“It” Just Happened Again*

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Bubble Formation

Like nearly all of the investment bubbles throughout history, the present episode at its origin was rationally based. Sometime in the early 1990's for reasons that are clearer now than they were at the time, the locus of returns to capital for firms in the developed economies moved outward. The popular explanation for this shift in opportunity set is technology, but one can think of several other factors that played their roles. For one, the long years of inflation were finally and truly behind us. This fact probably was brought home when the Federal Reserve was able, for the first time in the Post-War, to contain the cycle-high inflation of 1988-89 to rates that were several percentage points below the highs of the preceding cycles. They then drove inflation down to rates not seen since the early 1960's. Second, and probably more important, the demise of the Soviet Union cleared away a major impediment to world commerce. Markets in Latin America, Eastern Europe and Asia, where Western companies previously had been welcomed reluctantly if at all, became truly free to join the family of trading nations. For U.S. and European companies this event was analogous to the opening of a new frontier. They gained access to both new customers and the opportunity for low cost production.

The consequences of the new state of affairs began to manifest themselves with the recovery from the recession of 1990-91. Corporate profits grew with great vigor and in the United States, began to rise as a share of national income for the first time in several decades. From the vantagepoint of the present, it is not surprising that these events gave rise to a very good stock market. Inflation was low, interest rates were low, profits were going great guns; why shouldn't stock prices rise? And rise they did. The average return to the S&P from 1991 through 1997 was 19%. The NASDAQ was slower to get started, but it caught up around 1996 and then largely took over.

Throughout the period, the Federal Reserve focused mainly on macro variables and did little to raise the real returns to holding cash. In fact, they reduced rates through the middle of 1993. They did bring the Federal funds rate from 3% to 6% in 1994 but then quickly lowered it in 1995 when the growth rate of GDP momentarily stuttered. The Federal Reserve lowered rates again in 1998 when the economies of Asia showed signs of altitude sickness.

Rising equity prices, encouraged by the relatively low opportunity cost, fed back into the GDP through at least two channels. One is the now famous wealth effect. For those who learned consumption theory from Modigliani and Friedman, it comes as no surprise that consumer spending should be a function of wealth. Yet, one must admit that for many years capturing the direct influence of equity valuation on consumption has proven an elusive quarry for econometricians. Nonetheless, over the past few years at least one hasn't needed an econometric model to see the effects of rising equity prices. One has needed only to look out the window to see the special edition automobile and suburban palazzi paid for with newly coined stock market cash.

The second avenue by which stock prices have influenced GDP has been investment. There is, of course, a substantial literature going back through the work of James Tobin to Keynes Treatise on the interaction between capital market prices and capital
investment. There may be room for debate on exactly how one measures the ratio of the market value of capital to its reproduction cost, but there is little doubt that it has been high – higher during the past few years than during any comparable period in living memory. And, most unsurprisingly, capital spending has been forthcoming. Expenditures on producers durable equipment doubled their share of GDP over the past 8 years, and expenditures on software and less measurable components of investment have kicked in a good deal more. Thus the steady rise in equity prices acted to raise the growth of both aggregate demand and supply.

During the last 18 months, however, this process changed. It became both more intense and more concentrated. The environment in the nation’s capital market evolved from one of joyful prosperity to one of euphoria. For all the reasons recently articulated by Robert Shiller in his new book, the discount rates applied to prospective future earnings fell, and asset pricing went from rich to ridiculous. What is more, this euphoria has chosen to dwell especially on companies related to the so-called “new economy”.
Equity Valuations Are Unprecedented

Students of history believe that the future implied by the first quarter 2000 U.S. stock market is unlikely to arrive. Analysts capable of arithmetic, however, can be supremely confident that the market's brave new world forecast will not come to pass. Shiller, in Irrational Exuberance, argues that asset market returns regress to the mean. Like Joseph in Egypt, Shiller from Yale warns that the past seventeen years of fat make seventeen years of lean the most likely future outcome. Shiller presents a scatter diagram of yearly observations of P.E. ratios plotted versus the subsequent ten years total market return (see chart I). As investment professionals know, a low P.E. ratio, more times than not over the past century, was a sign that future equity market gains would be above average. Shiller's book reminds us of this fact, and points to late 1990s record P.E. ratios, as a guarantee of bad things to come (see chart II). Shiller is convinced that profit growth, and therefore equity market returns, regress to the mean. This leads him to calculate P.E. ratios using previous 10 year average profit figures. Obviously, given the surge in profits registered in 1998 and 1999, Shiller's P.E. ratio are more astounding than traditional trailing 12-month P.E.s (see Chart III).

Chart I

Annualized ten-year real return (%)
**Chart II**

Price-earnings ratio

Source: "Irrational Exuberance" by Robert Shiller, p. 8

**Chart III**

**P.E. Ratios Are Extreme.**

Use 10-Year Smoothing On Profits And They Look Insane.

Bubble Confirmation: Impossible To Achieve Earnings Expectations

Shiller fails, however, to address explicitly, the claim that things today are different. True enough, he points out that belief in a "new era" is a signature development at the tail end of a speculative rise for assets. Moreover, he documents that it was Federal Reserve Board Chairman Alan Greenspan who gave the nod to the notion, some six months after the equity market had made mincemeat of his "irrational exuberance" speech. Shiller using a Lexis-Nexis search finds that it was just after Business Week's summer 1997 Brave New World cover story, with Greenspan on the cover, that the phrase "new era" exploded into usage. Nonetheless, Shiller is silent on the issue of whether the unprecedented is possible.

Perhaps the most astounding aspect of the February peak for the U.S. equity market is that, unlike in December of 1996 when Shiller declared the market excessive, the implied economic future embedded in February share prices simply cannot come to pass.

Over the course of the 1990s equity analyst long-term earnings growth expectations for S&P 500 companies have risen from 11% to 16% per year (see chart IV). February share price levels require one to imagine that analyst long term earnings expectations are on the money over the next decade. From current lofty levels ten years of 16% annual earnings growth is unattainable.

Chart IV

Bottoms-Up Earnings Expectations Have Climbed Rapidly.
The Second Half 1999 Boom: Categorically Unsustainable

Some enthusiasts would argue that over the past nine months, the surge in productivity, economic growth, and corporate earnings combine to justify confidence in another decade of surging earnings. But the boom of the past nine months can easily be demonstrated to be unsustainable. Nominal final sales growth approximated 8%, stoked in part by rapid employment gains and accommodated as well through rapid fire growth in the U.S. trade imbalance (see table I). If the next ten years replicate the past nine months, then we end up, in year 2009, with the current account deficit at 18% of GDP and the unemployment rate at minus 1% (see table II & III). That impossible economic future is the U.S. Federal Reserve Board’s first order justification for declaring the 1999 boom unsustainable and for embarking on a tightening path intended to substantially slow the U.S. economy.

| Table I |
| Second-Half 1999 Profit Engine: | Explosive Top Line Growth |
| 1999: Q2 to Q4 Annual Rates (%) |
| Final Domestic Sales | 9.0% |
| GDP | 8.0% |
| National Income | 7.0% |
| Corporate Profits (NIPA) | 9.0% |
| S&P 500 Profits | 19.0% |

| Table II |
| Second Half 1999 Boom: Trade Implications Ten Years Out |
| Implications |
| 1999:Q4 Ten Years Out (Share Of GDP) |
| Goods & Services Deficit | 3.0% 13.0% |
| Growth In Goods & Services Deficit* | 1.0% |
| Current Account Deficit | 4.0% 18.0% |

*1999, Q2 to Q4, Annualized
Table III

Second Half 1999 Boom: Employment Implications Ten Years Out

<table>
<thead>
<tr>
<th></th>
<th>1999 Q2 to Q4</th>
<th>Implications Ten Years Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment Rate</td>
<td>4.3% to 4.0%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>Payroll Employment Gains</td>
<td>1.5 Million In 6 Months</td>
<td>30 Million Jobs over 10 Years</td>
</tr>
</tbody>
</table>

Margin Expansion Cannot Square The Circle

Can we accommodate 16% annual earnings growth for ten years amid a slower trajectory for top line economic growth? Suppose that the Fed, with perfect skill, transforms the 1999 early 2000 boom into a sustainable 5.5% nominal GDP growth economy. Suppose further, that earnings grow at 16% per year despite the 5.5% growth for the economy’s top line (see table IV). Ten years from today, profits would constitute 31% of national income, up from 12% in 1999. Wage earners, in contrast, would see their income fall to 56% of national income, from 71%. Investment as a share GDP would need to soar to unprecedented heights. To foster even modest gains in consumer spending, the personal saving rate would move sharply into negative territory. To be fair, this economic future, though completely unprecedented and highly improbable, is not mathematically impossible. But it requires that all of the benefits of ten years of spectacular productivity gains accrue to capital. And, it requires that this occur amid a 4% jobless rate. Using political economic arithmetic, we would submit that a decade of earnings growing four times faster than wage income is impossible.

Table IV

Profit Growth Matches Analyst Forecasts Amid Long-Run Sustainable Real Economy Trajectory

<table>
<thead>
<tr>
<th></th>
<th>NIPA Profits (Billions Of $)</th>
<th>National Income</th>
<th>Wage Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>$893</td>
<td>$7,496</td>
<td>$5,332</td>
</tr>
<tr>
<td>10 Year Growth Rate</td>
<td>16%</td>
<td>5.5%</td>
<td>3%</td>
</tr>
<tr>
<td>2009</td>
<td>$3,939</td>
<td>$12,804</td>
<td>$7,166</td>
</tr>
</tbody>
</table>
Can Profits Rise to 31% Of National Income? ...

Corporate Profits As A Share Of National Income

... Only If Wages Were To Fall To 56% Of National Income.

Wage & Salary Income As A Share Of National Income
### Table V

<table>
<thead>
<tr>
<th>NIPA Profits</th>
<th>Wage Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Shares Of National Income)</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>12%</td>
</tr>
<tr>
<td>2009</td>
<td>31%</td>
</tr>
</tbody>
</table>

### S&P Gains Are Rest-Of-Corporate
America Pains? No Way.

What about a boom for S&P earnings that leaves the rest of corporate America behind? S&P earnings, from their 1991 peak have grown at a 16% annual rate, well in excess of the 9.6% pace recorded in NIPA statistics. Why not another decade of S&P share gain? The arithmetic of such a switch is daunting. S&P profits rise from 47% of NIPA profits to 87%. Incredibly, technology company profit expectations, embedded in S&P earnings forecasts, anticipate a decade of 25% earnings growth (see table VIII). Technology companies, in this scenario would earn 25% of U.S. corporate profits up from 7%. Quite unlikely.

### Table VIII

<table>
<thead>
<tr>
<th>Companies*</th>
<th>Long-Term Annual Growth (%)</th>
<th>EPS Trailing 12-Months ($)</th>
<th>Shares Outstanding (In Billions)</th>
<th>Earnings Trailing 12-Months (In $s Billions)</th>
<th>Earnings 2010 Trailing 12-Months (In $s Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Cisco Systems (CSCO)</td>
<td>30</td>
<td>0.44</td>
<td>6.9</td>
<td>3.05</td>
<td>42.08</td>
</tr>
<tr>
<td>2 Microsoft (MSFT)</td>
<td>25</td>
<td>1.60</td>
<td>5.2</td>
<td>8.33</td>
<td>77.55</td>
</tr>
<tr>
<td>3 Intel (INTC)</td>
<td>20</td>
<td>2.32</td>
<td>3.3</td>
<td>7.75</td>
<td>48.01</td>
</tr>
<tr>
<td>4 Oracle (ORCL)</td>
<td>25</td>
<td>0.56</td>
<td>2.8</td>
<td>1.58</td>
<td>14.71</td>
</tr>
<tr>
<td>5 Int Business Machines (IBM)</td>
<td>14</td>
<td>3.71</td>
<td>1.8</td>
<td>6.66</td>
<td>24.67</td>
</tr>
<tr>
<td>6 Lucent Technologies (LU)</td>
<td>20</td>
<td>1.12</td>
<td>3.2</td>
<td>3.57</td>
<td>22.1</td>
</tr>
<tr>
<td>7 Nortel Networks (NT)</td>
<td>21</td>
<td>1.28</td>
<td>1.4</td>
<td>1.76</td>
<td>11.86</td>
</tr>
<tr>
<td>8 America Online (AOL)</td>
<td>50</td>
<td>0.27</td>
<td>2.3</td>
<td>0.62</td>
<td>35.51</td>
</tr>
<tr>
<td>9 Sun Microsystems (SUNW)</td>
<td>21</td>
<td>0.79</td>
<td>1.6</td>
<td>1.25</td>
<td>8.41</td>
</tr>
<tr>
<td>10 Dell Computer (Dell)</td>
<td>33</td>
<td>0.69</td>
<td>2.6</td>
<td>1.77</td>
<td>30.65</td>
</tr>
<tr>
<td>11 Hewlett-Packard (HWP)</td>
<td>15</td>
<td>3.09</td>
<td>1.0</td>
<td>3.09</td>
<td>12.5</td>
</tr>
<tr>
<td>12 EMC (EMC)</td>
<td>31</td>
<td>1.11</td>
<td>1.0</td>
<td>1.15</td>
<td>17.12</td>
</tr>
<tr>
<td>13 Texas Instruments (TXN)</td>
<td>24</td>
<td>1.83</td>
<td>0.8</td>
<td>1.49</td>
<td>12.8</td>
</tr>
<tr>
<td>14 Qualcomm (Qcom)</td>
<td>38</td>
<td>0.77</td>
<td>0.7</td>
<td>0.54</td>
<td>13.6</td>
</tr>
<tr>
<td>15 Motorola (MOT)</td>
<td>19</td>
<td>2.07</td>
<td>0.7</td>
<td>1.48</td>
<td>8.42</td>
</tr>
<tr>
<td>16 Yahoo! (YHOO)</td>
<td>56</td>
<td>0.27</td>
<td>0.5</td>
<td>0.14</td>
<td>12.12</td>
</tr>
<tr>
<td>17 Applied Materials (AMAT)</td>
<td>24</td>
<td>1.29</td>
<td>0.8</td>
<td>0.99</td>
<td>8.54</td>
</tr>
<tr>
<td>18 Veritas Software (VRTS)</td>
<td>49</td>
<td>0.36</td>
<td>0.4</td>
<td>0.14</td>
<td>7.47</td>
</tr>
<tr>
<td>19 Compaq Computer (CPQ)</td>
<td>19</td>
<td>0.29</td>
<td>1.7</td>
<td>0.49</td>
<td>2.81</td>
</tr>
<tr>
<td>20 Computer Associates (CA)</td>
<td>18</td>
<td>2.64</td>
<td>0.6</td>
<td>1.55</td>
<td>8.12</td>
</tr>
</tbody>
</table>

Total

*S&P 500 Members By Market Capitalization Weight*
Moreover, the path to extraordinary S&P gains, over the 1990s, reflected the absence of write-offs and capital gains in NIPA profit figures. As charts V and VI make clear, the 1991 through 1999 figures for profits are favorable for S&P companies. But the plunge for reported profits in the early 1990s, reflecting massive write-offs, gave S&P an artificially low base. More recently S&P 500 profit gains reflect “one-time” spectacular capital gains. The absence of a low base and the need for more restrained capital gains — to allow earnings to grow into current share price valuations — combine to eliminate extraordinary S&P share profits gains relative to NIPA gains, as a viable path to achieve Q1 2000 profit expectations.

Chart V

S&P 500 Earnings Per Share (EPS) vs. Corporate Profits (NIPA)

Chart VI

Over The Long Haul, S&P 500 EPS Gains, Tightly Track NIPA Profit Gains.
S&P 500 Earnings Per Share (EPS) vs. Corporate Profits (NIPA)
Booming Profits Cannot Peacefully Coexist with Fed Plans for U.S. Top Line Growth

In the long run, as we detailed above, profits are bound to disappoint investors and elicit a substantial pull back in U.S. equity share prices. The immediate problem for profits, however, lies in the implications of U.S. Federal Reserve commitment to substantially slow economic growth. Consider the chart below, it graphs the yearly difference in nominal GDP growth versus yearly S&P profit gains. As the chart makes clear, a sharp shift for yearly nominal GDP growth elicits a substantial change in the growth rate for S&P profits.

What can we expect for nominal GDP growth over the next four quarters? If we take the Fed at its word, real growth will slow to 3.5% and prices will rise by 2%. Thus nominal GDP will be up by 5.5%. Over the past year nominal GDP growth rose by 7.3%. Thus the yearly difference in nominal GDP will be -1.8% in Q1 2001. Profit growth, in such a world, has to slow. Thus bottom-up forecasts of accelerating profit growth, in aggregate, can be looked upon as wagers that Fed tightening will fail to slow the economy. We believe the Fed will succeed. We look for profit growth to decelerate over the course of year 2000.
Toward A More Expansive Definition Of “Excess”

History tells us that destabilizing imbalances in an economy can arise with little or no wage or price inflation. Wage and price pressures were absent in the U.S. in the 1920s. In Japan, in the years leading up to 1990, inflation, excluding energy, remained moderate. Nonetheless, the U.S. economy in the 1930s and the Japanese economy in the 1990s suffered extraordinary setbacks. In both cases spectacular asset price increases traveled hand in hand with inflation free booms. Subsequently, asset price implosions doomed each economy to a decade of economic contraction and price deflation.

A central bank exclusively focused upon wages and prices would have failed to react to the excesses that developed in the U.S. in the late 1920s and in Japan in the late 1980s. Therefore, asset price excess, despite its devilishly hard identification, must be one of the excesses that a central bank pays attention to. Furthermore, we believe that Federal Reserve Board Chairman Alan Greenspan’s Year-2000 commitment to raise rates, in part, reflects his concern that asset price excesses are beginning to appear in the U.S. economy.

Greenspan, to be sure, has denied this. Nonetheless, we suspect that Greenspan is reacting to the abrupt change registered in the character of equity investing. Over the six months through March 2000, equity investors that pursued a buy and hold strategy were pushed aside by much more aggressive equity buyers. Margin debt, an indicator of the extent to which speculation is playing a role in equity purchases soared, November through March. Spectacular gains for the share prices of an increasingly narrow list, superimposed upon soaring use of margin debt and an unprecedented concentration of flows into technology mutual funds all speak to excess in the U.S. equity market. Greenspan and some of his colleagues, we believe, are privately alarmed about imbalances in the U.S. equity market. Their Year-2000 commitment to raise rates until the U.S. boom subsides is tied to this concern.

Why not explicitly tie rising rates to worries about excessive gains for asset prices? Two decades of devastating inflation gave Paul Volcker the political license to aggressively tighten when wage and price pressures threaten. But no political mandate exists today that allows Greenspan to react to asset price inflation.
Margin Debt Is Soaring Relative To The S&P 500.
U.S. Margin Debt As A Percent Of S&P 500 Stock Price Index

Margin Debt Growth Set A Post War Record
U.S. Margin Debt

6-Months % Change, Annualized

150
100
50
0
-50
-100

65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99
When Central Banks Tighten, Liquidity Dries Up And Bubbles Burst

A rising tide lifts all ships. In the world of finance, an easy money policy allows for a generalized rise for asset prices. When a central bank begins to tighten, divergent trends appear within asset markets. As liquidity is drained from the system, rising shares in one sector, require sales and declining prices in other sectors. In the first nine weeks of 2000, soaring technology shares took the NASDAQ up by 25%, and the Dow fell by 15%. Since that early March divergence peak, “Old economy” shares have rebounded in the face of a pullback for technology shares. The volatility registered, Spring 2000, is an early warning signal of Fed policy restraint to come. As Fed funds continue their upward glide, liquidity will be drained from the system. This is as a dynamic that will put substantial pressure on speculative sectors in the U.S. equity market. In today’s circumstances venting speculative excess in the U.S. equity market goes hand in glove with slowing the U.S. economy.

Speculative Markets Are In Sharp Retreat
AMEX Biotechnology Index
The Fed Is Raising The Funds Rate And Draining Liquidity From The System
Money Supply, M3 vs. Fed Funds Rate

As Liquidity Ebbs, Share Prices Come Under Pressure.
Money Supply, M3 vs. S&P 500 Price Index
Finance and The U.S. Internet Boom
From Virtuous to Vicious Cycle

Over the past year and a half, euphoria about the "new economy" produced a surge in demand for technology shares including and especially shares of newly minted internet linked companies. An unprecedented flow of dollars provided equity finance for fledgling firms. Venture capital and initial public offerings, from January of 1999 through March of 2000 raised $150 billion. The lion's share of these dollars flowed into newly minted dot.com businesses. At the end of the first quarter there were 371 publicly traded internet companies, most of them in existence for less than two years. The IPOs came in two waves. First came start-ups with plans to take business to consumers via the internet. Business to business dot.com companies, the original arena for internet commerce, provided a second wave of freshly minted structures. How frenzied did the business of financing dot.coms become? IPO financing in 1999 raised more money than was raised in the entirety of the 1980s. Some $44 billion of venture capital money was raised. And in first quarter 2000? A full 108 technology company IPOs were successfully sold.

Notwithstanding explosive growth in supply of dot.com company shares in 1999, most dot.com share prices soared after initial public offerings. Last year, amazingly, the average gain in IPO share price on the first day of trading was nearly 100%, compared to a range of 5% to 10% average over the previous 50 years. In the short run, quite clearly, the spectacular performance for IPO shares fanned the fires of investor appetites. Price action completely replaced analysis as day trading retail investors supplanted institutional money managers, accumulating 90% of unrestricted internet shares. The novelty of doing business via the internet, in this frenzied moment, replaced traditional benchmarks of business success. Dot.com IPOs had very short business histories. In almost all cases the companies lost money. But the euphoria surrounding dot.com shares, in classic fashion, pushed these share prices higher.

From December 1997 To February 2000 DotCom Stocks Rose 8 Fold
Index Of DotCom Companies (Log Scale)
Rising internet share prices were a critical link that allowed a virtuous cycle to develop in the e-commerce world. Rising dot.com share prices, in the first instance, elicited new IPO offerings. In addition, soaring after market share prices coined multitudes of instant millionaires among Dot.com employees. As the shares soared, Dot.com companies were able to entice top-of-the-line business managers from established firms by promising shares and options packages. Thus talent was easy to attract and didn’t require significant cash outlays to keep. Fledgling dot.coms believed that gaining customers, not generating profits, was their first order of business. In the mad dash competition for customers among hundreds of newly minted dot.coms, goods and services were provided, in many cases, below cost. Not surprisingly internet usage grew explosively. News of explosive growth in internet usage, in turn, fed the frenzy to buy internet shares. Rising shares ensured a continuing flow of internet IPOs. Thus a virtuous cycle was established whose critical link was rising internet share prices.

Obviously creating hundreds of companies and infusing $150 billion into these start-ups had consequences for the overall economy. Cash received from IPOs generated an advertising boom. Main line technology companies benefited as newly minted companies outfitted themselves with software, hardware and telecommunications infrastructure. Luxury car sales and starter-mansion construction soared, as dot.com owners borrowed against their shares to begin to put into place the accoutrements of the newly rich. Likewise, speculators in dot.com shares gave a boost to consumer spending. In aggregate, the U.S. economy registered growth rates not witnessed since the boom of the early 1980s. Clearly, the technology engine fired the boom, directly through technology investment and indirectly as owners of technology shares financed a housing and consumer spending boom of 1980s proportions.

Figure 3  Investment Funds Raised by Venture Capital Funds, Annual Total, 1969–1999
The Window Closes For Technology IPOs
If rising technology share prices were a critical link in the late 1990s U.S. technology boom, then Spring 2000 plunges for tech share prices must be looked upon as a signal that the boom's days are numbered. From the late March 2000 peak, through mid-April the Morgan Stanley High Technology Index fell by 30%. Over the same three weeks the Street.Com Internet Index fell a spectacular 48%. The late March, early April sell-off as of this writing, had frozen IPO issuance.

Explosive flows into technology mutual funds, during seasonally strong months, helped propel internet and other technology shares in early year 2000. A look at potential supply and one sees that resurrecting the IPO market, year 2000, will require a violent rebound in demand for internet shares. Most internet start-ups lose money and had hoped to do secondary equity offerings, to replenish corporate treasuries. To make matters worse, for many of last year's IPO offerings, restricted shares go unrestricted in the April through June quarter of year 2000. Some 2.4 billion shares, representing 220 percent of publicly existing float, are being freed from lock up in the second quarter of this year. Venture capital participants typically have costs well below the offering price. Thus sales at a hefty profit can be made below offering prices and wildly below the euphoric prices witnessed over the past year.

Superimposed upon daunting supply/demand conditions for internet shares, looms the U.S. Federal Reserve Board. The Fed ended their equivocation early this year, and pledged to tighten until the U.S. boom subsides. As short-term interest rates continue their climb, liquidity is removed from the financial system and equity share prices suffer. Thus Fed tightening, supply/demand considerations and recent price action combine to suggest that technology shares will continue to struggle and the IPO market will not return to form over the remainder of this year.

DotCom Companies Fell 48% In 3-Weeks.
Index Of DotCom Companies

[Diagram showing stock performance]
Absent IPO Flow And Technology Business Will Slow
What will closing the IPO window for technology companies do to technology business and to the economy overall. The virtuous cycle, in place in 1999, looks likely to become vicious over the remainder of year 2000.

Existing companies face a much tougher road. Most companies will be saddled with depressed share prices and thus forced to pay higher wages to attract and keep top-of-the-line workers. Labor costs will rise. Secondary offerings will be a rare as hen’s teeth and as cash is used up a shake out will wean the U.S. of many of last year’s dot.com creations.

The conventional wisdom about Fed tightening, year 2000, holds that the new economy would prove resistant to rising rates. New economy companies, the argument goes, are equity financed and therefore insulated from rising interest rates. That logic is flawed because it fails to appreciate the extent to which the Fed can change access to equity financing. By ratcheting up short rates and draining liquidity from the financial system, the Fed puts pressure on equity share prices. Once equity prices are under pressure equity offerings slow to a trickle. Thus, the Fed, indirectly, has the power to materially effect the access of new economy companies to new dollar inflows. In the current situation a substantial slowing in equity financed business growth seems destined to arrive in the months ahead.

By definition, closing the window for technology IPOs entails a sharp slowing in the creation of e-commerce businesses. Slower dot.com formation and a shake out in vintage 1999 dot.coms will combine to slow the growth rate for e-commerce business. News that e-commerce business is slowing will reinforce investor recalcitrance and keep the IPO window closed.

Slower Growth For The “New Economy” First Order Consequences
Advertising companies will see business slow as new dot.coms arrive much less frequently and old dot.coms hoard cash. Traditional technology firms will see a modest slowing in business, as dot.com outfitting becomes less important. Technology investment will slow. Even a modest slowing for technology profits, however, will be unsettling for technology shares given unprecedented valuations in place. Further pressures on technology share prices will follow. The boom for housing and consumer spending will recede, as the sector in the midst of boom suffers a genuine setback.

An Economy-Wide Reversal Of Fortune In Year 2000?
A move from virtuous to vicious cycle for U.S. internet companies runs the risk of setting off a more generalized shift for the U.S. economy. The booming U.S. stock market and the highest real rates for any developed economy in the world have combined to allow easy finance of the very large and rapidly growing U.S. external imbalance. As detailed on the next page, a vicious cycle could develop if share price weakness pushes the dollar lower and import prices higher.
Reversal Of Fortune In Year 2000

Spectacular Optimism—about the U.S. economy, U.S. high technology companies, and the U.S. equity market—drives the virtuous cycle that has allowed the U.S. to expand its external imbalance at a rapid-fire rate and suffer no adverse consequences.

1. Enthusiastic buyers of U.S. stocks drive the market higher.
2. A rising market allows U.S. consumers to achieve their net worth goals without allocating current income to savings. Spending, therefore, grows rapidly.
3. Rising stock prices attract foreign investors. Since capital flows dwarf trade flows the dollar rises.
4. Both strong consumer spending and a strong dollar push the real trade deficit higher.
5. The strong dollar keeps price pressures in check, rest-of-world production fills the U.S. excess demands.
6. Foreign investor enthusiasm for $ assets allows easy finance of large and growing trade deficits. Thus despite booming spending and rapid growth in the deficit, interest rates remain relatively stable.

A bout of anxiety, or skepticism, however, has the power to rapidly convert today’s virtuous cycle into a vicious cycle:

1. Equity prices fall as traditional valuation concerns come back into focus
2. Falling share prices force households to begin to save again. Both wealth effects and higher savings slow consumer spending.
3. Falling share prices disappoint foreign investors. As they leave the $ falls.
4. A weak dollar, at first, swells the $ denominated trade deficit, despite slower spending, because of “J” curve effects.
5. Some price pressures appear, reflecting $ weakness.
6. Reduced foreign appetite for equities, and an upward creep for prices pushes U.S. interest rates higher.

For the U.S. Virtuous Cycle to convert to a Vicious Cycle, however, the rest-of-world expansion must be on firm footing. Another good year for Japan, another year of recovery for rest-of-Asia, and an acceleration for Europe provide the necessary backdrop for a reversal of fortunes in the U.S.