



## Carlota Perez on the Web 2.0 Bubble

BY BRAD STONE OCTOBER 17, 2007 1:34 PM

Today, the day the [Web 2.0 Summit](#) begins in San Francisco, Matt Richtel and I write about [a return to bubble-era valuations](#) for Internet companies.

As part of the research on the article, I had a fascinating e-mail exchange with the British economist [Carlota Perez](#), the author of [“Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages”](#). Ms. Perez is an expert in economic patterns; she argues that bubbles arrive with regularity during each major technological shift and are typically a good thing – they help to concentrate investment and spur technological advancement.

Here are excerpts from her writing to me for your reading pleasure. Do you think we are in another dot.com bubble? [Add your thoughts in the comments below.](#)

Ms. Perez writes:

Bubbles are about the installation of a technological revolution and they concentrate investment in the radically new industries and infrastructures. They happen every 40 to 60 years and are essentially a grand experiment to select the products and the companies that will serve as engines of growth for the next few decades. They are an intrinsic part of the transformation of the economy by a wave of revolutionary technologies. They are about financial speculation on top of real investment in real innovation.

The current bubbles are ordinary ones, with no positive outcome except that some people become extremely rich and many more incur huge losses.

Asset prices now look as irrational as in 1999. In my view, there are both simple and complex explanations.

The simplest ones have to separate stock market speculation from the wave of acquisitions. The first, I think, is an echo of the previous tech bubble. Those who missed out are playing a repeat of the game of “picking winners.” In that game, promise is better than reality.

M&As are different. Historically, what has happened after the collapse of the major technology bubbles is

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that the new industries establish stable structures (tending to oligopoly) by absorbing the weaker players and defining the competitive boundaries through mergers, acquisitions and divestitures. The current battles for industrial leadership and restructuring in each sector are being fought like the auctions at Sotheby's. Nobody knows how much each company is really worth (or going to be worth in the future), but if that little company defines who the winner will be in this potential trillion-dollar industry, then "we must get it at whatever price." With no flood of money, this would have happened at bargain prices rather than inflated ones.

The more complex explanations have to answer why the excess money and why so much of it has gone into a financial casino and into asset inflation rather than into widespread real investment, innovation and high-quality employment growth. They would also have to answer why the Nasdaq bubble didn't play the usual role of these major technology bubbles, of clearing the decks and going back to fundamentals.

We could talk about that. But, in general, a complete breakup of the relative price relationships is something that happens with each technological revolution. And this is not only in the stock market (where asset inflation follows mad speculative frenzy) but also between products and services. How many cars do you need to buy a house? How many laptops to buy a car? How many Starbucks cups of coffee to buy a laptop? There is a mixture of differential productivity rates with very lopsided income distribution (those who make money fast and easily have no sense of relative values and are the ones who set "what the market will pay").

The same happened in the Roaring Twenties but relative prices balanced out after the war, when full employment and the quickly increasing masses of "middle income" families established the accepted price profile. Of course, this paradigm is different from mass production; diversity will prevail where uniformity was the rule and global realities will strongly influence the previous mainly "national" economies.

What is good for all is for the new industries to become powerful and capable of expanding and pulling the rest of the economy, while providing high-quality products and services and high-quality jobs. Asset price inflation was good in the late 90s when there was a need for overinvestment in telecoms and Internet, even before they could produce profits or dividends. Everybody was willing to put their money into the new high tech companies because they could get short-term capital gains (only a few invested because they wanted to hold on to the shares until they really became major

companies paying dividends). That is how the capital was gathered to “fiber-wire” the whole world, to get everybody to learn the new paradigm and to test every imaginable dot.com idea.

Asset inflation is bad when it is confined to a casino game in the stock market with the already existing companies. Especially if what the existing companies do with the extra money is pay exorbitant sums for other companies. There is no wave of I.P.O.’s now. As far as I know, the new companies just want to be bought by the majors.

Nevertheless, although the process is unnecessarily expensive it is still positive. Real innovators have a strong incentive (and so do the sham ones). Meanwhile, the more powerful the big new companies, the more powerful the economy. They are the new engines of the economy; the leaders of the sectors that have true growth and innovation potential and a long way to go before they mature. General Motors is a wounded giant that cannot pull any other industry (not even itself) and yet, when G.M., Ford and Chrysler (in the previous “mass production” revolution) were as young and innovative as Google, Microsoft and Intel are now, they were able to drive the economy forward and stimulate growth and innovation around them.

Intense free competition is good in the first few decades when nobody knows who are the winners and the leaders. The market is very good for that (although it is not always the best that win, it is usually the most aggressive). But once the leaders are there, other forms of competition (more oligopolistic) and other market conditions (intelligently regulated) become better. That is when each revolution produces its “Golden Age.” During the Roaring Twenties and the Brilliant Nineties, the rich got richer and the poor poorer. The second half of diffusion of each technological revolution spreads its benefits much more widely.

But if it continues to be finance and not production that calls the shots, that golden age may never arrive and the current “gilded age” may continue indefinitely.

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**Comments are no longer being accepted.**

**sanmat** October 17, 2007 · 4:14 pm

The Bubble has not arrived. The marketing is getting matured day by day. And we have not started any great losses so far. Its true that theirs lots of new start ups on web 2.0 , may be not reaching the profit margin, but not in definite losses

as we saw during the internet bubble.

[//blogkatt.blogspot.com/2007/10/is-it-bubble.html](http://blogkatt.blogspot.com/2007/10/is-it-bubble.html)

**Bob Warfield** October 17, 2007 · 6:33 pm

Perez has called this one wrong. First, she appears to assume there is no useful innovation being funded by the current “bubble” when she says, “every imaginable dot.com idea” was tested in the 90’s bubble. Clearly that’s wrong and she’s out of touch with just how much the technology world has changed in the last 7 years. Even this blog was scarcely a mainstream possibility back then.

Second, she has missed another key economic factor. While she talks about relative pricing, she misses out on a fundamental idea every homeowner understands. If you buy and sell it matters not whether the market is up or down but only that you move laterally because all prices are affected. You can pay more for the house you buy because you got more for the house you sold.

The same is at work here. The companies doing the acquiring have a currency that is hugely inflated relative to companies outside this ecosystem. Microsoft can invest \$500M in Facebook with a week and a half of cash flow. At today’s numbers, Ford Motor takes almost 2 years to get the cash together. Microsoft can afford to pay a lot more.

Google and even Yahoo have even more inflated currencies with which to pay for these acquisitions.

More on my blog:

[//smoothspan.wordpress.com/2007/10/17/there-may-be-a-bubble-but-it-isnt-a-casino-economy/](http://smoothspan.wordpress.com/2007/10/17/there-may-be-a-bubble-but-it-isnt-a-casino-economy/)

**5tacos** October 19, 2007 · 1:39 pm

I don’t think she’s calling that every single idea for internet technology has been done. I think she is referring that during the last frenzy, “every imaginable dot.com idea” was proposed and tried for what was available at that time. This is occurring today where ideas were started and then tossed to the TechCrunch Deadpool.