



January 2020

Dear Investor,

In the annals of market history, this past year may end up being discussed alongside two other infamous years ending in the number nine. In 1929, the stock market zoomed higher in a parabolic crescendo to a then unprecedented valuation, while measures of manufacturing and other economic indicators began crumbling underneath. It was a classic example of the final stages of a market mania detaching itself from a diverging economic reality. In 1999, a similar detachment took place, as the market defied all prior bounds of conventional value, leaving behind such simple concepts as real earnings, as technology stocks soared into the stratosphere. These were classic bubbles, but they only appear that way when looked at through the mists of time. In the heat of the moment, with prices rising, rising some more, and then shooting ever higher with abandon, it appeared that the traditional ways of assessing investment value had lost their relevance — a new era had dawned, and investors clamored to claim a piece of that new era before it was too late.

Markets become overvalued when there is a convincing story to draw them ever higher, but bubbles occur when such a compelling storyline is accompanied by an extra ingredient — a monetary one. The roaring 1920s witnessed dizzying technological change, which fueled investors' wild imaginations; it was the decade that saw automobiles, airplanes, radios and refrigerators spread throughout the country. And as you know, the 1990s was also a decade of rapid technological change, and it fueled a similar explosion of investors' fantasy. But what these eras also shared in common were signals and actions from the Federal Reserve that monetary policy would effectively backstop the markets. In the 1920s those signals were part of a concerted effort by the Fed to try to reestablish the pre-WWI world financial order. In the 1990s, it was the emergence of the Greenspan Put — the assumption that the Fed would ease monetary policy in response to any financial market turmoil. When dreams of limitless possibilities from new technologies meet a central bank willing to erase market risk, rational price discovery gives way to speculation, then to gambling, and then finally to pure dreaming as the bubble inflates.

In 2019, the growing disconnect between the stock market and indicators more closely tied to the economy harkened back to these prior eras, and monetary policy since the financial crisis — in the U.S. and around the world — has so thoroughly eroded price discovery that investors today seem to have forgotten what value means. This is not the first time this has happened, but as happens in all bubbles, investors are acting as if this will be the first time the dream will never end. Spoiler alert: it *will* inevitably end. It always does. At some point, when dreams alone can no longer sustain

investments destined never to deliver real returns, rational price discovery will return. In fact, it may turn out that some of the events in 2019 will be remembered as the beginning of that end.

At the end of this past year, the broad equity market in the U.S. climbed up close to the peak valuation of the tech bubble in 1999 and 2000, as measured by the total value of the market relative to gross domestic product (GDP). On a median price-to-sales basis, the market set a new record in 2019, far above the tech bubble peak. Against the last ten years' average of earnings, the market ended last year at the same valuation as was achieved at the peak in 1929. These valuations are so high that they have been observed less than 2% of the time throughout market history. It must also be mentioned that earnings did not rise in 2019 (gains were from valuation expansion), that the largest buyers of stocks over the past few years have been the companies themselves through share buybacks (funded largely by debt issuance), and that current prices have been driven by daily volume which is more than three-quarters from algorithmic trading. Such algorithmic trading, with average holding times often measured in mere milliseconds, more or less represents the final frontier in short-term thinking. It is price discovery largely without any interest, or even awareness, of factors affecting prices beyond a single trading day. And yet this is what contemporary investors have (mis)taken to be a rational assessment of long-term value.

As the stock market rose in 2019, it did so against a backdrop of market signals and emerging trends which betrayed a diverging economic reality. The most dramatic of these was the complete reversal of the Federal Reserve from its campaign to tighten monetary policy and shrink its balance sheet, one of the most revealing policy pivots in Fed history. It took just eight months for the Fed to go from a consensus assumption of three to four interest rate hikes through 2019 to cutting interest rates in August, and it took only nine months from Chairman Powell's statement that the Fed's plan to reduce its balance sheet was on autopilot to suddenly expanding its balance sheet by \$60 billion per month. We will discuss this pivot in more detail, but the failure of the Fed to significantly shrink its balance sheet, or to sustain positive real interest rates, is a profound statement on the state of the economy.

Other signs of a diverging economic reality were the sea change in global bond markets this past year, which saw the rise of trillions of dollars of negative-yielding debt, as well as the inversion of the Treasury yield curve, which has occurred prior to every recession in the post-war era. While the phenomenon of debt trading with a negative yield is still considered a theoretical absurdity by many, the amount of negative-yielding debt grew to an astounding \$17 trillion this past August. At one point, the German government's entire yield curve out to thirty years traded with a below-zero yield. As with the pivot in monetary policy, we'll discuss these trends in more detail below, but the signals emanating from global bond markets in 2019 were decidedly at odds with the stock market.

And yet another sign of a diverging economy reality was the rise in precious metals in 2019, which occurred not only in dollars, but in every major global currency. Long-term trends in precious metals are negatively correlated to long-term trends in risk assets, and the rise over the past year will likely be remembered as the moment when precious metals "woke up" to the prospect of another long-term devaluation in risk assets from current valuations. It is also likely a moment of recognition of the fact that borrowing by the U.S. government has risen to over a trillion dollars a year with the

economy growing and the unemployment rate at 3.5%, a set of circumstances reminiscent of an earlier era we will discuss below. Monetary policy and the value of the dollar have fallen prey to severe federal budgetary pressures before, and they will likely do so again in the decade ahead.

When we look at conditions throughout the markets as 2020 begins, it is clear factors surrounding debt and deleveraging continue to dominate asset markets and monetary policy. If that were not the case, the Fed would have had no trouble raising interest rates above the inflation rate over the past year, and it would not have had to abandon its long-sought balance sheet reduction so much sooner than planned. Also, there likely would not be any debt trading with a negative yield. These are long-term trends which are apparently well beyond the view of today's equity market, but for anyone with an investment time horizon beyond the immediate, understanding them will likely prove to be the difference between negative and positive returns over the coming decade.

We rarely get the chance for a “do over” in life, but as we step into 2020, the market environment is as similar to the conditions near the tech bubble peak as any of us will likely see again in our lifetimes. If you take a moment to look back at that pivotal time twenty years ago, think about what you may have done differently in the decade following, knowing what you know today. Although the economy was still growing in 2000, how much of that growth in the economy and the market proved to be an illusion? And although the swings in the stock market seemed so vigorous at the time, where did real returns actually come from during the rebalancing over the subsequent fifteen years? Our approach has not been aligned with the inflation of the current bubble; rather, it is an approach that is suited to the inevitable return of a more rational price discovery, a process which defines every post-bubble market environment.

Ours is also a rational approach in light of the pressure monetary policy will feel, or has already begun to feel, as the federal government's debt swells beyond all recognition in the decade ahead. Although Fed officials took pains to point out the Fed's statutory independence over the past year, the history of monetary policy since the Fed's inception is littered with evidence to the contrary. We highlighted one such period in our annual letter last year — the pivot of real interest rates in 1965, after President Lyndon Johnson confronted Fed Chairman McChesney Martin at his ranch in Texas. That pivot in 1965 ushered in an era of falling real interest rates and rising inflation, the effects of which were still reverberating through the financial markets twenty years later.

When we understand how the Fed has been coerced in the past, and also how monetary policy has been railroaded by the financial markets, the about-face in monetary policy over the past year is not so surprising. In an effort to shed additional light on the circumstances we find ourselves in today, we'll begin this letter with another pivotal moment from that era, the effects of which are still reverberating.

In this year's annual letter:

- ✦ From the End of Monetary Restraint to Trillion-Dollar Deficits
- ✦ Mission Creep Toward an Old Normal: MMT and “Symmetric” Monetary Policy
- ✦ A Summary of Our Market Outlook in 2020
- ✦ It's Time to Be Invested in Assets Outside the Dollar

From the End of Monetary Restraint to Trillion-Dollar Deficits

The remaining issue was how to make the announcement. The president again considered doing it in steps, but Connelly urged a one-time announcement. If they just closed the gold window, it would look as if they were forced to do it and had to take time to decide what else to do. The president liked the idea of a bold program; it reminded him of his decision to go to China. They would go to Camp David to work out the details. "Connelly suggested that at Camp David all should be encouraged to participate in the discussion, without letting on that the decisions had already been made." (Nixon Tapes, conversation 273-20, August 12, 1971, 5:30-7pm)

The capital outflow forced action in August that would have been delayed until after September 7. "We were on the brink of a market panic that willy-nilly would have forced us off gold. If we were going to take the initiative of suspending convertibility of dollars for gold and present it as the first step of a considered and constructive reform package, the decision would not wait." (Volker and Gyohten, 1992, 76). Volker notified Connelly, who talked to the president. The decision to go to Camp David that afternoon came quickly.

- A History of the Federal Reserve, by Allan Meltzer

In December of this past year, one of the titans of U.S. monetary policy, Paul Volker, passed away at the age of 93. Volker was the Chairman of the Federal Reserve from 1979 to 1987, which is the role and the period most people associate him with when they come across his name.

When he took the reins at the Fed in 1979, it was during a period of great monetary turmoil. The official rate of inflation was running above 10% annually and had been spiraling higher for a decade. When he departed the chairmanship, inflation had fallen to 4%. The years in between saw some of the most extraordinary policy actions in Fed history, most notably the decision by Volker to shift to targeting money supply growth instead of interest rates, in order to "break the back of inflation." The strategy worked, though at a significant cost: interest rates rose as high as 20%, which caused two deep recessions in the early 1980s. It also cost President Carter his job. Upon Volker's passing last year, Carter reflected that "although some of his policies as Fed chairman were politically costly, they were the right thing to do."

However, being chairman of the Fed was hardly Volker's only role in government. His career began a quarter of a century earlier, when he joined the New York branch of the Fed in 1952, as an economist. Five years later, he moved to Chase Manhattan Bank, and then five years after that he joined the U.S. Treasury Department, where he became undersecretary of monetary affairs. After another stint at Chase in the 1960s, a newly elected President Nixon appointed him Undersecretary of the Treasury for International Monetary Affairs in 1969. And it was in this role, long before he became chairman of the Fed, that he played a part in what he later called "the single most important event of his career."

As with the beginning of his tenure as Fed Chairman a decade later, Volker entered office at the Treasury Department in 1969 at a time of great monetary turmoil, though at this point monetary turmoil was not yet at the forefront of the public's consciousness. It is not very controversial to say that the late 1960s and early 1970s was a pivotal era in the history of the United States. The magnitude and speed of social changes, the divisiveness of the war in Vietnam, and the erosion of an image of government as being candid and honest — these are changes which permanently set our country on

a different path. In fact, the turmoil which arose during that time is, in many ways, still being reckoned with today. In the shadow of that social turmoil, the monetary issues Volker encountered upon entering the Treasury Department in 1969 seem pale in comparison. Yet, they proved to be the seeds of the market conditions we are faced with today, and how they were eventually resolved highlights how unsustainable fiscal and monetary trends generally tend to be resolved in our system of government. These are lessons which will likely prove valuable in the years ahead.

The underlying root cause of the monetary issues Volker encountered in 1969 was a growing, and unsustainable, imbalance caused by two conflicting policies — the Employment Act of 1946 and the Bretton Woods system of fixed exchange rates.

Shortly after World War II, with memories of the Great Depression still fresh, and also fearing a repeat of the deep recession which had followed the end of World War I, Congress passed the Employment Act of 1946. Among its many goals, the Employment Act made it the “continuing policy and responsibility” of the federal government to “coordinate and utilize all its plans, functions, and resources ... to promote maximum employment, production, and purchasing power.” This was a pivotal change in the federal government’s role, as for the first time it became the federal government’s *statutory responsibility* to keep the economy strong and unemployment low. No longer would the government be a passive bystander in American economic life — it would henceforth be the government’s legislated obligation to do everything it could to drive the economy toward its maximum operating potential. And what did that mean? Practically speaking, it meant that when the economy was in recession, it was the government’s job to bring it out of recession as quickly as possible. And when the economy wasn’t in recession, it meant it was the government’s job to use its taxing and spending power to push the economy to operate as close as possible to its maximum sustainable rate of growth, and full employment.

The goals of the Employment Act of 1946 — promoting economic growth and maximizing employment — sound laudable enough, and in fact many other western economies adopted similar policies in the years after World War II. However, by the 1960s, the accumulated costs, both intended and unintended, of making the government responsible for the economy’s performance began to run into the monetary restrictions imposed by the Bretton Woods system of fixed exchange rates, which had been negotiated in the waning days of the war.

The Bretton Woods Agreement had created an international monetary system whereby the U.S. dollar would be fixed to gold at \$35 per ounce, and every other major currency would be tied to the U.S. dollar at a fixed exchange rate. Foreign governments would exchange their currencies for U.S. dollars in order to maintain their fixed exchange rates, and they could also redeem the dollars they held for gold, if they chose to. In theory this fixed every major currency to gold, most of which — 65% of the global reserve — was then held by the U.S.

The global economy grew rapidly in the 1950s, and with that growth came an exponential increase in global trade — trade which the U.S. economy, having reached the end of the war operating on all cylinders, was uniquely positioned to fuel. Beginning with the Marshal Plan spending in Europe,

and continuing through the 1950s, the U.S. economy built up balances of dollars all over the world as U.S. agencies provided, and companies sold, goods and services abroad. These growing dollar balances around the world remained benign in the 1950s, but by 1960 they had grown large enough to exceed the value of gold the U.S. government had available to settle them, if those foreign holders chose to exchange them for gold. As that threshold was crossed, the earliest tremors were felt in the international monetary system, and a decade-long battle to maintain the \$35 gold price commenced.

By the time Paul Volker stepped into the Treasury Department almost a decade later in 1969, it was clear the battle to maintain gold at \$35 was going very badly. Back in 1961, the U.S. and seven European countries had formed the London Gold Pool, which was a collectively funded endowment of gold used for defending the \$35 gold price in the London market. By 1965, however, the pool had come under increasing pressure because it was unable to keep up with increasing gold outflows, and in 1967 France withdrew from the pact. Later that year, the British were forced to devalue the pound to stem another run on gold. Finally, in 1968 the U.S. asked the London gold market to close to stem yet another run into gold – which effectively ended the pool. After that closure, a growing divergence between the official \$35 gold price and the higher price gold traded at in private markets around the world was a clear sign the Bretton Woods system was on the brink of failure.

The primary reason for the growing difficulty in maintaining gold's \$35 price during the 1960s was not anything inherent to gold, or even anything inherent to a system of fixed exchange rates. Currencies has been tied to precious metals since they were first used in the 1600s, and the U.S. dollar had maintained a rate of \$20 per ounce through the 1800s until the 1930s. Such systems can remain stable for long periods of time if they are responsibly adhered to.

The primary reason for the monetary turmoil in the 1960s was that the system was buckling under the pressure of a rapidly expanding supply of dollars, which is summarized in the table below. After balances of dollars held abroad rose above the amount of gold the U.S. had available to settle them in 1960, the situation rapidly deteriorated from there – especially as spending related to the Vietnam war ramped up in 1965. As Volker took office in 1969, the U.S. held only enough gold to redeem 28% of those foreign-held dollars, and an increasing number of those foreigners holding those dollars were – justifiably – doubting their redeemable value.

YEAR	MONETARY GOLD	LIQUID LIABILITIES TO FOREIGNERS	GOLD COVERAGE OF FOREIGN LIABILITIES
1960	17.8	21.0	84.8%
1965	13.8	29.1	47.4%
1966	13.2	29.9	44.1%
1967	12.0	33.3	36.0%
1968	10.9	33.8	32.2%
1969	11.8	41.7	28.3%
1970	11.1	43.3	25.6%

Source: A History of the Federal Reserve, by Allan Meltzer, and Sitka Pacific Capital Management, LLC. Figures in billions of dollars.

As it has been nearly fifty years since there was a fixed exchange rate regime, it can be hard for us to imagine the frame of mind of those in positions of power at the time, but it's safe to say it was very different from how we think about such things today. We take it for granted today that currencies change price relative to one another, even on a daily basis, and in fact these days politicians and government officials often publicly comment on the *need* for their currency to change value in order to improve economic conditions. But for most economists in 1969, the idea of a "floating" currency was akin to unleashing economic chaos. The most direct memories many had of changing exchange rates was during the early 1930s, when, one by one, major economic powers broke from the existing gold standard. The years that followed were consumed by the Great Depression, rising nationalism and ... World War II. The future Chairman of the Fed, Arthur Burns, reflected these views when he wrote to the newly elected President Nixon in March of 1969: "Let us not develop any romantic ideas about a fluctuating exchange rate: there is too much history that tells us that a fluctuating exchange rate, besides causing a severe shrinkage of trade, is also apt to give rise to international political turmoil."

Paul Volker had been steadfastly in favor of fixed exchange rates since his first stint of government service in the 1950s, but he was also a pragmatist. In his view, the situation in 1969 was clearly unsustainable — the number of dollars floating around the world had been increasing exponentially, and the U.S. was quickly running out of gold to redeem them. In response, on March 17th of that year, he proposed an initial strategy in a report entitled *Summary of a Possible U.S. Approach to Improving International Monetary Arrangements*. In the report, he called for a 2-year period in which the U.S. would attempt to negotiate with other major trading partners a more flexible exchange system, to include moving parities between currencies and wider exchange bands (among other goals). In addition, although it ruled out a change in the \$35 gold price, the report also made clear that the U.S. would most likely need to act unilaterally to end gold/dollar convertibility if the negotiations failed.

Volker was not optimistic about the likelihood of a negotiated revamp of the Bretton Woods system of fixed exchange rates in a way that would ease the pressure on U.S. gold reserves, but he apparently liked the idea of ending convertibility and completely severing the dollar's tether to gold even less. His proposal reflected these views, and the Nixon administration more or less adopted it.

As the discussion about altering the Bretton Woods system began, the economic landscape began to shift. The battle to defend the \$35 gold price throughout the 1960s had occurred in an exceptionally benign era of economic growth. The U.S. economy had endured a mild recession from April 1960 to February 1961, but from that moment on the economy grew without interruption. However, in 1969 that tide of growth began to ebb, and in December the U.S. economy began to contract for the first time in nine years. The primary spark initiating the downturn was monetary.

In May of 1969, a senior vice-president of the New York branch of the Fed, Charles Coombs, who was in charge of foreign exchange operations, told the Federal Reserve Board that "the present situation was the most dangerous of any that had yet been encountered." He, along with others, feared a coming wave of devaluations in order to stem the flood of dollars. And within a few short months of his warning, that wave hit the shore. On August 10, 1969, France announced, without warning,

that it was devaluing the franc by 4.25% against the dollar. Then, on October 24, the West German government announced it was devaluing the mark by 9.3%. And then not long afterwards, on May 31 of 1970, the Canadian government announced it would henceforth let the Canadian dollar *float* against the U.S. dollar — the first country to do so. Each of these devaluations decreased demand for U.S. goods and services, which sent the U.S. economy into a year-long recession.

The devaluations in 1969 and 1970 were outward signs of a monetary system under severe stress, but they were by no means the only signs. Behind the scenes, the U.S. gold reserve fell to a new low in 1971, as foreign governments continued to redeem dollars for gold. The outflows from the dollar increased as the federal deficit doubled in 1970, and then almost doubled again in 1971, largely from policies intended to fight the recession, as the Employment Act of 1946 stipulated. As this all unfolded, officials at the Fed and the Nixon administration began, for the first time, to openly consider the implications if the dollar's exchange value were allowed to fluctuate far more than ever before. While some considered the prospect of a fluctuating dollar to be a looming crisis, Volker considered it to be an opportunity to push through reforms he had been trying (unsuccessfully) to negotiate over the prior two years.

As it happened, events took over. In May of 1971, the West German central bank, the Bundesbank, stopped purchasing dollars. This effectively ended its enforcement of the fixed exchange rate between the mark and the dollar. By June, the mark had appreciated 4%, and it continued appreciating in the months afterwards (the dollar would go on to lose more than 50% of its value against the mark by 1980). Following Germany, the Netherlands also decided to allow its currency to float, while Switzerland and Austria devalued their currencies to new fixed rates against the dollar. All these actions were taken in order to stem the flow of U.S. dollars, and it was clear to Volker and a growing number in the Nixon Administration that the world had already lost confidence in the dollar's value.

Between June and early August, thinking within the Administration evolved rapidly. Initial discussions in June regarding by how much exchange rates with the dollar should be revalued quickly changed to how soon the U.S. should end gold convertibility and permit the dollar float. Paul Volker's boss, Secretary of the Treasury John Connally, continued to argue through the month of June for a system of increased exchange rate flexibility, but one that was still firmly tied to the U.S. dollar and to gold, so that confidence in the dollar and the international monetary system would remain sound. Without such firm ties, he argued, "forces of economic nationalism and isolation in one country after the other — including the United States — could become unmanageable." Even as late as 1971, several years into the Great Inflation, fears of the 1930s were still hovering over policy.

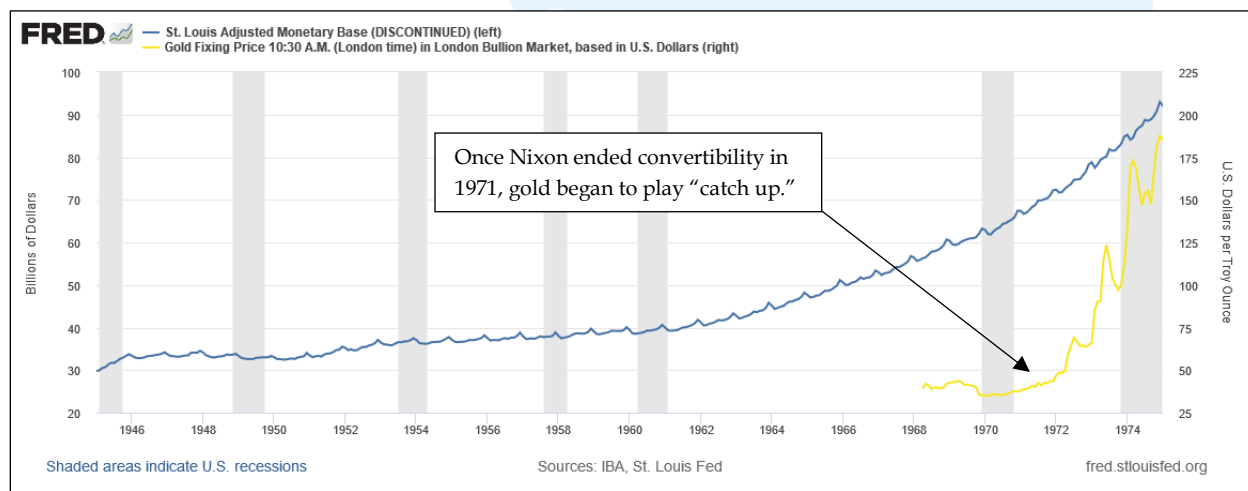
Volker, however, seemed to see the writing on the wall sooner than his boss. He created a plan for the suspension of gold payments, and proposed letting the dollar float against other currencies until new equilibrium exchange rates were established. This was a radical step — the U.S. had never in its history had a floating currency. It was so radical, in fact, that when Secretary Connally presented the plan to President Nixon on July 27, Nixon was hesitant; Nixon later remembered that "even I was not ready for the actions he proposed."

In the end Nixon agreed to the plan, but he decided that implementation should wait until after Congress returned September 7th. After all, although the President had the authority to suspend gold sales, it was Congress' authority to set the price of gold — and he felt both branches should be part of the discussion. However, fund flows out of the dollar accelerated rapidly in early August, and on August 12th it was clear to Volker and others that implementation could no longer wait. So, the decision was made to craft the announcement of the *New Economic Policy* that weekend at Camp David, and to make the announcement before the opening of the financial markets the following Monday.

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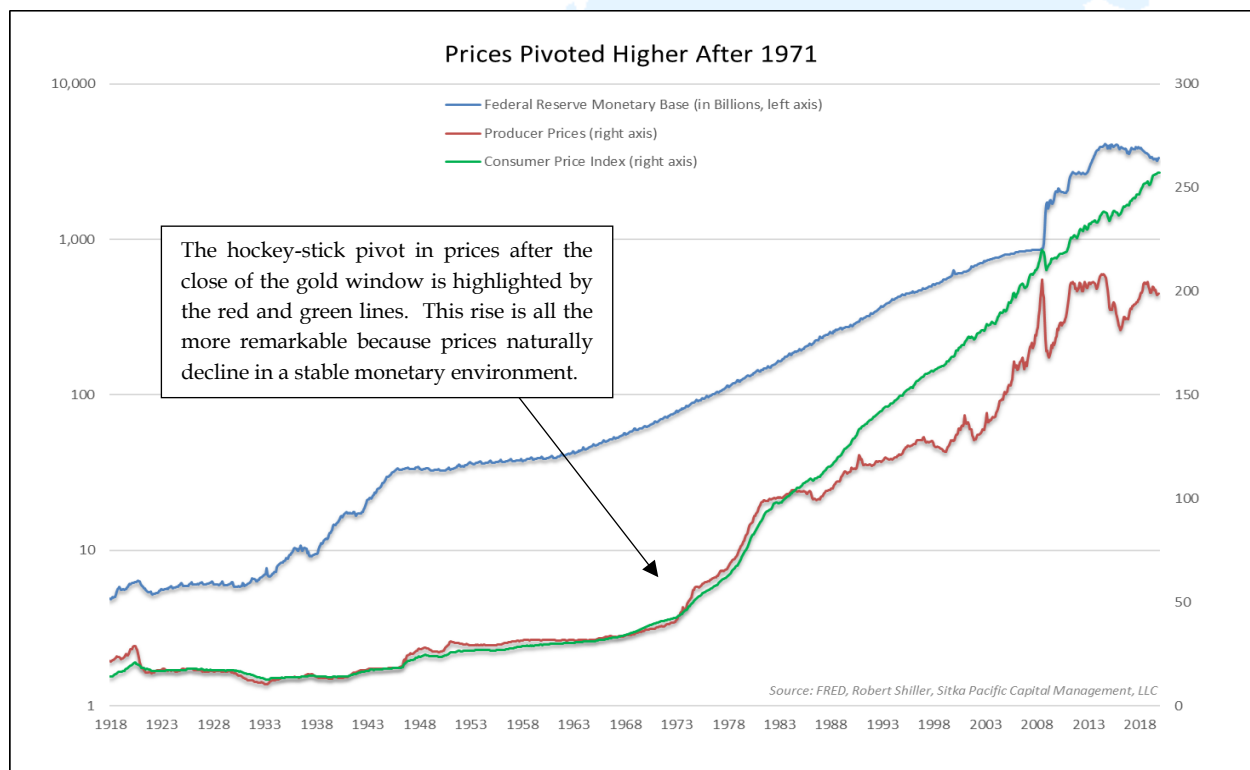
When President Nixon announced the closure of the gold window in a televised address to the nation on Sunday, August 15, 1971, it was not an active, preemptive move to implement a *New Economic Policy* for the nation, as it was presented — it was an emergency announcement made because a run on the dollar had already begun. In his speech, Nixon emphasized the role *speculators* and *international money traders* had played in his decision, who had apparently been *waging an all-out war on the U.S. dollar*. And he also emphasized it was an action taken in order to *stabilize the dollar*. “I am determined that the American dollar must never again be a hostage in the hands of international speculators,” Nixon resolutely stated.

In truth, the announcement was a hurried reaction to a crisis already unfolding in the financial markets, a crisis which had nothing to do with speculators. The run was not a “war on the U.S. dollar,” it was the beginning of an inevitable rebalancing after a decade of expanding budget deficits by the federal government, driven by the war in Vietnam, the Great Society programs, and the policies intended to combat the recession of 1970, as well as the increasingly expansionary monetary policies by the Federal Reserve that had enabled those policies. These policies, all of which eroded the value of the dollar, were incompatible with maintaining a fixed price of gold. The “speculators” in the markets, who were for the most part foreign governments, merely acted as the catalysts which finally forced the issue after a prelude lasting many years.



When President Roosevelt made his historic decision to devalue the dollar from \$20 per ounce of gold to \$35 in 1933, the Federal Reserve's monetary base was around \$14 billion. By the end of World War II, after the Fed had helped facilitate the largest increase in public debt in the nation's history up to that point, the Fed's monetary base had grown to \$37 billion. As you can see in the chart above, the period following WWII was remarkable for its monetary stability — by 1960, the Fed's monetary base had only risen 10% during the preceding fifteen years. But as you can also see in the chart above, that stability steadily eroded after 1960. By the time Nixon made his speech in 1971, the Fed's monetary base had expanded to \$70 billion, five times the base money supply in existence when Roosevelt established the \$35 gold price in 1933. In the years following, the freed price of gold quickly began to play “catch up” with decades of money printing.

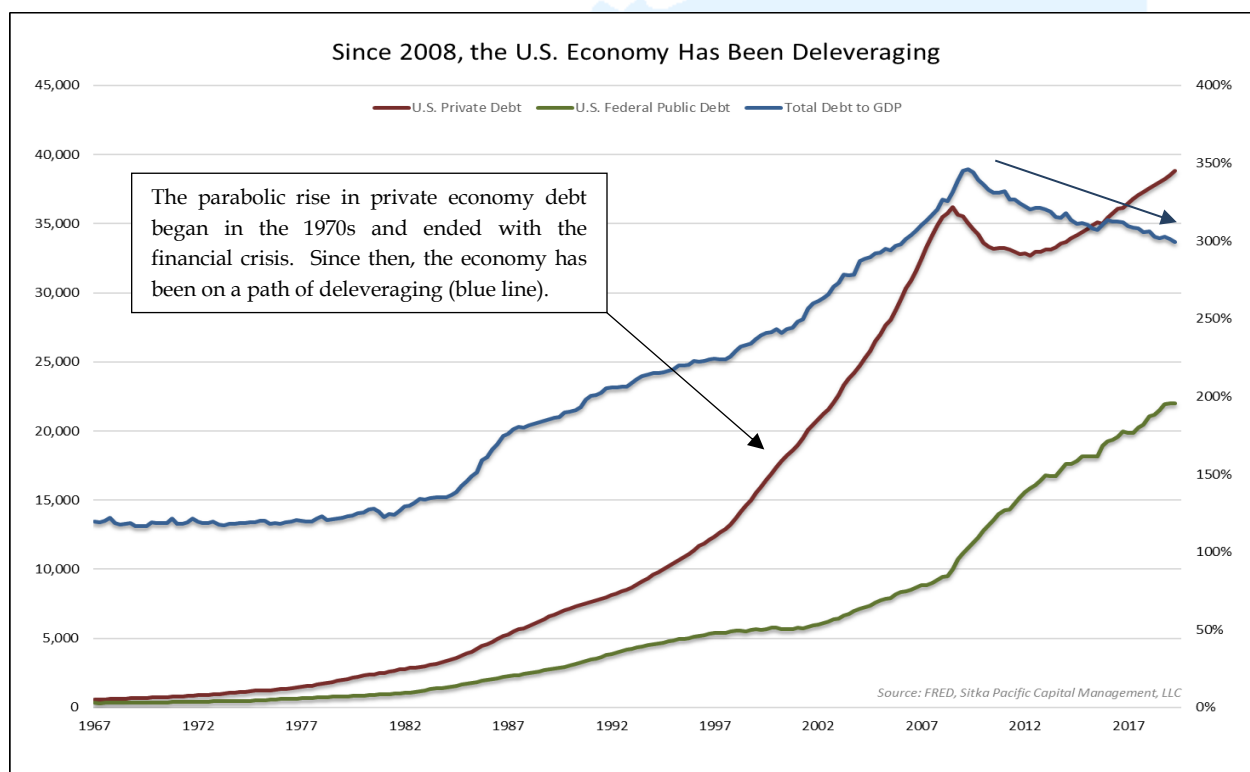
From a broader perspective, however, the closure of the gold window symbolized something far more significant than the end result of a decade of deficits and monetary expansion — it represented the conquest of the Employment Act of 1946 over the restrictions of the Bretton Woods Agreement. In other words, it represented a decision to prioritize “supporting the economy” over maintaining the value of the dollar by abiding by limits imposed by international currency agreements. Once the gold window was closed and the dollar began floating freely, much of the pressure to maintain monetary and fiscal discipline was banished “outside the window,” so to speak. No longer would the government face pressure from gold flows or the currency markets for straying from a conservative fiscal policy. Instead, from 1971 onward, the government would only face significant pressure from voters, whose priorities were much more aligned with the Employment Act's goals. As a result of that shift in political pressure, the dollar's value has steady and dramatically eroded since then, and as a consequence, prices pivoted higher in 1971 and haven't looked back.



Most people would be surprised to learn that during the entire 19th century, when the U.S. was firmly on a gold standard, prices did not rise at all. In fact, prices *fell* at a 0.7% compounded rate between 1800 and 1900. A 0.7% average annual decline may not sound significant, but compounded over the course of a century it meant that a dollar in 1900 bought twice as much as it did in 1800.

The 20th century has been a different story. Early on, the Federal Reserve System was created, and shortly thereafter it was conscripted to support bond sales during World War I. The 1930s and 1940s witnessed the first official devaluation of the dollar and the takeover of the Fed by the Treasury to, again, support the war effort. All of these events took their toll on the value of the dollar and resulted in prices, as measured by the Consumer Price Index, rising at a 2.2% rate between 1900 and 1950. Since 1971, however, when the U.S. left the last vestiges of monetary restraint behind, it has been an entirely different story altogether. Since then, prices, as measured by the Consumer Price Index, have risen at a 3.9% compounded annual rate — which has led to an 84% decline in the dollar's purchasing value in less than 50 years. At no other time has the dollar lost so much value.

It's hard to understate the impact of the 1971 pivot — the effects continue to ripple through the economy and the markets to this day. As the nation gradually came to understand that prices were trending higher, not on a temporary basis, but on an entirely new trajectory, attitudes began to shift on everything from daily life issues such as whether to buy an appliance or whether to expect a raise at work, to long-term planning decisions such as whether to buy a home and what to do with savings. It also radically changed attitudes toward debt. As people came to understand the inevitability of the loss of value in the dollar over time, deciding whether to borrow today and repay later with devalued dollars became almost a no-brainer — and debt levels began to rise.

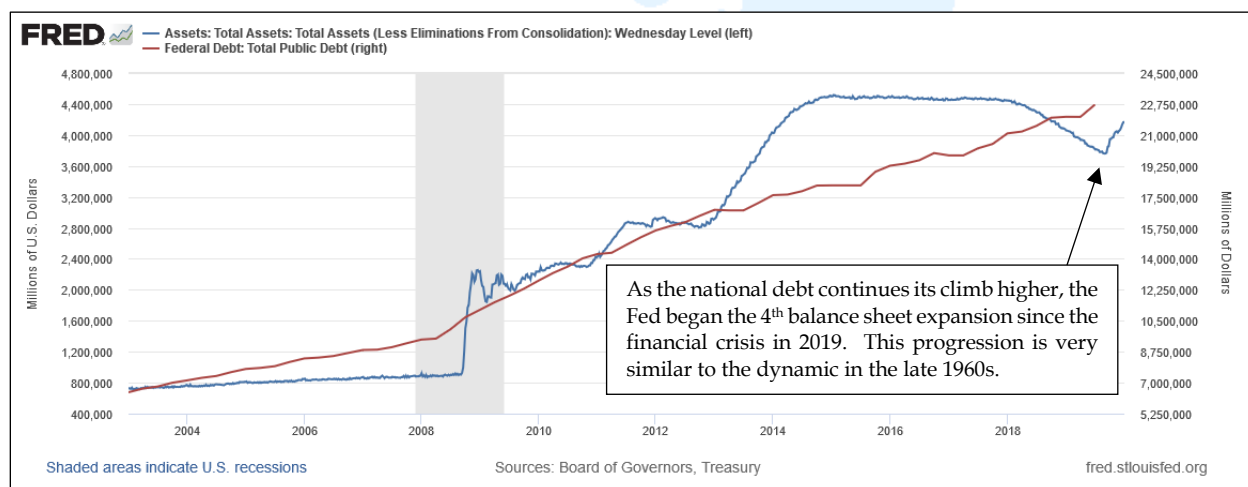


In some ways, the financial crisis in 2008 represented the end result of the sentiment changes sparked by the 1971 pivot, having been carried to the point of exhaustion. When Nixon closed the gold window, private economy debt — including household and corporate debt — was 70% of GDP. That level immediately began to rise, and by the time of the financial crisis, it had reached a peak of 247% of GDP — over 3.5 times the amount of private debt relative to the size of the economy as in 1971.

In the decade since the financial crisis, the deleveraging in the private economy has reduced private economy debt from 247% of GDP to 182%, but underneath that number there is a split story. The nominal amount of household debt just recently rose above its 2008 peak of \$14.45 billion; the latest data for 2019 had household debt at \$15.83 billion. Yet \$15.83 billion represented 74% of GDP last year, while \$14.45 billion represented 98% of GDP in 2009. So, there has been a significant reduction in household debt relative to the size of the economy over the past decade; in fact, there has not been another deleveraging close to this scale in the post-war era. However, it's possible this trend has further to go — household debt was only 42% of GDP, and in 1950 it was only at 24% of GDP.

For corporations, it has been a different story since the financial crisis. The nominal amount of non-financial corporate debt has almost doubled over the past decade, from \$3.6 trillion in 2009, to \$6.6 trillion in 2019. The high-water mark for non-financial corporate debt relative to GDP was reached just recently in 2018, at 31.3%, which was the highest in the entire post-war period. As of Q3 of 2019, it sits slightly lower at 30.6% of GDP. In contrast to households, which have been deleveraging since 2009, corporations have piled on the debt over the past decade.

It's clear from these trends that the financial crisis represented a watershed moment for households, bookending a four-decade binge on debt that began with the closing of the gold window. For corporate America, however, the debt binge continues. And for the federal government, the financial crisis was not the end of an era of increasing indebtedness — it marked a new beginning.

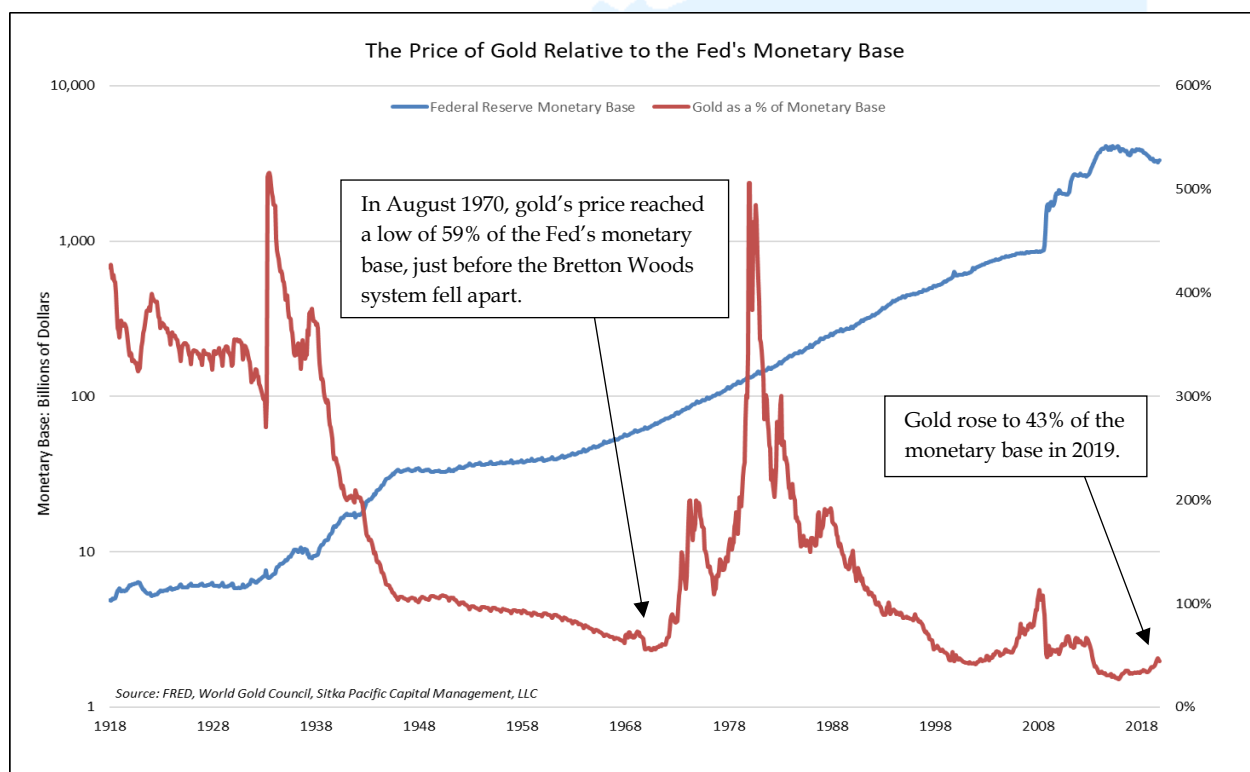


As we have discussed in prior letters, the federal government has been “filling in the hole” left by private economy deleveraging since the financial crisis. As the private economy has been reducing debt, which acts as a tremendous drag on economic growth, the government has been increasing its

debt in order to keep the economy from shrinking, as it otherwise would. It began with large deficits during the Great Recession, but as you can see by the red line in the chart above, the growth in the national debt has continued unabated since then, driven largely by the subdued nature of the economic recovery (due primarily to household deleveraging), to demographics, and more recently to tax cuts. As of the third quarter of 2019, the federal government's debt stood at \$22.719 trillion, which was up by \$1.202 trillion from the same period the year before.

Aside from a fleeting outcry in the wake of the tech bust, and a few Tea Parties just after the Great Recession, there has been a remarkable level of acceptance of trillion-dollar deficits in recent years. It's as if the nation has now accepted trillion-dollar deficits as part of the landscape. Or, perhaps there is an underlying fear of what would happen to the economy if the government *wasn't* borrowing that much every year. In the late 1960s and the 1970s, there was tremendous fear in the Johnson and Nixon administrations concerning the political consequences of a slowdown in growth or a rise in unemployment, and these fears manifested year after year in policies that kept the dollar on a downward trajectory. This was one of the unintended consequences of the Employment Act of 1946.

The goals of the Employment Act are inherently more short-sighted than the benefits of maintaining a stable currency over time. When unemployment rises, or financial markets encounter turbulence, the acute political pressure to "do something" is a powerful force. In contrast, the fact that a gallon of gasoline costs three times what it did twenty years ago, and ten times what it was fifty years ago, is a slow, simmering trend that never seems to reach a boil. With a few notable exceptions, such as Paul Volker's actions as Fed Chairman nearly a decade after his involvement with the closing of the gold window, this short-sightedness has won out nearly every time since the 1960s.



Just as in the late 1960s, the short-termism today is focused on holding everything together while fiscal and monetary trends are clearly traveling down a path toward a significant devaluation. Unlike the 1960s, however, today there is no Bretton Woods system that must break down in order for the rebalancing between monetary assets to begin — it can begin at any time.

Mission Creep Toward an Old Normal: MMT and “Symmetric” Monetary Policy

After 14 conferences, a couple dozen research papers and presentations and some very dense math, the Federal Reserve’s hunt for a better way to reach its inflation target may boil down to a single word: symmetric. The word, meant to convey a tolerance for inflation periodically running a bit hot without the Fed rushing to quash it, is emerging as the touchstone of a concerted push to change how an elusive price goal is understood by the public.

- Reuters, December 2019

As we observed the financial markets and the Federal Reserve throughout 2019, we found ourselves hearing echoes of earlier eras again and again — eras which have largely been forgotten, except for those who take the time to learn about them. It seems once forty or fifty years pass, the voices of those who lived through those earlier eras fade, and many of the lessons they carried with them begin to be forgotten.

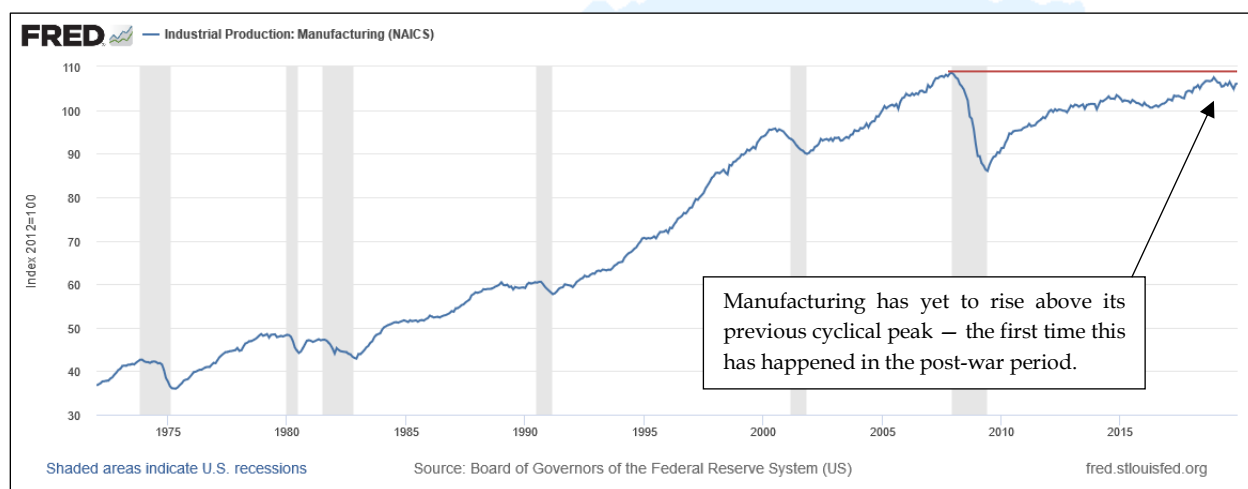
One point we hope to convey with journeys we take back to some of these earlier eras is a sense of how historical events progressed in real time, and how, to a significant degree, officials at the Fed and other federal institutions have largely been *reactionary* throughout their history. In other words, many of the significant monetary decisions that have shaped our market history were reactions and improvisations to events as they unfolded. This was especially true of the lead-up to the closure of the gold window in 1971. It was a situation where a number of conflicting forces converged to push monetary policy off a cliff, and all that those at the Fed and Treasury did along the way was try to make the best decisions they could under rapidly deteriorating circumstances. In the end, the existing monetary system fell apart, and the rest is inflationary history.

The echoes we hear from that era surround the nature of the federal government’s fiscal situation today, and also surround how the Federal Reserve appears to be hostage to that fiscal situation in a very similar way. In the late 1960s and early 1970s, the Fed found itself in a tighter and tighter policy corner, as the federal government’s budget deteriorated, and the economy suffered the effects of rising inflation and interest rates. As the Fed sought to keep monetary policy on a path consistent with its mandate, it eventually found itself enabling policies which resulted in the most precipitous decline in the value of the dollar in our nation’s history. It lost the war by narrowly focusing on winning each battle. The sudden turnaround in monetary policy this past year is evidence the Fed is now in another tight corner.

In addition, today we are beginning to see what we might call an intellectual *rationalization* of fiscal trends which are running seemingly out of control. By the 1970s, one of the shifts that had occurred

was a movement to actively use the federal government's rapidly expanding deficit to target specific levels of economic growth and employment. It was thought there was an efficient frontier in the relationship between growth, inflation and employment, and if the economy could be pushed to operate on that efficient frontier, the goals of the Employment Act would be achieved. To make a long, painful story short, it turned out there were several fatal flaws in that approach, and also a long list of unintended consequences. To learn in detail how it all unfolded is to learn how even the best and the brightest can be led astray by complex models and erroneous assumptions, and corrupted by politics along the way.

Over the past year, we began to hear discussions which harkened back to that earlier era, this time cloaked in the guise of *Modern Monetary Theory*. The main premise behind the sudden interest in MMT, as it is known, is that since monetary policy seems to have lost its potency, the federal government should begin using its expanding deficit to more actively stimulate growth in ways that benefit the broader economy more than monetary policy has been able to do. Although keeping short-term interest rates near zero and purchasing more than \$3.5 trillion of financial assets since the credit crisis clearly benefited financial asset prices, the trickle-down effects were more muted in the real economy, as evidenced by the chart below showing industrial production. Many of those who have begun arguing for MMT-inspired policies say it's time to stimulate the economy through more direct channels, rather than through the financial markets, so the real economy feels a greater share of the growth.



These discussions took on a serious tone over the past year, just as the first signs of recession emerged on the horizon. Since the Fed Funds rate is already below 2%, and long-term interest rates are low as well, it's clear the Fed will not be able to stimulate the economy by lowering interest rates as much as it has during recessions of the past. And although the Fed is capable of lowering effective interest rates further by quantitative easing, advocates of MMT feel that we've been down that road before — and the outcome has been less than ideal for the real economy.

Ironically, some central bankers themselves have been advocating precisely what MMT suggests, though it has been a hot button issue in the central banking community. The recently departed head

of the European Central Bank, Mario Draghi, has been quite direct in his public comments that governments will need to shoulder more of the stimulative burden during the next downturn. Of course, in Europe, interest rates are already below what seemed like a hard floor just a few years ago. One of the ECB's main policy rates was lowered to -0.5% in 2019, and it has been below zero since 2015. In addition, yields on many government bonds and even mortgage bonds throughout Europe dropped below zero over the past year; the yield on the German government 10-year bond ended 2019 at -0.18%. The dramatic rise in negative-yielding debt over the past year — peaking at \$17 trillion in August — suggests the market has begun to price in even lower yields in the future, for a longer period of time. Since Euro-area inflation remains positive near 1%, all of these represent negative real yields for investors.

Most central bankers dismiss the key ideas espoused by MMT as an abomination, saying that once you cross the line of directly financing government spending via money printing, bad things tend to happen. While this is certainly true, those same central bankers promote the idea of quantitative easing as an essential tool in their toolkit — i.e. buying government bonds with newly printed money, which in turn finances government spending. The main difference between the two is simply that the Fed remains in the loop of control with QE, but is removed from that loop when government spending is directly financed.

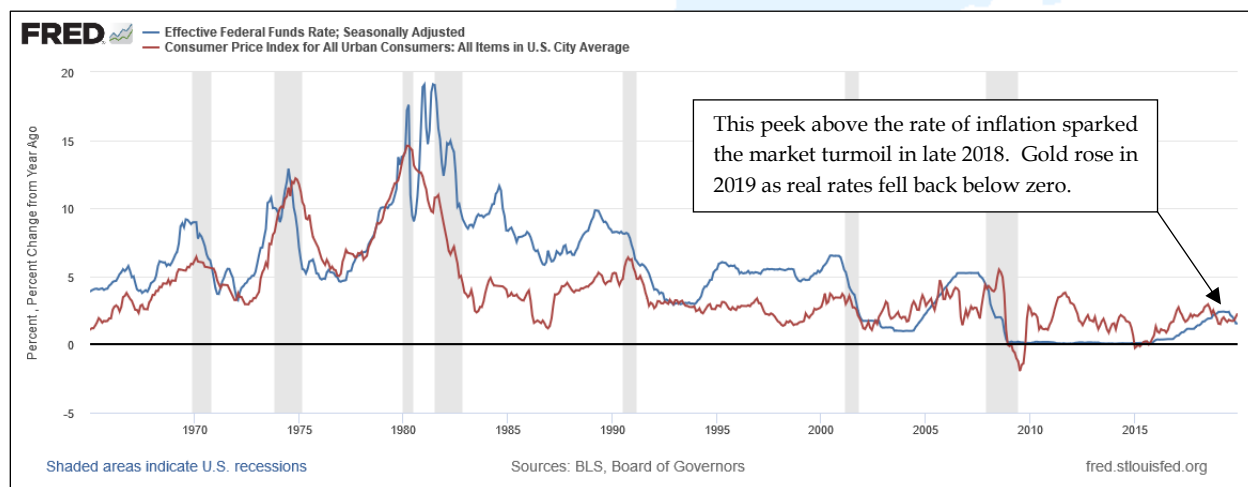
Yet as we witnessed again over the past year, the Fed is not immune from being cajoled by politics or financial market turmoil: it took only a few ripples in the banking system this past year to prompt an early end to quantitative tightening and the beginning of another balance sheet expansion, at a rate of \$60 billion a month — an amount equal to the entire monetary base in 1969. While effectively handing control of the money supply over to “the people” via their government representatives is clearly a recipe for monetary disaster, as history has repeatedly shown, the Fed has proven susceptible to a range of market and political pressures throughout its history, as the dollar's 96% decline in purchasing power over the past century has shown. So, the Fed is not exactly in the best position to take the moral high ground on the issue.

At the end of 2018, the Fed raised short-term interest rates a quarter point, bringing the Fed Funds rate above the rate of inflation for the first time in a decade. As Chairman Powell and other Fed officials made it clear at the time that interest rates would continue to rise in 2019 and the Fed's balance sheet would continue to shrink as if on “automatic pilot,” risk asset markets sold off. A few weeks later, in the beginning of 2019, Fed officials began what would become one of the quickest policy reversals in recent memory. By November, the Fed had not only lowered interest rates three times, but it had ended its balance sheet contraction and started buying Treasury securities again in a bid to regain control of key overnight lending rates, which had spiraled as high as 10%. From a monetary perspective, 2019 did not go as the Fed had planned, but risk assets were jubilant. For many observers, the mood toward the end of the year was reminiscent of the sentiment while the Fed supported the banking system during the Y2K scare in late 1999.

As we have mentioned in prior letters, changes in monetary policy take a very long time to percolate through the entire economy. Between December 2015 and December 2018, the Fed increased short-

term interest rates nine times in quarter-point steps, and starting in early 2018, it began slowly reducing the size of its balance sheet, ultimately bringing it down to as low as \$3.76 trillion from \$4.5 trillion. This combination of interest rate increases and quantitative tightening came to a sudden halt between August and November 2019, when credit markets began acting up, but by then the Treasury yield curve had been fully inverted and the economy was showing early signs of weakening. As an example, industrial production, highlighted in the chart above, peaked in December 2018 — not long after quantitative tightening began.

When the Fed brought short-term interest rates above the rate of inflation in 2005, the early reaction was very similar to what we saw in 2019. After real interest rates had been held below zero for three years, the appearance of positive real rates immediately slowed the housing market. By 2006, home prices in the most speculative markets began to fall, and the Treasury yield curve inverted — which signaled the bond market was seeing a recession on the horizon. For historically informed observers, these were signs that the boom which had carried risk assets higher in the wake of the tech bubble was in terminal danger. However, the continued levity of risk assets in the face of increasing strains in the credit markets throughout 2007 buoyed sentiment, which turned into euphoria late in the year as the Fed began lowering interest rates, thereby ending the yield curve inversion. For those riding the bull in late 2007, it seemed like the best of times: the Fed was easing monetary policy, the yield curve had “canceled” its recession signal, and the rising stock market was giving an “all clear” signal.



As we all know today, the bond market’s distance vision was clear in 2006; it just took time for the recessionary process to flower. By the time the stock market peaked in late 2007, a cascading series of events was already unfolding which would ultimately deflate the bubble that had inflated during three years of negative real rates. It was not until three years after the yield curve inversion in 2006 that the stock market reached a bottom, and it took six years for home prices to stop falling. And it was not until 2008, when the economy was already contracting, that indicators like employment turned lower. Lagging indicators like employment highlight how changes in monetary policy can affect the real economy for years afterwards, as it wasn’t until four years after the Fed stopped raising interest rates in 2006 that employment stopped shrinking on a year-over-year basis. The time lag between the yield curve and employment can easily be seen on the chart below — the yield curve

(red line) tends to drop below zero before recessions, while employment (blue line) falls during and after recessions. One is a leading indicator, and one is a lagging indicator.



In all likelihood, the peek above the zero line by real interest rates in 2018 and the subsequent yield curve inversion of 2019 will mark yet another significant turning point in market history. The bond market is saying the tightening of monetary policy through mid-2019 was enough to tip the economy into recession, and thus we begin 2020 in a position similar to 2007: in-between the advanced recessionary signals from the markets, which we saw in 2019, and unambiguous signals of recession from economic data, which have yet to be seen.

Given the time it takes changes in monetary policy to percolate through the economy, we will probably not know the full impact of the Fed's monetary tightening until 2022 or later — and by that time, it's anyone's guess where the debate will be regarding deficits, monetary stimulus and MMT. As the government is now running annual deficits above \$1 trillion, there's no way to know where the debate will go when those figures rise during the next recession.

It must be mentioned that one of the false premises of the MMT debate is that symptoms of weakness in economic growth, such as in the chart of industrial production shown earlier, is something that can be "cured" by policy at all — whether that be monetary or fiscal policy. When an economy begins to deleverage, it has begun a process of rebalancing itself from a period of excessive borrowing, and it's only natural for growth to lag during that process. Getting in the way of that rebalancing process, whether by monetary or fiscal channels, has historically carried dire consequences for the value of the currency.

So, the Fed should be careful what it wishes for, in terms of inflation. As the quote at the beginning of this section suggests, the Fed has spent considerable intellectual effort in recent years trying to understand how best to cure the "problem" of inflation persistently running lower than its 2% annual target. But with an unknown number of trillions in deficits in the years ahead, with an economy unable to handle positive real rates, and with financial markets that won't tolerate even a modest

decline in the base money supply, the Fed may soon find itself in a tight corner which feels strangely familiar.

The recession in 1969–1970 was induced by monetary factors, and it ended nearly a decade of economic growth. It appeared to be a relatively benign downturn at first, but underneath the surface, imbalances which had built up during that seemingly benign decade rose to the surface and ended up precipitating the end of the Bretton Woods system — and the price of gold began playing catch-up. We think the imbalances which have built up over the past decade, coupled with the fiscal and monetary trends likely in the decade ahead, will provide plenty of fuel for a similar market response.

A Summary of Our Market Outlook in 2020

- ✦ The bubble in the stock market reached new heights in 2019, with the S&P 500 and the NYSE Composite ending the year above their highest levels in 2018. However, various measures of the market's valuation suggest this bubble is now vying for number one in the record books, but with overvaluation far more widespread than it was at the tech bubble peak twenty years ago. Valuations strongly suggest that the peak, when it occurs, will establish a real, inflation-adjusted high-water mark which will stand for 15–25 years. In the decade after the peak, a portfolio of large-cap stocks will likely lose real value at an average rate of 3%–4% per year, with a maximum drawdown of 50%–67% at cyclical lows.
- ✦ The U.S. dollar is likely near cyclical highs, concurrent with the bubble in U.S. risk assets. As it has in previous cycles, a bearish trend in the dollar will likely unfold until U.S. financial assets represent a relative value versus global markets.
- ✦ U.S. equities remain extremely stretched versus global markets. The trend of U.S. outperformance over the past decade will likely come to an end with the end of the bubble in the U.S. market, after which global equity markets will likely outperform for an extended period. Equity markets outside the U.S. are generally close to their long-term median valuations, or lower, with some markets now significantly undervalued.
- ✦ Although equity markets outside the U.S. represent relative value, and are likely in an attractive cyclical position with positive prospective returns for dollar-based investors, the next recession and the end of the U.S. equity market bubble will likely be a global event, dragging down equity prices even in currently undervalued markets. Thus, although some global equity markets now represent an excellent long-term value, better buying opportunities in the years ahead are likely.
- ✦ Monetary policy in the U.S. underwent one of the most rapid turnarounds in history in 2019, with the Fed lowering interest rates three times and prematurely ending the planned normalization of its balance sheet. In addition, in August the Fed began what will likely be its fourth quantitative easing campaign since the financial crisis. The failure of the Fed to maintain positive real interest rates or shrink its balance sheet below \$4 trillion will likely prove to be a pivotal moment in market history.

- ✦ The Treasury yield curve inverted in 2019, which suggests a recession is on the horizon. If so, monetary policy will likely ease considerably in 2020.
- ✦ Long-term Treasury yields fell significantly in 2019, with the 10-Year Treasury yield trading as low as 1.43% in August. The 30-Year Treasury bond ended 2019 trading with a yield of 2.39%. Although long-term Treasury yields could decline substantially from their current levels, especially if yields around the globe sink further into negative territory, current yields on long-term Treasuries are likely to provide a near zero or negative long-term inflation-adjusted return. In addition, long-term Treasury yields tend to rise during significant expansions of the Fed's balance sheet, which represents a significant risk at current prices.
- ✦ Credit spreads beyond Treasuries have in recent years been the lowest on record, and there were some signs of widening in 2019. It's likely the next bear market will be exacerbated by the rapid rise of corporate indebtedness during this cycle, most of which occurred in the lowest investment grades. Corporate debt reached 31% of U.S. GDP in 2018, a record high, and remained only slightly below that record level in 2019.
- ✦ Commodities and other real assets are trading near their lowest inflation-adjusted prices in a decade, but a recession would likely take prices to new lows. Commodities will eventually benefit from a post-bubble downtrend in the dollar and the ongoing monetary response to deleveraging, but the end of the current asset bubble will likely have a negative short-term impact on prices. However, the next cyclical low in commodity prices may prove to be a durable long-term buying opportunity.
- ✦ Precious metals rose in 2019, and it appears a new bull market in precious metals is in its early stages. Gold reached new highs in 2019 in all major currencies except the U.S. dollar. However, in dollars, gold broke out of a 6-year base, which is similar to the market action in 2001 that marked the beginning of a 10-year bull market. The market environment following the peak of the current equity market bubble will likely provide a strong tailwind for gold in the decade following the bubble's peak, and the failure of the Fed to maintain a positive real short-term interest rate in 2018 and 2019 will likely prove to be a pivotal moment for precious metals and other real assets.
- ✦ Cash has been second only to gold in terms of its unpopularity over the past few years. Numerous surveys show cash levels in professionally managed funds and retail brokerage accounts are near record lows. Yet cash represents the option to purchase value during a bear market, and is thus a critical part of a portfolio when the equity market is significantly overvalued.

It's Time to Be Invested in Assets Outside the Dollar

The volume of cash that the Federal Reserve has temporarily given to banks to avert potential Year 2000 strains is rising to dizzying levels. Including nearly \$20 billion it gave to the banking system in the form of term "repurchase" agreements Monday, the Fed has almost \$100 billion in hard currency loans outstanding to banks. That's the most money lent out through repurchase agreements ever, said Peter Bakstansky, spokesman for the New York Federal Reserve. For some perspective, the Fed had \$23 billion in outstanding "repos" in December 1998, and around \$9 billion in December 1997.

- Dow Jones News Service, December 1999

In October, the Fed began buying \$60 billion of Treasury bills per month, a move policymakers deemed as a "purely technical" way to improve control over the benchmark interest rate they use to guide monetary policy. Monthly purchases of Treasury bills will extend at least into the second quarter of 2020, officials reiterated last month. "Growth of our balance sheet for reserve management purposes should in no way be confused with the large-scale asset purchase programs that we deployed after the financial crisis," Powell said when the program started.

- Bloomberg, December 2019

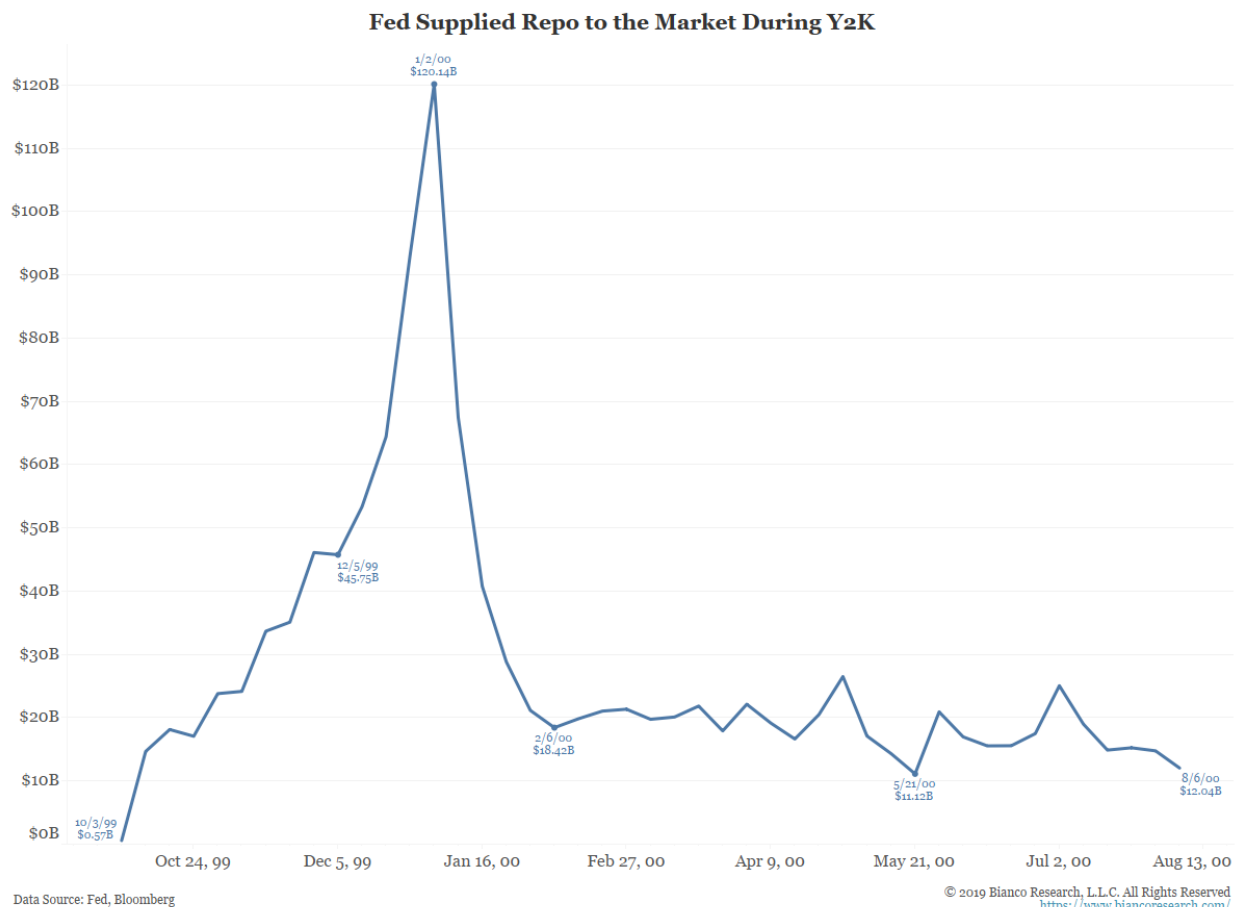
To this day, there is no single fundamental market event which can be pinpointed as the decisive trigger that popped the tech bubble in March of 2000. At the time of that infamous peak, the economy was still growing at a 4% rate, and the unemployment rate was also at 4%. There were also no glaring red flags as far as company earnings were concerned. An analyst from Credit Suisse First Boston confidently predicted that month that Cisco Systems, one of the darlings of the era, would become the first company with a trillion-dollar market cap in a few years' time. Although it was trading at a sky-high 120 times its estimated earnings that year, a high P/E ratio was considered a sign of confidence by the market that the growth rates of recent years would continue. "If you had picked a price point to sell at any time in the past ten years, you would have been wrong," another analyst said that month. "They have such an impressive track record of growing ... that the financial community isn't thinking in terms of a multiple of what they're earning this year, but what they will be earning three or four years down the line."

In a story that is now well known, Cisco's stock went on to lose 90% of its value in the two and a half years after that fateful month. Ten years later, it was still trading at only one-third of its price in March 2000. And today, two decades later, Cisco shares have still not risen above its March 2000 price, which is nonetheless more than can be said for a number of technology stocks that did not survive the tech bust. Although the high valuations at the time were indeed a sign of confidence, it turned out they were also a sign of willful blindness to the risks involved. Those risks remained under the surface throughout the late 1990s, but they emerged with catastrophic results soon after that trillion-dollar prediction. For Cisco shares and many others, all the gains made during the bubble were ultimately given back.

In a story that is less well known, however, market prices in early 2000 were not only the result of the speculative fever that was running rampant at the time — there was also a significant monetary component. In the months leading up to the end of 1999, the Federal Reserve began flooding the

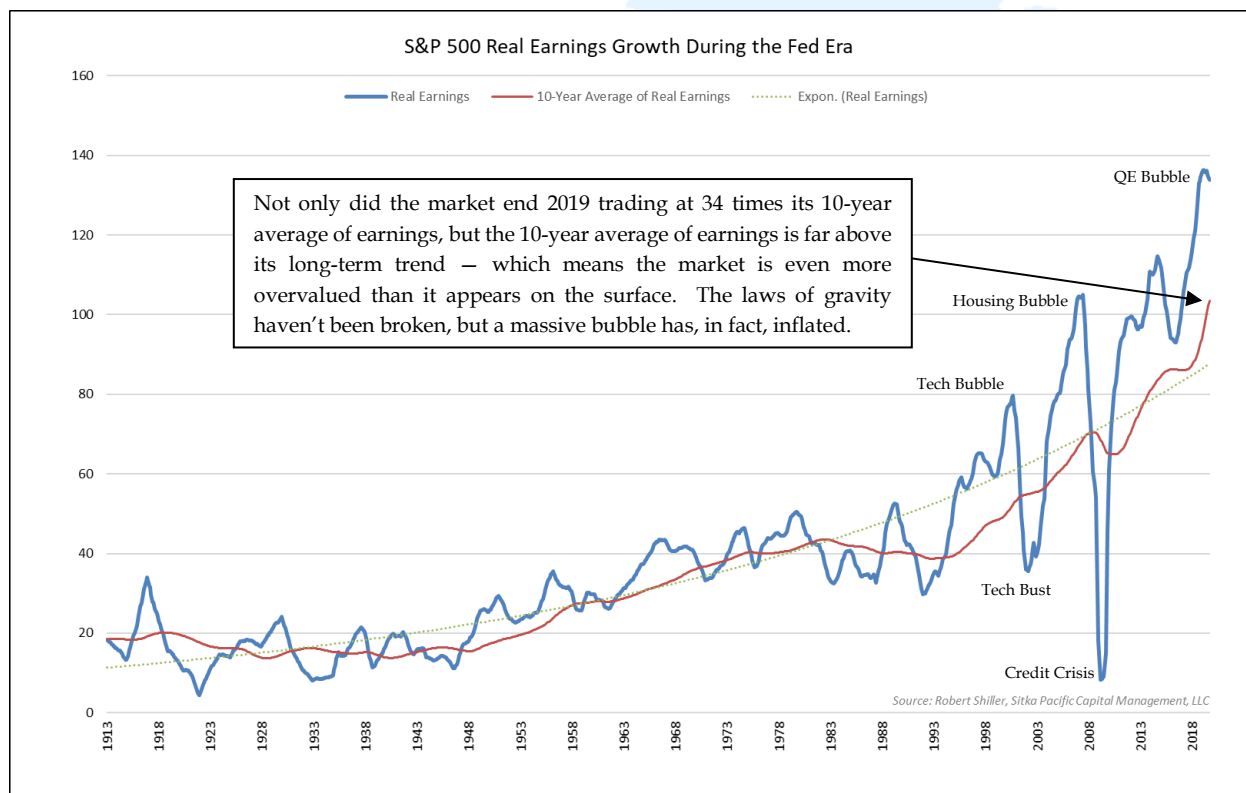
banking system with cash. It did so because there were widespread fears that the Y2K computer glitch would render many computer systems and networks non-functional when the two-digit year that most systems used changed from “99” to “00” when the clock struck midnight, and many bankers were anticipating a large drain from the banking system as citizens would probably withdraw cash to hold them over until ATMs and credit card systems came online again. The Fed began the effort to counteract that anticipated cash drain in October of 1999, and by December it had pushed more than \$50 billion into the banking system. The Fed’s monetary base was only \$580 billion at the time, so this represented a huge monetary expansion in a very short amount of time.

As it happened, the anticipated mass withdrawal of cash never materialized, and the calendar turned over to the 21st century without a widespread failure of the nation’s software infrastructure. What did happen, however, was that the Fed’s massive Y2K monetary expansion instead fueled a final blow-off in risk assets. And shortly after the Fed began to unwind the Y2K-related monetary expansion, it ended up being the pin that finally popped the tech bubble. The chart below, from Bianco Research, shows the rapid expansion of repurchase agreements between the Fed and the banking system in 1999, and its equally rapid collapse after the new year. The tech bubble peaked shortly thereafter.



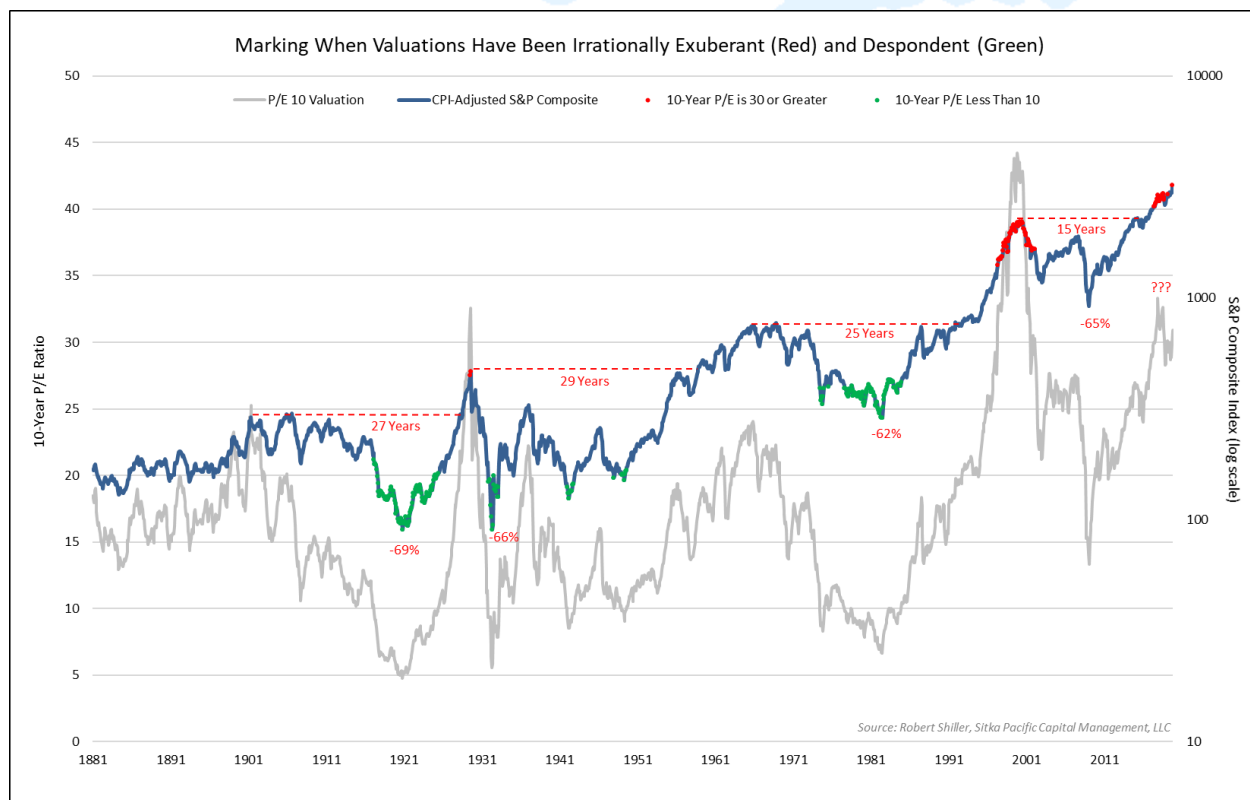
This past October, the Fed began another special monetary expansion intended to quell turmoil in the banking system, and just like in late 1999, the stock market began a run the very week the Fed began its purchases. The move in the market during the last three months of 2019 was muted relative to the blow-off in late 1999, but the advance of the market was again perfectly correlated to the timing of the Fed's sudden monetary expansion. If anyone was wondering why stock prices suddenly took off into year end, the answer is in the Fed's sudden \$180 billion buying spree in the fourth quarter.

It has been popular over the past number of years to compare the dramatic increase in the monetary base since 2009 with the rise in the stock market, and the implication of such comparisons is that as long as the Fed keeps expanding, the stock market will keep rising. These kinds of associations or correlations can last a long time ... until they suddenly stop. In the years after the peak of the tech bubble in March 2000, the Fed's balance sheet expanded from \$600 billion to above \$700 billion, but stock prices did not follow. After March 2000, other factors became dominant — such as the sudden sentiment shift which precipitated a panicked rush out of overvalued stocks. The timing of such shifts from a willful blindness to an eyes-wide-open panic are impossible to predict, but once the shift had occurred in March 2000, there was no going back. Monetary factors can explain a lot of the market action during certain times, but they are by no means the only factors which can spawn or fuel a market trend. When it comes to the bursting of a market bubble, sometimes the bust begins from a seemingly tangential event like a withdrawal of temporary monetary stimulus, the collapse of a unicorn, or a junk bond default by a company no one ever heard of. Sometimes it comes from a more directly related event like a recession. And sometimes it comes from nothing other than sheer exhaustion.



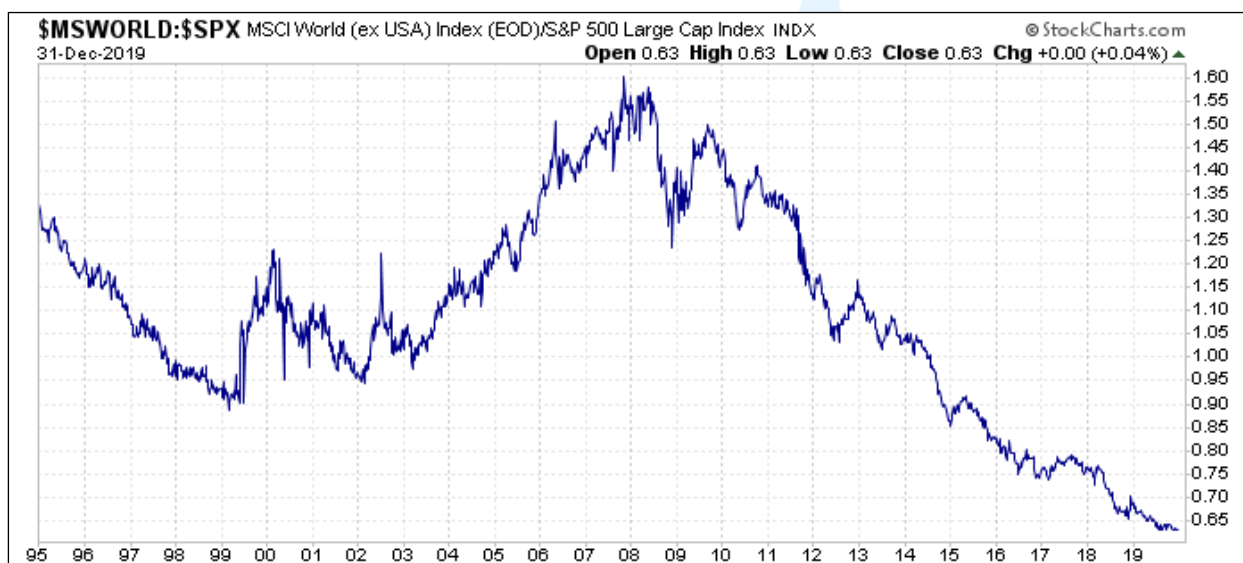
The chart above is notable for a few reasons. First, it's notable for the small curve of the blue line at the far right-hand side of the chart, which represents earnings over the past year — which did not grow at all. This means the market's rise in 2019 was entirely a result of valuation expansion, based on current earnings. Secondly, and more importantly, it must be noted that the 10-year average of earnings has now moved past the low earnings of the financial crisis, which means that *the period encompassed by the current 10-year average of earnings is now entirely filled with the post-credit-crisis era of ultra-low interest rates, quantitative easing and no recessions*. This resulted in a swift rise in the 10-year average of earnings in 2019, by 12.2%, shown by the rising red line in the chart above, and this substantially lowered the P/E based on that average. So, while the market officially ended 2019 with a 10-year P/E of 33.8, which is a sky-high reading on its own, it likely understates the market's true valuation by a significant amount.

Other valuation measures are not as affected by the passage of the decade mark beyond the financial crisis, and they reflect a market currently vying with the tech bubble for the number one spot on the list. In the first quarter of 2000, the broad-based Wilshire 5000 Index reached 137% of gross domestic product (GDP), while it ended 2019 above that level at 150% of GDP. And if we look at the median price-to-sales ratio of the four hundred largest non-financial stocks in the S&P 500, it ended 2019 at 3.12. This is the highest reading of this valuation measure in history, and it is a stunning 90% above the reading of 1.64 reached at the height of the tech bubble. This tells us that the typical non-financial large-cap stock in the U.S. is trading at almost double the peak valuation seen in 2000. Unlike the narrow focus on tech stocks in the late 1990s, the current bubble is extremely broad-based.



As a result of the broad-based nature of the overvaluation today, it will likely be quite difficult to find islands of relative safety in the U.S. market when valuations begin to revert. One of the defining features of the tech bubble was the narrow, extreme nature of the bubble, in which many parts of the market outside of technology were left to sink into relative neglect. This was a time of trial and tribulation for value managers, even those as experienced as Warren Buffett, as they watched their undervalued holdings sink while the Nasdaq 100 soared. However, the silver lining was that it also left many islands of relative safety within the U.S. market which provided positive returns in the years following the tech bubble peak. Unfortunately, that will not likely be the case this time.

However, there *are* islands of safety and relative value in existence today — they are just outside the U.S. Just as technology stocks so thoroughly captivated investors in the late 1990s that other areas of the U.S. market were left neglected, the same dynamic has happened over the last decade ... on a global scale. While the U.S. market has risen into the stratosphere in recent years, the rest of the world's equity markets have been left behind. As the chart below shows, global markets have declined by more than 60% relative to the S&P 500 over the past twelve years.



In our letter in October, we highlighted the stark difference in valuation between the U.S. and other equity markets throughout the world. While the S&P 500 is trading with a valuation nearly double that of its long-term median, most markets outside the U.S. are trading near their long-term median valuation, and many are significantly undervalued relative to where they have traded in the past. The MSCI Europe, Australasia and Far East Index of developed markets ended 2019 trading 30% below its long-term median valuation, and the MSCI Emerging Markets Index is trading nearly 20% below its long-term median valuation. This undervaluation is a direct result of the capital inflow into the U.S. in recent years — it has left markets outside the U.S. thoroughly neglected.

For dollar-based investors, global equity markets outside the U.S. ended 2019 trading at only two-thirds of the price seen in 2007, just before the financial crisis. This represents the response most often seen following a credit crisis — an extended period of stagnating prices as valuations sink. The U.S.

market over the past decade has been a glaring exception to this general rule, but the fact remains that as we begin 2020, dollar-based investors can buy into undervalued markets outside the U.S. at the same prices seen fourteen years ago.



These are circumstances that not only can provide a safe haven amid bubble valuations in the U.S., they can provide significant real returns over the course of a market cycle. For dollar-based investors, the MSCI World (ex-USA) Index fell during the bear market that unfolded following the peak of the tech bubble in 2000, but its next bull market peak was nearly 100% above its peak in 2000. Global equity markets rose 45% relative to the S&P 500 between 2000 and 2007, and the rest of the outperformance during those years came from the decline in the dollar. The dollar had risen against other major currencies as capital flowed into the U.S. during the tech bubble, and it reached a peak in 2001. A very similar market dynamic has unfolded over the past five years.



While the Dollar Index has not yet declined much from its highs, it will likely decline substantially once capital begins to flow out of overvalued U.S. assets in search of value elsewhere. This ebb and flow has been going on since the Bretton Woods system ended in 1971. With the stock market in the U.S. near its highs and with other risk assets like corporate bonds still holding their value, the dollar is naturally near its cyclical high as well.

However, there were signs over the past year that some markets have already begun pricing in the emergence of a new paradigm. After widening significantly in 2018, yield spreads on the riskiest U.S. corporate bonds (rated CCC and below) did not recover along with the stock market in 2019. This is an early sign, in agreement with the inversion of the Treasury yield curve, that the corporate bond market has started to price in a less than ideal economic outlook ahead. In addition, and more importantly, gold decisively broke out of its 6-year base:



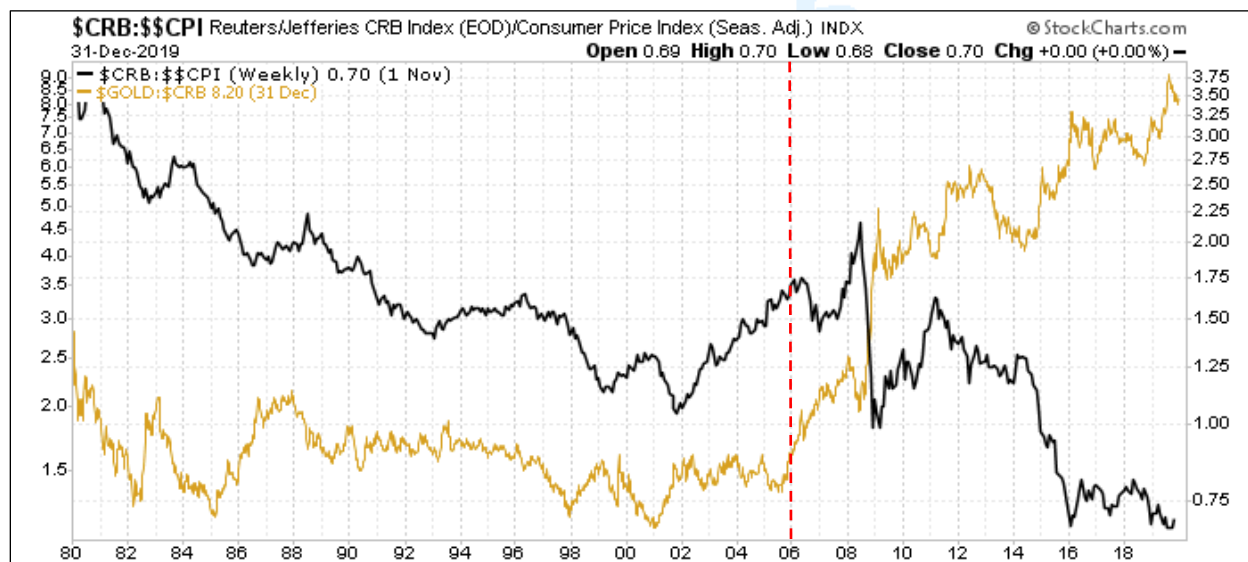
We've discussed the highlights on the chart above in many letters over the past few years, but it bears repeating that precious metals are the one asset class that is reliably inversely correlated to risk assets *over long periods of time*. Every time stocks have suffered through a long-term bear market, gold has risen in value — either by rising relative to all other prices (e.g. during deflationary periods in the early 20th century), or by rising in price (e.g. during the post-Bretton Woods era). This makes intuitive sense, as the value of money should rise in value relative to risk assets during periods of rebalancing, regardless of the monetary regime in place at the time.

Gold broke out of a similar, though shorter, base not long after the tech bubble burst in 2000. At that time, gold had been falling for twenty years as the bull market in stocks during the 1980s and 1990s roared, and it had declined a final 40% during the mania phase of the bubble between 1996 and 1999. Yet, as reliably as clockwork, gold's lowest price during that cycle was seen within a year of March 2000, and as stocks fell over the subsequent decade, gold enjoyed a long, strong bull market.

The mania phase of the current stock market bubble has seen a decline in gold similar to what happened in the 1990s — gold fell 46% from its high in 2011 to its lowest point in 2015. Yet while we

wouldn't go so far as to say those infamous words *this time is different*, the reason we have remained invested in precious metals even while the stock market bubble continued has been because there are circumstances today that were simply not present in 2000 — circumstances which argued for a more bullish outlook on precious metals.

For example, it has been clear since as early as 2005 that the value of money has taken on a new role in the financial markets. Although gold fell in line with the broader CRB Commodities Index from the 1980s through the earlier 2000s, it diverged from other commodities just as the housing bubble reached its peak in 2005 and 2006. Through all the volatility over the past fourteen years, the trend of the increasing value of gold relative to other commodities, represented by the gold line in the chart below, continued through 2019. This is what we'd expect to see in an era defined by deleveraging.



At the lows in 1999 and 2000, gold's market transition highlighted above had not yet occurred, and the bull market which began in 2001 and 2002 was more closely related to the bursting of the tech bubble. Today, however, not only is there another post-bubble market environment on the horizon, but there is a decade ahead which will almost certainly see a stunning increase in the national debt, as well as monetary policies by the Fed which will do more to enable that increase in debt than at any other time since World War II. We are already years into these fiscal and monetary trends, and they have argued for a more bullish outlook on precious metals than otherwise would be the case.

With the above in mind, it is not surprising that gold appears to have seen its lowest price many years before the end of the stock market bubble, and it is also not surprising that the breakout this past year occurred just as the Fed ended its attempt at increasing real interest rates above zero and shrinking its balance sheet. The Fed's failure on both of those fronts seems likely to be a defining, pivotal moment for gold and precious metals.

* * *

Final Thoughts

The corporate bond market in the United States is rated higher than it deserves to be. Kind of like securitized mortgages [were] rated way too high before the global financial crisis. Corporate credit is the thing that should be watched for big trouble in the next recession.

- Jeff Gundlach, December 2019

We have intentionally attempted to avoid venturing too far into the weeds of data surrounding the stock market bubble in this letter, and also tried to avoid summarizing too many statistics on economic growth and other more mundane topics. These are topics which we have detailed extensively in recent years. It is enough to say that the U.S. economy grew 2.2% last year, which was less than expected, and that inflation also remains below what the Fed hoped for. These issues of low growth and low inflation are intimately related to deleveraging and the demographics of the retirement of the baby boom generation, and they did not change significantly in 2019.

What we have attempted to highlight in this letter is that the circumstances we currently face bear a striking resemblance to an earlier era just before the most rapid devaluation of the dollar in our nation's history. We also wanted to highlight the Fed's about-face in 2019, which we think served notice that monetary policy is already in a position of subservience to the very forces which will bring about another devaluation. With the federal government already running annual deficits above a trillion dollars, and with the Fed unwilling to endure the consequences of maintaining positive real interest rates or meaningfully shrinking its balance sheet, the stage appears set for the dollar to lose significant value in the decade ahead. In light of these circumstances, it's likely no coincidence that gold broke out of its 6-year base this past year.

In addition to quelling the turmoil in the banking system, the resumption of growth in the Fed's balance sheet appears to have ignited another gambling phase in U.S. risk assets, just as happened in 1999, and in 1929. With earnings growth stagnant, investors are dreaming of another significant rise in profits, but these dreams appear increasingly disconnected from economic reality. When it's all said and done, the justification for today's sky-high valuations rests on three key assumptions: that today's low interest rates will remain low indefinitely, that today's low inflation rates will remain low indefinitely, and that there will be no recession anytime soon. If the latter of those assumptions proves false, there will be a bear market, and if either one of the first two of those assumptions proves false, any cyclical bear market will likely mark the beginning of a long-term bear market.

We think a cyclical bear market is just what the inverted yield curve implies is on the horizon, and we also think the fiscal and monetary circumstances today are a prelude to events which will result in a long-term bear market in the 2020s. The only thing which appears to stand in the way of both of those trends getting started is the current speculative sentiment — and there is no way to know when that speculative sentiment will exhaust itself.

The main lesson from the breakdown of the Bretton Woods system in 1971 is that whenever there has been a conflict between 1) maintaining the value of the dollar or 2) prioritizing bread-and-butter issues like employment and economic growth, the value of the dollar has consistently been on the

losing end since the 1960s. This is a lesson which will likely be demonstrated again in the coming decade, and it will have a significant impact on the prices and valuations of all U.S. financial assets.

Since August 1971, the price of gold has advanced at a 7.7% compounded rate, the S&P 500 has advanced at an 8.3% compounded rate (excluding dividends), the Consumer Price Index has risen at a 3.9% compounded rate, and the Fed's monetary base has advanced at an 8.3% compounded rate. Note the similar rates of increase in the price of gold and the price of the S&P 500 since 1971 — this is not what standard investment advice suggests should have happened to a non-compounding asset versus a compounding asset over fifty years. What has happened since 1971 is that monetary policy has been subject to the short-term-focused pressures of voters and markets, without any effective restrictive mechanism on the speed at which the money supply is expanded. This not only created the parabolic rise in debt, it spawned the market bubbles and the environment of deleveraging we have faced over the past decade. It has also made real assets like gold rise like a compounding asset.

We can draw two main conclusions from the market action in 2019: a recession is likely on the horizon, and another era of devaluation has probably already begun. In the years ahead there will undoubtedly be volatility in the wake of the current bubble, but our portfolio allocations are aligned with the trends which we think will unfold in the post-bubble environment, some of which appear to have taken the first few decisive steps in 2019. Also, we are poised to increase our exposure to undervalued markets and assets when the opportunities arise.

As we have discussed in this letter and over the past year, the majority of our equity allocations will likely be outside the U.S. for the foreseeable future, where value and currency trends are likely to be favorable in the years ahead. Although the bubble in the U.S. has been quite difficult to navigate for anyone with a sense of value, the maturing opportunities outside the dollar appear very attractive, especially relative to the return (or lack thereof) that a standard portfolio of U.S. stocks and bonds will likely deliver in the decade ahead.

We appreciate your taking the time to read this letter, and for being our client. As always, if you would like to discuss investments in your account, or topics discussed in this letter, feel free to contact us — we would be happy to talk with you.

Sincerely,



Brian McAuley
Chief Investment Officer
Sitka Pacific Capital Management, LLC

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