of consumer goods were sold. Pet shelters were emptied by people working from home who could now afford companionship. Demand for bicycles emptied national inventories as production supply could not approach consumer demand. With the influx of this "found money," many people quit their jobs and sought to pursue lifelong passions. This was termed "The Great Resignation."

The natural economics that occurs when demand increases is to shift the demand curve up, as shown below.



As consumers find themselves with more disposable income, they demand more goods and services. Suppliers are unable to meet the increased demand. Coveting the limited supply, consumers are willing to pay more. This shifts the demand curve from Demand₀ to Demand₁. Consumers are willing to pay more for the same goods and services. Suppliers subsequently shift their curve up, because they can. This results in suppliers charging more for the same quantity.

This is classic inflation. The willingness of consumers to pay more causes prices to rise.

The group of consumers who are willing to pay more for goods and services also includes employees of the providers of those goods and services. As the stimuli that caused the price

increases are removed, as when COVID relief ended, the extra money in circulation is not extracted from the money supply. Prices remain inflated. Workers then demand increased wages to be able to afford the new higher prices. Providers of goods and services need to increase prices to pay the higher wages. Eventually, supply and demand reach a new equilibrium at E_1 .

There is not any real change to the goods and services that caused the prices to rise. Similarly, the employees are not delivering additional value to their employers. At least not in the short term. Many would argue that the new prices are artificially high.

Meanwhile, the Bureau of Labor Statistics updates the Consumer Price Index to reflect the new prices, wages, and economic equilibrium. The population accepts the new equilibrium but feels the pressures of inflation.

Today's headline in the Wall Street Journal clearly illustrates the problem. It is certainly true that the amount of money spent by consumers has increased by 4.9% through this summer.

THE WALL STREET JOURNAL.

ECONOMY | CENTRAL BANKING

U.S. Economy Grew at 4.9% Rate This Summer, Powered by Fast-Spending Americans

Forecasters expect cooling in the coming months as high rates and global risks weigh on the economy

By [Amara Omeokwe](#) [Follow](#)

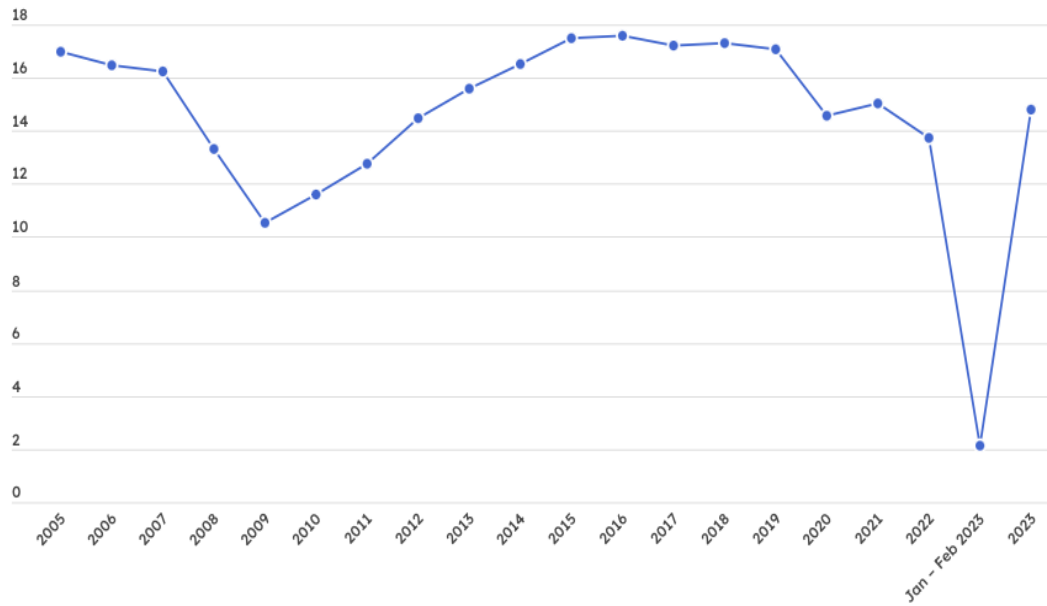
Updated Oct. 26, 2023 at 9:46 am ET

However, it is unlikely that they have done so based on their exuberance and confidence in the state of the economy. It is far more likely that the increased spending numbers are higher because of inflation.

As you can see in the chart below, the increase in spending is not likely due to increased unit sales of automobiles.

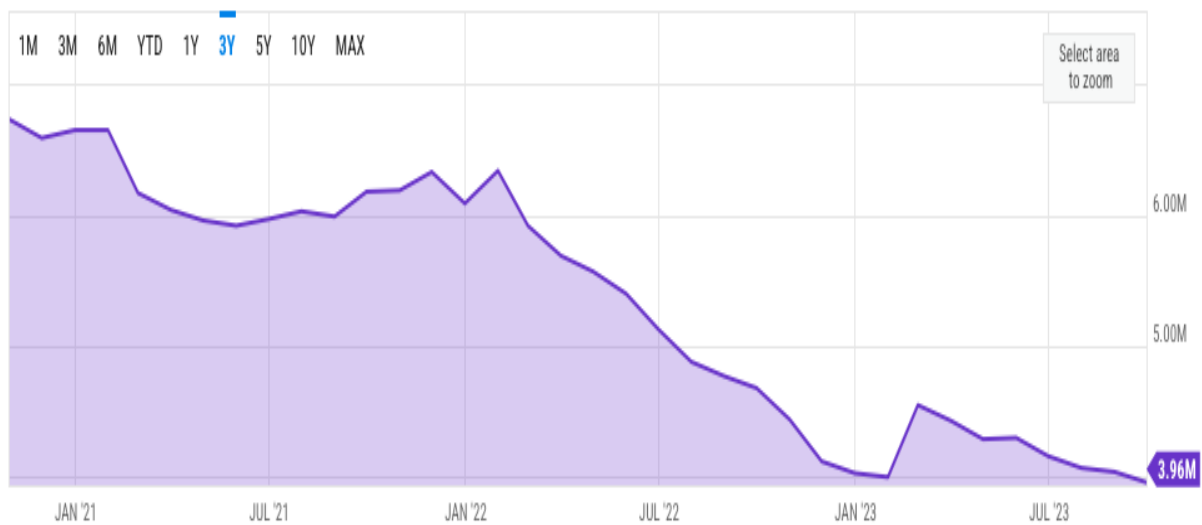
US Auto Sales Volume

(2005 - 2023)



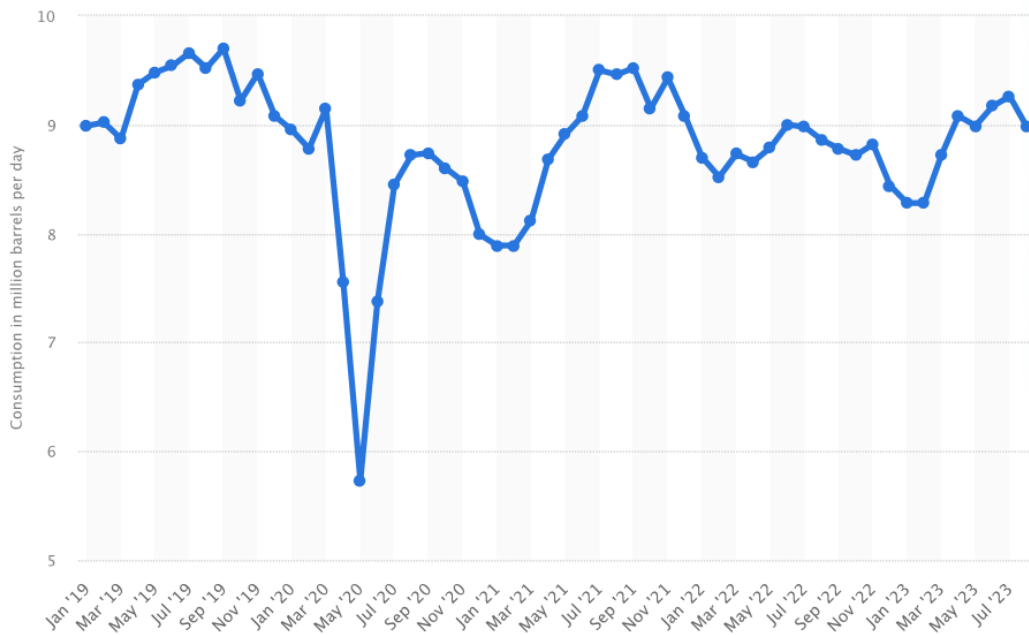
Source: S&P

Or unit sales of housing...



Source: YCharts
Mobility

Or gallons of gasoline...



Source: Statista

Conclusion

Increased spending on the part of consumers may not be due to consumer confidence in the economy. It may more likely be due to increased prices due to inflation.

Some, including this author, would argue that this new equilibrium is indeed artificial. The economy will not return to a true equilibrium until the true value of goods and services expands to meet the increased money supply.

The table below, which is an oversimplification, corresponds roughly to the major inflationary

periods in the US economy since 1900. I then attempt to describe the new goods and services that were introduced to grow the true economy and restore balance with the increased money supply.

Years	Cause of Inflation	Cause of Recovery
1914-1928	World War I	Expansion of consumer telecommunications Introduction of affordable automobiles Oil
1941-1965	World War II	Expansion of the automobile industry More oil Aviation Expansion of residential real estate

1975-1982	Elimination of the gold standard Wage freezes Oil embargo	Computers Software Semiconductors Growth of service economy
2001	Dot.com bubble 9/11 Attacks	Cellular technology The internet
2008	Financial crisis TARP	Social media Transportation Zero percent interest rates
2020	COVID-19 relief	We're working on it...

It can be argued that these recoveries were stimulated by visionary investors, entrepreneurs, and dreamers. Having been personally directly involved in most of the recovery drivers since 1980, I can say first-hand that these industries were enabled by entrepreneurs backed by visionary venture capital investments.

The venture capital industry was enabled by a number of acts of congress. These include The Securities Exchange Act, The investment Company Act, The investment Advisers Act, and The Small Business Investment Act. Further economic stimulus was enabled as these were subsequently modified in Sarbanes-Oxley, Dodd-Frank, the Tax Cuts and Jobs Act, the CHIPS Act, and to a lesser degree, the Inflation Recovery Act.

As institutional investors such as university endowments look for returns that exceed the Consumer Price Index by more than 5%, they must commit a greater percentage of their assets to alternative investments. These include private equity, hedge funds, and venture capital.

My prejudicial view of private equity is that it has become so large that it can only achieve its required results by completing enormous deals. The number of giant mergers, privatizations, and multi-billion-dollar deals is limited. To put the more than \$1 trillion to work requires a very large number of enormous deals. The competition will be incomprehensible. It would require more than 1000 billion dollar deals.

If you think about these transactions, they trade ownership of giant established companies. These transactions don't necessarily create jobs. Jobs often are eliminated as companies try to become lean to exaggerate their performance leading up to the transactions. I have seen this many, many times.

Hedge funds sometimes take long positions and invest for sustained growth. But just as often, they achieve their goals through activist investing. They often force companies to trim staff, limit R&D investment, and create larger cash reserve pools to satisfy the barbarians at the gate.

US private equity dry powder



Source: Preqin, US PE Dry Powder (PE ex Venture Capital US Based Fund Managers), Date range: 12/31/2018 to 05/15/2023

In my opinion, none of these activities resolve the inequities of inflation. As we have seen through the five major cycles in the last century, new businesses expand the goods and services in the economy and return it to a prosperous equilibrium. These expansion businesses get their life blood from venture capital investors.

This is why I predict the next golden age of venture capital is upon us.

Steve Valentor is a 30-year technology industry veteran who has worked in computer engineering, semiconductor R&D and software development for companies ranging from startups to the Fortune 200. He has held positions from entry level engineer to senior technical management, CEO, and board chair. Currently the managing partner of Polynomial Ventures and an adjunct professor at DePaul University, Valentor holds an M.B.A. in finance and a bachelor's degree in math, both from the University of Illinois at Chicago.

Polynomial Ventures invests in early stage technology companies outside of Silicon Valley and Boston. The Chicago-based firm is an emerging, registered investment adviser (RIA) offering venture capital services to institutional and accredited investors.