

Bubbles, Bubbles Everywhere

JOHN MAULDIN | August 15, 2014

The difference between genius and stupidity is that genius has its limits.

– Albert Einstein

Genius is a rising stock market.

– John Kenneth Galbraith

Any plan conceived in moderation must fail when circumstances are set in extremes.

- Prince Metternich

I'm forever blowing bubbles, Pretty bubbles in the air

They fly so high, nearly reach the sky, Then like my dreams they fade and die

Fortune's always hiding, I've looked everywhere

I'm forever blowing bubbles, Pretty bubbles in the air

- Burr and Campbell

You can almost feel it in the air. The froth and foam on markets of all shapes and sizes all over the world. It's exhilarating, and the pundits who populate the media outlets are bubbling over. There's nothing like a rising market to lift our moods. Unless of course, as Prof. Kindleberger famously cautioned (see below), we are not participating in that rising market. Then we feel like losers. But what if the rising market is ... a bubble? Are we smart enough to ride it high and then bail out before it bursts? Research says we all think that we are, yet we rarely demonstrate the actual ability.

My friend Grant Williams thinks the biggest bubble around is in complacency. I agree that is a large one, but I think even larger bubbles, still building, are those of government debt and government promises. When these latter two burst, and probably simultaneously, that will mark the true bottom for this cycle now pushing 90 years old.

IN THIS ISSUE

Easy Money Will Lead to Bubbles Page 4

Excess Liquidity Creating Bubbles Page 6

Humans Never Learn Page 9

Anatomy of Bubbles and Crashes Page 12

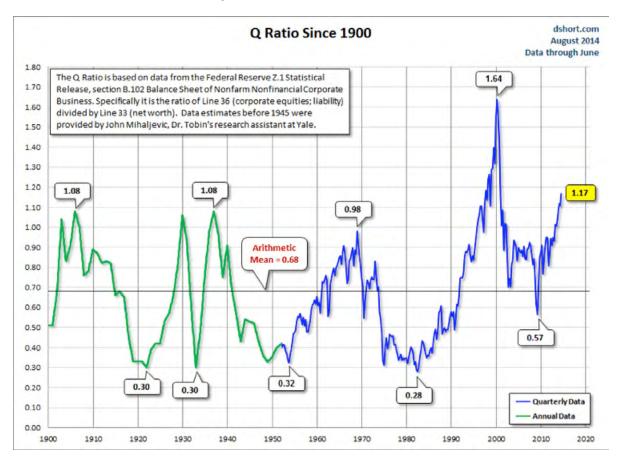
A Few Good Central Bankers Page 15

Jack Rivkin at His Best Page 15

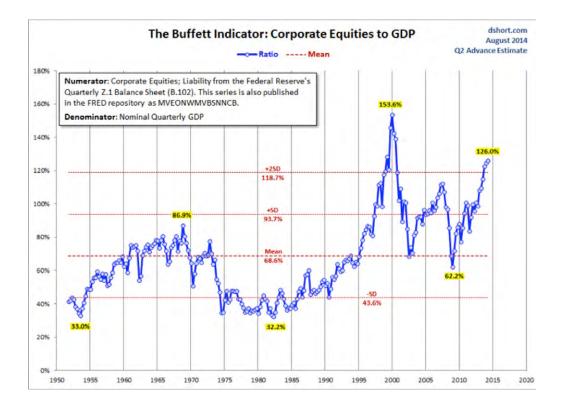
Dallas, San Antonio, and Washington DC Page 15 So, this week we'll think about bubbles. Specifically, we'll have a look at part of the chapter on bubbles from *Code Red*, my latest book, coauthored with Jonathan Tepper, which we launched late last year. I was putting this chapter together about this time last year while in Montana, and so in a lazy August it is good to remind ourselves of the problems that will face us when everyone returns to their desks in a few weeks. And note, this is not the whole chapter, but at the end of the letter is a link to the entire chapter, should you desire more.

As I wrote earlier this week, I am NOT calling a top, but I am pointing out that our risk antennae should be up. You should have a well-designed risk program for your investments. I understand you have to be in the markets to get those gains, and I encourage that, but you have to have a discipline in place for cutting your losses and getting back in after a market drop.

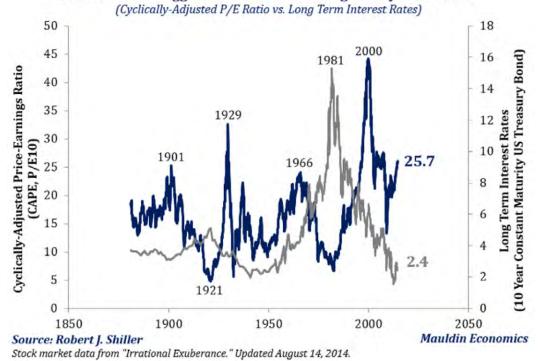
There is enough data out there to suggest that the market is toppy and the upside is not evenly balanced. Take a look at these four charts. I offer these updated charts and note that some charts in the letter below are from last year, but the levels have only increased. The direction is the same. What they show is that by many metrics the market is at levels that are highly risky; but as 2000 proved, high-risk markets can go higher. The graphs speak for themselves. Let's look at the Q-ratio, corporate equities to GDP (the Buffett Indicator), the Shiller CAPE, and margin debt.



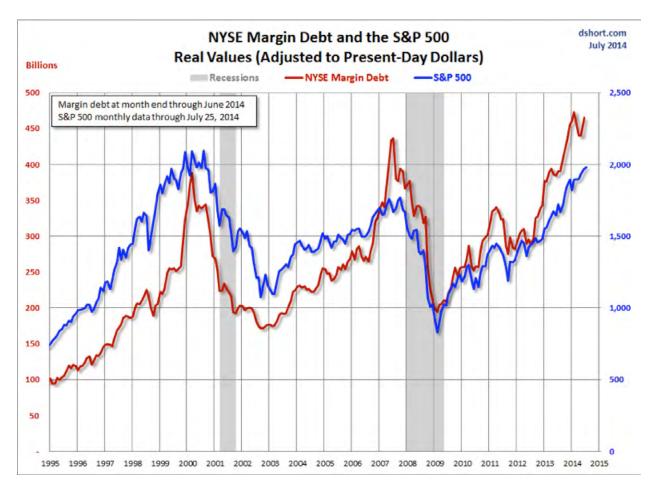
2



Shiller's CAPE Suggests the S&P 500 is Dangerously Overvalued



Thoughts from the Frontline is a free weekly economics e-letter by best-selling author and renowned financial expert, John Mauldin. You can learn more and get your free subscription by visiting <u>www.mauldineconomics.com</u>



We make the case in *Code Red* that central banks are inflating bubbles everywhere, and that even though bubbles are unpredictable almost by definition, there are ways to benefit from them. So, without further ado, let's look at what co-author Jonathan Tepper and I have to say about bubbles in Chapter 9.

Easy Money Will Lead to Bubbles and How to Profit from Them

Every year, the Darwin Awards are given out to honor fools who kill themselves accidentally and remove themselves from the human gene pool. The 2009 Award went to two bank robbers. The robbers figured they would use dynamite to get into a bank. They packed large quantities of dynamite by the ATM machine at a bank in Dinant, Belgium. Unhappy with merely putting dynamite in the ATM, they pumped lots of gas through the letterbox to make the explosion bigger. And then they detonated the explosives. Unfortunately for them, they were standing right next to the bank. The entire bank was blown to pieces. When police arrived, they found one robber with severe injuries. They took him to the hospital, but he died quickly. After they searched through the rubble, they found his accomplice. It reminds you a bit of the immortal line from the film The Italian Job where robbers led by Sir Michael Caine, after totally demolishing a van in a spectacular explosion, shouted at them, "You're only supposed to blow the bloody doors off!"

4

Central banks are trying to make stock prices and house prices go up, but much like the winners of the 2009 Darwin Awards, they will likely get a lot more bang for their buck than they bargained for. All Code Red tools are intended to generate spillovers to other financial markets. For example, quantitative easing (QE) and large-scale asset purchases (LSAPs) are meant to boost stock prices and weaken the dollar, lower bonds yields, and chase investors into higher-risk assets. Central bankers hope they can find the right amount of dynamite to blow open the bank doors, but it is highly unlikely that they'll be able to find just the right amount of money printing, interest rate manipulation, and currency debasement to not damage anything but the doors. We'll likely see more booms and busts in all sorts of markets because of the Code Red policies of central banks, just as we have in the past. They don't seem to learn the right lessons.

Targeting stock prices is par for the course in a Code Red world. Officially, the Fed receives its marching orders from Congress and has a dual mandate: stable prices and high employment. But in the past few years, by embarking on Code Red policies, Bernanke and his colleagues have unilaterally added a third mandate: higher stock prices. The chairman himself pointed out that stock markets had risen strongly since he signaled the Fed would likely do more QE during a speech in Jackson Hole, Wyoming, in 2010. "I do think that our policies have contributed to a stronger stock market, just as they did in March of 2009, when we did the last iteration [of QE]. The S&P 500 is up about 20 percent plus and the Russell 2000 is up 30 percent plus." It is not hard to see why stock markets rally when investors believe the most powerful central banker in the world wants to print money and see stock markets go up.

Investors are thrilled. As Mohamed El-Erian, chief executive officer at Pacific Investment Management Company, said, "Central banks are our best friends not because they like markets, but because they can only get to their macro objectives by going through the markets."

Properly reflected on, this is staggering in its implications. A supposedly neutral central bank has decided that it can engineer a recovery by inflating asset prices. The objective is to create a "wealth effect" that will make those who invest in stocks feel wealthier and then decide to spend money and invest in new projects. This will eventually be felt throughout the economy. This "trickle-down" monetary policy has been successful in creating wealth for those who were already rich (and for the banks and investment management firms who service them) but has been spectacularly a failure in creating good jobs and a high-growth economy. The latest quarter as we write this letter will be in the 1 percent gross domestic product (GDP) range.

And to listen to the speeches from the majority of members of the Federal Reserve Open Market Committee, their prescription is more of the same. Indeed, when Bernanke merely hinted this summer that QE might end at some point, something that everyone already knows, the market swooned and a halfa-dozen of his fellow committee members felt compelled to issue statements and speeches the next week, saying, "Not really, guys, we really are going to keep it up for a bit longer."

We've seen this movie before. In the book *When Money Dies*, Adam Fergusson quotes from the diary of Anna Eisenmenger, an Austrian widow. In early 1920 Eisenmenger wrote, "Speculation on the stock exchange has spread to all ranks of the population and shares rise like air balloons to limitless heights. ... My banker congratulates me on every new rise, but he does not dispel the secret uneasiness which my growing wealth arouses in me ... it already amounts to millions." Much like after the initial Nixon Shock in the 1970s, stock prices rise rapidly when a currency weakens and money supply grows. Not surprisingly, the 1970s led to bubbles in commodities.

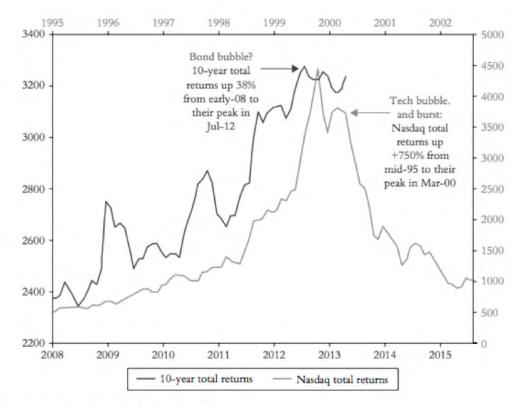
This chapter will show how to spot bubbles when they form, how to profit from them, and how to avoid the dire consequences when they burst.

Excess Liquidity Creating Bubbles

As we write *Code Red*, stock prices are roaring ahead. In fact, many asset classes are looking like bubbles from our cheap seats. (While we expect a correction at some point, when the Fed or the Bank of Japan creates money, it has to go somewhere.)

One area that stands out as particularly bubbly is the corporate bond market. Investors are barely being compensated for the risks they're taking. In 2007, a three-month certificate of deposit yielded more than junk bonds do today. Average yields on investment-grade debt worldwide dropped to a record low 2.45 percent as we write this from 3.4 percent a year ago, according to Bank of America Merrill Lynch's Global Corporate Index. Veteran investors in high-yield bonds and bank debt see a bubble forming. Wilbur L. Ross Jr., chairman and CEO of WL Ross & Co. has pointed to a "ticking time bomb" in the debt markets. Ross noted that one third of first-time issuers had CCC or lower credit ratings and in the past year more than 60 percent of the high-yield bonds were refinancings. None of the capital was to be used for expansion or working capital, just refinancing balance sheets. Some people think it is good there is no new leveraging, but it is much worse. This means that many companies had no cash on hand to pay off old debt and had to refinance.

One day, all the debt will come due, and it will end with a bang. "We are building a bigger time bomb" with \$500 billion a year in debt coming due between 2018 and 2020, at a point in time when the bonds might not be able to be refinanced as easily as they are today, Mr. Ross said. Government bonds are not even safe because if they revert to the average yield seen between 2000 and 2010, ten year treasuries would be down 23 percent. "If there is so much downside risk in normal treasuries," riskier high yield is even more mispriced, Mr. Ross said. "We may look back and say the real bubble is debt."





Another bubble that is forming and will pop is agricultural land in many places in the United States (although agriculture in other countries can be found at compelling values). The bubble really started going once the Fed started its Code Red policies. Land prices in the heart of the Corn Belt have increased at a double-digit rate in six of the past seven years. According to Federal Reserve studies, farmland prices were up 15 percent last year in the most productive part of the Corn Belt, and 26 percent in the western Corn Belt and high plains. Iowa land selling for \$2,275 per acre a decade ago is now at \$8,700 per acre. As you can see from Figure 9.2, the increase in farmland prices beats almost anything the United States saw during the housing bubble. A lot of banks in the Midwest will have problem with their lending.

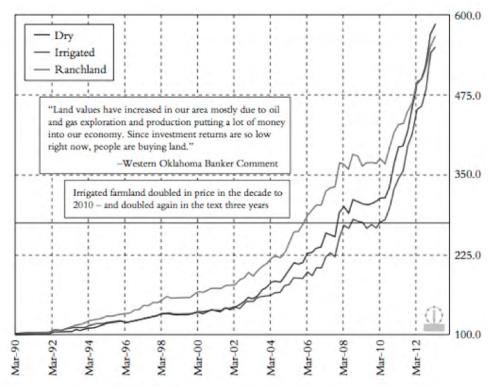


Figure 9.2 Farmland Bubble

SOURCES: KC Fed, Diapason.

Why are we seeing so many bubbles right now? One reason is that the economy is weak and inflation is low. The growth in the money supply doesn't go to driving up prices for goods like toothpaste, haircuts, or cars. It goes to drive up prices of real estate, bonds, and stocks.

Excess liquidity is money created beyond what the real economy needs. In technical terms, Marshallian K is the difference between growth in the money supply and nominal GDP. The measure is the surplus of money that is not absorbed by the real economy. The term is named after the great English economist Alfred Marshall. When the money supply is growing faster than nominal GDP, then excess liquidity tends to flow to financial assets. However, if the money supply is growing more slowly than nominal GDP, then the real economy absorbs more available liquidity. That's one reason why stocks go up so much when the economy is weak but the money supply is rising.

It is also why stock markets are so sensitive to any hint that the Fed might ease off on QE. Real players know how the game is played. You can listen to the business media or read the papers and find hundreds of "experts" saying that stock prices are rising based on fundamentals. You can take their talking points and change the dates and find they are essentially the same as 1999 and 2006–2007. (More on the implications of this in Part II when we talk about investing.)

The rise in real estate, bonds, and stocks does not count toward any inflation measures. On the desk in his office at Princeton, Einstein once had the words "not everything which can be measured counts, and not everything which counts can be measured." Inflation happens to be one of the things that counts but can't be measured (except in very narrow terms). Excess liquidity flows from asset class to asset class. As you can see from Figure 9.3, booms and busts around the world happen whenever central banks tighten or loosen monetary policy.

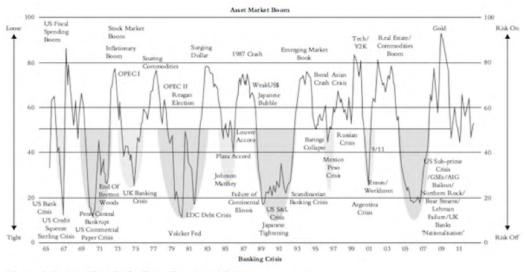


Figure 9.3 Liquidity Cycles Drive Booms and Busts SOURCE: Crossborder Capital, www.liquidity.com/Docs/Global_Liquidity_Indexes_(GLI)_2012_Data.pdf.

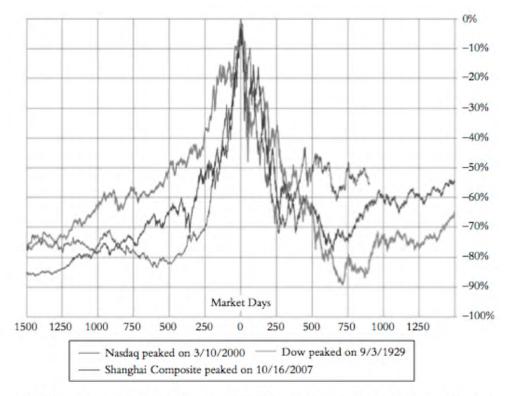
Humans Never Learn

Financial bubbles happen frequently. In the 1970s, gold went from \$35 to \$850 before crashing. In the 1980s, the Japanese Nikkei went from 8,000 to 40,000 before losing 80 percent of its value. In the 1990s, the Nasdaq experienced the dot-com bubble and stocks went from 440 to 5,000 before crashing spectacularly in 2000. The Nasdaq lost 80 percent of its value in less than two years. Many housing bubbles over the past decade in the United Kingdom, United States, Ireland, Spain, and Iceland saw house prices go up 200 and even 500 percent and then lose over half their value in real terms.

The U.S. market has had frequent crashes: 1929, 1962, 1987, 1998, 2000, and 2008. Every time, the bubble was driven by different sectors. In 1929, radio stocks were the Internet stocks of their day. In 1962, the electronic sector crashed. The previous year, most electronic stocks had risen 27 percent, with leading technology stocks like Texas Instruments and Polaroid trading at up a crazy 115 times earnings. In 1987, the S&P had risen more than 40 percent in less than a year and over 60 percent in less than two years. In 1998, it was strong expectation on investment opportunities in Russia that collapsed. In 2000, the Internet bubble was so crazy that companies with no earnings and often no real revenues were able to go public, skyrocket, and then crash. Eventually, in all bubbles fundamental values re-assert themselves and markets crash.

Economists and investors have spilled a lot of ink describing bubbles, yet central bankers and investors never seem to learn and people get caught up in them. Peter Bernstein in Against the Gods states that the evidence "reveals repeated patterns of irrationality, inconsistency, and incompetence in the ways human beings arrive at decisions and choices when faced with uncertainty."

What is extraordinary is how much bubbles all look alike. The situations were similar in many ways. In the 1920s, the financial boom was fueled by new technologies such as the radio that supposedly would change the world. In the 1990s, the stock market rose on the rapid adoption of the Internet. Both technologies were going to fundamentally change the world. Stocks like RCA in the 1920s and Yahoo in the 1990s were darlings that went up like rockets. Figure 9.4 plots the two charts against each other. The similarities and timing of market moves are uncanny.





If you look at Figure 9.5, you can see the gold bubble in the 1970s. (Some academics have noted that the surge in gold prices closely followed the increase in inflation in the late 1970s, reflecting its value as a hedge against inflation. When inflation fell in the 1980s, gold prices followed. So it is an open question whether gold in the 1970s should be considered a bubble.)

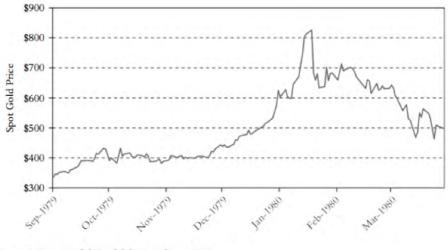


Figure 9.5 Gold Bubble in the 1970s SOURCES: Mauldin Economics, S&P Capital IQ.

Fast-forward 10 years, and you can see from Figure 9.6 that the bubble in the Japanese Nikkei looked almost exactly the same.

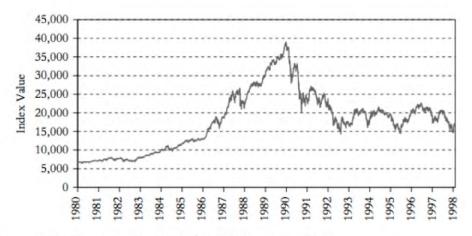


Figure 9.6 Japanese Stock Market Bubble in the 1980s SOURCES: Mauldin Economics, S&P Capital IQ.

Bubbles happen again and again. The same basic ingredients are found every time: fueled initially by well-founded economic fundamentals, investors develop a self-fulfilling optimism by herding that leads to an unsustainable accelerating increase in prices. And each time people are surprised that a bubble has happened. As billionaire investor George Soros once said about financial cycles: "The only surprise is that we are always surprised."

For example, the corporate bond market appears to be in another bubble. "We have a hyper-robust bond market right now," Dallas Fed President Richard Fisher, a former investment manager, said in an interview. These robust markets are part of the Fed's policy intent, he said, but the credit market jump has put him on guard for a new destabilizing credit boom. "You don't sit on a hot stove twice."

Economists and investors, though, repeatedly sit on hot stoves. Economic researchers have managed to create bubbles in laboratories. Economist Reshmaan N. Hussam and his colleagues not only managed to create bubbles once, they managed to bring the same subjects back in for the same experiment and still managed to reproduce bubbles. It didn't matter if people were given fundamental information regarding what was available or not. It didn't matter how financially sophisticated the participants were either: corporate managers, independent small business people, or professional stock traders. No one was immune from re-creating bubbles.

It seems that everyone is born a sucker. As humans, we developed our instincts dodging lions and chasing antelopes on the African savannah over hundreds of thousands of years. Now it seems we chase asset prices. It is as if we are hard-wired to respond to movement in what market we are following. The conclusion from repeated experiments shows that it doesn't matter if people live through one bubble or even two, they'll likely fall for bubbles again. The smarter people learn from bubbles. But they don't learn to avoid them; they participate again and simply think they're smart enough to know when to get out. This has been showed many times in trading experiments conducted by Vernon Smith, a professor at George Mason University who shared in the 2002 Nobel Prize in Economics. As Smith said, "The subjects are very optimistic that they'll be able to smell the turning point. They always report that they're surprised by how quickly it turns and how hard it is to get out at anything like a favorable price."

Anatomy of Bubbles and Crashes

There is no standard definition of a bubble, but all bubbles look alike because they all go through similar phases. The bible on bubbles is *Manias, Panics and Crashes*, by Charles Kindleberger. In the book, Kindleberger outlined the five phases of a bubble. He borrowed heavily from the work of the great economist Hyman Minsky. If you look at Figures 9.7 and 9.8 (below), you can see the classic bubble pattern.

(As an aside, all you need to know about the Nobel Prize in Economics is that Minsky, Kindleberger, and Schumpeter did not get one and that Paul Krugman did.)

Stage 1: Displacement

All bubbles start with some basis in reality. Often, it is a new disruptive technology that gets everyone excited, although Kindleberger says it doesn't need to involve technological progress. It could come through a fundamental change in an economy; for example, the opening up of Russia in the 1990s led to the 1998 bubble or in the 2000s interest rates were low and mortgage lenders were able to fund themselves cheaply. In this displacement phase, smart investors notice the changes that are happening and start investing in the industry or country.

Stage 2: Boom

Once a bubble starts, a convincing narrative gains traction and the narrative becomes self-reinforcing. As George Soros observed, fundamental analysis seeks to establish how underlying values are reflected in stock prices, whereas the theory of reflexivity shows how stock prices can influence underlying values. For example, in the 1920s people believed that technology like refrigerators, cars, planes, and the radio would change the world (and they did!). In the 1990s, it was the Internet. One of the keys to any bubble is usually loose credit and lending. To finance all the new consumer goods, in the 1920s installment lending was widely adopted, allowing people to buy more than they would have previously. In the 1990s, Internet companies. In the housing boom in the 2000s, rising house prices and looser credit allowed more and more people access to credit. And a new financial innovation called securitization developed in the 1990s as a good way to allocate risk and share good returns was perversely twisted into making subprime mortgages acceptable as safe AAA investments.

Stage 3: Euphoria

In the euphoria phase, everyone becomes aware that they can make money by buying stocks in a certain industry or buying houses in certain places. The early investors have made a lot of money, and, in the words of Kindleberger, "there is nothing so disturbing to one's well-being and judgment as to see a friend get rich." Even people who had been on the sidelines start speculating. Shoeshine boys in the 1920s were buying stocks. In the 1990s, doctors and lawyers were day-trading Internet stocks between appointments. In the subprime boom, dozens of channels had programs about people who became house flippers. At the height of the tech bubble, Internet stocks changed hands three times as frequently as other shares.

The euphoria phase of a bubble tends to be steep but so brief that it gives investors almost no chance get out of their positions. As prices rise exponentially, the lopsided speculation leads to a frantic effort of speculators to all sell at the same time.

We know of one hedge fund in 1999 that had made fortunes for its clients investing in legitimate tech stocks. They decided it was a bubble and elected to close down the fund and return the money in the latter part of 1999. It took a year of concerted effort to close all their positions out. While their investors had fabulous returns, this just illustrates that exiting a bubble can be hard even for professionals. And in illiquid markets? Forget about it.

Stage 4: Crisis

In the crisis phase, the insiders originally involved start to sell. For example, loads of dot-com insiders dumped their stocks while retail investors piled into companies that went bust. In the subprime bubble, CEOs of homebuilding companies, executives of mortgage lenders like Angelo Mozillo, and CEOs of Lehman Brothers like Dick Fuld dumped hundreds of millions of dollars of stock. The selling starts to gain momentum, as speculators realize that they need to sell, too. However, once prices start to fall, the stocks or house prices start to crash. The only way to sell is to offer prices at a much lower level. The bubble bursts, and euphoric buying is replaced by panic selling. The panic selling in a bubble is like the *Roadrunner* cartoons. The coyote runs over a cliff, keeps running, and suddenly finds that there is nothing under his feet. Crashes are always a reflection of illiquidity in two-sided trading—the inability of sellers to find eager buyers at nearby prices.

Stage 5: Revulsion

Just as prices became wildly out of line during the early stages of a bubble, in the final stage of revulsion, prices overshoot their fundamental values. Where the press used to write only positive stories about the bubble, suddenly journalists uncover fraud, embezzlement, and abuse. Investors who have lost money look for scapegoats and blame others rather than themselves for participating in bubbles. (Who didn't speculate with Internet stocks or houses?) As investors stay away from the bubble, prices can fall to irrationally low levels.

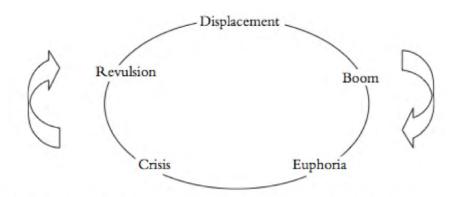


Figure 9.7 Anatomy of a Bubble: The Kindleberger-Minsky model SOURCES: Kindleberger, SG Cross Asset Research.

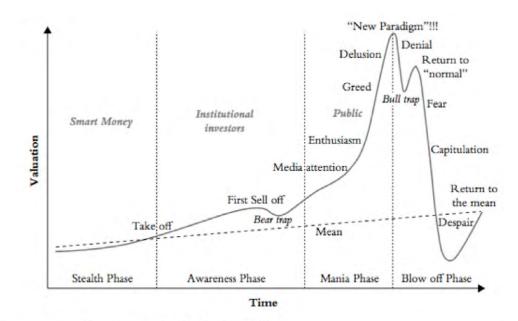


Figure 9.8 Anatomy of a Typical Bubble SOURCE: Jean-Paul Rodrigue

A Few Good Central Bankers

Space suggests we need to cut it off there. You can read the rest of the chapter <u>here</u>. I invite you to <u>visit the</u> <u>Code Red website</u> to get the book.

Jack Rivkin at His Best

Earlier this year I shared with you a tremendous resource from my friend and Altegris CIO Jack Rivkin. Since joining Altegris in December, Jack has been offering commentary about global economic and political events, trends, investing, and alternative investments in his "CIO Perspectives" at <u>Altegris.</u> com. If you were able to read some of his articles, you know that he has been remarkably accurate in his predictions for the first half of the year. I highly recommend you take a moment to read his recent <u>Mid-Year Update</u>, which offers a valuable look at an eventful last six months and his expectations for the second half of 2014 and beyond as we get closer to the end of QE .

For more reading from Jack, I suggest his piece on the opportunities for investing in credit, "<u>The Illiquidity</u> <u>Premium</u>." Qualified investors interested in learning more can <u>register for the Mauldin Circle</u> to get access to the exclusive Altegris private placement platform.



Dallas, San Antonio, and Washington DC

I am enjoying my respite from travel. Right now I'm not scheduled to get on a plane until the middle of September, when I go to the Texas Hill Country near San Antonio for the <u>Casey Research Summit</u>, which you should check out if you're looking for a great conference this fall.

I did work in a quick trip to Washington DC at the end of the month; but now I'm home again for a spell, although partners and friends are beginning to notice that I have some time in my schedule, and I'm sure that New York will have to appear on my schedule at least once in the next two months.

We celebrated my mother's 97th birthday party last night here at the apartment, and many of her friends and family showed up. My brother told me she had been focused on the party for the last month or so, and she was certainly happy with everything last night. Her regular nurses (who come to her home to see her) told me that she is getting visibly weaker, and I was already seeing that; but she was certainly "all there" for her party. There were a few poignant moments. "I would hug you, but I can't make my arms work," she told Tiffani. And indeed she has lost much of her arm movement. The ambulance service brought her in on a stretcher and moved her around the apartment to visit with her friends.

I have to confess the evening made a bit of an emotional impact on me, as I realized when I was going to bed that evening. I really lost my desire to have a conversation, lost in my own thoughts. Mother is "only" some 32.867 years older than I am, and unless there are some significant advantages in biotechnological medicine, I may not make it past 100, either. So the final future was brought home in a fairly stark way. Perhaps, I thought to myself, part of the reason that I so strongly believe in a biotechnological revolution happening in my lifetime is that I want/need it to happen. But then, I considered again the data that tell me it really is happening, and I got up the next morning to go dance with The Beast (my trainer) at 8:15.

Sunday I go to deep East Texas to visit the weekend home/ranch of my good friend Monty Bennett. Monty grew up in the hotel business and runs a large hotel REIT and associated companies. He gives me insights into the hotel business, and we talk macro. Turns out he is an economics junkie, and I am part of his "fix." I keep running into successful businessmen who also pay attention to macroeconomics and how it affects the business cycle of their particular worlds. The hotel gig is about as countercyclical as you can get. While that makes intuitive sense, it does require a certain type of contrarian nature to be successful at hotel investing. And that nature becomes suspicious of bubbles. So we have some fodder for an interesting conversation this week as we drive through Monty's ranch, which is really an international wildlife preserve. He has all sorts of exotic deer and sheep and such from all continents of the world – ibex, gemsbok, sable antelope, red kangaroos, and something called a <u>Barasingha deer</u>, which I really hope to see. And all sorts of sheep that I have only read about and seen in *National Geographic* magazines.

Have a great week. And enjoy each and every moment you have.

Your enjoying his summer analyst,

dr.7 Marthi

John Mauldin

Do you enjoy reading *Thoughts From the Frontline* each week? If you find it useful and valuable, your friends, family, and business associates will probably enjoy it too.

Now you can send *Thoughts From the Frontline* to anyone. It's fast, it's free, and we will never "spam" your friends and family with unwanted emails.

Help spread the word. Click here.

Copyright 2014 John Mauldin. All Rights Reserved.

Share Your Thoughts on This Article

Post a Comment

Thoughts From the Frontline is a free weekly economic e-letter by best-selling author and renowned financial expert, John Mauldin. You can learn more and get your free subscription by visiting <u>http://www.mauldineconomics.com</u>.

Please write to to inform us of any reproduction of *Thoughts from the Frontline*. Any reproduction must reference www.MauldinEconomics.com, keep all embedded or referenced links fully active and intact, and include a link to www.mauldineconomics.com/important-disclosures. You may contact affiliates@mauldineconomics.com for more information about our content use policy.

Please write to subscribers@mauldineconomics.com to inform us of any reproductions, including when and where copy will be reproduced. You must keep the letter intact, from introduction to disclaimers. If you would like to quote brief portions only, please reference www.MauldinEconomics.com.

To subscribe to John Mauldin's e-letter, please click here: http://www.mauldineconomics.com/subscribe

To change your email address, please click here: http://www.mauldineconomics.com/change-address

Thoughts From the Frontline and MauldinEconomics.com is not an offering for any investment. It represents only the opinions of John Mauldin and those that he interviews. Any views expressed are provided for information purposes only and should not be construed in any way as an offer, an endorsement, or inducement to invest and is not in any way a testimony of, or associated with, Mauldin's other firms. John Mauldin is the Chairman of Mauldin Economics, LLC. He also is the President of Millennium Wave Advisors, LLC (MWA) which is an investment advisory firm registered with multiple states, President and registered representative of Millennium Wave Securities, LLC, (MWS) member <u>FINRA</u> and <u>SIPC</u>, through which securities may be offered. MWS is also a Commodity Pool Operator (CPO) and a Commodity Trading Advisor (CTA) registered with the CFTC, as well as an Intr oducing Broker (IB) and NFA Member. Millennium Wave Investments is a dba of MWA LLC and MWS LLC. This message may contain information that is confidential or privileged and is intended only for the individual or entity named above and does not constitute an offer for or advice about any alternative investment product. Such advice can only be made when accompanied by a prospectus or similar offering document. Past performance is not indicative of future performance. Please make sure to review important disclosures at the end of each article. Mauldin companies may have a marketing relationship with products and services mentioned in this letter for a fee.

17

Note: Joining the Mauldin Circle is not an offering for any investment. It represents only the opinions of John Mauldin and Millennium Wave Investments. It is intended solely for investors who have registered with Millennium Wave Investments and its partners at www.MauldinCircle.com or directly related websites. The Mauldin Circle may send out material that is provided on a confidential basis, and subscribers to the Mauldin Circle are not to send this letter to anyone other than their professional investment counselors. Investors should discuss any investment with their personal investment counsel. John Mauldin is the President of Millennium Wave Advisors, LLC (MWA), which is an investment advisory firm registered with multiple states. John Mauldin is a registered representative of Millennium Wave Securities, LLC, (MWS), an FINRA registered broker-dealer. MWS is also a Commodity Pool Operator (CPO) and a Commodity Trading Advisor (CTA) registered with the CFTC, as wel I as an Introducing Broker (IB). Millennium Wave Investments is a dba of MWA LLC and MWS LLC. Millennium Wave Investments; Capital Management Group; Absolute Return Partners, LLP; Fynn Capital; Nicola Wealth Management; and Plexus Asset Management. Investment offerings recommended by Mauldin may pay a portion of their fees to these independent firms, who will share 1/3 of those fees with MWS and thus with Mauldin. Any views expressed herein are provided for information purposes only and should not be construed in any way as an offer, an endorsement, or inducement to invest with any CTA, fund, or program mentioned here or elsewhere. Before seeking any advisor's services or making an investment in a fund, investors must read and examine thoroughly the respective disclosure document or offering memorandum. Since these firms and Mauld in receive fees from the funds they recommend/market, they only recommend/market products with which they have been able to negotiate fee arrangements.

PAST RESULTS ARE NOT INDICATIVE OF FUTURE RESULTS. THERE IS RISK OF LOSS AS WELL AS THE OPPORTUNITY FOR GAIN WHEN INVESTING IN MANAGED FUNDS. WHEN CONSIDERING ALTERNATIVE INVESTMENTS, INCLUDING HEDGE FUNDS, YOU SHOULD CONSIDER VARIOUS RISKS INCLUDING THE FACT THAT SOME PRODUCTS: OFTEN ENGAGE IN LEVERAGING AND OTHER SPECULATIVE INVESTMENT PRACTICES THAT MAY INCREASE THE RISK OF INVESTMENT LOSS, CAN BE ILLIQUID, ARE NOT REQUIRED TO PROVIDE PERIODIC PRICING OR VALUATION INFORMATION TO INVESTORS, MAY INVOLVE COMPLEX TAX STRUCTURES AND DELAYS IN DISTRIBUTING IMPORTANT TAX INFORMATION, ARE NOT SUBJECT TO THE SAME REGULATORY REQUIREMENTS AS MUTUAL FUNDS, OFTEN CHARGE HIGH FEES, AND IN MANY CASES THE UNDERLYING INVESTMENTS ARE NOT TRANSPARENT AND ARE KNOWN ONLY TO THE INVESTMENT MANAGER. Alternative investment performance can be volatile. An investor could lose all or a substantial amount of his or her investment. Often, alternative investment fund and account managers have t otal trading authority over their funds or accounts; the use of a single advisor applying generally similar trading programs could mean lack of diversification and, consequently, higher risk. There is often no secondary market for an investor's interest in alternative investments, and none is expected to develop.

All material presented herein is believed to be reliable but we cannot attest to its accuracy. Opinions expressed in these reports may change without prior notice. John Mauldin and/or the staffs may or may not have investments in any funds cited above as well as economic interest. John Mauldin can be reached at 800-829-7273.