

## MarketWatch Postscript: A Case for Deflation June 2007

It happened in Japan at the end of the twentieth century and around the world at the start of the last century. Early in the current decade economists debated whether it might strike again. But now few seem worried about deflation—the economic condition where prices consistently fall for both goods and assets. In writing the MarketWatch column in *Semiconductor Magazine* from 2001 to 2006, I alluded to some concerns about future deflation, but it was never possible to address such a complex matter in a one-page column. So I want to take the opportunity now to discuss this weighty subject, in a MarketWatch “postscript” of sorts.

Today, few are worried about deflation. But I believe that we should be much more concerned than we presently are over the possibility of this past danger returning. Although I also think that this current economic expansion still has some ways to run. Nevertheless in this essay, I will argue that policy makers are underestimating the consumer disinflationary forces in the world today, a mistake that has led to the creation of dangerous asset bubbles. And once popped, these bubbles seem likely to unleash global deflation.

There are three primary arguments in my deflation thesis:

- First, there are powerful disinflationary forces in the world today, which are causing the prices of goods and services to rise more slowly than in the past and are largely responsible for the low levels of consumer inflation we have enjoyed in recent years;
- Second, reassured by a benign inflation environment, global central bankers have permitted excess liquidity to accumulate, which in turn has led to the creation of dangerous asset bubbles;
- Finally, the inevitable collapse of these bubbles will eventually likely lead to a liquidity trap, the return of deflation and a negative global economic environment.

### Powerful Disinflationary Forces

Globalization, technology, and demographics are all powerful disinflationary forces in today’s global economy which together adversely impacted the “pricing power” of companies and individuals that provide consumer products and services. Following the severe inflation of the 1970s, this has been seen as a welcome development, and in many ways it has been. Thirty years ago, out-of-control consumer price increases resulted in extremely high interest rates. Higher prices and higher rates stifled investment activity and contributed to the general “malaise” that characterized this period—consumers fretted over the declining purchasing power, and some products that we take for granted today became unavailable due to rationing and price controls.

Yet, while past generations, who include the central bankers who stand guard against a repeat of runaway inflation, remember the 1970s well, a new generation of politicians, businesspeople, and investors have never experienced an inflation-induced recession. Their understanding of the economy and the markets has been informed by the powerful disinflationary forces that have helped limit price increases during the past two decades.

Indeed, the last twenty years have seen the world become a smaller place where disinflationary forces keep inflation in check. Companies have taken advantage of globalization and technology to outsource operations, which keeps overall labor costs from rising too quickly.

Globalization isn't all bad news for workers, however. Consumers benefit from the smaller world by having access to more goods at lower prices (think Wal-Mart), and also by being able to "shop around" among numerous retailers on the internet to find the lowest possible price.

In a smaller world, corporations compete on a price basis in multiple regions, and they frequently encounter government policies that put even more downward pressure on prices. For example, many governments outside the U.S. (such as China) look the other way when it comes to piracy of software and luxury items that would otherwise command price premiums.

On the other extreme, governments like those in Europe will sometimes intervene to force companies with pricing power to give it up. Cases in point are the ongoing actions in Europe to get both Microsoft and Apple's iTunes to make available valuable proprietary information about their products, the impact of which would reduce these companies' ability to command premium prices.

When neither of these options is available to marginalize a company's pricing power, governments will sometimes subsidize the creation of a new competitor, such as was seen with the creation of Airbus to challenge Boeing's near monopoly on commercial jetliners.

Thanks to technology and globalization, the new world is a small world order, where the aggregate actions of governments, companies, and individuals help keep prices low. But the world today is not just a small world - it is also an aging world, and this too has a powerful disinflationary impact.

### ***Defining Terms of the Debate***

Some economic terms are often used and seldom defined. Without a strict definition they can be used to support any argument, which can be convenient for a writer, but ultimately makes them and their arguments of no use. Among the most popular of these in business literature are the terms excess liquidity and asset inflation—terms used frequently in this piece.

There are many definitions for the term liquidity. Unfortunately the more quantifiable the definition the more it misses. For this piece the broadest and least measurable definition of liquidity is used. Liquidity therefore is equitable to the purchasing power of all economic actors. That means not just cash and short-term investments at hand. It also means available credit. This covers a manufacturer able to borrow money based on its accounts receivables, a hedge fund employing leverage by borrowing against the value of its existing assets or a home buyer utilizing a zero-down mortgage.

Excess liquidity is quite simply a level of liquidity that produces either consumer inflation or asset inflation and then an economic contraction. Yet, while consumer inflation is relatively easily measured and defined the same cannot be said about asset inflation. For purposes of this paper asset inflation is a price supported by speculation over continued price appreciation rather than the underlying value or income generation of the asset. As such an excess amount of liquidity is required to fuel such price speculation that is not supported by underlying income generation.

Extreme asset inflation, which creates a so-called asset bubble and possibly deflationary conditions, is easiest recognized after the fact. Such an asset bubble sees an unsustainable price rise. Real price levels are reached that are not seen again until after over a decade of subsequent economic growth. Such an unsustainable rise is brought about by excess liquidity amidst a speculative market environment. This represents a rare situation, and something more than the ordinary price appreciation, which occurs in a normal and healthy market cycle. In the stock market the long period over which the market retreats from the heights once achieved is referred to as a secular bear market.

According to the U.N. Demographic Commission, the U.S. will have fewer than 3 workers supporting every retiree by 2030—down from a 7-1 ratio in 1950. And much of the rest of the developed world faces significantly worse numbers than the U.S.! What's more China also has an aging baby boom problem.

A ratio of fewer workers to retirees means proportionally less money to tax to support the growing number of entitlement beneficiaries. As a result, governments are left with two bad choices: Either continue to raise taxes, which results in lower economic growth (and thus perpetuates the problem, and may not even solve it if the tax base shrinks too much), or slash entitlement spending (which, if recent experience is any guide, is a political nightmare).

Political difficulties notwithstanding, however, the reality is that rationing has already begun. In parts of Europe and in Canada, for example, long waiting lists for basic health care services have become the rule rather than the exception, while in America, the number of uninsured citizens continues to rise (a recent AP report cited a decrease from 69 to 61 percent in the number of U.S. firms offering health insurance since 2000).

On a brighter note, improving productivity has helped ameliorate some of these problems. In Britain, the health service recently contracted to more efficient private vendors for set numbers of surgeries to help deal with the backlog. But what is changing is that governments and corporations can no longer blindly increase per person health spending.

Aging demographics mean the previously escalating per person spending that has driven inflation in health care, is coming to an end. Furthermore, in another disinflationary demographic note, older people tend to consume less and sell assets to fund their retirements. In short the world's demographics are becoming disinflationary.

### **Computers are Disinflationary Devices**

Technology has enabled modern corporate supply-chain networks and for consumers the Internet. These technologies allow both groups to efficiently arbitrage price differences and shop the world for the lowest prices. Technology didn't so much make the world smaller, as infinitely more accessible. Great disparities and differences in the world still exist, but now they can be much more efficiently arbitrated by organizations and individuals. Technology and globalism have largely destroyed pricing power at the local level for labor unions, commodity firms, manufacturing suppliers, middlemen, retailers and other economic actors.

One of the companies epitomizing this new reality is Dell with its outsourcing, supply chain management and direct customer sales channels built around advanced information technology (IT). It is a model that many companies today are emulating (that emulation has in fact become its biggest challenge). It is also a model that instead of creating and benefiting from pricing power, constantly pursues the most efficient pricing possible and thrives only from the destruction of pricing power. But it is not just advanced IT and supply chain management that make the Dell model notable. The company also makes good use of the Internet—another disinflationary force.

Consider the primary impact of the Internet for a moment. It is a ruthless discounter. Gone is the corner store monopoly or even the oligopoly of a few large retailers. Reduced also are middlemen, like travel agents. Consider even music where the Internet has worked to eliminate legal pricing power, through illegal downloading, and now with iTunes selling songs online at only a dollar apiece the industry is seeing online sales eclipse store purchases.

The fact is that the Internet gives individuals the power to cut corporate margins at the same time a company like Dell or Wal-Mart are leveraging IT and an open global marketplace to pursue greater pricing efficiencies. Today, not just companies, but individuals manage their own supply chains playing one supplier off another, accessing all parts of the world and sometimes even using technology to circumvent property rights, when they believe an unreasonable profit is being made.

## **Inflating Asset Bubbles**

Based on the aforementioned disinflationary forces, it is not unreasonable to believe that the reason we have not seen higher inflation in the recent past has less to do with enlightened monetary policy than the central bankers would have us believe. This is an important distinction. If we are still in an “inflationary world,” then mistakes by central bankers (i.e. injecting too much money into the world economy) should show up in rising consumer inflation.

Because this hasn’t happened, we must conclude that either central bankers have not introduced too much liquidity, or we instead live in a “disinflationary world,” where lower prices are now the rule rather than the exception. In a disinflationary world, excess liquidity creates asset inflation, rather than consumer price inflation, and the danger is not an inflation-induced recession, but rather a deflationary contraction.

The character of recent economic contractions would argue that we live in a disinflationary world where asset bubbles and deflation pose substantial risk. The U.S. recession of the early eighties was a typical inflationary recession, but after that things began to change. Not only did recessions become much more infrequent, but their severity and general character changed. Although the milder 1990-1991 recession was brought about partly by rising oil prices, easy credit and the S&L crisis also contributed.

Certainly the buildup to the East Asian crisis of 1997 was characterized with excess liquidity, easy credit and rising asset prices. The most recent and very mild U.S. recession of 2001 did not exhibit inflation. Instead this downturn was characterized by excess liquidity and rising asset prices—specifically a lot of money flowed into the Nasdaq, pushing it past the 5,000 point level in 2000. Of course when that bubble popped a contraction followed as the Nasdaq hit a low of about 1,100 point in 2002. What didn’t follow, however, was deflation.

## ***Economists Get it Wrong***

History suggests that deflation will be preceded by central bank tightening and popular concerns over rising inflation. This was the case for both the United States in the early twentieth century and Japan at the end of the century. Despite strong disinflationary forces being present central bankers grew overly concerned about inflation. Their actions to tighten the money supply led to recessions and deflation. History would also argue that stocks may need to further appreciate before this current asset inflation cycle is over.

In the United States of the 1920’s after central bank intervention caused the real-estate and commodity markets to cool-off, money flowed into stock and bond markets with a significant amount of M&A activity for about four years. There is a distinct possibility that we may now be seeing the same trend unfold today with real estate and commodities cooling and capital markets, as well as M&A activity, heating-up. If we see stocks rise substantially around a continued M&A boom that deteriorates corporate balance sheets, with economists eventually worried over rising consumer inflation, while investors become increasingly confident about future returns, then there is an excellent chance that history is repeating and deflation is around the corner.

Why do economists get it so wrong? The answer I believe is that they are working off false assumptions. Changes in the economic environment have altered how their models work. A world with strong disinflationary forces will react differently than an inflationary one. Introducing excess money into one primarily creates asset inflation and in the other leads to consumer inflation. Yet, while economists studiously track consumer inflation they largely ignore asset inflation, because in the consumer inflationary world they formed their thinking, it was less important. In addition it’s very difficult to incorporate something into a model that one cannot quantify.

The view held by many economists that deflation can be defeated by aggressive monetary easing or credit expansion and a failure here was the biggest error of central bankers previously facing this menace is incorrect. The biggest error was fueling asset bubbles with excess liquidity. Once those bubbles exist all monetary intervention can do is alleviate or postpone but worsen eventual asset-price deflation. No matter how well-executed, monetary policy cannot all-together avoid a needed economic downturn to burn off earlier excesses.

Deflation hasn't followed because central bankers have over the recent past always been able to inject more liquidity into the economy to drive growth. The current cycle has been characterized by liquidity flowing into real-estate in the West that creates wealth to fuel consumer spending, while liquidity also flows into manufacturing capacity in China to produce low-cost consumer goods. Rising consumer consumption has led to increasing commodity usage, which coupled with easy money available for speculation, has resulted in rising commodity prices.

Today, we have a global cycle of easy money, driving rising asset prices. Americans, Australians, Spaniards and others around the world borrowed money at very cheap rates to buy and then speculate on houses. Rising home prices also allowed consumers to tap their newfound home equity wealth through refinancing loans. Then they spent this wealth. Despite corporate spending declining with the 2001 recession, surging consumer spending soon more than made up for it.

This consumer spending spree in the Western World is further exacerbated by policies in the East. In a symbiotic relationship, growth in Asia economies has revolved around manufacturing goods for consumer markets, especially the American consumer market. So, Japan and China for instance buy huge amounts of U.S. treasury bonds. This helps keep U.S. interest rates low and in effect subsidizes and encourages consumer spending.

China in particular has pursued an easy money policy, as it funnels cheap capital into building manufacturing capacity to meet burgeoning global consumer demand. Of course this increased manufacturing base and rising consumer demand require growing amounts of commodity consumption. And with rising commodity prices and easy credit there has been some level of speculation in commodity prices, although the exact amount is very much debatable.

The end result of all this is that for the first time since the 1920's, the world has seen prices rise across asset classes with little inflation.

### ***Sizing Up the Asset Bubbles***

Globalism and technology mean that excess money created in one region can flow to another. It also means that we have found very creative means to artificially enhance the money supply through leverage devices and global markets. Home owners in America make use of exotic mortgages that require no money down with securities representing those debts then bought by banks around the world, like Britain's HSBC. Demographics also play their part as the need to support an aging population increases the demand for long dated debt and pushes long-term yields to very low levels thus lowering the costs of borrowing money and encouraging speculation, whether in housing, commodities, stocks or manufacturing.

The size of today's bubbles is difficult to gauge with any surety, but there are some interesting data points. An academic study by Yale economist Robert J. Shiller, which examined historical home prices going back to the 19<sup>th</sup> century, found that over the long-term home prices increase at the rate of inflation and estimates that today U.S. houses are over-valued by around 40 percent. History by way of the last Asian financial crisis also argues that over half of China's loans and investments could go belly-up when times turn bad. Oil inventories are at twenty-year highs in the developed world, due to speculation and arbitrage over the difference between spot and future prices, and we also are aware of reports of commodity speculation coming out of China.

When it comes to stocks our valuation methodologies do not cause concern for worry... yet. But the successful IPO of Fortress Investment Group, a private equity hedge fund, points to a worrisome new investment fad around what is basically holding companies taking advantage of cheap money to gobble up real businesses. This fad could well contribute to another asset bubble and with all the others come to an inglorious end. If the global economy were to contract demand for housing, manufacturing, commodities and other assets could all fall.

Excess supply built up from bubble creation would then hit the market forcing prices down even further. It's a good bet though that easy lending, big projects and flowing money will continue in China at least until the 2008 Olympics. Yet, the easiest of the easy money times for home owners are already over. After the Fed began raising interest rates the national housing market paused from its meteoric rise last year. As a result it is very likely that we are closer to the end than the beginning of this asset inflationary cycle.

## **The Return of Deflation**

Prior to the last period of global deflation the world saw a prolonged period of prosperity and comprehensive asset inflation with: rising prices for commodities, which also saw businesses speculating in these markets; in real-estate a nationwide boom in U.S. farming land (there is precedence for a nationwide land boom if you look back far enough); and also of course in stock markets around the world.

That same period also experienced globalism and technology (mass production, electrification, global communications, expanded trade) act as significant disinflationary forces. An inverted yield curve, such as we have recently seen, where long-term interest rates are below short-term ones was the norm in the 19<sup>th</sup> century.

Only in the inflationary twentieth century did an inverted yield curve become identified with recessions. Also, similar to the 19<sup>th</sup> century economic cycles are lengthening and the last recession was more similar to excess investment ones of the 19<sup>th</sup> century than a late 20<sup>th</sup> century inflation-induced contraction. Of course the more recent Japanese deflation experience also saw strong disinflationary forces and rising asset prices.

When viewed through the prism of history an inflationary world seems the oddity and one where deflation poses a significant risk is much more normal. Despite all of this however, some dismiss the danger from deflation. They contend that, even if there are asset bubbles and disinflationary forces at work in the world, the danger from falling prices is easily enough countered by modern central banks simply printing money and creating inflation. Unfortunately, a so-called liquidity trap can exist, where despite such an intervention, the monetary base doesn't expand and deflation solidifies. Those conditions chiefly come in the form of zombie firms and consumers, and I would argue they are currently present.

Deflation set in with Japan, due to the Japanese government keeping afloat zombie corporations—companies that should have been shuttered. Government intervention kept banks lending money to these companies, thereby financing continued excess production capacity and production at a loss. For Japan this had the short-term benefit of minimizing employment loss. But the long-term cost from having zombie corporations is enormous. It creates a liquidity trap where there is no incentive to make new loans or investments, inefficiency is rewarded, excess production capacity maintained and a deflationary environment where prices fall is created.

If Japan had reason to keep zombie companies alive in the interest of social stability, then China has even more cause for such action. Today, it is very plausible to imagine a situation where China does all it can to support excess production capacity by pouring money into businesses that should be shutdown—in fact it does so already even in good economic times to a limited extent in the interest of social stability. There is a very real potential for monetary transmission mechanisms to breakdown and deflation to set-in given the political realities faced.

The developed world also could experience liquidity transmission problems. In the U.S. we are already seeing the rise of consumer zombies, people living from one debt installment payment to another. Over the previous two calendar years for the first time since the Great Depression the personal savings rate went negative as Americans spent more than they earned. America may have a better record than Asia for shutting down inefficient companies, but the same cannot be said about shutting-down consumers.

Lenders are likely to continue providing credit to overextended consumers only to the extent necessary to keep them technically solvent. They will be kept on life-support, but this low rung of the economic ladder will have little opportunity to get fiscally healthy and thereby increase their long-run consumption, especially as a deflationary environment makes their real debt burden heavier. In such an environment lenders will not want to increase their debt exposure any further and will sit on their available funds to strengthen fundamentally weak balance sheets. In addition in this low-return world we are already experiencing a liquidity transmission problem with profitable companies, due to non-responsive ownership structures.

Huge cash stockpiles are being built-up that are not being invested or given to shareholders in proportional amounts. According to the Wall Street Journal just the 174 companies in the Standard & Poor's with complete treasury-share disclosure reported in the first quarter of 2006 cash and treasury stock holdings in excess of \$790 billion or almost 20 percent of their total stock market value. When we consider this trend and more importantly the potential for the ranks of zombie producers and consumers to swell it is easy to envision a liquidity trap where central bank attempts to expand the money supply realize little success.

It is in such a deflationary, zombie ridden world that the potential arises for the economic contraction to deepen even further, due to xenophobia, much as it did in the Great Depression. The risk to blame globalization and enact labor, trade and capital flow restrictions may become irresistible (such movements are already underway even in good economic times). Just in the way that the Smoot Hawley tariff act made a bad situation worse in the early part of the 20<sup>th</sup> century, a move to embrace anti-globalization would prove disastrous. This is the real worst case scenario.

Alarmists love to bring-up the Great Depression. When it comes to China with its export-led development model, rickety banking sector and high-risk capacity manufacturing exposure the potential for a repeat performance is there. Throw in an extremely wide wealth gap and a surplus male population of several million, due to the unintended consequences of population control policies, and the potential for something closer to the French revolution is possible (a truly frightening possibility for many corporations' global supply chains).

But it would be an over-statement to point to the developed world as being on the same precipice. For the developed world with its large service economies and big governments Japan's deflationary experience is probably a better parallel, when it comes to the risks faced.

### **Closing Thoughts**

Such a theory of coming deflation, even assuming it is correct, has limited value for investment planning. First off no theory should be assumed correct. There will be signposts along the way to show whether it is accurate or not. Even if it is correct one would do well to remember the 1996 claim of Alan Greenspan about irrational exuberance in the U.S. stock market after which stocks continued marching higher until a peak in 2000. Similarly, the current good times may very well continue rolling for many years, and in 2007 there are few signs of truly irrational exuberance on a global basis. But there are worrisome long-term trends that make a strong case for a secular bear market and deflationary environment arising early in the 21<sup>st</sup> century.

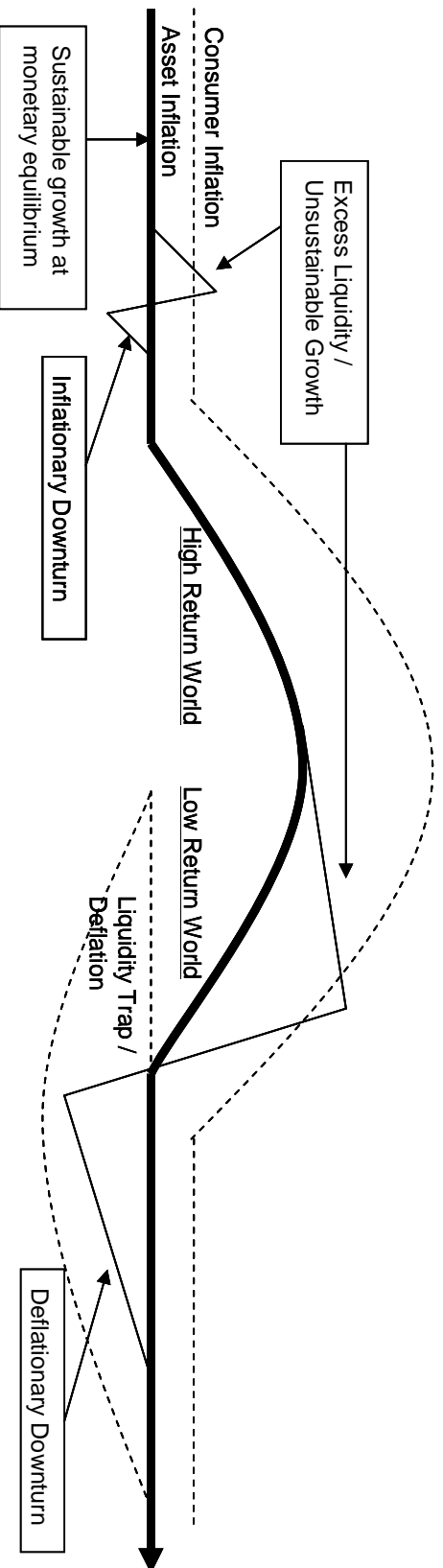
Admittedly, such a scenario is only one possible future. Yet, for investment managers it makes sense to keep an eye out for the danger no one sees coming, and right now few are worried over deflation. That by itself merits attention.

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## Postscript Notes

- Although commodity production capacity was not addressed in this essay, previously existing excess production capacity has also played an important disinflationary role, especially with regards to crude oil—a dynamic that appears to have recently changed largely due to a long-term trend of increased consumption with global economic growth in general and the rise of China specifically. Of course due to the brevity of this article and scope of the issue several subjects were only alluded to or not discussed at all, including the ongoing trend towards commoditization in industry's that used to have innovative technologies distinguished by pricing power. Also not discussed in this paper is the increased potential for global conflict arising in such a deflationary world, due to resulting social pressures from the economic issues detailed.
- Although this paper is focused on deflation, supply or demand forces that lead to rising inflationary pressures are among the most likely scenarios for triggering the onset of deflation. For instance consumer prices could rise, due to commodity price increases from full utilization being passed along the supply chain or existing manufacturing capacity being fully utilized, with central banks then raising rates to fight consumer inflation and sparking a contraction that would subsequently burst existing asset bubbles and lead to deflation.
- The accompanying illustration describes an economic model for deflationary downturns that seeks to incorporate the disinflationary forces described in this paper. It also envisions deflation being immediately preceded by inflationary pressure. The model envisions three stages in an asset inflationary to deflationary economic cycle where the primary monetary characteristics are consumer inflationary, asset inflationary and deflationary, respectively. This model does not include a stagflation environment, but could theoretically be expanded to do so to make it truly comprehensive. The model also proposes that when positive disinflationary and productivity trends arise both the sustainable growth rate of the economy and the capacity for asset inflation bulge upwards. In fairness to central bankers, such an environment makes their task exceptionally difficult, as the economy does actually require more liquidity for a period of time at an escalating and then receding rate, while disinflationary forces obscure the traditional methods for observing the creation of excess liquidity. In such a world perhaps the best indicator that central banks are erring on the side of excess liquidity, thereby setting the stage for a future deflationary downturn, is ironically the lack of recessions from overly tight monetary policy.

## Asset Inflationary to Deflationary Cycle



**Stage 1: Consumer Inflationary**  
 Economic actors command significant pricing power. Due to lack of disinflationary, high-productivity trends there is less of a need for investments and liquidity. In this environment there is also less of an investment in expanded manufacturing capacity or new competitors, while consumer inflation is triggered relatively quickly when economic growth rates accelerate too much. As a result economic cycles with recessions occur on a relatively frequent basis, but are of smaller magnitude than those in a deflationary cycle. Due to frequent demand spikes with inflation however investments do occur around commodity production.

**Stage 2: Asset Inflationary**  
 Strong disinflationary forces and productivity trends (e.g. new technologies; demographics, such as a population bulge reaching highest productivity years with still high consumption; under-utilized commodity production) deliver stronger and longer periods of uninterrupted economic growth (growth rate bulges upwards). Such period requires more liquidity for investments. These forces also results in excess liquidity translating into an extended period of asset inflation prior to the onset of any consumer inflation. Furthermore, the resulting wealth effect further inflates growth. The first part of stage 2 sees high returns on investments, as productivity trends are adopted, but then transitions into a lower return period as trends are maximized and asset inflation becomes primary driver of growth.

**Stage 3: Deflationary**  
 Debts from popping of asset inflation bubble triggered when central banks counter consumer inflation, create liquidity traps and deflation crater that the economy sinks into. Just as the asset inflationary period saw prolonged period of strong economic performance the deflationary period witnesses extended period of economic weakness. Excess production capacity and debt overhangs contribute to deflation, while a lack of new productivity trends also discourage new investments. Extent of asset inflation bubbles and government policies around trade, regulations and economic actor debts will either shorten or prolong deflationary period. Usually government policies act to prolong period.