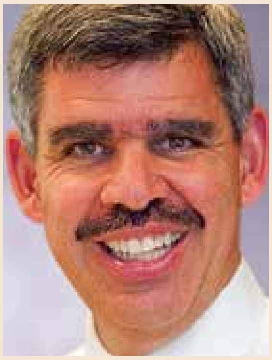
What About the Risk Of a Bursting Asset Bubble?

The global economic policy world is in the midst of a debate over the risk of inflation, including the definition of the word "transitory." But what about the risk of the bursting of an asset bubble?

What is surprising is the minimal amount of discussion about whether today's so-called "era of free money" has created dangerous asset bubbles. History shows that the bursting of asset bubbles can bring nasty macroeconomic consequences.

Note that in the United States alone, new corporate debt since the pandemic has skyrocketed. Mediocre companies have been able to buy back their stock. Wouldn't these firms be the first to collapse in a financial panic? Then again, does the fact that the Wall Street banks are so well capitalized minimize the negative effect to the broader U.S. economy from a panic-driven market correction? In such a correction, what would be the safe haven? U.S. Treasury bonds? Gold? Cryptocurrency? Commodities in general? If the latter, wouldn't there also be unpleasant macroeconomic consequences?

On a scale of one to ten, more than twenty noted observers rate the risks.



An 8. The Achilles heel has been over-reliance on the "financial asset channel" as the main transmission mechanism for macroeconomic policy to the real economy.

MOHAMED A. EL-ERIAN
President, Queens' College, Cambridge University; Chief Economic Adviser, Allianz; and author, **The Only Game in Town: Central Banks, Instability, and Avoiding the Next Collapse** ***(Random House, 2016)***

Score: eight. Pockets of excessive and, in some cases, irresponsible risk-taking have been fueled by years of ample and predictable liquidity injections by the Federal Reserve and European Central Bank, the world's most systemically important central banks.

The context has been that of admirable dedication by central bankers to delivering their economic objectives, but one that has not been accompanied until recently by sufficient policy effectiveness on the part of other economic policymakers.

The Achilles heel has been the resulting and protracted over-reliance on the "financial asset channel" as the main transmission mechanism for macroeconomic policy to the real economy.

The unintended consequences and collateral damage have included a major disconnect between fundamentals and market valuations (Main Street versus Wall Street), deepening asset price distortions, over-borrowing, and widening resource misallocations.

This has all been turbocharged by behavioral factors including an overriding investor confidence in central banks always being the markets' best friend—or what's more commonly referred to as the "central bank put." This has encouraged too many investors to embrace the liquidity paradigm irrespective of the underlying fundamentals, and traders have piled on, surfing the enormous liquidity wave and over-extending the risk-taking both in scale and scope.

El-Erian, *cont.* The risk is not limited to the future credibility of central bank policies and the possibility of unsettling financial volatility. There is also the threat of widespread economic spillbacks and spillovers: to economic recoveries in the United States and Europe that need to be durable, strong, inclusive, and sustainable; and to developing countries whose financial resilience has been eroded and policy flexibility is more limited.

The solution lies in a timely rebalancing of the monetary/fiscal/structural policy mix, together with a major step up in macroprudential regulation, especially that pertaining to the non-bank financial sector.

A 3. I assign a relatively low probability to a meaningful tightening of monetary policy.

THOMAS MAYER
Founding Director, Flossbach von Storch Research Institute, and former Chief Economist, Deutsche Bank Group

My answer to this question is: three.

In his classic book on bubbles (*Famous First Bubbles: The Fundamentals of Early Manias,* MIT Press, 2000), Peter Garber wrote: "…'bubble' characterizations should be a last resort because they are non-explanations of events, merely a name that we attach to a financial phenomenon that we have not invested sufficiently in understanding."

So what is the phenomenon in financial markets that many call a "bubble" today? My understanding is that it is the result of a monetary policy, prevalent in almost all industrial countries, that has driven interest rates to historical lows, and in the course of the Covid-19 pandemic induced the creation of a monetary overhang of a size previously only seen in times of war. Low interest rates raise asset valuations while excess cash balances induce portfolio reallocations towards other financial and real assets.

This phenomenon will only disappear when central banks put their policy in reverse gear. But since they have become prisoners of fiscal policymakers and financial markets, I assign a relatively low probability to a meaningful tightening of monetary policy.

A 9. Asset prices are high by historical standards.

JEFFREY A. FRANKEL
Harpel Professor of Capital Formation and Growth, Harvard University's Kennedy School

My response: nine out of ten.

Financial markets are indeed experiencing bubbles, spurred in part by easy money. Eventually the bubbles will end. A bursting could have severe adverse consequences for the real economy, as in 1929 or 2008; but that outcome is not guaranteed.

Asset prices are high by historical standards. For example, Shiller's ratio of U.S. stock prices to cyclically adjusted earnings is above 37 as of June 2021. It has been above 30 only twice before: 1929 and 2000.

A high price-to-earnings ratio need not imply that prices have overshot the present discounted value of future earnings, particularly during a time of innovation. But investors are innovating egregious bubble behavior.

Consider four recent examples:

- Cryptocurrencies. Bitcoin's price surged six-fold from October 2020 to April 2021.
- The GameStop bubble. The video-game retailer's stock price increased eighteen-fold in January 2021.
- The entire phenomenon of NFTs (non-fungible tokens).
- The boom in SPACs (special purpose acquisition companies). Their very definition calls to mind a notorious 1720 company prospectus in London's South Seas bubble: "an undertaking of great advantage; but nobody to know what it is."

A 7. I'm watching U.S. housing markets.

ADAM S. POSEN
President, Peterson Institute for International Economics

Concern about a bubble should be driven by both how likely is a bubble underway, and how likely is it that a bubble in that particular asset class or sector will have destructive effects (through distortion or collapse). Scale of the overvaluation, of the sector or assets involved, or of average people's exposure can contribute to the impact of a bubble, but these are not sufficient statistics for predicting harm, and sometimes are quite misleading. Equity price bubbles, for example, rarely have persistent macroeconomic effects.

What matters most is the connectedness of the bubblelicious asset class and the leverage of the investors in it. As a result, the simple rule of thumb for when public policy should be concerned about a bubble is when it either involves residential real estate across a large part of the economy or the systemically important banking institutions. Large-scale housing price bubbles are almost sufficient to predict serious harms, as are over-leveraged banking systems. Absent either, it is rare that bubbles do much harm.

So, I currently am at a seven out of ten in concern on the lookout to raise my alarm because of recent developments in U.S. housing markets. At the start of 2020, prior to the pandemic, I would have given it a 4, since the bubbles at the time—and most of the ones since—have been in assets which don't matter. The resilience of the core U.S. banking system to the pandemic shock of spring 2020 and to the Archegos collapse this year vindicates the capital requirements and stress tests of today, and therefore reassures me. But widespread housing price bubbles do almost always mean trouble.

A 2. Asset prices remain volatile and difficult to predict.

JOSEPH E. GAGNON
Senior Fellow, Peterson Institute for International Economics

My concern about asset bubbles is two on a scale from one to ten.

A bubble exists when the price of an asset greatly exceeds its fundamental value. That is not the case at present for any of the main asset classes: bonds, equity, and real estate. All of these assets are expensive by historical standards, as one would expect when interest rates are near zero. Future rents, profits, and coupon payments are discounted at a low rate. Nevertheless, asset prices remain volatile and difficult to predict.

Aging work forces, declining population growth, and weak productivity growth have pushed equilibrium real interest rates to record low levels. We may be near the trough and rates may gradually rise from here, but the process will continue to be slow and we are not likely to return to the high real rates of the 1980s. Population growth, at least, will remain low.

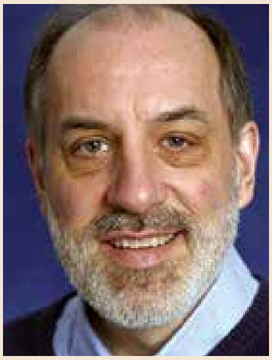
When combined with ultra-low inflation, low equilibrium real rates keep economies at or near the zero lower bound on interest rates, with persistent excess unemployment. Fiscal policy can help push economies away from the lower bound, but the best response is to moderately raise central bank inflation targets to 3 or 4 percent.

A 6 or 7. The situation is worrisome.

ROBERT SHAPIRO
Chairman, Sonecon, and former U.S. Under Secretary of Commerce for Economic Affairs

Yes, the possibility of asset bubbles bursting is worrisome—on a scale of one to ten, I'm a six or seven. The presence of bubbles is clear. Over the past twelve months, the S&P 500 has risen more than 38 percent, and no one can credibly claim that those enormous gains reflect increases in underlying economic value. Rather, they appear to be mainly a credit phenomenon. Since March 2, 2020, just before the pandemic struck here, the U.S. Federal Reserve increased its balance sheet by $3.7 trillion or a remarkable 87.5 percent. This helps explain much of the recent large price increases for not only stocks and corporate paper, but also housing, art, and cryptocurrencies.

So bubbles are real. Moreover, the Fed will soon begin to taper its purchases, which may produce significant market corrections. Whether those steps or other developments lead to the bubbles bursting or simply deflating gradually may depend on how leveraged and vulnerable large financial institutions are today to significant price declines.



How worried am I? Just a 3.

LAURENCE M. BALL
Professor of Economics, Johns Hopkins University, and Research Associate, National Bureau of Economic Research

A 9. I am very concerned.

EWALD NOWOTNY
Former Governor, Oesterreichische Nationalbank

Potential for asset bubbles bursting: nine (very concerned).

I am not concerned about consumer price inflation, where I expect medium-term normalization. But I am very concerned about the potential for asset bubbles bursting with regard to a wide field of asset classes.

The most important field is real estate, the asset class most deeply integrated with the rest of the economy. In addition, with the general debt overhang after the Covid-19 pandemic, we see a tendency toward excessive risk-taking in a great number of markets and the growing importance of poorly regulated non-bank financial intermediaries, ranging from huge exchange-traded fund providers to influential family offices. Leveraged loan financing is feeding a fast-growing high-yield market with many aspects of excessive leverage and liquidity mismatches.

The wild ride of crypto "currencies" and insane valuations of some stocks may also be seen as an indicator of excessive risk-taking and the influx of new and inexperienced groups of investors.

In general, one of the problems may be that the generation that experienced the shocks of 2008 is leaving the markets and a new generation of younger and inexperienced risk-loving investors is getting more important. This seems to be especially relevant for capital market-based financing in the United States, compared to the bank-based financing system of continental Europe.

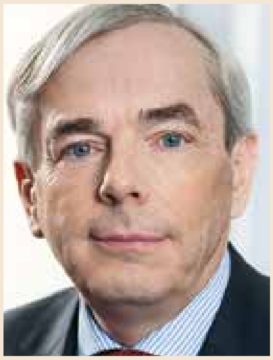
A 4. The pandemic macroeconomic responses have been successful.

JACOB FUNK KIRKEGAARD
Senior Fellow, Peterson Institute for International Economics and German Marshall Fund of the United States

I'm a four, so I guess slightly less worried about asset bubbles than normally.

The speed and scope of fiscal and monetary policy stimulus in response to Covid-19 saw U.S. income inequality temporarily decline, most Europeans' pandemic wages largely paid by the government, central bank balance sheets expand, and asset prices boom, despite a dramatic decline in economic output. Successful stimulus has seen the global economy avoid a collapse in demand and caused trade to quickly rebound, while the pandemic has accelerated the productivity-increasing shift toward a more digitized and flexible economy. Temporary inflationary pressures are inevitable, as stimulus and pandemic household savings are spent in reopening economies, but will in the face of high levels of unused economic capacity and continued demographic aging prove temporary.

The pandemic's political need for governments to act decisively looks to have ushered in a new era of more activist government with lastingly higher public investment levels, as public health and climate change must be confronted. Pandemic macroeconomic responses have boosted asset prices, but done so through successfully salvaging and reinvesting in the global economy, rather than merely feeding asset price bubbles.



A 7. There are risk factors that might lead to potentially disruptive asset bubbles.

THOMAS MIROW
Chairman, German National Foundation, and former President, European Bank for Reconstruction and Development

On a scale of one to ten, I currently see the risks of imminent asset bubbles at seven.

Why? Signs of a global recovery in economic activity over the second half of 2021 are strengthening. Quick progress on vaccines—in the industrial world—gives cause for optimism. Not very surprisingly and because of a multitude of reasons, the faster-than-expected return to a post-crisis growth phase is accompanied by supply bottlenecks and growing cost pressure, resulting in, at least, a "transitory" rise of inflation. All in all, however, the prospects for a sustained recovery, led by the United States and China, but also supported by Europe, seem quite solid.

This being said, there are risk factors that might lead to potentially disruptive asset bubbles. At the forefront: the corporate sector. The pandemic's economic legacy, in combination with digitalization and a pressing need to tackle climate change, will require new business models in many industries that fiscal and monetary stimulus should encourage and must not delay. But what we see in some areas, particularly in the United States, is corporate leverage—quite elevated already before the crisis—speedily increasing further. Highly indebted firms, however, will not only constrain investments and lower productivity. They may also become a serious source of contagion in financial markets once the monetary and fiscal stance becomes less accommodative.

A 3. Policymakers as well as regulators are watching the risks closely.

HOLGER SCHMIEDING
Chief Economist, Berenberg

Risk rating: three. Despite a great bull run in equities and some signs of excess in niche markets, the risk that a big asset bubble may burst and cause serious economic trouble remains low.

Yes, some companies have used rock-bottom rates to build up too much leverage, cryptocurrencies are on a wild ride, and tech stocks are pricing in a lot of good news to come. Occasional corrections may be inevitable. But most companies are well-capitalized, household balance sheets are strong, and overall equity indices do not look overvalued relative to the prospects for solid gains in earnings underpinned by rapid economic growth at financing costs that look set to remain modest in real terms.

In addition, financial institutions are mostly well capitalized and policymakers as well as regulators are watching the risks closely. They are all still quite aware of the mistakes they made upon the collapse of Lehman in 2008 and in the euro crisis of 2008–2009. In case of some financial turbulence, they would likely use their by now well-honed instruments to prevent serious contagion to the economy at large. Never say never, but for the next few years, the outlook remains encouraging.

A 7. Equities, corporate bonds, and Treasuries are in bubble territory.

MARC SUMERLIN
Managing Partner, Evenflow Macro, and former Deputy Assistant to the President for Economic Policy and Deputy Director of the National Economic Council

The current bubble risk level is seven out of ten. There are two distinct investment worlds. In one, the central bank is like a wind at your back, enhancing nominal investment returns with low rates and asset purchases. In the other, the central bank is like a wind in your face, raising rates and slowing the pace of asset purchases. In 2022 and 2023, the wind will be in the face of investors and asset prices will find a new equilibrium.

Equities, corporate bonds, and Treasuries are in bubble territory. Wealth is seven times greater than income, a higher ratio than the 2007 peak. But house prices are reasonable given the dearth of supply, and bank balance sheets are strong. A popping bubble would be closer to a 2000-like event than a 2008-like event.

Once started, the Fed will raise rates until financial conditions seize up, as happened in 2018. Under the Fed's new strategy, sustained 3 percent inflation would call for a 4 percent Fed funds rate, a level that would clearly break markets first. In other words, if inflation sticks then asset markets are in trouble.

An 8. Those central banks that are continuing with quantitative easing are rapidly becoming part of the post-pandemic problem.

RICHARD C. KOO
Chief Economist, Nomura Research Institute, and author,* The Other Half of Macroeconomics and the Fate of Globalization *(2018)

The danger level is at eight. There seems to be an alarming complacency among Fed officials and others that sky-high asset prices are okay as long as banks are well-capitalized.

But when a bubble bursts, the economy suffers from financial crisis, which is a lender-side problem, and from balance sheet recession, which is a borrower-side problem. Having well-capitalized banks will lessen the damage from the former, but the damage from the latter could still be enormous.

The post-2008 economies suffered only two years of the former, but nearly ten years of the latter because a large part of the private sector was forced to minimize debt in order to remove debt overhang caused by the bursting of the debt-financed bubble.

As a result, the private sectors of both the United States and Europe have become huge net savers (meaning financial surpluses) despite zero or even negative interest rates, requiring public sectors to borrow and spend the excess savings in the private sectors to keep the economies going. With asset prices where they are now, those central banks that are continuing with quantitative easing are rapidly becoming part of the post-pandemic problem instead of being part of the solution.

A 7. Commercial real estate, corporate debt, and stock markets will be choppy and overly sensitive as the Fed tapers and normalizes policy.

GREGORY D. HESS
President and CEO, IES Abroad, former staff member, Federal Reserve, and Member, Shadow Open Market Committee

I put my concerns about the possibility of financial disruption at a seven. Here's why. Since the financial crisis in 2008, the Federal Reserve has taken aggressive and sustained policy actions to directly support financial activity and economic activity. They have used both orthodox tools (lowering the funds rate) and unorthodox ones (quantitative easing, which has lowered longer-term interest rates) to provide exceptional liquidity to financial markets for more than a decade.

The Fed's actions have helped to provide momentum to spending, but the corresponding distortions induced on the yield curve will have consequences—there's no free lunch! First, by lowering the return on safe(r) assets, such as Treasury bonds, the Fed has intentionally induced risk-taking in longer-term assets such as stock prices. Second, corporate borrowing across all credit classes has dramatically risen, since borrowing is cheap. Clearly, risk is being holistically underpriced. As a result, I expect that commercial real estate, corporate debt, and stock markets will be choppy and overly sensitive as the Fed tapers and normalizes policy. That major money-center banks are well capitalized will keep us from a ten.

Broad diversification, to include alternatives and real assets, may be the safest harbor for this global unwind.

An 8. Monetary policy has driven investment behavior and asset prices to unsustainable levels.

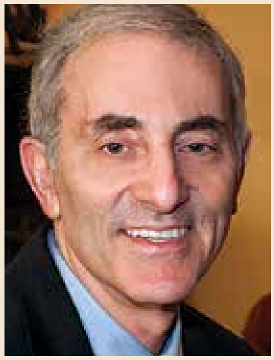
RICHARD JERRAM
Chief Economist, Top Down Macro

In terms of worrying about a bubble, put me down as an eight. I don't see much doubt that emergency (okay, reckless) monetary policy has driven investment behavior and asset prices to unsustainable levels. What restrains me from a double-digit score is that it's not clear how much damage will be caused when the bubble bursts.

When looking at valuations, just pick a number. PE, Shiller's CAPE, Tobin's Q, junk yield spreads, housing affordability—all tell roughly the same message. But bubbles aren't just about valuations. They are also characterized by speculative frenzies and exploitative behavior. SPACs, meme stocks, cryptocurrencies, and NFTs (bubbles generate their own acronyms) echo the craziness seen so many times before. Much of the exploitation and corruption tends to be revealed only once a bubble has burst, but this time some of it is hiding in plain sight.

Is it dangerous? Policymakers and regulators are usually fighting the last war, so it is difficult to judge the risks until the bubble bursts. If it's mainly a story of speculators' equity being wiped out, then systemic damage should be fairly limited. And that shouldn't be too socially disruptive either, just a case of the rich giving back some of their gains. It could be that equity destruction causes a mild recession, similar to the one that followed the dot.com era, and then the threat comes from the lack of viable policy responses.

Where to hide? My best guess is that rising inflation squeezes monetary policy, which in turn hits asset prices. In that case, we will struggle to find refuge. Commodities are the obvious focus, but I suspect plenty will shelter in short-term government debt, prepared to accept mildly negative real interest rates in exchange for confidence about return of capital.



A 5. Cleaning up after the next mess will be more uncertain and more difficult than in past recessions.

ROBERT E. LITAN
Non-resident Senior Fellow, Brookings Institution

Bubble risk: five.

Prices of just about everything, but especially assets—financial and real—have been going up fast. Whether the price advances are bubbles—rising because of expectations or the fear of missing out (FOMO)—or reflecting fundamental supply and demand forces and low interest rates, our collective level of concern depends on the product of the answers to two questions.

First, will the spring's expected jump in product prices be sustained, triggering Fed tightening, popping any asset price bubble? Count me as skeptical this will happen, but still worried.

Second, if asset prices suddenly fall, how much macro damage will ensue? Since the asset price runups are largely not debt-driven, as was true with housing in the 2000s, and bank capital cushions are much thicker, the damage should resemble the relatively mild post-dot.com recession more than the 2008–2009 financial crisis.

One big caveat: With government debt-to-GDP ratios already so high and the limits of easy money more evident, cleaning up after the next mess will be more uncertain and more difficult than in past recessions.

A 3. The question is not whether there will be bubbles, but how damaging they will be.

J. W. MASON
Assistant Professor of Economics, John Jay College-CUNY, and Fellow, Roosevelt Institute

Any time you have an asset held primarily for capital gains, a story that allows people to extrapolate from recent price increases to future ones, and a reasonably elastic credit system, you have the ingredients for a bubble. The question is not whether there will be bubbles, but how damaging they will be, and what steps we should take if we think one is developing in a particular asset market.

Corporate debt is an unlikely asset for a bubble. Unlike with equity, real estate, or currency, there are clear limits to potential capital gains. High levels of stock buybacks are problematic for a number of reasons, but they don't particularly suggest a bubble. When a greater share of corporate value added is paid out to shareholders rather than retained and invested or paid to workers, that may be bad news for the economy in the long run. But it is good news for owners of corporate stock, and there's nothing strange about it being priced accordingly.

Cryptocurrencies are a better candidate for a bubble. It's safe to say they are mostly held in expectation of capital gains, since they pay no income and, despite the promises of their boosters, have limited utility for transactions. It wouldn't be surprising if their value fell to a small fraction of what it is today.

But that brings us to the question of how damaging a bursting bubble will be. The housing bubble was exceptionally damaging because housing is the main asset owned by most middle-class families, housing purchases are mostly debt-financed, and mortgages are a major asset for the financial system. It's hard to see how a collapse of bitcoin or its peers would have wider consequences for the economy.

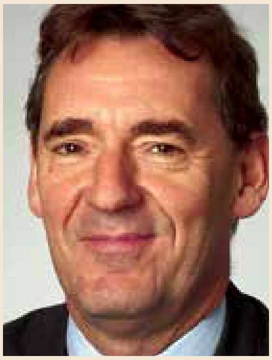
The other question is what to do about a bubble if we have reason to believe one is forming. One common answer is to raise interest rates. The problem is that, historically, there's no sign that low rates are more favorable to bubbles than high ones. The 1980s savings and loan crisis took place in an environment of—indeed was driven by—historically high interest rates. Similarly, Sweden's great real estate bubble of the late 1980s took place when rates were high, not low. And why not? While productive investment may be discouraged by high rates, expected capital gains at the height of a bubble are too high for them to have much effect. This was most famously illustrated in the late 1920s, when the Fed's efforts to rein in stock prices by raising rates did a great deal to destabilize European banks by reversing U.S. capital outflows, but had little or no effect on Wall Street.

A better policy in the face of a developing bubble is to directly limit the use of credit to buy the appreciating asset. Tighter limits on mortgage lending would have done far more than higher rates to control the housing bubble of the 2000s.

In other cases, the best policy is to do nothing. As economists going back to John Maynard Keynes have observed, a chronic problem for our economy is an insufficient level of investment in long-lived capital goods and new technology. To the extent that inflated asset values encourage more risky investment—as in the late 1990s—they may be even be socially useful.

By all means, let's take steps to insulate the core functions of the financial system from speculation in asset markets. But holding macroeconomic policy hostage to fears of asset bubbles is likely to do more harm than good.

Weighing the chance of a major bubble along with its likely consequences, I'd put my concern over asset bubbles at three out of ten. The biggest danger is not a bubble itself, but the possibility that a fear of bubbles will prompt a premature tightening of monetary policy.



World financial markets face two remarkable contrasts.

JIM O'NEILL

Former Commercial Secretary to the Treasury, United Kingdom, and former Chairman, Asset Management, Goldman Sachs International

It is quite clear as 2021 progresses that the world financial markets face two remarkable contrasts.

The first is a dramatically powerful short-term economic recovery from the Covid-19 pandemic, which for many countries could quite easily result in positive real GDP numbers unheard of by most of us in our lifetimes. Typically, from my own historical experience, the rate of momentum of economic growth is often especially powerful in determining asset market performance, whatever their levels of valuation. In this regard, how economies continue to perform relative to changing expectations will be key. An additional element, which has been a major discussion point for weeks now through the spring, is inflation and inflation expectations. In my view, it is too early to tell whether the year-on-year increases in many measures of inflation are merely transitory or more permanent. My own default, analytically, is the University of Michigan five-year inflation expectations survey. It has proved time and time again to be much more stable and not so sensitive to short-term influences compared to so many other measures of inflation expectations. This is presumably why a number of senior U.S. Federal Reserve policymakers going back through time have often given it a lot of weight.

This takes me to the core of the second issue, which of course is the remarkable generosity of monetary and fiscal policy, and at some point, especially if very strong growth persists and even more so if inflation expectations rise further, these will change. Markets then are likely to become quite vulnerable, and those that have vastly exceeded any notion of fair value will probably fall more than others. This said, as some famous money managers found out with Japan in 1987, the reversals might appear in other places first.

The "solutions" have become the "problem."

WILLIAM R. WHITE

Former Economic Adviser, Bank for International Settlements

"Bubble" fails to capture the challenge. Long before the pandemic, growing imbalances in the global private sector were being driven by excessive credit growth. These excesses arose from the interaction of accommodative monetary policy (encouraging demand for credit) and a responsive financial system empowered by new technology (creating supply). Monetary policy failed to recognize that massive monetary easing is not warranted when disinflationary forces arise from positive, global supply shocks. Regulatory policies, focused on constraining banks, failed to recognize the capacity of non-bank sources of credit to compensate. Worse, extending safety nets to these new credit sources has increased moral hazard. The "solutions" have become the "problem."

One result has been a continued increase in global debt ratios, currently at the highest levels ever and still rising rapidly. Another is elevated prices for financial assets and property, currently at record levels and again still rising. A third effect has been increased financial instability as shrinking profit margins have encouraged reckless behavior and resource misallocations. Since these unsustainable trends must stop, another serious downturn seems inevitable. Temporarily rising inflation and interest rates could provide the trigger.

The pandemic has worsened this long-standing threat of debt-deflation. "More of the same" policy responses would make it worse still. However, a new focus on debt restructuring would make the downturn more manageable. Better an unpalatable outcome than a disastrous one.

The chances are low. The market's ascent over the past two decades hasn't been impulsive, in contrast to many speculative episodes.

JAMES E. GLASSMAN
Head Economist, JPMorgan Chase & Co., Commercial Bank

The stock market and the economic possibilities it reflects may be the most important economic story of our time.

The value of the U.S. stock market broke into unprecedented territory almost a decade ago when it surpassed the size of the U.S. economy. It has climbed steadily further since then, doubling the size of the economy (in the best of times it was reasonable to assume that the value of the stock market might match the size of the economy, applying a price-to-earnings multiple of sixteen times earnings to the twentieth century's after-tax GDP profits share of 6 percent). Notably, the market's ascent over the past two decades hasn't been impulsive, in contrast to many speculative episodes.

This has the appearances of a bubble. But valuation metrics are unhelpful, because investors are guided by future possibilities, not the present. Equity prices may be lofty, but profound changes are reshaping the global economy and creating new opportunities.

It's notable that the market's ascent has emerged out of a turbulent time. Europe's important unification experiment survived an existential crisis in 2012. Russia's annexation of Crimea in 2014 revived Cold War memories. The U.S. economy's growth potential slowed to half the pace of that of the twentieth century. America's retirees (who draw on a lifetime of savings) swelled to 30 percent of the population from 20 percent in the span of decade. An unprecedented U.S. housing speculation episode derailed many economies. And now the global pandemic.

A Rip Van Winkle thought experiment sheds some light on the nature of the structural forces that are behind the stock market's rise. If Van Winkle fell asleep three decades ago, as the Berlin Wall was tumbling, and awoke today, he would be stunned.

First, he would have guessed that defense burdens would plunge after the fall of the Berlin Wall and collapse of the Soviet system. They did, to one-third what they were in the decades following the end of World War II. Massive resources were unleashed for other purposes.

Next, he'd be impressed that Europe's important unification experiment had survived a skeptical cognoscenti despite so much global turmoil.

Third, Rip would understand why the Fed was turning more reactive when he realized that inflation had become far less cyclical—the Phillips curve flatter—in the new millennium. He'd understand that a lower sustainable level of unemployment and shrinking inflation risk premia would support higher profits and price-to-earnings multiples.

Fourth, he'd be baffled by the advances in technological innovation. But he would know that innovation is disruptive and brings mixed blessings—Schumpeter's "creative destruction" idea. He would understand why tech innovation had driven the after-tax profits share of GDP up from 6 percent to 10 percent, why that might be sustainable, and why it was socially disruptive (widening the income distribution). Counter to consensus opinions, he might not be surprised that the profits share was not reverting to historical norms, if he realized that the transformation underway was more structural than cyclical. He'd know that if after-tax profit margins were rising from the 6 percent historical norm to 10 percent, the value of the stock market might be "worth" one and one-half times the size of the economy, in contrast to the historical "parity" relationship.

Fifth, he would not be surprised that the 2017–2018 tax reform, which effectively eliminated a decades-long gap between the U.S. corporate tax rate and that of others, would lift the stock market about 10 percent.

And last, it wouldn't take him long to realize that it's a small world after all, that while he was asleep, China's economy had come out of nowhere to match the size of that of the United States, that American companies were benefiting from new economic opportunities beyond U.S. borders, and that there is much more to come, with the living standard in the underdeveloped economies rising at the fastest pace in the history of the planet but still far below that enjoyed by the developed economies.

Given all that, Rip Van Winkle wouldn't be so sure he was looking at a stock market bubble.

At some point, the time of reckoning will come. That is, unless we see a surprising boost in productivity.

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Let's face it. Stock market valuations were already overstretched before the pandemic. We may argue about the specific metric, be it forward-looking P/E ratios or else. However, market ratios were well above historical averages, even considering that the net present value of future cash flows was boosted by historically low discount factors and abundant global liquidity. Moreover, with little pay-out or dividends expected over the next few years, growth stocks got an even more significant boost. Arguably, this was the case for the U.S. stock market, and far less so for the European one, which is less exposed to tech stocks.

With the pandemic crisis requiring an unprecedented fiscal policy response, central banks had no choice but to do much of the same. Policy action pushed central banks even further into uncharted territory, such as additional liquidity, additional financial asset buying, even lower and flatter yield curves. It was a deliberate strategy. Supporting asset valuations was an inevitable and desirable side effect of the more important goal of preventing a meltdown in the economy. The policy response set the stage for a genuinely additional lease on life for the stock market, especially in the United States. The situation appears even more extreme in corporate bonds. The ongoing search for yield has pushed corporate bond yields, and in general risk premiums, to multi-year lows, and are thus susceptible to a major correction. Moreover, non-bank financial institutions have continued to increase duration, liquidity, and credit risk, making positions even more sensitive to a yield shock.

The possible bursting of the financial bubble may bring even more dangerous and nasty macroeconomic consequences. The good news is that the financial system is much better capitalized and prepared for a shock than at any other time in the past. However, we cannot say that there are no imbalances or unusual situations in specific financial market segments. Some institutions or sectors may have already been debilitated, coming from yet another shock. Their fragilities and weak fundamentals may have already been exposed. The impact on U.S. markets and spillovers into the rest of the world from a potential U.S. monetary policy tightening shock could be substantial.

The current spike in inflation may well be a sideshow or a transitory situation related to supply bottlenecks, temporary disruptions in production and trade, or adjustments in the production pipeline. Even signs of localized spikes in wage pressure may well be a transitory phenomenon. Over time, it will likely be addressed by supply catching up with policy-supported booming demand. Projecting well-behaved inflation back to central bank targets and continuing fiscal support through medium-term investment plans would still leave potential problems. Engineering a Goldilocks scenario, where the economy is fine-tuned towards a not-too-hot and not-too-cool position, may prove tricky. Fiscal and monetary support may well be extended for longer, further inflating the bubble. But at some point, the time of reckoning will come. Thus it would be better to start signalling sooner rather than later, test the water, and prepare market participants for a turning point. This move must be balanced with the need to preserve accommodating conditions for a prolonged time and avoid withdrawing policy support too early. Not an easy task at all.

The only way out for such a cornering of available policy options would be a surprising boost in productivity triggered by the structural changes accelerated by the pandemic crisis. Not impossible, but it would probably be too much of a dream book, at least judging from what we tentatively know so far. ◆

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