

APPRAISING OIL & GAS PROPERTIES

A Newsletter for Appraisal Professionals

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Inspiration for newsletter content comes from many sources including books and magazine articles that tweak our interest or, more commonly, events and debates that occur during the workday that seem to require further elucidation. We recently completed a couple of large projects and decided that we either had to clean out the office files or move. Shredding was out of the question (soon to be illegal if not un-Constitutional) so we used old papers to help fill in some of the potholes on Beach Blvd. Among the piles of folders and binders I found a few intriguing and/or useful (not necessarily the same thing) papers and excerpts which, after review, had been set aside as “good stuff for the newsletter” (fodder for the rhetorical cannons as it were). The frequent reader will note that on occasion we sweep up a number of smaller but somewhat related issues and use them for discussion. This approach of combining several topics has the potential to irritate a larger group of folks than does a single major topic which may only appeal to a limited interest group. Being the skunk at the picnic can occasionally stir up intelligent conversation.

As it happens, we have also recently attended the SPEE Annual Meeting in Park City, UT where there was an excellent technical program to complement the always enjoyable social activities. The focus of the meeting this year was the publication by SPEE of a new Fair Market Value monograph (see Book Review). To emphasize the significance of this effort, there was a panel discussion of FMV which raised some interesting issues, such as valuation of Un-Developed property and the relationship of the business decision (Investment) value to Market Value. SPEE has also issued the latest version of the annual Parameter Survey (see Book Review). Several of the issues discussed in Park City dovetailed nicely with the items I had been sketching out for the newsletter giving the entire process something of a tinge of prophecy - or at least de jevu, all over again. As a result, we touch on such things as: What is the difference between Investment Value and Market Value? Is “Quality” Really a Measure of Value? And, if so, what is Quality Anyway? And finally, How should the future costs of Abandonment & Remediation be accounted for in an evaluation?

Readers will also note a larger than usual Book Review section. In addition to the two SPEE publications noted above we examine a book about Mr. William Smith, an early field geologist. We also look at a book by a Danish statistician and Green Peace activist that has the Global Warming crowd all bent out of shape.

Lastly, while always being loath to allow personal opinion, derisive commentary or cynicism (defined as the ability to discover and give voice to the irony of a particular situation), we would be remiss if we failed to take note of some of the recent activities of government and corporate America which have graced the tabloids while the rest of us were celebrating the 226th Fourth of July. There is no particular need to refer to the behavior of Worldcom, Xerox, etc. except to note that an excess of greed and malfeasance tends to occur at the end of a boom. Thou Shalt Not Steal is, however, still applicable and transgressors should be punished. On the other hand, while we have every reason to irate and indignant over jobs lost and savings evaporated we must also recall that the vast majority of American business is ably managed by honest, hardworking people who do not deserve to be election year scape-goats. What should be of real concern to everyone is the sight of the U.S. Congress falling all over itself to “Do Something!” by adding yet more regulation to an already over regulated economy. The answer to Tyco, ImClone, Enron, Arthur Anderson, Worldcom and the rest is not more regulation - it was convoluted regulations that allowed Enron and the LA Dept. of Water and Power to play the “Get Shorty” game. Regulation, no matter how well intended (and some does serve a purpose), ends up transferring more legal and economic power from the people to the government and creates unintended consequences. Simplification is a better approach and I would offer, seriously, two suggestions that would be both simple and effective. First, ban Accrual Accounting - only cash accounting could be used. No more booking sales that have not occurred or pushing expenses off to the future as capital. You and I run our personal lives on a cash basis and most small business (including this one) run that way. If the money is not in the bank it does not count. Earnings are what remains in the bank after you write the checks. By the way, I have learned from all this that EBITDA, one of those new tools for testing corporate performance, actually stands for “Earnings Before I Trick Dumb Auditors”. Second, eliminate the corporate income tax; it does not pay for more than a week or two of wastage in DC, and getting rid of it would remove all those “adjustments to income.” True, a lot of accountants, analysts, and others would be out of work, but then there are always those potholes on Beach Blvd. to be filled-in. Just a Thought!

Local Doings

Many thanks to all those who sent congratulatory letters, cards, telegrams, e-mails, and messages in bottles regarding the completion of the painting work on the cabin. We are of course pleased to be finished with that project and hope never to have to do that again. Needless to say, there have been other activities to occupy our free time.

For many years, our Memorial weekend has been set aside as the "Annual Rake-Off and Chainsaw (AROC) Festival" at the Pine Palace. This is a ritual rich in historical and cultural content which has, in large part, supplanted our Summer Solstice Sunrise Ceremony and Dance-a-Thon. The AROC Festival stems from the local requirement for homeowners to keep their lots cleared of grass, brush, and trees which could constitute a fire hazard. As everyone knows by now, the cabin is on a lot at the head of the steep canyon and backs up on three sides to Los Padres National Forest. The idea that cleaning off our little 1/3 acre (more or less) is going to be any impediment to a forest fire is a bit far-fetched; but it is one of those "It can't hurt" chores that has been given a sense of urgency this year by the pictures of Colorado and Arizona going up in smoke and several early season fires out this way. We had next to no rain or snow this year. Sadly, the brush clearing regulation is not rigorously enforced. Some years ago the Forest Service used to come around to inspect our work, but recently the Kern County Fire Dept. has been the enforcer. That suits us fine. When the fire does occur it will be the KC boys that will show up, not the Forest Service.

If the truth were told, we have been surreptitiously helping the Forest Service maintain their property for years so that the "lot" now includes large portions of Kern and Ventura Counties. After all, just because they have a "let it burn" policy does not mean that we should go along.

You would think that a project so mundane would not be very interesting but, then, you would be wrong. In the first place, it does not take much effort for a pinion pine/scrub oak forest to get overgrown and start encroaching on our humble clearing. Also, as I may have mentioned, the cabin is on a modest slope that gets steeper as the day and the work progress. The AROC Festival allows us to use all our toys - loping shears, weedwackers, chainsaw, chipper/shredder, handsaws and a first aid kit that would make a Navy Corpsman proud. In the past we have occasionally had some help from friends and relatives. The past tense still applies. In fact, some years we have so much fun that now the mere mention of "cabin" and "Memorial weekend" in the same sentence at family gatherings is enough to cause some of our relatives to fall into fits of nervous laughter while others tiptoe away not to be seen for days.

Adding to the excitement this year, we have a brand new (almost) Craftsman Chipper-Shredder which has been

nicknamed, in a sci-fi/anthropomorphic way, Chewbarka. This machine is necessary to dispose of all the stuff that is cut down by other means. You cannot burn it and hauling it off is an expensive pain so we have to chop it up. I had an old Craftsman Chipper machine that lasted for about 12 years. We had to get rid of it when it was noticed that some of the "chips" coming out were, in fact, machine parts. The old machine was only 4 Hp - the new one is 8.5 Hp (Tim Allen, eat your heart out). This thing turns 3-4 inch branches into cellulose vapor. The only problem is that it takes 3 men and a boy to start it. I began weight lifting in April just to get buffed up. I tried to ride it down hill and pop the clutch to get it to started but halfway down I remembered it had no clutch.

Anyway, we (just the two of us) got the trees trimmed, the bushes cut back and the weeds wacked with no major injuries - all remaining digits are intact. We thought about offering up a sacrifice to the Rain Gods when we were done but decided we would probably offend someone somewhere so we opened the bottle, made ourselves a few toddies and proceeded to offer toasts to Mr. Sears, Mr. Roebuck, Home Depot, Gen'l Lee, and John Galt, not necessarily in that order.

Varmint Update

We seem to have gotten around the squirrel problem. As readers may recall the rascals were interfering with our attempts to feed the bird populace of North America. In an effort to shift their attention elsewhere we purchased, at no small expense, a Great Green Squirrel Feeding Machine and, per instructions, hung it up on a sizeable tree some distance from the bird feeders. We also filled it up with Squirrel Feed (no fooling, that is what it said on the bag). Lo and Behold, it worked. After a few days furry varmints were seen chowing down with great vigor. One or more - we cannot tell them apart and they do not respond to being called by name - learned how to stand inside the feeder and prop up the lid with their tail while using both paws to rummage about for the best stuff. It must have been a hard winter for squirrels though because we have not seen many this year. The birds, however, are still not satisfied and have initiated legal action.

Market Value or Investment Value?

One of the most interesting discussions at the recent SPEE Annual Meeting came out of the Fair Market Value panel presentation. This was a debate about the relation of Investment Value to Market Value. Making a long story short, Market Value is a function of Investment Value. Market Value is generally thought of as a consensus value that is placed on a property by those knowledgeable and informed folks who make up the market. A market requires a number of players who are qualified to place a value on a property. However, in a market system, the individual buyers and sellers are not always as interested in the *Market Value* of a property as they are in the

value of the property for their particular purpose and consequently, view the acquisition as an investment. This *Investment Value* is the value to a buyer as a part of his business. Viewed another way, if a property is to be appraised to estimate market value, and the same data is given to 10 equally knowledgeable evaluators, the results should form a relatively close distinction where there is a high and a low value but most are in the middle. (There is an assumption that the evaluators are acting in a professional capacity). The same result should be expected from providing the same information to equally knowledgeable buyers and seller, as participants in the marketplace, and then offering the property for sale. If it were possible to know the value placed on the property by each of the bidders, we should expect to see a distribution of values similar to that estimated by professional evaluators (similar, but probably not identical and probably with the whole distribution shifted toward the high side).

The difference between the distributions occurs because the buyers, acting in self-interest, may see value that is, if not unique, then at least most applicable to their own interests. To the extent that all companies find some Investment Value in the property, the distribution of values should be similar to the estimated Market Value distribution, but would be shifted toward the high end. Where one or more bidders see exceptionally large investment value, the distribution could be radically skewed toward higher values. The bidder who can define the most self-interest value will probably be the highest bidder, and ergo, the lucky and proud new owner.

Alas, this notion is difficult to test since we rarely have any information about what the other bidders would have paid, nor do we often have access to a number of baseline evaluations of a property that could be compared to values defined in the market place. It is not, however, difficult to imagine how this relationship operates in principle. As you may remember, we touched on this issue in the last newsletter. In our little scenario, the confident engineer proudly informs the Board of Directors of the results of his evaluation of a proposed property acquisition. Management then determines that the property could have additional value to the company beyond the value of the future income stream. They then proceed to increase the amount that should be offered for the property. That is, the appraised value of the property may be \$X but management tacks on additional of amounts \$Y₁, \$Y₂ and/or \$Y₃ (for one thing or another) making a total price of X + (Y₁, Y₂, Y₃) dollars.

Assuming the engineer has done his work correctly, X should be representative of the market value of the property. The values of Y₁, Y₂, & Y₃ which are added by Management derive from a series of business decisions regarding the relation of the property to the overall operation of the company; wherein the property adds increments of value beyond the income value

of property. The added value presents the additional investment that the company is willing to make in order to acquire the property. The total of X + Y₁, Y₂, Y₃ is the Investment Value of the property to that company.

Two things should be relatively clear. First, property values obtained from transactions in the marketplace derive from the Investment Values of particular buyers. Second, the Investment Value may be, and probably is, unique to that company. This is an interesting concept that seems to have little practical application except to serve as a caution against too quickly accepting all market transactions as market value data; which, in turn, should be a reminder to carefully review the circumstances of market transactions to be sure that the unique investment value attributed by the buyer is not excessive to that of the remainder of the market. In some instances, this may be obvious, but in most other cases the unique investment value is not so easily seen.

Consider some of those circumstances which could cause the XYZ property to have greater value to Company A vs. other bidders.

- Case One: Company A has properties contiguous to the XYZ lease whereas Company B does not. Company A can integrate operations and reduce some costs. While part of this efficiency can be recovered in the projected cash flow, consolidation of operations may also have intangible value.
- Case Two: Company A is operating a waterflood in the Sponge Zone which crosses onto the XYZ lease but Company C, on the other side of the XYZ lease does not have the Sponge Zone.
- Case Three: Company A has no nearby operations but needs a supply of (1) high gravity crude to mix with its low gravity production and (2) a supply of gas for its COGEN plant. Amazingly, XYZ has both and Company A wants it more than Company B and/or Company C do.
- Case Four: Company A, the California a division of a large company, has almost depleted the properties it currently operates and must either rev up the exploration program, buy something quick, or pack everyone off to somewhere that is not California. Talk about incentive to buy.

There can be innumerable reasons why a buyer might be willing to pay more for a property than another bidder even though they may estimate the future income stream at essentially the same value. The reasons float under a lot of names - "strategic fit" comes to mind. Some are valid - some

less so. The important thing drawn from this is that an evaluation of a particular property cannot consider all of the unique specific conditions that might add value to a property for a specific buyer. The best that can be done in an appraisal is to estimate the value of the property to buyers in general - that is, to the marketplace.

“Quality” as a Measure of Risk or Value

The so-called “Quality” issue is the crab grass in the Dichondra of oil property evaluation. No matter what you put on it, the stuff keeps coming back to obfuscate and otherwise muddle what should be a reasonably intelligent conversation about valuation practice. How many times have you heard this exchange. Fred says, “I hear Loose Change Energy paid a whole lot more than expected for that Soggy Bottom property,” to which Elmer replies, “Really, wonder how come.” And Fred responds sagely with a straight face, “Well, it was a good quality property, I guess.” This foolishness even works its way into print, such as the Oil & Gas Journal.

If you are Fred, confess now and go wash out our mouth with soap, preferably Lava. Would someone, anyone, please explain what is meant by a “Quality Property,” in terms that are relevant to evaluation of the property. Just to show that I have an open mind, let me tell you what I (from my vast experience) consider to be a “Quality Property.”

Number One: The Venice Beach field. This property was drilled and produced from a beach-front site on Santa Monica Bay in the People’s Republic of the same name. There were only a few wells, nothing much happened and the only field work was escorting visiting regulators and revenueurs about. You could go surf-fishing on the bay side or watch, as the girls, wearing as little as possible, glide by on roller skates on the boardwalk side.

Number Two: Forest Reserve in Trinidad, West Indies. No one expected much of anything to get done so, after you hacked your way out to the wellsite, kicking the anacondas out of the way, you could spend the morning watching red howler monkeys swinging through the trees and butterflies as big as catcher’s mits flit around the Flamboyant trees. When that got boring, one could stroll up to the Mess for a real Indian curried chicken lunch shared with a real Indian Army colonel (handlebar mustache, jodhpurs and all), or wander over to the Club where a drink wallah would bring you a 2-gallon Rum and Coke (with lime)

while you parked your tail on the veranda.

Number Three: The Bridge lease in Santa Paula. There were a number of well sites scattered in among some really good navel orange trees.

Those are true Quality properties with a capital Q. Of course, none of the above attributes had anything to do with the value of the property.

The Quality issue comes up because we tend to forget what we are valuing. The only value to an oil property is in the income stream that the property can produce. This is why oil properties are valued by the Income Approach. The overwhelming utility of the Income Approach is the ability to quantify and include every conceivable attribute and facet of a property into a projection of future income which, in term, has some value. That is the value which is the Market Value or the value to the market place of knowledgeable buyers and sellers.

For entertainment, I have often asked people, “What attributes constitute “Quality” that would justify paying a higher price for a property”? There is a list of about 20 items including the usual suspects - oil gravity, BTU content, water production, etc. all of which are functions of the income stream and would be considered so by all evaluators. Even the cost of all those Santa Monica inspectors and other busybodies is part of the cash flow. There have been attempts to quantify “quality” using ratios derived from the income stream, but these efforts invariably ignore the fact that the “quality” was already accounted for in the income stream.

I suspect that “Quality” is really a euphemism for the premium that a buyer apparently paid for a property. “Apparently” because we usually only know (maybe) the “winning” price and do not have the other bids for comparison. If a buyer pays more that was expected (or which seems reasonable for property), there is usually a reason. He could have blown the evaluation - mistakes do happen. Maybe he saw “upside potential” that escaped the attention of others. But that brings us back to the Investment Value that we discussed a page or two back. Maybe the property was contiguous to existing operations or was sufficiently close to similar operations, that a higher value was justified. Maybe the property allowed the buyer to expand his reserve base in a known area without the necessity for exploration and development. There are perfectly good reasons for paying what may seem to be a premium for a property. Note, however, that even these reasons are economic in nature by expanding reserves and/or production, introducing cost efficiencies, or offsetting higher risk capital expenditures. Note also that these economic considerations relate to only one person or company and may not be applicable to “the market” as a whole. Therefore, there may be a question whether the price paid by

the winner is the market value or a combination of market value plus investment value specific to the winner. There are, of course, acquisitions which defy rationalization and, in those cases, we can hope to be related to the Seller.

In short, let us expunge "Quality" from any discussion of oil property evaluation. It is meaningless and only serves to obscure real valuation issues.

Accounting for Abandonment, etc.

Every so often an issue that you thought had been dealt with, taken care of, and sealed in its coffin arises again like Dracula to plague the innocent and unwary. If Quality is the crabgrass in the evaluation process, Abandonment is Freddy Kruger - always showing up where and when least desired. Now Abandonment, Restoration & Remediation (AR&R) and the appropriate accounting of the costs related thereto, may not be a big item out your way, but AR&R is a growth industry in the Golden State and is a source of considerable dispute in property valuation.

We have managed to get to the point where everyone now agrees that AR&R costs must be included in an Income Approach evaluation for a property - common sense and good appraisal practice, reinforced by a couple of court decisions, saw to that. The remaining debate is how to account for those costs in the evaluation. As you might guess, this issue would not be an issue except for the fact that, in most cases, projected AR&R costs are substantial with very little, if any, salvage offset. It is not uncommon for anticipated AR&R costs to exceed the remaining un-discounted cash flow.

Property operators, particularly the major companies, have taken care of this issue (from their perspective) by creating internal corporate accounting to accumulate the anticipated AR&R costs of all their properties. These measures are defined, some clearly - some less so, in the annual reports of public companies. AR&R has been aggregated into a corporate obligation; and the company will pay the costs when they come due for any company owned property. That is, at the end of the economic life, or possibly sometime sooner, Big Bucks will step in, abandon the property and write a check on the old corporate account.

The evaluation of market value for a specific property does not allow that approach. A property must be valued with due consideration of all the assets and liabilities accruing to that property. With regard to oil properties, the best statement is one by the California State Board of Equalization (CSBE).

"Abandonment expenses can occur throughout the life of a property and at the end of the productive life of a well or field. They are the costs associated with returning the land to

its condition prior to production of petroleum. All petroleum properties will have abandonment expenses....

It should not be assumed that funds will be available for abandonment from other sources. Abandonment costs are specific to each property and should be paid for out of each property's cash flow. The allocation should be enough so that the full cost of abandonment is available when the property has reached its economic limit. The appraiser should not make the assumption that abandonment costs will occur after the economic limit has been reached.....Abandonment expenses may be accounted for by establishing a sinking fund account. The purpose of this account is to set aside funds each year. These funds grow to a predetermined amount by the time they are needed to pay for the costs of abandoning the property." (emphasis added) [Assessors' Handbook 566, CSBE, Sacramento, CA, January, 1999]

This statement means that the corporate approach of funding AR&R out of a separate piggy bank is not allowed - the funds must be accumulated out of the income generated by the property so that the funds are available when the expenditure is expected to occur. This would seem to be very clear but a debate remains about the proper method of recognizing AR&R costs in a cash flow. Some evaluators take the simplistic expedient of placing all the costs in the last year of the cash flow, netting them against negligible cash flow in that year, and discounting the negative balance back to present value. The argument is that the costs have been recognized against the value of the future income stream. This is, of course, sleight of hand using the magicians trick of misdirecting your attention while he hides the rabbit in the hat. First, the property cannot spend funds that it does not generate. If the property is at or near economic limit with net revenue of \$10,000 for the year and AR&R is \$1,000,000, the property is a bit short. From whence does the money come? This argument, and the demonstrated failure of the argument, is the reason that most states and many localities require operators to post sizeable bonds to cover future abandonment of wells. The rebuttal is usually as follows, "Well, but the AR&R is discounted back against the future cash flow so there does not need to be income in the last year." By this argument the \$1 million in AR&R that will be needed in 10 years is reduced at (10%) to \$404,000. This has a certain superficial appeal if one leaves aside the propriety of discounting negative numbers. (We really should discuss that one day.) But there is another problem. I learned Lesson No. 461 in the Tao of Texaco when I proposed a project that had a capital expenditure of about \$2.5 million (in 1970 \$) spread over three years and, when presenting the project, quoted the present worth investment. I was promptly cut off at the knees (and other places) by a chorus of, "We don't spend PW dollars. What is the real number?" In the same way, the property being valued requires \$1 million in the tenth year - not \$404,000. So, from where does the other \$596,000 come?

(The CSBE text above was cleaned up for publication - one text that was originally submitted for the source of funds section had references to Fairy God Mothers and the Easter Bunny).

The funds can only come from deductions from the positive cash flow in the years prior to economic limit. The real estate counterpart to this is called "Replacement Allowance." In fact, CSBE relied on the real estate precedent in establishing accounting for AR&R costs. The CSBE text outlines two methods of accumulating AR&R costs. One method is to estimate the full costs of AR&R when needed and then accumulate these costs, as a deduction from cash flow over time, until the necessary amount is available. This is a charge against cash flow just like any other capital expenditure. One may schedule the deductions as a fixed amount per month or per year or as \$X per unit of production. The formula is immaterial as long as the funds are accumulated. The second method is to use a sinking-fund to accumulate the funds. In this approach, the same future AR&R cost is accumulated by deductions from cash flow, but the funds are put into an interest bearing account where the magic of compounding interest helps to accumulate the needed funds. The obvious advantage to this method is that the actual deductions from cash flow can be smaller.

Of course, not all abandonment expenditures need wait until economic limit. Idle wells and facilities can be removed and/or abandoned during the productive life and, if the evaluation of the property shows that the wells have no future utility then the expenditure can and perhaps should be recognized at the time.

Book Reviews

"The Map that Changed the World: William Smith and the Birth of Modern Geology," Winchester, Simon, Harper Collins, 2001, 310 pages w/glossary.

When this book first came out, one reviewer noted that the author works very hard to make his case for Mr. Smith as one of the fathers if not the father of modern geology and that the advocacy tends to distract from the story. I would agree. The pitch is a bit strong - but, on the other hand, this is a biography of a man, William Smith, and the story of his creation which was nothing less than a hand-drawn geologic map of England and Wales that was completed in the early 1800's. It is a somewhat familiar tale of the lower-class journeyman surveyor who accomplishes a tremendous feat but is consigned to obscurity because his better-known upper-class contemporaries get the credit. With that background in place it is understandable that Mr. Winchester goes the extra mile to bring Mr. Smith to our attention.

From the jacket, *"In 1793 William Smith, a canal digger, made a startling discovery that was to turn the fledgling*

science of the history of the earth - and a central plank of established Christian religion - on its head. He noticed that the rocks he was excavating were arranged in layers. More important, he could see quite clearly that the fossils found in one layer were very different from those found in another. And out that realization came an epiphany: that by following the fossils, one could trace layers of rocks as they dipped and rose and fell - clear across England and, indeed, clear across the world. Determined to publish his profoundly important discovery by creating a map that would display the hidden underside of England, he spent twenty years traveling the length and breadth of the kingdom by stagecoach and on foot, studying rock outcrops and fossils, piecing together the image of this unseen universe.

In 1815 he published his epochal and remarkably beautiful hand-painted map, more than eight feet tall and six feet wide. But four years after its triumphant publication.... Smith ended up in debtor's prison, a victim of plagiarism, swindled out of his recognition and his profits."

This is an good book and, on the information presented, it would certainly appear that Mr. Smith is at least the Father of Field Geology. Readers who have had the opportunity of crawling up and down hills, clambering around outcrops, trudging through hot streambeds and over scrub-covered rattlesnake pasture while enduring Field Geology 401, will be transported back to the those halcyon days whilst skipping from page to page of the text. The retrospective is completed by reading of the reception of his efforts by the Geologic Society which, I will admit, reminded me of several similar, ah, critiques by Dr. Balk back on the Rio Grande. By the way, "The Map" still hangs in Burlington House, the home of The Geologic Society of London.

"The Skeptical Environmentalist: Measuring the Real State of the World," Lomborg, Bjorn, Cambridge University Press, 2001; 505 pages.

Where to start. From the standpoint of the environmental community and the global-warming establishment, this book is the equivalent of a three beer burp at the Queen's High Tea. What makes this book so good and so important is that it is not some ranting diatribe by an anti-environmental group or half-hearted protest by an affected (oil, coal, electric utility, auto) industry. It is a serious effort to explore the scientific basis not just of global warming but of other environmental issues as well, and to put them into perspective particularly as to the relative costs of remediation vs. the costs of the problem itself. The author is a self-described "...old left-wing Greenpeace member..." at least he was until he was drummed out. In February, 2002, after publication, Dr. Lomborg was named Director of Denmark's national Environmental Assessment Institute.

By the author from Chapter 1:

“This book is the work of a skeptical environmentalist. Environmentalist, because I - like most others - care for our Earth and care for the future health and well being of its succeeding generations. Skeptical, because I care enough to want us not just to act on the myths of both optimists and pessimists. Instead, we need to use the best available information to join others in the common goal of making a better tomorrow.”

I probably would never have heard of either this book or Mr. Lomborg but I have a subscription to Scientific American and, in the course of catching up on back issues one day, I ran across a multi-page article authored by several “concerned scientists” who were sputtering and fuming about this book. According to them it was all wrong, the author had mis-stated data and been selective and by golly, worst of all, Lomborg disagreed with the consensus of the scientific community - whatever that is - and could not be accepted. It was a real case of “they protesteth too much.” But nowhere in the article or even in Scientific American was there any presentation of the book itself.

Now, I like science and generally feel that good science is to be encouraged but whatever science there is to support “Global Warming” was hijacked long ago by political interests for wealth transfer purposes. This dispute aroused my interest. So I got the book. I will not say I have read the whole thing. The chapter on “Global Warming” is very interesting but so is Chapter 11 on Energy. It is dense, full of statistics and data references, heavy in footnotes, and gets into stuff that I never learned in school or anywhere else. However, as noted by one of the reviewers, a UCLA professor, “Bjorn Lomborg raises the important question whether the costs of remedying the damage caused by environmental pollution are higher than the costs of the pollution itself. The answer is by no means straight forward. He has written a pioneering book.” It was interesting to note that George W. referred to the book in one of his recent speeches re: Global Warming, the Kyoto Protocol, etc.

This is a good book. I got mine cheap on Amazon.com but for those who want to explore further, refer to Mr. Lomborg’s Website at www.Lomborg.org, where he posts all the reviews and commentaries, pro and con - really entertaining, or to the somewhat petulant discussion in Scientific American at www.Sciam.com under Feature Articles for May 1, 2002.

“Perspectives on the Fair Market Value of Oil and Gas Interests,” Long, D.R. (Russ), Editor, Society of Petroleum Evaluation Engineers, Houston, TX, June, 2002

SPEE is starting to assume a more active presence in the promulgation of evaluation standards and in the continuing

education of evaluation engineers and other interested parties. The recent publication of several Recommended Evaluation Procedures (REP’s), sponsorship of forums on SEC issues and evaluation software, along with expansion of membership opportunities are only a few steps in that direction. The text on Fair Market Value represents major progress as only the second publication for industry use by SPEE in its 40 year history.

The title “Perspectives” is a correct indication of both the intent and content of the book. It is not, and was not intended to be, the definitive text on Market Valuation of Oil and Gas Properties. It does offer a well presented discussion of the importance of the market valuation process, the methods of valuation, and several perspectives on how those methods are applied by experienced professionals in today’s industry. The volume treats topics such as “Dealing with Uncertainty and Adjustments for Risk” and “Three Primary Evaluation Parameters.” Also presented are the results of four market value problems that were submitted to a group of evaluators for analysis. This book goes beyond most industry texts which deal with evaluation concepts as an exercise in present value analysis and advances the discussion of market value of oil properties to a new level. This is recommended reading not only for the small cadre of working evaluation engineers but also for all those who are consumers of market value reports from company managers to, perish the thought, lawyers and judges.

“Survey of Economic Parameters Used in Property Evaluation,” Society of Petroleum Evaluation Engineers, Houston, TX June 2002.

This is the 21st edition of this annual study which has become a benchmark for evaluation within the oil business and in the outside world. The study is a survey of knowledgeable professionals regarding the manner in which they value properties and the parameters that are being used to estimate the value of those properties. The survey solicits data from producing companies, consultants and the financial community on such subjects as (a) price/cost forecasts, (b) discount rates, and (c) methods of adjusting for risk.

Over the past several years the survey has become increasingly sophisticated in both the survey methodology and in the analysis of the reported data particularly in the treatment of risk adjustment factors as they relate to discount rates. The study report has also reached a high level of professionalism in both the content and the presentation of the data. It is now a well-packaged product in living color.

Both volumes may be ordered from SPEE. Call (713) 651-1639 or write to SPEE at 1001 McKinney Ste. 801 Houston, TX 77002. Also, visit the SPEE Website at www.SPEE.org.

Corporate Returns as Opportunity Costs

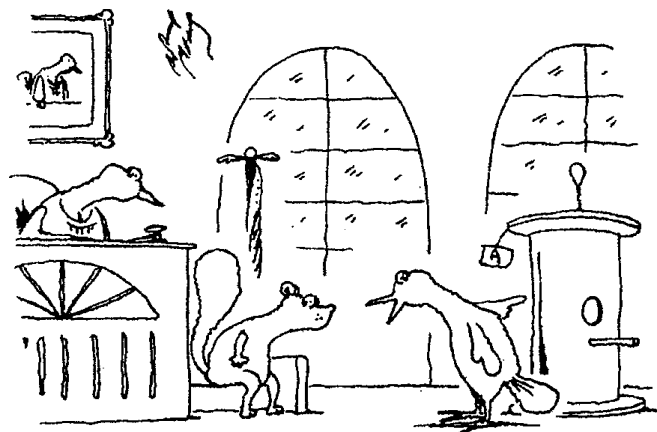
One source of market value discount rates is the return that could be earned on investments of equal or similar risk - the *Opportunity Return*. It is of interest then that for Year-end 2001, as reported by Business Week (2/25/02,) the Return on Common Equity for the Coal, Oil & Gas group was 18.2% after-tax as compared to on 5.7% after-tax for the All-Industry Composite. Given that a very large percentage of property acquisitions are made with essentially 100% equity the Return on Common Equity is a promising starting point for developing an Opportunity Return. When corrected to a before income tax value (@ 35% marginal tax rate) the 18.2% becomes 28% BFIT. While some further adjustments (i.e. from book to market equity) are necessary the 28%, which is historically consistent in the 1990's, attainable by corporations calls into question those so-called "quality" property acquisitions at returns barely exceeding prime rate. If the only way you can buy properties is to accept 8-10%, maybe you should buy something else. I know a guy with a bridge.

Fur Flys as Birds Sue Squirrels

A courtroom artist has captured part of the action from the District Court hearing in the Federal class-action lawsuit of Bluejays and Others Against Seed Thievery (BOAST) (Plaintiff) vs. Who Me? The Squirrel et al. (Defendant) Depicted is the questioning of Mr. The Squirrel by John B. Jay, Esq. (representing Plaintiff). This case is now (joke) on appeal before the 9th Circuit Court of Appeals in San Francisco which has set aside other weighty Constitutional issues. A decision is expected soon which is bound to cause a flap.

Pepper ... and Salt

THE WALL STREET JOURNAL



"I now show you this empty feeder and ask if you've ever seen it before."

Appraising Oil and Gas Properties is a publication of the Petroleum Engineering and Appraisal consulting firm of Richard J. Miller & Associates, Inc. For further information, letters and comments, and/or additional copies, please write, call, or fax:

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