Photo: TLA Staff

# RATE MODELS AND DERIVATION OF RATES — IT'S IN THE VARIABLES

By Justin Rigsby

Over the past several years we have seen many contractors close their doors, seek creditor protection, file for bankruptcy or, if they were lucky, sell their business or simply retire. To say the least, the exit from the industry has reached epic proportions. As licensees seek to reduce delivered log costs, the path of least resistance appears to be the logging contractor and many have had enough.

Recent issues of the *Truck LoggerBC* magazine have highlighted the calculation of logging rates and the need for contractors to earn a reasonable return. At the TLA convention in January 2014, one panel speaker spoke in layman's terms on what a contractor needs for a return on investment in order to reinvest in equipment and remain a going concern. For many, the indicated rates of return are nowhere near what many earn today.

The catch phrase, "It's all about the rate model," has been bandied about as contractors and licensees negotiate rates. But is it?

Licensees have their rate models while many contractors have developed their own. So is it the difference between rate models that creates the gap between what a licensee is willing to pay and what a contractor needs to earn for a reasonable rate of return? Possibly. But the real truth lies in the variables and assumptions used by each party in a rate model. These are the real determining factors.

**For rate models to work, contractors and licensees need to physically assess each cut block to determine a reasonable measure of production and agree on that input.**

It has been suggested by many that inputting the licensee's variables and assumptions into the contractor's model likely produces the licensee's rate and vice versa. So let's look at the variables.

**Productivities – The Dynamic Variable**

Every cut block is different. Variables affecting productivity range from volume per hectare, stem size, quality of timber (sound versus rotten), terrain (steep versus flat), logging chance, deflection and distance to yard wood to the roadside.

These variables are specific to each individual block and are a dynamic input in calculating a rate. Simply put, the steeper the terrain and the requirement for high lead/cable systems versus second growth logging systems the greater the impact on the amount that volume equipment can produce on a per hour basis; the tougher the going, the lower the volume per hour.

For rate models to work, contractors and licensees need to physically assess each cut block to determine a reasonable measure of production and agree on that input. Unfortunately, too often

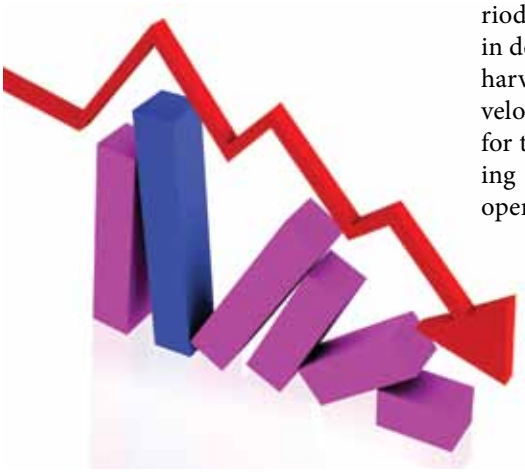

Photo: Dreamstime

that measure of productivity is the key to disputes. Contractors who keep production statistics and a production history for each block harvested will have stronger support for their argument, while the licensees are using production data that gives their desired rate.

**Hourly Rates for Equipment – The Static Variable**

The static variable in most rate models is the hourly rate. It is based on the premise that a piece of equipment will operate at a given level of cost over a period of time. This is a key component in determining the cost per cubic metre harvested. Some contractors have developed sophisticated costing systems for their equipment to aid in determining what the true cost per hour is to operate each piece of equipment. For a grapple yarder for example, costs can be broken down as follows:

- Ownership Costs: Depreciation and amortization, insurance, financing and/or lease costs
- Operating Costs: Labour (operator and accompanying crews), fuel and lubes, parts replacement, shop/mechanics labour, wire rope and rigging, radios, supplies, saws, major maintenance—replacements of large components (engines, undercarriages, etc.)

This is where a potential disparity arises again. Hourly costs can vary depending on the historical information used to derive cost inputs. Life-to-date costs for a particular machine, over a long period, will effectively determine the true cost to operate a piece of equipment. Over a typical 15,000 hours of a useful machine's life, it will have depreciated together with most major components being replaced and regular maintenance costs incurred.

Costs per hour can also vary by the type of equipment (hydraulic loader vs. grapple yarder vs. off-highway log truck) and by the crew complement working with that equipment (operator and bucker on a log loader operator, hook tender and chaser on a grapple yarder).

Those parties with sophisticated costing systems will have truer costs than those parties who rely on estimates, rules of thumb and WAGs. Knowing your costs allows contractors to determine their profit requirement more readily and, ultimately, the final rate needed to earn a return on investment. It would seem reasonable that if both parties approached the rate model inputs this way, then the disputes over rates would be lessened.

But again, are licensees and contractors playing on the same field? They are if both employ sophisticated costing systems for their equipment and can speak intelligently as to the make-up of those costs. If not, agreement becomes difficult and emotion takes over.

Photo: Dreamstime

Simply put, for the model to work, the cost inputs need to be based on a factual data, not on assumptions as to costs.

**Overhead and Administration Costs – The Other Variables**

The final element of cost in a rate model is the provision for overhead and administration costs, usually calculated on the basis of the total volume to be contracted for the year or the period the contract is to last.

Normally, these costs include salaries and benefits for supervisors and administration personnel, office and computer equipment, rent and utilities, camp costs, safety and first aid costs, environmental expenses, fire suppression, and shop costs that cannot be attributed directly to the cost of production of logging phases. These costs are generally "fixed" and do not fluctuate on the basis of production.

Again, however, these costs and what to include are subject to debate. What is a reasonable overhead provision cost per cubic metre? That too can vary on the contracted volume.

**Provision for Profit and Risk – The Dirty Variable**

The final variable (that is if rate models are to work) is the provision for profit and risk, generally applied to the rate as a percentage of the total cost of all logging phases and overhead/administration.

The assumed percentage can vary depending on the scope of the work (single phase-hoe chucking vs. full phase-stump-to-dump). Industry norms can range from as low as 7 per cent to as high as 20 per cent depending on the risk of the work involved, with an average of 10-15 per cent.

In determining a rate that works best for you, you need a model that accurately reflects the type of work to be done, an appropriate measure of productivity, costs that accurately reflect the labour and equipment complement required to complete the work and finally a reasonable profit and risk component that will provide the required rate of return to operate as a going concern and reinvest in replacing aged equipment.

Without detailed and accurate allowances for all of these inputs, rate models simply don't work and continue to be the source of conflict between those who need logs and those who know how to get them.