Slippery Stuff: **8 June 2009**
Effects of Oil Prices on Stumpage Prices

Conventional wisdom says higher oil prices drive stumpage prices down, right? Well, sometimes. Or, to use that classic economist's answer: it depends. Certainly when oil prices go up, manufacturers press harder to drive costs down anywhere else they can – and one of those places may be stumpage prices. From a broader regional economic perspective any association of lower stumpage prices with higher crude oil prices is the result of the collective action of many buyers and sellers. In that case, higher crude oil prices make marginal (that is, highest cost) production less competitive, often prompting manufacturers to curtail output by dropping a shift or, in some cases, closing the mill. That in turn results in a loss of regional wood fiber demand which may translate into lower stumpage prices.

But in some markets and for some products we find that, when crude oil prices increase, stumpage prices rise as well. How can that happen? Wood fiber procurement managers are focused on the delivered cost of wood, not the stumpage price alone. When transportation costs represent a significant component of delivered price, one way a procurement manager can manage increasing wood fiber costs due to rising energy costs is to pay more for stumpage that has a lower transportation cost instead of buying lower-priced stumpage with a higher haul cost. Regionally this impact is seen as procurement managers reduce their procurement reach, essentially piling the same demand into a more confined space. This can raise stumpage prices when the price of oil increases.

Based on econometric modeling and market analysis work we've done in the U.S. South and elsewhere, we have observed the following: When markets are comprised of mills that can procure wood from essentially all directions the impact of higher oil prices tends to follow the conventional wisdom – stumpage prices drop. But if a market abuts a significant procurement obstacle that impedes area mills' geographic reach in all directions – e.g., an ocean (coastal markets), the edge of the forest boundary (think east Texas), significant rivers with few crossings, mountain ranges, wilderness areas (think northern Idaho and western Montana) – the tendency is for stumpage prices to increase with rising crude oil prices. Purchasers in geographically constrained markets have to travel farther to acquire the same amount of wood per square mile because they are missing part of their "circle." As a result, freight cost is a larger proportion of their delivered cost, they are more exposed to the impact of higher crude oil prices, and have more incentive to trade-off between longer haul distance or paying higher stumpage prices nearer to the mill.

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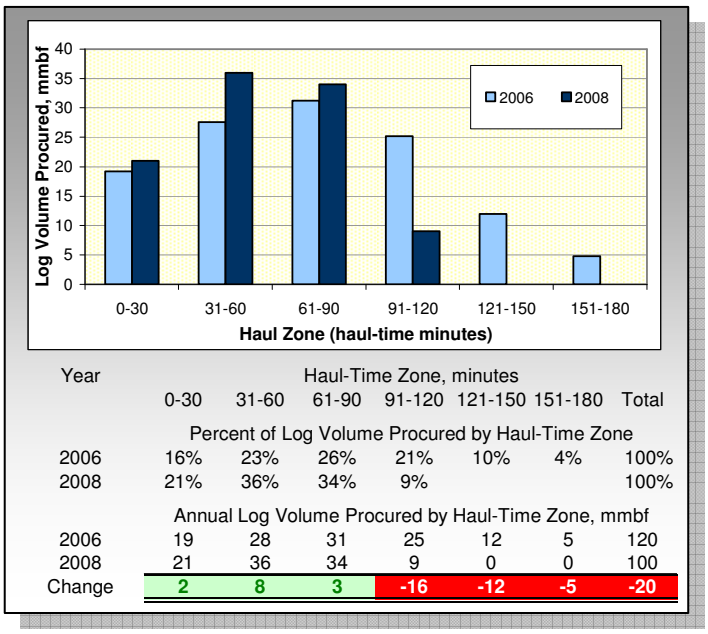
The concentration of demand into a smaller procurement zone (mentioned above) can occur even if mills overall are curtailing production. Recently a client quizzed one of us about what they viewed as strange market behavior during 2008. Lumber prices were way off their peak 2006 levels and mills were curtailing. But, their own stumpage prices were holding up, plus they had mills clamoring for them to put up more volume for sale. They asked us to explain what was going on as their market experience made no sense with what they were reading each day in popular press outlets about awful conditions in the wood products business. We explained to them the dynamics of crude oil price on stumpage markets (remember crude oil prices during summer of 2008 topped $150 per barrel!); in their case the market faced procurement barriers and their properties were competitively situated to provide volume to mills who continued to operate, even at reduced levels.

The figure at right supports the idea that this dynamic occurs even when mills curtail their production levels. The hypothetical example shown is drawn from Inland West market geographies but the same principle applies nationwide. Notice that as a mill reduced its haul-time from 180 minutes down to 120 minutes, demand in the first three haul zones actually increased even though overall demand fell from 120 mmbf to 100 mmbf.



Year	Haul-Time Zone, minutes						
	0-30	31-60	61-90	91-120	121-150	151-180	Total
	Percent of Log Volume Procured by Haul-Time Zone						
2006	16%	23%	26%	21%	10%	4%	100%
2008	21%	36%	34%	9%			100%
	Annual Log Volume Procured by Haul-Time Zone, mmbf						
2006	19	28	31	25	12	5	120
2008	21	36	34	9	0	0	100
Change	2	8	3	-16	-12	-5	-20

Figure 1. Hypothetical impact of reduced procurement reach on mill demand, by haul zone.

We entitled this edition of PERSPECTIVES as “Slippery Stuff” and it certainly is. What we’ve described here are market tendencies; these tendencies can, themselves, ebb and flow in markets. If managers aren’t prepared to take advantage of those tendencies, they simply become an interesting footnote and a missed opportunity. But anticipating them allows astute managers to improve their bottom-line. Delphi Advisors aims to support our clients to better manage their portion of the supply chain by remaining aware of emerging and anticipated market directions.

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