

**Current implications of a stock market bubble and its potential rupture**

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Recently there has been some concern garnered when considering the current state of the stock market. This paper aims to explain what exactly a stock market bubble is and what that entails through theory and a look at past bubbles, but also to produce an argument for and against the current possibility of one existing within the economy of today.

### **What is a Stock Market Bubble?**

A stock market bubble is a type of economic bubble (i.e. “trade in high volumes at prices that are considerably at variance with intrinsic values”) that occurs within a stock market when the participants of the market drive stock prices through purchase and sale to a value above that of a system of stock valuation (i.e. the theoretical pricing system). The main theory concerning why stock market bubbles occur is that cognitive bias or irrationality amongst traders leading to illogical decisions, for example, to purchase certain stocks leads to herd behavior (i.e. everyone else following suit in those decisions made). Bubbles often produce a sense of security and prosperity, with the reality of its implications being ignored. A bubble tends to collapse due to a market correction or a loss of confidence. Rapid growth is fed through greater allocation of resources to those areas during a bubble, but once it collapses, these resources are reallocated leading to deflation of prices which at times can be catastrophic to the market or even the wider economy, for example, the housing market bubble’s collapse of 2008 causing one of the worst recessions since the Great Depression.

### **Current Circumstances**

The current economy is in a state of recovery after the recession of 2008 hitting. Many economies like that of the United Kingdom faced a double dip recession and in only recent times

have begun reaching pre-recession peaks. Government is concentrated on creation of jobs and reduction of deficit in its quest to produce sustainable growth in the economy whilst increasing prosperity amongst the population it governs. Due to this fact, bubbles are often missed by the “regulators”. Again touching on the recession of 2008, the reason this occurred was partly due to the fact there was a lack of government intervention to stop deals and transactions happening that were being overly valued so some profited whilst others suffered. In the case of a stock market bubble, the situation is not as two sided, i.e. a bubble is caused by traders, whereas a housing market bubble is caused by banks’ greed and consumers’ willingness.

### **Historical Examples of Bubbles**

Historically speaking stock market bubbles have arisen in a number of ways. Some examples include the Bull Market of the Roaring Twenties, the Japanese “Bubble Economy”, and the Tulip and Bulb Craze of Holland. The Bull Market bubble occurred during the 1920s, when the US stock market was establishing new fundamental elements of economics due to it being one of the first of its kind. Those in power at the time began to promote free trade and led a more lax regulation regarding anti-trust establishments. These approaches led to an increase in consumer credit ability leading to heavy investment in stock markets as a means of financial security. This influx of trading led to artificial pricing due to high levels of demand and an eventual collapse and panic with 16.5 million changing hands in one day which at that time was a phenomenal amount.

The bubble in Japan occurred during the 1980s when it had one of the highest economic growth rates in the world. The government slackened its hold over monetary policy leading to

increases in money supply and falls in interest rates. These elements allowing easier access to credit led to more parties entering the market. The bubble itself was created from the use of “financial engineering” in which speculation played a fundamental part of the statements of corporate earnings. This ability to fashion higher earnings in writing led to greater investment on the stock market in those corporations, which would only push up earnings further still. By the end of the decade, it was considered that 50% of total reported profits from some Japan’s largest corporations were actually a figment of this financial engineering. The government began to notice this artificial valuation, a key component of stock market bubble formation, and implemented stricter monetary policy with higher interest rates leading to a close shave with recession and a collapsed stock market.

One final and the most famous example is that of the Tulip and Bulb Craze of the 1600s in Holland. It was in 1593 that the Tulip was introduced to Holland from Turkey and was prized by many and therefore often sought after pushing up prices. The market grew to a point that people began using the tulips in speculative manners trading them for things with much greater intrinsic value (e.g. at one point during the peak a single tulip could be traded for an entire estate, whilst at the dip it could only be traded for an onion). Eventually some feeling unsafe began to sell tulips and finally the market was flooded (due to a panic and owners of tulips trying to rid themselves of the flowers) which severely reduced prices causing its collapse. A great depression followed although the government tried to intervene. These past examples show some similarity regarding characteristics of how the collapse came about and the state of the current stock markets here in the United States.

## Cause for Alarm

Should government and the public be alarmed? There are a number of elements that must be scrutinized in order to determine whether the answer is yes or no.

### *Considering its Existence*

The argument for yes is extensive and holds with it many dangerous consequences that will follow if the collapse were to happen. The main point when regarding an answer of yes is whether the inexperienced are being sucked into the world of stock trading. This often follows a period of speculation that a stock market matures to. In this, traders begin to place values on stocks in speculation, which can lead to poor valuation and therefore bubbles. These usually attractive price points or potential, but purely speculative, rises in value attract consumers or “civilians” (when comparing the professionals from those with little knowledge) if you will and their investments for a safe and secure place to save or set aside money in their possession, e.g. in a very extreme instance of buying a piece of art in the hope it holds its value and therefore the money you invested in it. When these types of investors begin to materialize, it can be alarming, especially when considering areas of fast growth, for example in recent times, biotech companies and technology startups industries being great examples.

What is it that leads to this prosperity in stock markets allowing for speculation? Considering the example of the bubble that formed within the Japanese economy during the 1980s, it is clear a lack of government intervention which is detrimental to a bubble’s formation. Currently, the United States economy is in an unprecedented situation where interest rates are at record breaking lows and quantitative easing is leading to increases in the supply of money, both

elements entirely reflective of the Japanese government relaxing their grip over monetary policy in order to encourage spending. In Japan's case this led to the invention of financial engineering, whilst in the case of the US it is simply allowing many investors to gain financial funding for transactions they may not be able to afford (under the speculation that a profit will be earned) which is comparable to the supply of mortgages to home owners pre-recession in 2008. Banks often untighten their cautionary grip on the rules and regulations they set themselves on providing loans to customers in their mission for profit. Presently, banks may be more likely to follow this philosophy due to the low rates of interest they are offering and therefore affordability of their loans. But as these loans are being used toward these speculative transactions the banks are at a risk that their money lent, let alone collectible interest, will be seen unreliable due to fluctuations in stock pricing. This would be especially applicable to those less experienced in seeking funding for purchase of stocks; they may play the game wrong and therefore lose out due to their ignorant speculation according to "everyone else".

Where is the money being invested? As previously mentioned the money is moving to places of high growth, for example, biotech (i.e. "the use of living cells, bacteria, etc., to make useful products (such as crops that insects are less likely to destroy or new kinds of medicine)") companies or technology startups whether they are ideas like Twitter or King Games (creators of Candy Crush Saga). The problem with these businesses is that often – especially in the case of Twitter who had a very successful initial public offering (IPO) although it has yet to turn a profit – their value is completely speculative as the services provided are not easily numerable with

them being such new concepts which are often eaten up by current generations as trends and often thrown to the wayside very soon after. An example of this would be Zynga and Farmville.

Farmville experienced massive popularity giving Zynga the opportunity to achieve one of the largest tech initial public offerings ever. But as of late the company with its greater number of titles riding off the success of Farmville, is under difficulty to maintain earnings at the level they once were, which may be down to a “trend” better interesting the current generations of casual gamers (e.g. Candy Crush Sage). A stock, when Zynga began selling, was worth \$9.41 each reaching a peak of \$13.15 that same year, but since then has been less than half that peak with a low as little as \$2.24 within the same year the IPO was first given. This is an example of massive speculation on the value of Zynga as a whole only for investors panicking and flooding the market with their shares less than 12 months after. This is the case with many new IPOs. More and more companies are publicly offering stocks as it is much easier to do so and it has become a norm or something that can be only “beneficial”, as well as a fast means of raising capital, whether to cover debts, use in growth, etc. But investors are not doing their homework when regarding the company and product as a whole and often appear to simply be betting on the concepts or ideas that the company has - like in the case with Twitter - without looking into the long-term and fully understanding whether the company and its “products” in question are sustainable and a good source of profit. So far investors have been “lucky” and not enough have failed to cause any devastating problems, but with every new IPO and stock traders riding on highs of past successes with speculative or ignorant approaches, it seems likely that at some point this behavior is doomed to fail the market and possibly even the economy at large.

***Arguing its Nihility***

The argument for its nonexistence in regards to the question of whether a stock market bubble exists or not often stems from those who currently are making most profit from stock transactions such as investment banks or stock brokers. Their reasoning behind this is with reassurance from them – “the experts” – businesses, organizations or individuals will continue to seek out their services and buy/sell stocks on the stock exchanges.

Goldman Sachs’ chief investment officer Sharmin Mossavar-Rahmani and managing director Brett Nelson provide numerous arguments against the existence of a stock market bubble. These two figures are powerful individuals in regards to Wall Street and therefore their word is often sought after and influential in regards to the market’s opinion on the current climate. They make these arguments to follow under the pretense of bubble-like conditions only existing when the price of an asset "deviates significantly from the underlying value of the asset based on a reasonable set of assumptions about the future drivers of fundamental value, such as growth, inflation, and policy." In other words, a stock’s intrinsic value is not purely based on the present value according to the current performance of the company, but also the prospected value the stock will gain from the likes of growth and it is only when these pricings shift away from this intrinsic value that bubbles can form.

Their expert opinion is made up of four components: credit growth and investor flows into stocks are currently not excessive, sentiment towards the US could still improve, and valuations are not in bubble territory according to their definition of conditions that prerequisite to a bubble previously mentioned. Currently credit growth or the growth of the level of money

readily available to be borrowed by an individual or a company of which requires repayment is on a year-on-year low in comparison to the average credit growth of 7.3% since 1947 (this trend has been in existence since the Great Recession). In the most recent figures, the percentage change in the first two months of 2014 (January and February) of credit growth was of 5.85%. These figures suggest that banks and the like are still restrictive on their lending and therefore cautious as to who and what they are lending to. It highlights that these lenders do not appear to be returning to their greedy behaviors pre-recession, i.e. offering sizable loans to those who could not afford them in attempts to maximize numbers (e.g. revenues, profits, etc.).

Goldman Sachs second point is that inflows of investment have only recently (i.e. Q1 of 2013) begun to become positive after five years of recession led outflows. This turnaround of investment was also forecasted by Goldman Sachs in a 2013 report. A stock market that is apparently being rushed with investment causing prices to erratically soar has not existed long enough for there to be a bubble, according to Goldman Sachs. Their belief is that prices are still of their intrinsic values and investment is not excessive enough to cause wrongful valuations. But in returning to their definition of how bubble-like conditions are produced and how the “underlying value of the asset” is “based on a reasonable set of assumptions about the future drivers of fundamental value”, one could argue again with the likes of Twitter how an investor, stock broker, or the like could effectively and accurately assume the value of an asset according to “future drivers of fundamental value” when the product in consideration is an entirely unique one unlike anything ever created with currently no means of actual monetization (i.e. creating a profit).

One would expect with a bubble, over-confidence in the market. This is currently not the case, argues Goldman Sachs. They believe sentiment towards the US has improved, but still has time to match previous opinion; though these sentimentalities are often based on national strengths regarding economics, institutions (education), human capital and geopolitics. But often these companies listing stocks are tech startups through the likes of the Internet, making them globally spread companies from the touch of a button, especially services such as Twitter or the apps like Candy Crush Saga. Although their headquarters in brick and mortar are within the confines of United States borders does that mean, when considering investment, that they are restricted to sentiment on a national scale? To an extent, Goldman Sachs may argue yes as their listing of stocks on American stock exchanges puts them directly in the firing line of negative opinion especially when regarding investors' attitudes towards the United States as a whole, but the "cloud" like existence of Internet services bring about certain questions similar to those of the intrinsic values of stocks of these companies under Goldman Sachs' definitions.

Goldman Sachs' final point is that valuations are currently not in bubble territory, i.e. values have not deviated away from intrinsic values enough. It is possible a new norm has been established in the stock market, in that, valuations on corporations that would once appear seemingly worthless in a traditional sense (e.g. yet to turn a profit, making consecutive losses with no means of substantial revenue generation in sight) are actually beginning to hold much more potential due to one characteristic: user base. In today's society and newer generations in particular, free services are rife, for example, Facebook, Twitter, Instagram, Vine, Snapchat, amongst many others. The demand for such services is strong and although in a lot of cases these

companies do not produce sustainable levels of revenue or profit (if any at all) their large user bases with possibility for monetization through advertising which the most successful such as Facebook and YouTube have made their greatest profits. These tech startups that some may say are risky businesses when viewed in a 20<sup>th</sup> century light, may be holding more true to their intrinsic values due to this increasingly important and quantifiable component and this may be why Goldman Sachs believes that there is a general lack of deviation or at least a minimal amount and therefore no likelihood for a bubble.

### ***Effects of a Rupture***

So what if the bubble exists and what if it pops? Although all the key elements previously mentioned (under “***Considering its Existence***”) point to the potentiality of a bubble’s reality, some consider it a “bubblecovery” or an engine that is powering economic growth that simply benefits the economy when considering these engines existing in the past (e.g. Dot-Com bubble of the 1990s). It is only when some major influencer of the economy decides to change its behavior that bubbles become dangerous, for example, in the case of this bubble it would be the government suddenly tightening their grip on monetary policy, a grip they loosened in order to stimulate economic growth (e.g. consumer spending), increasing base interest rates and reducing quantitative easing. It could be argued that rising interest rates are what may have caused the Great Recession of 2007 by means of bursting the housing market bubble that was increasingly well-established.

Another major influencer to the economy, are investors themselves. If the US government continues to utilize quantitative easing as a means to recovery, investors may begin to become

fearful as the US dollar's value would begin to fall due to the increase of the supply of money.

This may lead to a rush to selling of their treasury bond holdings. This sudden lacking of confidence in regards to the US government's debt securities would be devastating to the economy. Many foreign investors may seek out more secure countries with government debt such as the United Kingdom. The US government would gradually lose a major component to their overall income to service their national debt which may lead to a greater prospect of a default. This uncertainty in regards the government's debt and ability to remain afloat would spread to the likes of the stock market as investors would begin to view opportunities once attractive in a more unappealing light due to geopolitical and economic instability. Although this may seem an extreme example, the US government has tip-toed on the brink of default numerous times in the past (due to other reasons) including as lately as October 2013.

The US would not be the only economy that would be affected by the popping of a stock market bubble. As seen with the Great Recession, countries around the world were affected by the collapse in the United States, due to world economies being reliant on the US dollar as a trading currency and the interconnection of financial and banking systems such as that found between the UK and the US. If a stock market bubble were to rupture today it may be even more catastrophic than that of the rupture seen in 2008. This is down to the fact that the world as a whole grows more and more globalized with each day, with widespread interdependence growing and self-reliance becoming an objective seemingly of the past, one required for the onset of a world war, something that appears completely impossible. A perfect example of such globalization is the current economic sanction war being played out between Russia, the EU and

the US. In the long-run these sanctions are going to hurt the hand that gave them out.

Corporations due to globalisation are becoming more multinational and less “patriotic” to their origins, i.e. they often no longer allow politics to affect their decision making (e.g. Siemens’ – a German company – CEO meeting Putin during the current Ukrainian crisis committing his company to Russia).

Whether a bubble is truly an actuality fueled by the opinion of the market or one fueled by the actions of those taking part in the game, quite often it is the opinion that can cause its rupture, albeit an apparition or not.

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