

MADISON'S LUMBER REPORTER

Publisher
KetaDesign Productions

Editor
Kéta Kosman

Market Analyst
Zara Heartwood

Annual Subscription Prices
E-mail/Fax: C\$339

Discounts available for multiple
subscriptions

Published 50 times a year

www.madisonsreport.com
madrep@shawcable.com
604 984-6838

PO Box 2486 Vancouver, BC
V6B 3W7 Canada

In Canada, add 5% GST
ISSN 0715-5468

Printed in Canada © 2008

All material contained within is the property
of KetaDesign Productions Inc. Reproduction
or retransmission is expressly forbidden.



News & Updates

Madison's Timber Preview

This week we look at Weyerhaeuser Corp., with its long history of sound environmental practices and technological development. The company's earnings yield on the stock market is tracked against the price of inland Hemlock KD 2x4 #2&Btr over the past 10 years. Contact us anytime for a subscription.

Market Pulp Price Continues to Slide

Northern Bleached Softwood Kraft pulp shipments were almost 6 per cent lower in September 2008 compared to one year ago, according to FOEX. The European price fell almost US\$10 from last week to US\$812.29 per metric ton, which is down US\$58.87 from the beginning of 2008. (SOURCE: foex.fi)

Continued lower demand for newsprint is blamed for the ongoing price slide. [READ MORE](#)

US Housing

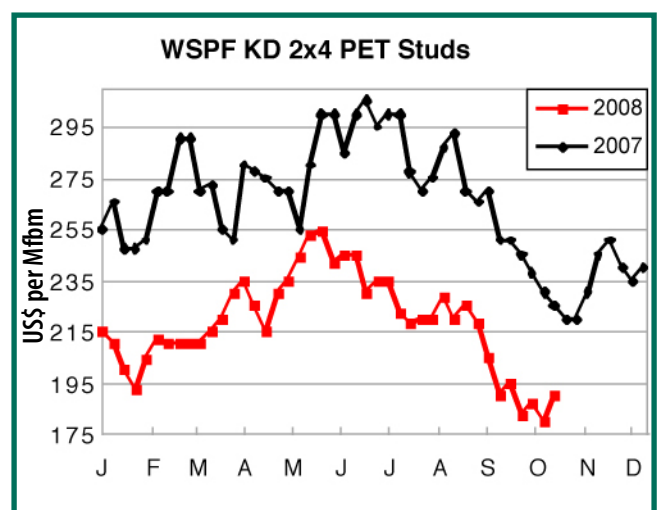
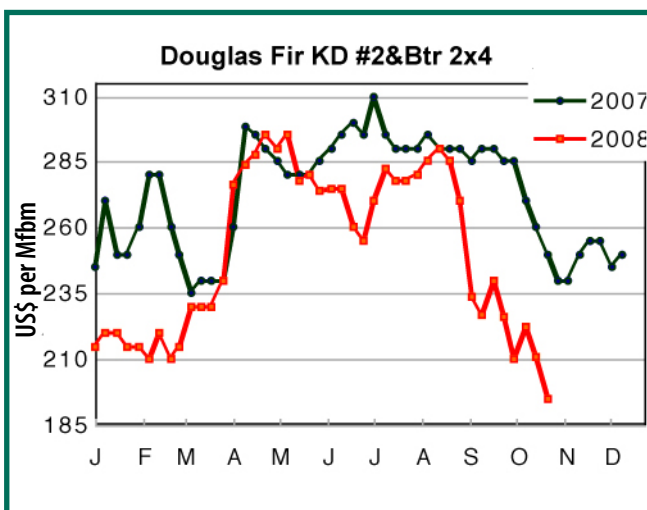
New home sales in the US rose 2.7 per cent to 464,000 units in September, above the revised August rate of 452,000. This is 33 per cent below the September 2007 estimate of 694,000.

The number of new homes for sale shrank to 394,000 units in September, down from 425,000 units in August. At the current sales pace, there was a 10.4 months' supply of unsold new units on the market, versus an 11.4 months' supply in August 2008. Meanwhile, the median number of months that completed new homes have been on the market moved up to 9.1 – a new record. [READ MORE](#)

Mapping a Forest

Imagine being able to estimate the potential wood products yield, or carbon absorption, of an entire forest by simply measuring and examining one tree. Its not such a far-fetched or futuristic idea if you use fractal geometry.

Agencies and organizations are researching the using of computer models to be able to look more closely at forested landscapes in ways never done before. [READ MORE](#)



Key Prices

	This Week	Last Week	Change	Month Ago	Change	Year Ago	Change
WSPF KD R/L 2x4	189	188	+1	220	-31	222	-33
WSPF KD R/L 2x6	182	188	-6	227	-45	230	-48
WSPF KD R/L 2x8	215	228	-13	260	-45	225	-10
WSPF KD R/L 2x10	215	212	+3	250	-35	325	-110
WSPF KD PET 2x4 Stud	190	180	+10	190	0	220	-30
Douglas Fir Green R/L 2x4	149	147	+2	170	-21	170	-21
Douglas Fir Green R/L 2x10	200	205	-5	200	0	279	-79
ESPF KD 2x4 8ft Stud	255	255	0	260	-5	295	-40
OSB Ontario 7/16" (CDN\$)	205	205	0	190	+15	175	+30

Weekly News

US Real Estate Market

CONTINUED Regionally, sales activity gained 23 per cent in the West and 0.7 percent in the South in September, but at the same time declined 21 per cent in the Northeast and 6 per cent in the Midwest.

The pace of new home construction has plunged more than 60 per cent from a peak in early 2006. Lumber producers, who sell up to 45 per cent of their product to home builders, have yet to fully adjust to the steep drop-off in demand.

The sales increase may be short-lived after the collapse of Lehman Brothers Inc. in the middle of last month led to a slump in lending among banks, making it harder to get a mortgage. Tumbling stock prices

and mounting job losses signal some prospective buyers may walk away from their purchase contracts.

The median sales price of new houses sold in September 2008 was \$218,400, the average sales price was \$275,500. On a positive note, builders cut inventories at a record pace. The number of homes for sale fell to a seasonally adjusted 394,000, the fewest since June 2004. The 7.3 per cent decline from August was the biggest since record keeping began in 1963.

Paper Demand

CONTINUED Global pulp markets are finally showing signs of a slowdown after three years of rising prices.

According to FOEX, global newsprint de-

mand fell by 8.5 per cent in September, down 9.4 per cent from one year ago.

European newsprint prices are down by 35 Euro per metric ton from the beginning of 2008, to just under 500 Euro per metric ton. However US newsprint prices are up significantly, by US\$175 from the beginning of this year, to US\$741. The strengthening US dollar is blamed for the discrepancy in price direction.

The European paper industry has for years suffered from overcapacity which has kept a lid on prices, while increasing costs of wood and energy have eaten into already low margins. "In 2009, output and exports of paper in Finland will decrease by 4 per cent due to capacity cuts," said the Finnish Forest Research Institute Metla in a report released this week.

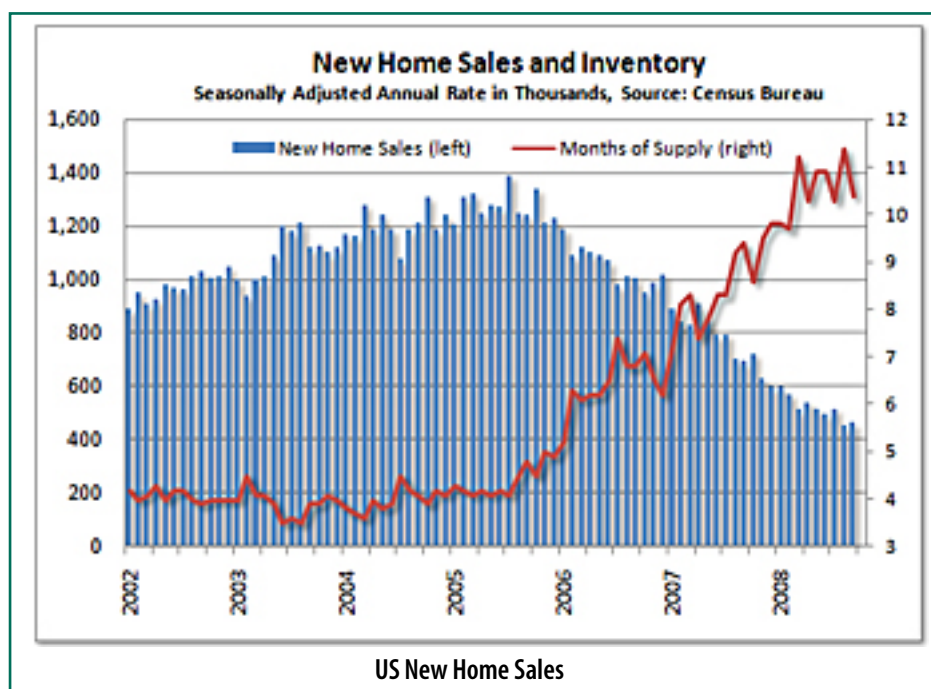
Finland's paper industry accounts for about 20 per cent of the country's exports.

Output and exports for the industry would fall about 6 per cent this year, the study also said, and 6,000 jobs in the country would go.

In the third quarter, paper and board production in Finland fell by 7 per cent, the Federation of Forest Industries said in a separate statement.

International Paper's 3Q 2008 profit slid 31 per cent in large part due to falling demand for paper and packaging products in North America. Declining prices for pulp in both North America and Europe will combine to lower fourth-quarter results, the company said.

Canfor Pulp Income Fund's stock has declined 40 per cent from its highs since last year despite rising pulp prices, as high energy costs, rising fibre costs and the strong Canadian dollar have weighed on the company's results.



Fractal Geometry

Forest Organization

Fractal geometry is a way of describing complex, irregular shapes that repeat themselves in nature. Take a leaf

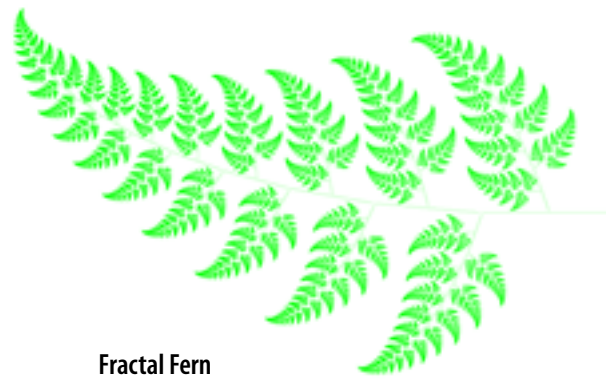
by Kéta Kosman

on a fir tree, for example. The leaf itself is a mini version of the whole tree. Da Vinci claimed that “All the branches of a tree at every stage of its height when put together are equal in thickness to the trunk (below them).”

Perhaps the most noteworthy aspect of fractal geometry is the enormous range of natural objects and systems it is capable of describing. A partial list includes: mountain landscapes, clouds, rainfall patterns, snowflakes, frost patterns, island formations, sea coasts, river basin patterns, tree branching, arteries, veins, bronchioles, and stock market fluctuations. Trees and ferns are fractal in nature and can be modeled on a computer by using a recursive algorithm. This recursive nature is obvious in these examples — a branch from a tree or a frond from a fern is a miniature replica of the whole: not identical, but similar in nature. The connection between fractals and leaves are currently being used to determine how much carbon is really contained in trees.

Benoit Mandelbrot coined the word fractal in 1975 from the latin fractus, which describes something broken up and irregular. Fractals are geometrical shapes that, contrary to those of Euclid, are not regular. They are irregular all over and they have the same degree of irregularity on all scales. A fractal object looks the same when examined from far away or nearby - it is self-similar (the parts resemble the whole). As you approach it, however, you find that small pieces of the whole, which seemed from a distance to be formless blobs, become well-defined objects whose shape is roughly that of the previously examined whole.

The most fascinating discovery made recently on this subject is that the fractal patterns of one tree match exactly that of the entire forest. Trees do not branch endlessly, and whole trees are not part of supertrees. Research teams are working in various rainforests to measure the CO₂ absorption of one leaf, and are then able to extrapolate absorption levels for the entire forest. In a new world of carbon credits, cap and trade, and carbon credits trading



Fractal Fern



Fractal Broccoli

SOURCE: Wikipedia

on the Chicago Mercantile Exchange, knowing the exact value of a forest's absorption can be extremely lucrative.

Fractal geometry can be regarded as a unifying theme in biology because it integrates scale-related phenomena and complexity into the description of patterns. The dependence of length on measurement scale allows an estimate to be made of the complexity of shape of a natural form, namely its fractal dimension. There has been an intense use of fractal geometry to describe the complexity of various characteristics, from leaf shape to tree crowns, in plant ecology. The diversity in leaf shape has been interpreted as a function of environmental variability.

A 1994 study published by the United States Forest Service states that, “A tree can be modeled as a fractal, predicting total wood volume, stem surface area, and number of branch tips, Damage patterns in forests and arrangements

of tree crowns are fractals.” Later on, the same report explains, “A real tree branches for eight binary steps. Beyond that, the twigs bear leaves with another fractal structure. And at the other end of the scale, an individual tree belongs to a forest, another fractal.” Thus a fractal structure has bearing on the relationship between the local scale and the global scale.

If a tree, and all its parts, is measured in great details, fractal geometry can be applied to computer models which will determine all manner of data, including wood volume and carbon absorption. In addition, if applied to old-growth forests the key to developing practices of sustainable forestry can be found. With measures of fractal dimension as a basis, managing timber harvests can lessen the ecological impact in old-growth areas. As well, fractal geometry may help explain the effect of landscape pattern on the spread of natural disturbances such as a fire or insect damage.