Jamnalal Bajaj Institute of Management Studies

CRISIL YOUNG THOUGHT LEADER 2009

DEALING WITH ASSET BUBBLES

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EXECUTIVE SUMMARY

First things first: Why are we discussing the topic of asset bubbles?

The reason is today assets are more widely held than ever before. People have increasingly diversified asset holdings from small scale deposits to stocks, mutual funds, houses, pensions, etc. Just to underline the point, we take a note of the fact that more than half the Americans today hold stocks directly or through mutual funds. Hence asset bubbles today are expected to create a much larger impact.

The paper looks at conventional approaches used in handling of asset bubbles while citing their limitations. A better part of the paper focuses on developing an innovative way of dealing with the asset bubbles. It recommends formation of a separate committee viz. the Asset Valuation Committee whose primary responsibility would be to track the asset prices and provide warning signals to various stakeholders whenever it feels that valuations are not in line with economic fundamentals. The stakeholders would include investors, speculators, and the entire banking system including the Central bank, alongside public at large. The paper also analyzes in depth the various challenges that could be faced while conceiving the idea of institutionalizing any such committee. The paper concludes by suggesting some tools that will be required to complement the AVC for effective handling of asset bubbles.

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AN INTRODUCTION TO ASSET PRICE BUBBLES

What is an asset bubble?

Very simplistically, it is an extended period of extreme overvaluation. We have all known of bubbles across various asset classes like the stocks, real estate, commodities and precious metals. In fact assets bubbles have a very long history, the earliest most notable one being in the flower market – the Tulip Mania in Holland in the 1630s. The most infamous asset bubble of the 20th century became known to the world with the Great Depression of 1929. All bubbles have been characterized by huge rise in the prices followed by a huge crash.

There was a period of lull after the Great Depression with asset bubbles being few and far between. But in the last 3 decades they have returned in a big way with the Japanese stock and real estate bubbles in the 1980s, the dotcom bubble in the late 90s and the most recent one being the sub-prime housing bubble in the US.

LIFE-CYCLE OF A BUBBLE

Stage 1: External Disturbance

Some outside event like end of war, some new technology (radio, internet, etc) or lowering of interest rates changes the investment landscape and seems to open up a new opportunity.

Stage 2: Flood Gates Open

There is a new flood of investment that pushes up the prices and the profits further encouraging new investment.

Stage 3: Euphoria

At this stage, genuine investment is replaced by speculation and expectations of potential returns reach wild heights. There is no consideration for fundamental valuations and this phase is marked by an extreme mania.

Stage 4: Reality Check

Again an external disturbance creeps in to slow the market risk. This could be outbreak of a war, hike in interest rates or a general slowdown in the economy as capacity comes on stream and there is an evident over-capacity.

Stage 5: Downfall

Prices begin to fall, financial distress rises and bankruptcies climb in numbers. Investments dry up and consumer purchases are delayed. There may be panic selling. There is lack of trust amongst the banks that leads to a liquidity crunch.

Stage 6: And The Burst

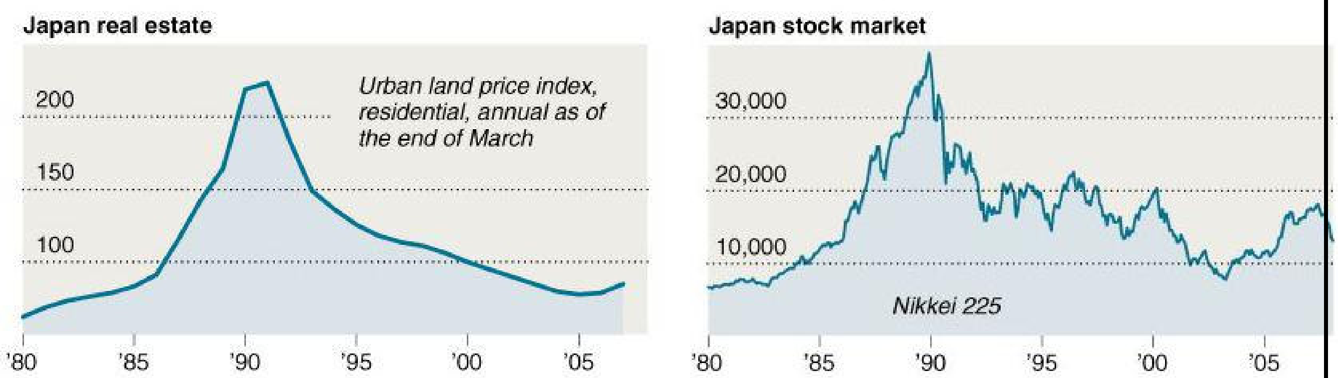
The bubble has burst and at minimum leads to an economic slowdown, with a further possibility of a recession or a full blown depression as in 1929 or the “lost decade” of Japan.

QUICK GLANCE AT THE BUBBLES IN THE PAST

1. GREAT DEPRESSION OF 1929

Source: http://www.finance.yahoo.com

2. JAPANESE REAL ESTATE AND HOUSING BUBBLE IN THE LATE 80s

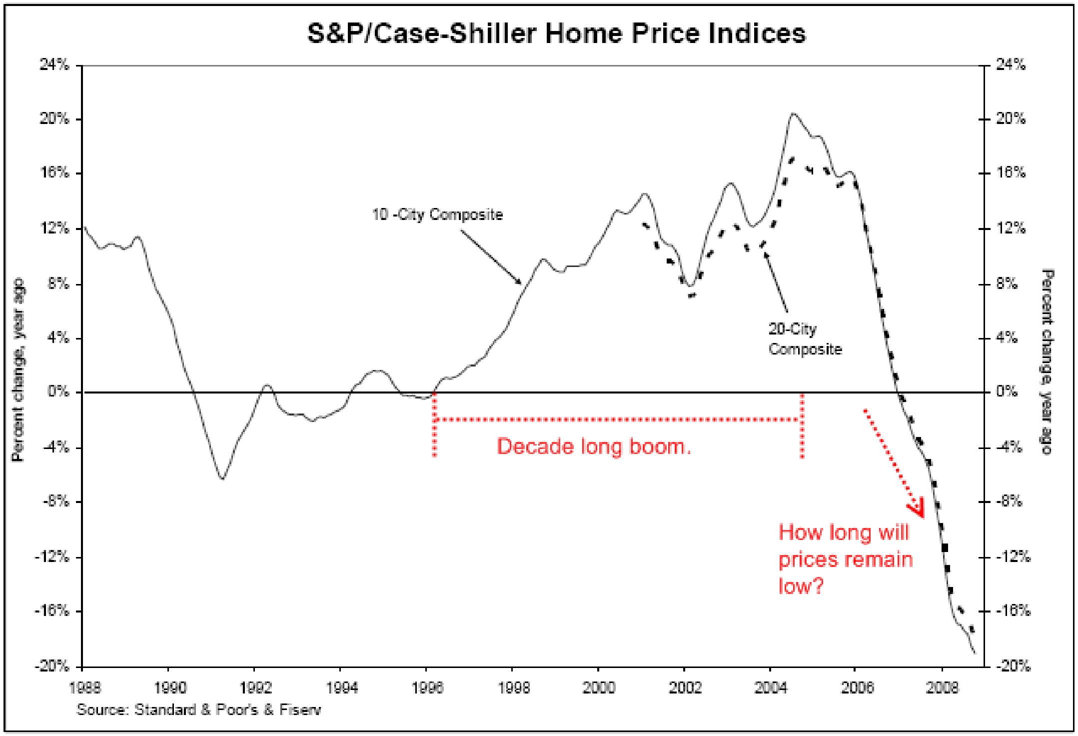


Sources: Standard & Poor's; Japan Real Estate Institute, via Japan Ministry of Internal Affairs and Communications; Bloomb

3. DOTCOM BUBBLE

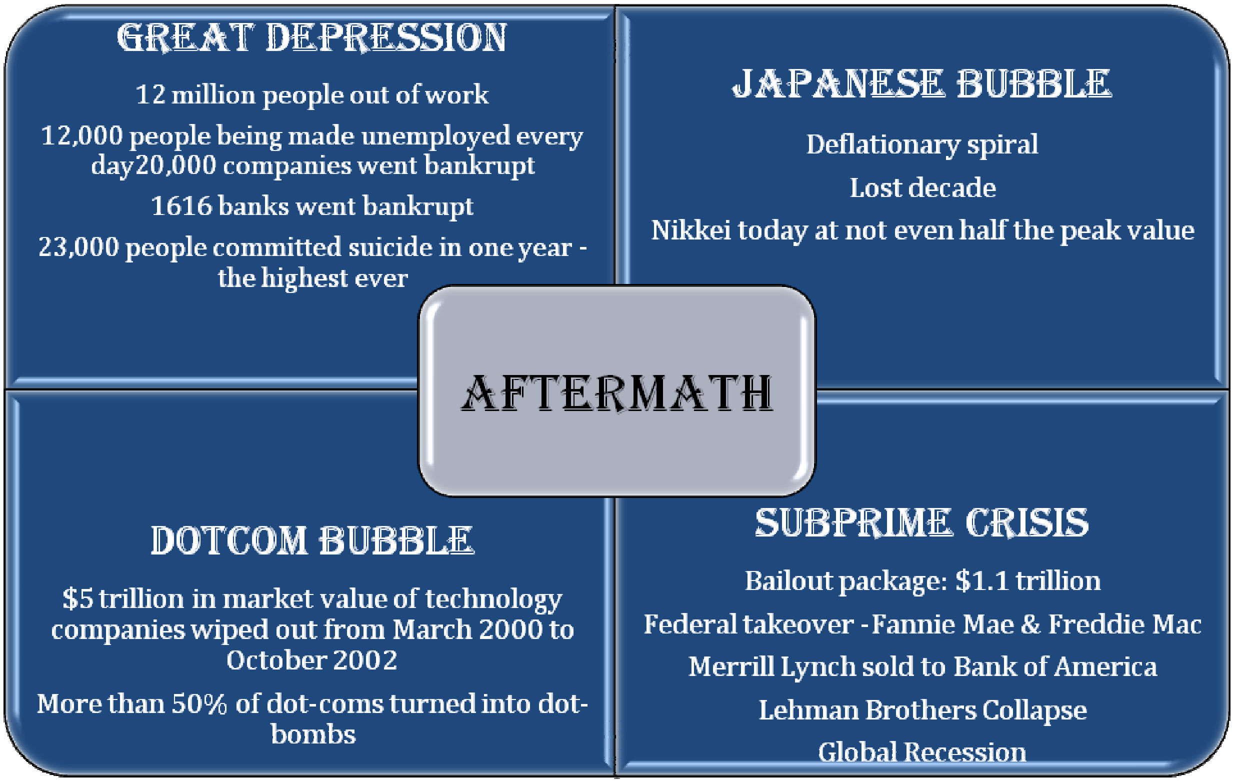
Source: http://www.marketwatch.com

4. SUB-PRIME HOUSING BUBBLE

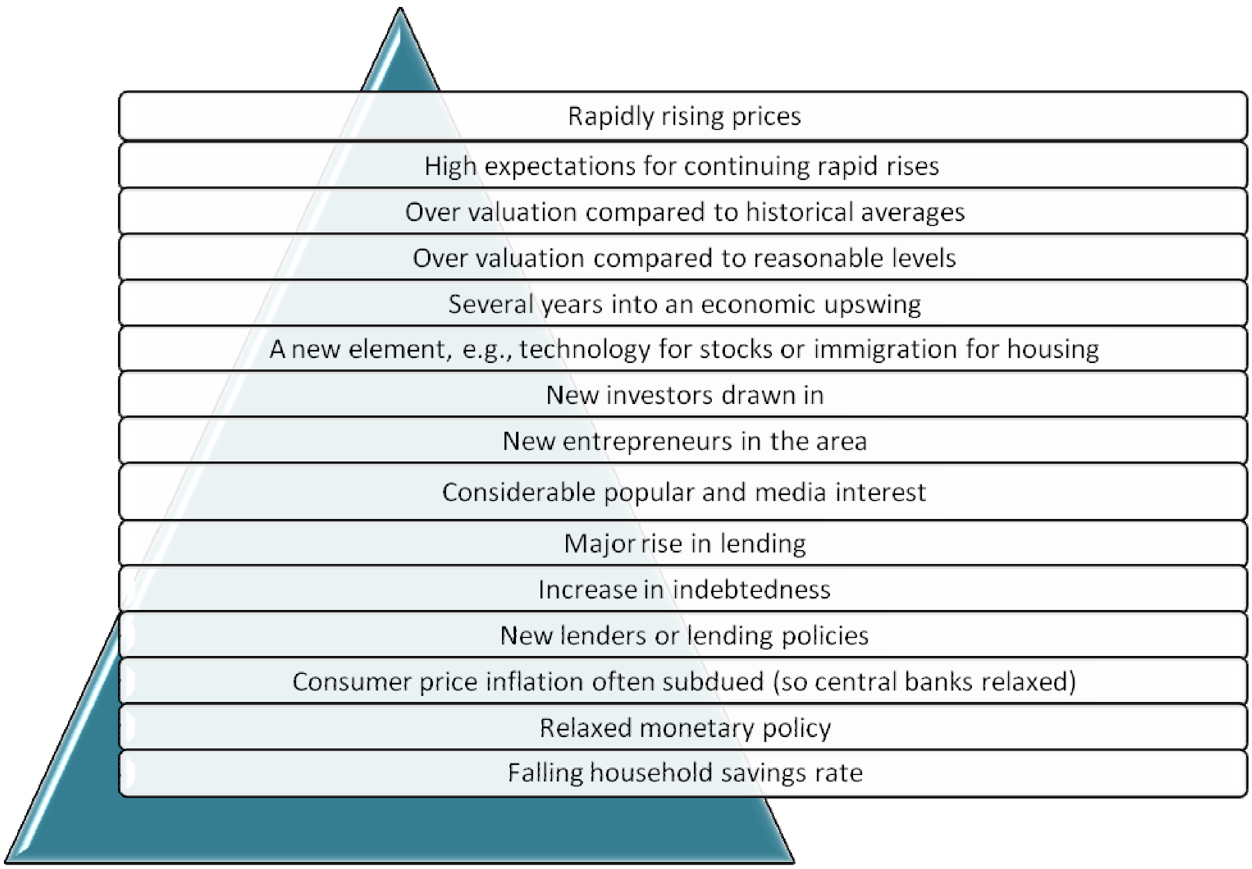


Source: http://www.doctorhousingbubble.com/wp-content/uploads/2009/01/case-shiller.png

AND WHEN THEY BURST!!



TYPICAL SYMPTOMS OBSERVED DURING ASSET BUBBLES



DEALING WITH ASSET BUBBLES

CONVENTIONAL APPROACHES

➢ LAISSEZ FAIRE APPROACH

This view believes that the asset bubbles are a normal feature of the market economy and government/central bank should do nothing about it. Its only job then is to limit the financial instability that could take a form of a bank going bust or it could lead to a "credit crunch" when banks become reluctant to lend as the asset prices fall sharply. Now the approach here believes that if the stock or the housing prices are falling sharply but the banking system is fairly insulated from the losses then there could be a marginal impact on the economy by the way of wealth effects. However, these are small enough to be countered by easy monetary and fiscal policies. But if the decline threatens the banking system, then the government needs to infuse liquidity into the system or bailout failing banks using tax payers' money if necessary.

Why a more active approach is warranted?

- ✓ Most bubbles involve aggressive lending by the banks, so it is more prudent to monitor the asset prices all along rather than resuscitate the banks after they succumb to their own liberal lending
- ✓ Almost always the central bank is involved in the asset prices through setting of interest rates, quite often encouraging the bubbles to develop and hence should be alert to possibility of the burst by taking appropriate measures
- ✓ The aftermath of a bubble bust invariably leads to a serious recession or deflation and efforts to kick start the economy could lead to a bout of inflation

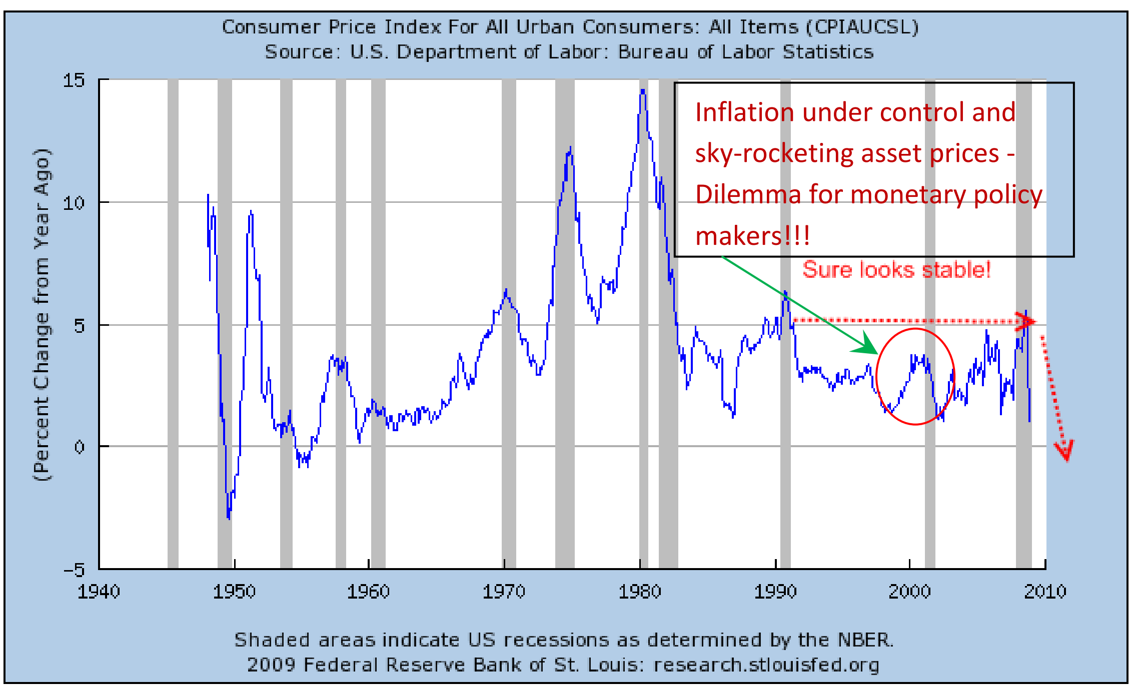
➢ MONETARY POLICY

Generally asset prices interact with the economic growth and inflation in different ways. If the asset prices are rising accompanied by growing economy, then slowly but surely it leads to higher inflation. Is such case raising interest rates will have the effect of containing inflation and cooling down the asset prices.

If the economy is weak and asset prices are falling then slashing interest rates will support the asset prices as well as set into motion economic recovery. Hence monetary policy works as an anti-dote for both the problems of inflation and asset prices.

Limitations:

However when the economy is strong, inflation is hovering around the target levels but asset prices are sharply rising then the conventional approach has been to not raise interest rates so as to restrain from tampering with the growth and let the asset prices increase. This was the dilemma faced by the US authorities in the late 1990s when the economy was performing well, inflation was under check (as seen in the graph below) but the asset prices were soaring to the new highs. This is a serious short coming of the monetary policy as it cannot tackle the formation of asset bubble at all times since its primary job is to control inflation and facilitate growth. This is where we need a new approach.



PROPOSED SOLUTION - AN “ASSET VALUATION COMMITTEE”

The proposed philosophy here is to set up a special committee to track the asset prices at all times and give its recommendations on the valuations when appropriate.

We will look at the Dotcom Bubble of 1999-2000 as a case in point and see how an ‘Asset Valuation Committee’ would have gone about doing its job during the development of the bubble. We will also see also see how it could have helped lessen the impact of the bubble even if not avoiding its development altogether.

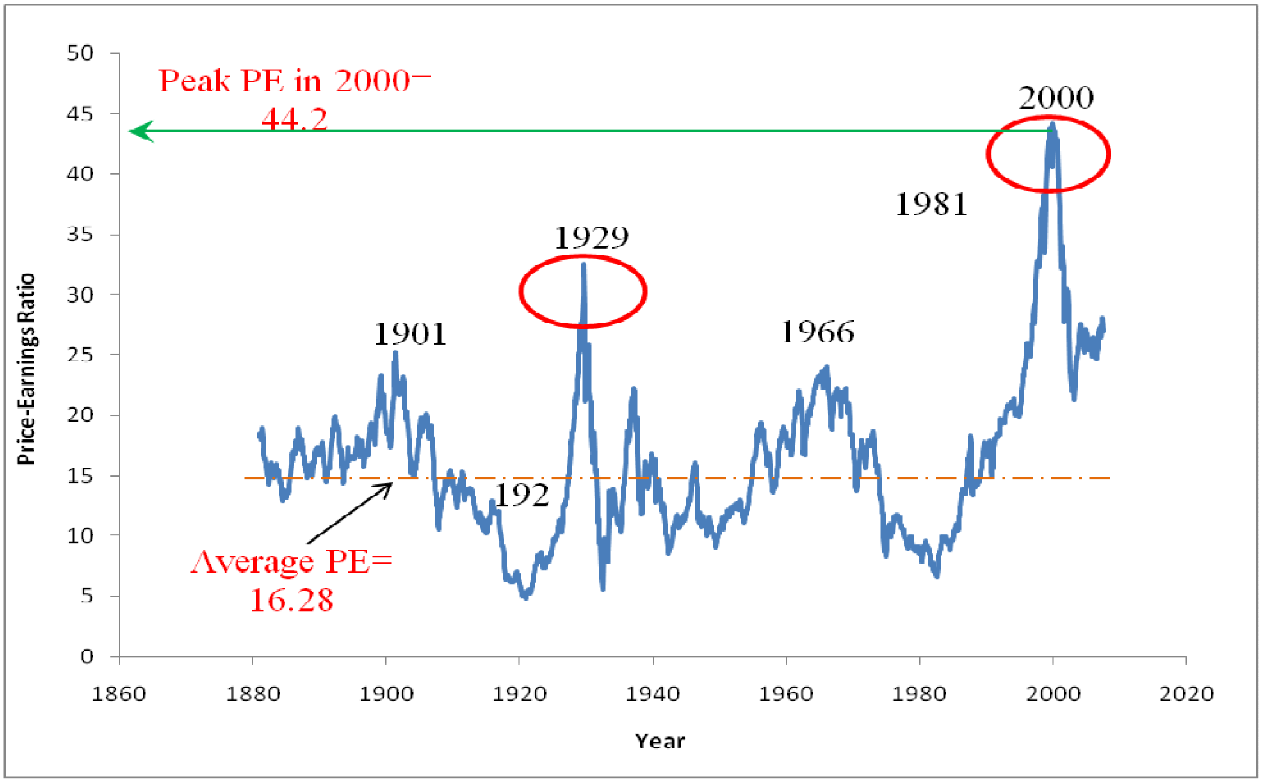
CONCEPT

The idea here is to establish an experienced group of financial experts to study fundamental trends in stock and real estate prices and identify long term valuation ranges. As and when the committee feels that the valuations have moved outside the ranges, it must issue warning signals to the investors, lending institutions and policy makers. The Asset Valuation Committee will exist not to forecast the movement of the markets in the future but only to identify any misalignments in the present before they turn into major bubbles.

The committee should exist as an independent office within the central bank. Being a part of the central bank, it could resolve possible conflict of interest for the bank between asset prices and inflation/growth and at the same time the warnings issued by the committee will carry a certain degree of authenticity. Also central bank of any country is most equipped to house any such committee as it has access to more data and information than any single authority or agency in the country. Moreover, the AVC could act as an advisor to the central bank by the way of early identification of misalignments in the asset pricing and helping the bank to initiate appropriate monetary measures.

MECHANISM: CALIBRATED SIGNALS

The committee might not be able to identify the bubble at the very nascent stage. Bubbles typically have characteristics that manifest themselves at times by which they have been inflated to some extent. However, the AVC can issue gradual warnings as it sees valuations going up. For example, the S&P 500 index was trading at sub 500 levels in 1995 and it went up to 650 in 1996 when Alan Greenspan delivered his famous "Irrational Exuberance" speech. By 2000, it had reached the peaks of 1500+. Taking the football analogy, the AVC could have issued a "Yellow Card" warning at around 700 levels and a "Red Card" warning at around 1100 levels. This could have probably prevented the markets from reaching the dizzying heights of 1500 before falling back to 800 in 2002.



Source: http://www.econ.yale.edu/~shiller/data/ie_data.xls

In general, the US S&P500 has historical PE average around 15-16. So it could choose a PE range of 10-20 as being an acceptable range. When the PE crosses 20 it could issue its first warning. This would deter at least some investors from getting into the markets when the valuations are high and that will itself slow the growth of the bubble. In case the markets do touch a PE of 25 then it could further issue a strong signal. Similarly, it could use price/income ratio of rental yields as measure of valuations in the housing market.

A calibrated approach would mean that there is no panic selling at any point and it can help in avoiding a major crash in asset prices.

CHALLENGES

➢ Committee Make - Up?

Typically there are people who don't have the acumen to realize the formation of the bubble and there are others who don't want to either acknowledge the presence of the bubble or not let the world know of it existence. For example, bubbles are a great opportunity for the banks to make money as their asset books expand in no time. Similarly there are speculators who know that the asset price valuations do not reflect the fundamentals but they continue to ride on the "greater fools' theory" which states that you continue to buy at high prices as long as you can sell off the assets at even higher prices.

So then who should be forming the committee? Ideally people should be chosen for their experience, and more importantly ones that do not have any vested interest in the asset bubbles. In that case central bankers (may be ex-bankers), academicians and some qualified industry men could fit the bill.

➢ Establishing Credibility

The committee will need to have a successful track record before anyone was to heed to its advice. For example, if such a committee did actually exist in 1990s and if it were to sound warning signals on over valuations in the US stock market in 1997 or even in 1998, investors would have, at the very least, laughed away at the AVC. At worse, such signals would be taken to mean the exact contradiction (often people in India regard the MET dept. weather forecasts as a contrary indicator) of what its signaling. However, the credibility would have been firmly established once the bubble actually bust.

Taking a Contrarian Approach

Generally when asset prices are going up, there is a sense of euphoria and people generally have strong reasons to offer, which according to them underline the high valuations. This is not to say that investors are never rational. Often the reasons offered by them are quite genuine to justify high valuations. But this is precisely the job of the AVC; it has to take a contrarian stand and try to explore and defy the arguments in favor of higher valuations. It is this contrarian view that can prevent rational investment from turning into speculation and at least limit the size and pace of the bubble inflation.

Need for Accuracy

The committee will need to be fairly specific in signaling warnings as there might be sectors in the stock markets or regions in the housing market that might not be part of a bubble; else people could very easily lose faith in this institution. Also the committee needs to be competent to identify the mispricing early into the asset price rally failing which it may itself prick the bubble.

AVC's ROLE IN THE POST-BUBBLE WORLD

AVC has also got an important role to play when the markets are overly pessimistic. They could again signal to the investors when the valuations look really cheap. It could mean a good buying opportunity for at least long term investors like pension funds and insurance companies. Also it could encourage home buyers or property investors to step up and buy when real estate assets come cheap.

MEASURES TO GO HAND IN HAND WITH AVC's RECOMMENDATIONS

➢ Restraining Bank Lending

Excessive credit is generally the genesis of any asset bubble or at least fuels the growth of the bubble to a great extent. Hence there is a need to restrain bank lending. Here it calls for a counter cyclical approach in terms of capital ratios and provisions against losses. This implies that banks need to have a higher capital ratio in good times and a lower capital ratio in bad times. Higher capital funding requirements could deter banks from unscrupulous lending during a boom phase. Again if the AVC feels that the asset prices are high, then banks should be made to make a higher provisioning against losses for new mortgages while in case of stock markets it could restrict margin lending. Of course the above measures are besides more stringent norms to be followed when lending unlike what was seen during the Sub-prime crisis.

➢ Monetary Policy

Monetary policy needs to be used in conjunction with the AVC. For example, following a more conservative warning at the index level of 1100 during the dotcom bubble, if the Fed were to hike the interest rates then it could have prevented the price from reaching astronomical levels and subsequent fall due panic selling. What actually happened was clearly a case of over stimulatory policy after the fall of the hedge fund LTCM.

CONCLUSION

The above recommendation could be a starting point in looking at the problem of asset bubbles in an altogether new light. It may take some time for such a system to establish itself, but once established it could certainly help in lowering the frequency of asset bubbles, even if not completely eliminating their occurrence. Also a calibrated approach suggested would mean that at least some parties would exit at the first signs of bubble being formed thereby slowing the pace of bubble development and giving authorities more time to respond to the situation. All in all, the least it could do is to lower the impact of a bubble burst.

REFERENCES

Websites:

http://www.investorglossary.com/bubble.htm

http://www.historylearningsite.co.uk/wall_street_crash.htm

http://www.econ.yale.edu/~shiller/data/ie_data.xls

http://www.thedigeratilife.com/images/japanchart.png

http://static.seekingalpha.com/uploads/2009/5/11/saupload_1929_stock_market_crash_dow_chart_image005.png

http://www.doctorhousingbubble.com/wp-content/uploads/2009/01/case-shiller.png

http://www.finance.yahoo.com

http://www.marketwatch.com

http://www.wikipedia.org

http://useconomy.about.com/od/grossdomesticproduct/p/1929_Depression.htm

Books:

Markets, Mobs & Mayhem – A Modern Look at Madness of Crowds – Robert Menschel

Bubbles and How to Survive Them – John P. Calverley

Profile - Kunal Patwa

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Specialization: Finance
Languages Known : English, Hindi, Gujarati, Marathi, French (Basics)

EDUCATIONAL QUALIFICATION

YEAR	DEGREE	INSTITUTE	BOARD/UNIV.	RESULTS (%)
2009	MMS – I	Jamnalal Bajaj Institute of Management Studies	Mumbai	74.1
2006	B.E. (I.T.)	Fr. Conceicao Rodrigues College of Engineering	Mumbai	68.0
2002	H.S.C.	Mithibai College	Maharashtra	85.1
2000	S.S.C.	I.E.S's V.N. Sule Guruji English Med. School	Maharashtra	80.9

Ranked 10th in 1st yr MMS in a batch of 120 students

OFF-SUMMER INTERNSHIP

Organization: Oriental Bank of Commerce **Period:** Ongoing

Project: Internal Appraisal for term lending as a part of Consortium (Project Financing)

SUMMER INTERNSHIP

Organization: PepsiCo International **Period:** May'09 – Jun'09 (2 months)

Location: Gurgaon, India

Division: Finance - Control

Project: Analysis of Alternative Business Models of Tropicana

Achievements: Shortlisted for PPO process (further communication is awaited)

WORK EXPERIENCE

Organization: Tata Consultancy Services **Period:** Jun'06 – Apr'08 (22 months)

Designation: Assistant Systems Engineer

Job Description: Part of Open Source & Linux Center of Excellence in the role of Open Source Product Specialist

Achievements: Was appreciated for introducing a nascent technology called **'Ruby-on-Rails'** within TCS

Awards and Participation

- **1st prize** in **Village – Commodities Trading** competition at national level festival Prayaag, **JBIMS** (2009)
- **1st prize** in a Strategy based competition **Maul Mall** at Backwaters, **IIM-Kozhikode** (2009)
- **1st Runner-up** in **Marketing Maestro,** a social entrepreneurship event at **JBIMS (2009)**
- **Campus Finalist** at the corporate event **Mahindra War Room**, **Mahindra & Mahindra** (2009)
- **Finalist** at **Finvest**, an Equity Research Competition, **JBIMS** (2009)
- Participation at **National Level Technical Paper Presentation** organized by Sarva Vidhyalaya Kelavani Mandal (2005)
- **1st prize** in a Technical Treasure Hunt contest **'Get Tech Go'** at an inter-collegiate technical festival – **CIGMA** (2004)
- **2nd Runner-up** in a Technical Paper Presentation contest at an inter-collegiate event – **'Techtrix'** (2004)

- Member of **winning team** at the **intra-college cricket tournament,** involving 20 teams, in the final year of B.E. (2006)
- **1st Runner-up** in **200 meters sprint** at intra-college Annual Sports Events (2004-05)
- **1st Runner-up** in an innovative **'Fill-in-the Speech Balloon Contest'** organized by **Tinkle** in collaboration with **Mid-day** (1999)
- Secured **1st grade** in **Maharashtra Chhatra Sena Programme** (1998-99)

Additional Information

- **Secured 9th rank** in Semester II examination at JBIMS (2008-09) in a batch of 120 students
- Member of TCS' social service wing – **'TCS Maitree'**; was involved in activities to help under-privileged children learn conversational English and basic Mathematics
- Member of inter-collegiate cricket team
- Hobbies include participating in various cultural, technical and sports events