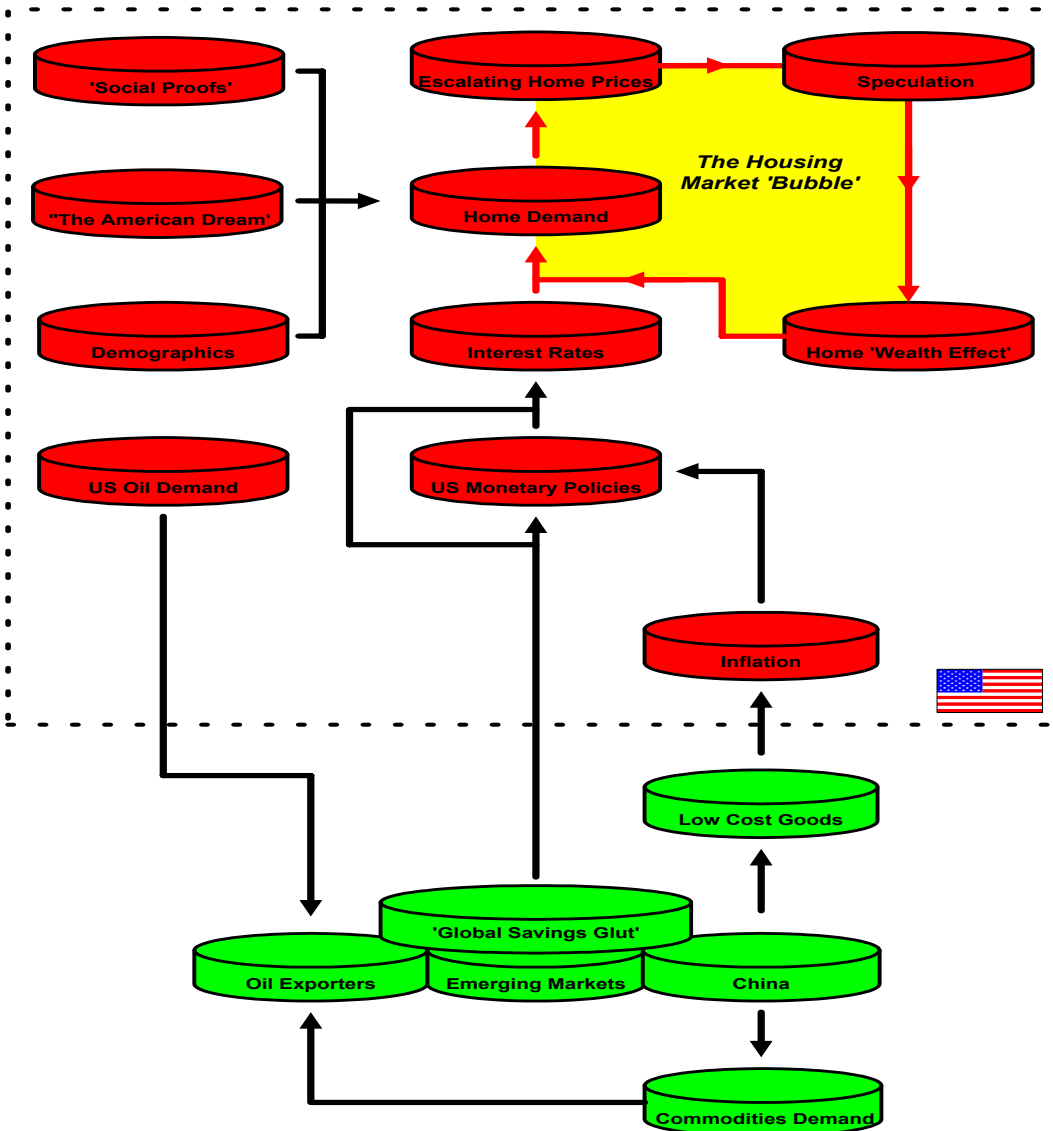




The Anatomy of a Housing Market Bubble

Evolutionary psychologists tell us that in the few thousands of years that we humans have been around we haven't had the time to get appreciably smarter. And, needless to say, our world is getting more and more complicated every day. How do we cope with all of this growing complexity?

University of Southern Cal economist Timur Kuran suggests that there are two ways that we do so: 1) We construct models of reality that are complex enough to provide valuable insights but simple enough to understand and/or 2) We rely upon what Kuran labels 'social proofs'. Social



PANELTECH
RAIL LOG
NETWORK

BUSINESS GUIDELINES

- Learn all we can about what our customers need so we can do everything in our power to provide it
- Continuously reduce our costs of operation so we can pass cost savings on to our customers
- Safeguard the assets (logs) that our customers entrust us with
- While protecting genuinely proprietary information, serve as our customers' "eyes and ears" where we operate
- Reward loyalty with loyalty
- Grow the rail log network to improve network efficiencies, to enhance customer market power

"In coping with our cognitive limitations we rely on models that order and simplify our observations. A model treats some pieces of information and some dimensions of causation as privileged, suppressing the rest. It provides not the whole truth but a truncated version that obscures subtlety, variety and complexity...Most of our models are based at least partly on knowledge provided by others."

Timur Kuran
Private Truths, Public Lies
1995



proofs are easy to understand– we find a point of view that seems wise to us and we simply adopt it as our own. This ‘free riding’ on the thoughts of others is– in our experience– our most common way of better ‘understanding’ this complex, changing world.

In past newsletters we have discussed some of the most useful models for understanding the ‘mechanics’ of our industry. These include the neo-classical economic model and the evolutionary, ‘creative destruction’ model. This month (probably to the horror of any economists out there!) we construct our own simple model (see page 1) to explain what we are convinced is a U.S. ‘housing bubble’.

Social proofs (upper left hand corner of our model) exert a strong influence on our housing demand. How? We have all heard, ‘Nationwide, housing prices have risen every year since records have been kept.’ and “We are running out of permitable building sites.’ Many people make buying decisions with little more to go on than **social proofs** like this, affordable housing payments and hindsight evidence (housing prices have been going up very rapidly recently).

In his excellent book, *The American Dream* (2003), author Jim Cullen cites the five preeminent quests of Americans: 1) religious freedom, 2) political freedom, 3) equality, 4) upward mobility and 5) home ownership. Our laws, especially our tax laws, support these contentions about our priorities. We offer huge subsidies to home buyers, for instance. Mortgage-interest payments are tax-deductible and capital gains up to \$500,000 on a house sale are tax free.

Harvard University’s ‘Joint Center for Housing Surveys’ is usually referenced by those who predict continued strong future housing demand because of our nations’ favorable **demographic** (household formation) fundamentals. For those of you who aren’t familiar with their extensive work, you can find very informative Harvard JCHS publications on the internet.

The previous three factors support strong housing demand. Low **interest rates** enable it. And our inter-

est rates have been unusually low for an unusually long period of time. Why do we continue to have such low mortgage interest rates while the Fed continues to raise interest rates ‘at a measured pace’? The answer to this question, Greenspan’s famous ‘conundrum’ question, is offered by the section of our model that is represented by the green cells.

‘On March 10, 2005, Ben Bernanke– a former Princeton professor who is rumored a leading candidate to replace Greenspan– addressed a gathering of economists in Richmond, Virginia...why are interest rates so low? And why can America borrow eye-popping amounts from foreigners (we are spending more than \$700 billion a year more than our economy produces) with seeming impunity?...Mr. Bernanke mused...the world might be suffering from a **‘global savings glut.’** (*The Economist*, Sept. 24th)

Oil exporting nations, smarting over their previous misuse of their windfalls, are once again taking in massive amounts of cash but this time they are in a savings mood. The ‘Asian tigers’ remain export-oriented and concerned about the strength of their currencies versus the dollar. China’s firms and households are both big savers. At mid-year (also according to *The Economist*) China held \$711 billion worth of our Treasury Bonds. China, through exports of inexpensive goods, has also reduced our Fed’s worries about inflation. In conclusion, despite lax U.S. monetary and fiscal policies, home buyers have been able to continue to enjoy low interest rates and our dollar has held up remarkably well.

All of these factors help us understand why our housing demand is unusually strong. So, why do we believe the ‘bubble’ theorists are right? First of all, some of these contributors to housing demand clearly aren’t sustainable– U.S. consumption in excess of savings, for instance. Secondly, and more importantly to our way of thinking, we have what an electrical engineer would recognize to be a faulty feedback loop– strong demand spurs escalating housing prices spurring household wealth spurring even stronger housing demand. And there is a ‘signal amplifier’ on this ‘faulty’ feedback loop, **speculators**. The National Association of Realtors



TimTek- Entering the Innovation Phase?

One of our favorite dead economists, good old Joseph Schumpeter, maintained that technological progress was a three-phased phenomena. In the first phase, the *invention* phase, new products or processes are created—often in an academic environment- that may eventually be of commercial or practical use. In the second phase, the *innovation* phase, entrepreneurs take the risk to actually commercialize the new invention. In the final phase, the *imitation* phase, mainstream businesses adopt the proven invention. *TimTek*, a composite, engineered lumber product that can be made directly from very inexpensive, small diameter pulpwood, may be about to move out of the invention phase and into the innovation phase.

Why is this of such interest to us? First of all, if industry gossip is to be believed, US Bioenergy— reportedly like Shuqualak Lumber a licensee of the *TimTek* technology- has apparently proposed a new plant for right here in our back yard— for the Olympic Peninsula of Washington State! Secondly, *TimTek* is a real ‘disruptive technology’, the kind of disruptive technology that could fundamentally upset both our timber and our wood products markets like OSB. Finally, the State of Mississippi and Shuqualak Lumber Company (see the blue insert) are apparently putting serious money into the *TimTek* innovation.

In early October Roy was in Mississippi so he met with and queried a sizeable number of informed industry sources about *TimTek*. He also stopped by for a personal discussion with Dr. Dan Seale, the main driver of the MSU *TimTek* venture. Dan showed Roy the current product and showed him around his lab but—despite heavy prodding— he was very careful to avoid revealing details about the process. He wouldn’t even acknowledge the Shuqualak Lumber project. What Dan did communicate— unambiguously— was his personal belief in the ultimate success of the new innovation project in Mississippi.

What could a new, successful *TimTek* product do to our markets? Let’s begin with the LVL market-headers and I-Joists. Our back-of-the-envelope scratching suggests that these are the markets where the product would most likely be targeted. The West Coast already has a large amount of LVL capacity relative to the regional demand, Pacific Woodtech is expanding output and rail transportation costs to other regions aren’t trending downward.

TimTek could be more disruptive to our timber markets. Southern pine has fast juvenile growth and, as mentioned earlier, the south has higher regional LVL demand versus capacity. Our view? Follow Shuqualak’s progress.

“A new demonstration plant unveiled in December (2003) at Mississippi State University has the potential to stimulate alternative, profitable markets for small-diameter trees thinned from pine plantations...Through a partnership with TimTek Australia Ltd., scientists at the university’s Forest Products Laboratory...will demonstrate technology that will ultimately produce commercially viable engineered wood products from 3 to 8-inch southern yellow pines...the TimTek process forms high-strength, engineered lumber using small diameter trees that are crushed into strands. Coated with an exterior-type adhesive and dried, the strands are formed to desired shapes in a specialized steam-injection hot press.”

Forest Products Journal
June 1, 2004

“With all the wrangling back and forth, most notably between the House and Gov. Haley Barbour, one part of the legislation came through unscathed: \$10 million in bonds for upstart TimTek in Lauderdale County...TimTek is a \$140 million project— most of the money coming from private sources including the company itself. Staff writer Freddie Carmichael has done some highly informative reporting on the project, including interviews with Anderson Thomas, vice president of Shuqualak Lumber, the company that bought the technology from TimTek Australia Ltd.”

Buddy Bynum
The Meridian (Ms) Star
December 1, 2004

Recent Paneltech Developments

"Last year, American households borrowed almost \$600 billion against the value of their homes to spend on other things, according to new research unveiled by Alan Greenspan, chairman of the Federal Reserve. Between a quarter and a third of this money is spent on consumption directly, Mr. Greenspan said, and another quarter indirectly. Mr. Greenspan said that the purchase of second homes, perhaps for speculative purposes, was playing an even bigger role in the housing market."

The Economist
October 1, 2005

LOGS

We are in the final stages of reallocating some of our 100-ton bulk-head flats. By the middle of November, we will likely have 40 or 50 fewer cars of this type available for service in the PNW. We are also preparing for our next LOGS seminar. It will be held November 3rd in Portland. We have tried to limit attendance to about 70 people this year and we will conduct a more realistic simulation exercise.

WEBS

As mentioned last month, we are approaching 7 days per week, 24 hour per day operations for our webs and, perhaps soon, for our resins operations. Normally a more seasonal business, we have tried to gear back our composites business to free up more fourth quarter treater capacity but our composites sales volume has- if anything- continued to pick up! And we have several new, large potential customers waiting in the wings for new composite products. We have completed our certification process through *Smartwood* and some of our overlays and composites will soon be *Forest Stewardship Council*-certified, including a new FSC-certified conform MDO. We will have a booth at next month's *GreenBuild* conference in Atlanta where we will show our new composites. We are also sponsoring a plywood overlays seminar in Portland on November 4th, the day after our LOGS seminar there.

The Weyco 'Shoes' Begin to 'Fall', Nearby

When Franklin Mutual began accumulating Weyerhaeuser shares back in March, it became obvious that 'business as usual' (or, more appropriately, share prices as usual) would no longer be acceptable to at least some of the major investors in Weyerhaeuser. As *Tacom News Tribune* business writer Marcelene Edwards wrote in May, '\$1 billion buys a say.'

Share prices, when Edwards wrote her article, were at \$66.90. On Friday October 21st (when this was being written), Weyerhaeuser's shares, which have generally trended downward since May despite a 25% increase in the dividend rate, were trading at \$62.11. And last week Weyerhaeuser announced a 52 percent drop in quarterly earnings.

If you read what Weyerhaeuser is telling the invest-

ment community, it would appear that the company is not yet contemplating major changes in business strategy (al a IP) but, instead, choosing to prune off its poorest performing (primarily pulp & paper) businesses. As to the company's timber assets, Dick Taggart of Weyerhaeuser announced at the recent UBS industry conference, '...we have pretty well disposed of the non-strategic timberland...'

The decisions to shut down the large log sawmill in Aberdeen and the Cosmopolis dissolving sulphite mill aren't surprising. The sawmill is old and log sizes continue to decline. There is only one dissolving sulphite mill that is still 'alive' today, Rayonier's mill in Florida that Roy ran with Scott's help. Nevertheless, this will be very painful for our local community. 345 of the highest paid hourly employees in town are losing their jobs.

"We're in the early phase of unlocking the power of the Weyerhaeuser portfolio. We will not shrink from making the tough decisions.. We will create an even more competitive company and deliver greater shareholder returns...Some of these decisions will take longer than others."

Weyerhaeuser CEO Steve Rogel
The (Aberdeen, Wa) Daily World
October 21, 2005

The 5th Annual Paneltech LOGS Seminar

Where?

The Oxford Suites, Jantzen Beach (Near the Portland Airport, Just Off 1-5)

When?

November 3, 2005

Agenda

7:00AM– 8:00AM		Registration
8:00AM - 8:15AM	Roy Nott, Paneltech	Greeting, Seminar Overview
8:15AM - 9:00AM	Kevin Binam, WWPA	Market Outlook
9:00AM–9:30AM	Lloyd Pederson, Pederson Management	State-of-the-Art Small Log Sawmills
9:30AM–9:45AM	Jon Tweedale, DNR	DNR Harvest Challenges
9:45AM–10:00AM	Chris Waters, Broadway Timber	Loony Challenges

Break

10:30AM– 11:00AM	Roy Nott & Jon Tweedale	Simulation Preparation
11:00AM–12:00AM	Mel Sanders (BNSF), Bob Krobetzky (CSX), Tom Foster (Formerly Rail- America), Peter Brown (SeaLink), Dave Callentine (Brusco Towing)	Transportation Trends, Fuel Price Impacts

Lunch

1:00PM–1:30PM	Roy Nott & Jon Tweedale	Simulation Kick-Off
1:30PM–3:00PM		Simulation– Years 1-6

Break

3:30PM–4:30PM	Roy Nott & Jon Tweedale	Simulation–Years 7 –10
4:30PM–5:00PM		Simulation Winners Recognition