Oil and Gas: The Unfinished Tax Reform
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OIL AND GAS: THE UNFINISHED TAX REFORM

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Introduction

In the heady early 1970s, many of us sensed that tax reform was finally on its way. The sleepy public had awakened to its true interests. One of the few solid results of that climacteric was victory over the depletion allowance. For years this had been the quintessential loophole, the symbol and a citadel of special privilege: it was preferential; the benefiting industry contains the largest industrial corporations; the industry is our major polluter, directly and indirectly; oil income includes a high share of unearned rents; and the use of industry wealth in politics was feared as a corrupting force. Accordingly, the repeal of depletion in 1975 was hailed with relief and satisfaction at a job well done, a triumph for equity, efficiency, and righteousness.

But alas, we keep seeing disturbing news. Occidental Petroleum Company is selling its surplus tax credits to Marsh and McLennan Companies. "Although Oxy is highly profitable it has little U.S. tax liability because of other tax breaks. The twenty-six largest energy firms paid an average U.S. income tax rate of 12.4% in 1979, according to DOE's Financial Reporting System, (a source now targeted for extinction). That suggests unfinished business of a gross order. While we may not know all the specific devices by which the industry achieves these results, the results themselves would seem to represent for the tax avoiders the substance of things hoped for and, for inquiring citizens, the evidence of things unseen.

There is also a federal gas tax, of course. At 44 cents per gallon it raises about $4.4B/year. But the proceeds are earmarked for highways, making this a user charge rather than a tax, and one that falls far short of paying for the roadways required to use gas, especially the city streets where most gas is burned.

One might regard Windfall Profit Tax as an equipoise, at least since passage in 1979 and imposition for part of 1980, and until it shall have been eroded by exemptions and retired on or before schedule, as now seems likely. (Its apparent impact is already halved by deductibility.) Or one might regard it as a separable issue, a tax with its own rationale based on an extraordinary price increase in which some industry elements were complicit, a price for deregulation, and a sort of "benefit assessment" to recoup some of the high military costs of supporting oil interests abroad.

Either way, there is a case for reforming the income tax treatment of oil. From the first viewpoint it is to replace WPT with the structurally superior income tax. Few economists support the structure of WPT, which is too much like an excise based on gross. From the second viewpoint, WPT is irrelevant, and the income tax should be made self-contained and neutral. In either case, income tax will be here long after WPT shall have withered away, and we should begin now to set it right, for it will take many years. And almost all hands agree that U.S. taxes on oil are below world levels, even including WPT and overlooking loopholes. As to industry size and power, the products of retained earnings, these continue to grow impressively. While others at the top of Fortune's 500 falter and stumble, more and more oil firms work their way to the top ten, seven of which are now in oil and gas. Petroleum industry investment now accounts for 20% of all nonresidential construction. Eighty-three thousand oil and gas wells are being drilled in the U.S. in 1981. The incremental revenue stream from new U.S. petro-energy is forecast at $250 B/year by 1990. Twenty major firms report having 188 million acres (sic) under lease--that is 5.2 States of Illinois-of which only 15% is developed. These firms are currently acquiring new leases rapidly, up 35% from 1976 to 1980. This move is reminiscent of the gas station land rush of the sixties, when some 40% (sic) of all the retail land use in a typical American city (Milwaukee) was in gas stations and their aprons, mostly held by majors.

Failure to tax fairly an industry so huge and dominating is of more than symbolic meaning. The absolute dimensions are staggering. In addition, the value-added by the industry is much less the product of labor and much more the product of accumulated wealth than is the norm. Net worth per employee for Standard Oil of California was reported at $234,300 in 1979, 46 times higher than Singer Sewing Machine at $5,100, a labor-intensive firm. Preferential treatment for this industry is a form of preferential treatment for property income vs. labor income, and for large firms vs. small.

For all those reasons, tax reform is unfinished business of high priority. While a hardened partisan might assume the subject was dead during this Administration, imperatives of fact and circumstance generally bear alike on all regimes. There is a huge deficit to meet. There is a recognized overload on payroll taxes, limiting recourse to this well. There is a readiness to trade gas price deregulation for higher taxes. There is the threat of rapid expansion by states into the vacuum of unpreempted revenues left by federal dereliction. And there is widespread intellectual recognition that low-cost oil is high-rent oil, and high rent means high taxable capacity. The last point is hardly new, being central to the doctrines of Franqois Quesnay and his followers (including Adam Smith) over two centuries ago. But it has had its ups and downs since then, and only recently escaped from traps laid by neoclassical economists and re-emerged in the ascendant, particularly with respect to oil and gas. These are enough reasons to get on with the unfinished business. Let us begin by inspecting the tax preferences enjoyed by oil and gas.

Some of the remaining loopholes are widely known and frequently recited; some are seen only through a mist; and some are invisible, although gross, camouflaged as the natural order of things. I will itemize all, but (continued on page 7)

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expand only on the more neglected points. The invisible loopholes are not that by virtue of being tiny or uninteresting.

A. Twice-told Tales: a standard list of tax preferences for oil and gas.

1. Expensing Intangibles

The "intangible" costs of drilling 'and equipping a productive well are expansible. Tax economists now generally recognize expensing of investments in durable capital as being tantamount to 100% exemption of the income imputable to the capital, except for small, undiversified firms that bunch up unusable expenses in some years when other income is low. Some other industries, notably agriculture, enjoy similar privileges, but the standard of comparison, I submit, should be the wage-worker with his W-2 Form, the median American who bears the full sting of the nominal tax rates and for whose presumed benefit we have a "progressive" income tax structure.

One advantage of expensing intangibles was partly abated in 1975 when these outlays were made subject to recapture when leaseholds are sold for a gain. Recapture of a fixed number of dollars still leaves a substantial advantage, because interest and inflation are unaccounted for. Note that other expensed items like dry holes are not recaptured; nor are intangibles recaptured if there is no sale.

2. Dry Holes

If a well is dry, one expenses it. Of course had it produced one would have expensed most of it anyway, as intangible. What is added here is expensing of the rest of it, the tangible part; and exemption from future recapture, to which "intangibles" have become vulnerable since 1975.

Dry holes on dry leases would be deducted anyway upon abandonment. Dry holes on producing leases are the issue here. A field is developed by "stepping out" until the pay area is defined by a ring of dry holes, which are a normal part of the producing lease.

The general issue is a denial of the capital nature of all outlays that do not result directly in production: outlays like exploration, research, and lease acquisition. A reasonable man would construe dry holes as part of the capital sunk in the producers finally located by the total process. McDonald notes, . . . unsuccessful exploration costs are an inevitable part of the total costs of acquiring productive assets and holds they should be capitalized. Industry spokesmen make this same point when justifying high returns on gushers when taken out of context. What they leave out is that the outlays should be capitalized, not expensed for tax accounting.

3. Royalties Treated as Foreign Tax Credits. In the beginning was the word, and the word was "royalty," meaning payments made to lessors per unit of production. And the word was made "tax" by several foreign governments who were lessors. The acceptance of this transubstantiation by the IRS generates huge factitious tax credits for multinational oil corporations. These are used to offset taxes on domestic income, dollar for dollar.

4. Profit Shifting by Controlling Transfer Pricing. Vertically integrated firms, often with many subsidiaries, have substantial latitude to shift profits to lower-tax jurisdictions by adjusting transfer prices on goods moved between tax jurisdiction. Tax authorities wage constant battle on this front but, in the nature of the case, often lose, compromise, or give up.

B. Through a glass backwards: matters seen but miniaturized

1. Residual Percentage Depletion

There are "a few minor exceptions" to the repeal of percentage depletion. It is not clear that they are so minor, or that persistent shelter-seekers cannot widen them to a major exception.

Lessors or royalty-owners are the most glaring exemption.

Royalties qualify for percentage depletion at 22%. Royalties today are no longer the modest 1/8 of yore: 25% off the top is more typical. That is based on gross well-head value, a value added to by the lessees' wells which are normally much deeper and costlier than before, and which the lessee writes off as well. Of all the incomes in the business, lessors' royalties are the purest windfall of rent, representing no functional effort of any kind, but only prior ownership. The royalty owner bears no costs of finding or production. There is normally no opportunity cost or foregone gain in the usual sense, because traditional surface uses continue unvexed by oil operations. It is hard to imagine any useful economic function, any increase of supply, any employment creating investment, or any measure of equity that is enhanced by this allowance.

A second exception of note is the "small producer", who gets percentage depletion on the first 1,000 bbl/d of oil and the first 6,000 MCF/d of gas. To qualify for this, one most not refine or retail downsteam. The effect is to protect the "medium-size independent drillers."

The value of the exemption is not negligible. One thousand bbl/d at $30 is $30,000/d or $11 million per year. Six thousand @ICF/d at $5 is the same again, for a total of $22 million per year. If wells are shut in for part of the year there is no loss: the daily average is allowed, i.e. 365,000 bbls/year.

In addition, there are interesting possibilities for multiplying this by dividing a property among several owners, using the partnership vehicle. The exemption goes with persons, not properties, so nine (continued on page 8)

Partners means nine exemptions. The cap on percentage depletion for each partner is 65% of taxable income. The tax shelter for limited partners with outside income is evident.

The tax code is, of course, complex and filled with traps for the unwary, but also with plums for the crafty. Public information from the IRS on these points is even more opaque and evasive than the norm. This kind of bureaucratic stonewalling invites one to surmise the worst. What is accomplished by insiders and specialists with private rulings and "various special rules" alluded to but not specified by IRS is impossible to ascertain fully without being heavily involved personally, by which process, however, one is coopted and silenced. What is certain is that there is a large tax shelter industry in oil partnerships. Besides stretching the loopholes, this industry consumes a portion of the gains to support its own efforts, which are, from a national viewpoint, a waste of talents.

A third exception is for "stripper" wells, producing 10 b/d (barrels per day) or less. Here the effective cap is on a per well basis, not per person. But wells may be grouped on a property, and some producing over 10 b/d offset by others producing less. The denominator of the mean is also inflatable by including water injection wells, and perhaps by other stratagems. Wells producing 15 or 20 b/d will, of course, be slowed down to qualify, as needed.

A fourth exception is for regulated sellers of gas with old contracts predating February 1975. In the circumstances there is equity in this, as these sellers are being taxed by regulation. There is also efficiency, at the production end, in offsetting the disincentive effect of lower prices on older producers. On the consumption side, however, this provision merely reinforces the anti-conservation bias inherent in the price ceiling. It passes the depletion allowance through to consumers. It increases the supply of old gas at old prices, which utilities "roll in" to lower the average cost on which customers' rates are based. It increases the spread between the low customer rates and the extraordinarily high prices paid for new field gas today. Tracing through the whole system, then, the end result is a highly leveraged rise in the demand for new gas, a transfer of wealth to the majors who hold those 188 million acres, and other speculators who have spent the last decade laying lease to lease and deal to deal in gas-prone areas.

2. Capital Gains

Profit realized upon sale of leasehold enjoys capital gains status, with all that implies. In some ways this is no more preferential than the treatment of other real estate; in one way less so; but in many ways more so. We take those in order.

Capital gains treatment in general is highly preferential, and lacking in any deep rationale. It has no support among tax economists, most of whom subscribe to the Haig-Simons doctrine that gains are income, and should ideally be recognized as they accrue. It has no Congressional rationale: "The capital gains preference has never received a systematic exposition in any official source." It is something they just want to do, not to explain. "The absence of a clearly articulated set of policy objectives has been criticized by many. Unsure of its own goals, Congress has provided no more than a sketch. . ." of what it wants. The courts and the IRS have done the rest.

It has no Constitutional basis: "Congress is free to treat gains and losses as 'realized' pretty much whenever it chooses." The usual rationales are based on shallow and incidental procedural and administrative matters; or on incentive arguments that have no application to land values, the major values whose nature it is to appreciate routinely over an extended period of ownership, and qualify for capital gain.

With any real property, carrying costs (interest and property taxes) are recognized as they are expensed, while the gain is not recognized until sale, if ever. The expenses are deductible in full from ordinary income, thus being weighted two and a half times heavier than the gain they produce, the gain being only 40% recognized. The sales price becomes a new basis, so the process is repeatable. The owner can convert his gain to cash tax free, by borrowing on it. Cash flow from the mortgaged property can cover the interest, freeing the borrowed cash for new ventures, with new untaxed gains, and so ad infinitum. There is also step-up of basis at death; deferral of tax on sale, by various routes; tax-deferred barter; and a host of related benefits that are part of "capital gains treatment," which is tender and solicitous in the extreme compared to the harsh and relentless imposition on ordinary income from working persons and working capital.

A very common way to avoid taxes, one whose significance has escaped scholarly notice, is simply to buy land in advance of one's own needs. After a few years, one has a valuable perpetual asset for use, bought cheap, with never a tax on the increase of wealth, and no prospect of one.

It is as to the last point that oil leases are less preferred than other land, because the corpus of the enhanced oil value does become taxable income when sold in units of production, and cost depletion is limited to historical cost. (We will see, however, that this handicap can be overcome by timely sales, establishing a new high basis for cost depletion by buyers.)

In many ways oil leases enjoy more tax preference than other land. First, much of the de facto cost of leasehold acquisition is expensed: most of exploration, all dry holes, and all abandoned leases. Each of these is treated separately later.

Second, delay rentals are expensed. There is no counterpart to this in ordinary land acquisition. Rentals are expensed before there is any income, and even in the absence of taxable income.

Third, most of lease development costs are expensed, because intangible... or because they are dry holes. Thus (continued on p. 9)

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the asset value that becomes a capital gain is built up by an accretion of fully deductible expenses.

Now discovering and developing pay zones in oil rock are the ordinary businesses of oil firms, not incidentals. The pay zones are their inventory; they are dealers. In the leading Corn Products case, it was settled that "Since _ 1221 is an exception from the normal tax requirements of the Internal Revenue Code, the definition of a capital asset must be narrowly applied. . . and it generally is. Stephen McDonald has noted that, . . . oil and gas deposits would seem to fall in this category. . . (of assets that in the ordinary course of business are regularly offered for sale to customers).

To be declared a "dealer" in other real estate is to lose capital gain privileges. Oil firms do not have this problem. Only timber has achieved a comparable preference, with breeding herds coming in a distant third.

Security analysts and accountants have become concerned about the distorted picture of oil firms that has developed because they do not report inventory increases, as other firms do. There is no entry on the balance sheet of oil firms for oil reserves. Capitalized investment is merely symbolic, and independent reserve estimates are needed to find net worth. Accordingly, the FASB and the SEC have finally required Reserve Recognition Accounting (RRA) for 1980 reports. Here, revenue is recognized at the time reserves are determined, as opposed to sold. Nineteen-eighty reports contain a wealth of new data on the weight of this factor, which could basically change the way we look at oil firms in the age of OPEC.

Here is Getty Oil Company as a sample. The increase in proved reserves in 1980 was $3.3B, or 3.18 times the Net Income otherwise reported. In 1979, the increase was $6.3B, or 10.43 times the Net Income otherwise reported. The value of proved reserves at 12/31/80 was $17.2B, or 2.07 times the Total Assets of all kinds reported conventionally.

The reported reserves are net of royalties. Royalty owners bear no costs, so a 25% royalty could represent 50% or over 100% of net income. So for every dollar of added reserves reported by Getty, the lessee, there is a good fraction of a dollar not reported, enjoyed by a royalty owner.

The increases were the joint results of findings, acquisitions, and price hikes; and the greatest of these was price hikes, according to Getty. One could argue the details of SEC reporting rules, particularly the assumption of constant future prices, a myth somewhat offset by a low 10% discount rate. But Getty is careful to note that these estimates "should not be construed as implying in any way a price at which Getty would sell the assets." A billion up, a billion down, who knows?--but it is clear that reserve increments represent big, big money, and a major part of the real income of oil firms.

Another authority which is challenging the traditional invisibility of reserve appreciation is the California State Board of Equalization. Proposition 13 takes a recognition-upon-sale posture towards land values, for purposes of property tax assessment. But new construction enters the roles at current market. The Board's Rule 468 treats new findings as "new construction," and also adds the increase of economic reserves resulting from higher price. There will be no public outcry, since exemption for oil was a totally unintended by-product of Proposition 13, the "homeowners' revolt."

The shadow of Eisner v. Macomber hangs over any discussion of recognizing income before sale. But the application of this case depends on whether reserves are a "capital asset" or an inventory. If the latter, then other rules apply, and increased inventory in other industries is routinely added to taxable income. If this be, as I submit, the appropriate stance, then the present treatment is a gross loophole indeed. In the Bruun case the court held that income in kind is income, even though real estate. Just as Congress repealed Bruun by adding Section 109, so it could legislate that income in kind is realized upon discovery. If that seems a shocking idea, this suggests how conditioned and mind-bound we are by custom, for anything less is preferential.

Another advantage that oil enjoys over other land is that a new buyer can deduct his cost from ordinary income, as cost depletion; and he can begin right away, on a unit-of-production basis. With other land, of course, a new basis is only deductible upon resale; and thus from a capital gain, and after a (normally) long period of ownership.

Inflating the price of oil leases upon resale converts ordinary income to capital gain: the buyer's ordinary income will be reduced by the seller's capital gain. There have been occasional press reports of "abuses", but it is the basic concept that is abusive, and we would have a poor opinion of our tax shelter industry not to assume that the possibilities are heavily exploited by brilliant minds that might otherwise be usefully employed.

A last advantage that oil leases enjoy over other land is that they can be written off at all. Other land is not depreciable (except illicitly by allocating part of it to a depreciable building on it). Of course, the tax depletion of oil has a rationale, the land is consumed physically; thus it differs from other land. But that is only half the story. The other half is that oil pay zones are naturally limited and scarce: thus they resemble other land, and thus they appreciate in real terms over time and generate value increments routinely and massively, and in times like the '70s, sensationally. The exhaustion of old reserves makes it all the more certain that untapped ones will appreciate. Capital gain privileges to other "unearned increments" are in some small way compensated by non-depreciability. Privileges to oil suffer no such penalty.

Oil firms are well positioned to use the capital gains privileges because they have become vertically disintegrated at the front end: exploring has to a high (continued on p, 10)

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degree been separated from production. Only a small share of the funds spent looking for oil and gas is spent by majors. "Independents" are said 'to account for 88% of well completions now. Drilling partnerships offered $2 billion publicly in 1981, and an estimated $6 billion privately. Subsidiaries and subcontractors are also involved, in fairly complicated ways. Thus, Marathon Oil, itself being swallowed by U.S. Steel, is "farming out" three blocks of raw acreage in the Celtic Sea to a group led by Texas Gas, which will acquire a half interest in any block drilled.

Large firms, in turn, acquire proved properties. Getty, for example, spent 58% of its 1980 acquisitions budget on proved properties, and more than 73% of its 1979 budget. They spent more on acquisitions than on either exploration or development, with acquisition rising at a much faster pace, 1978-80. This is not to say they do not also acquire unproved leases, for we have noted a vast acreage increase, too. But there seems to be a regular "churning" of appreciated leaseholds, creating gains for sellers and new high bases for buyers.

There are more gains to expect ahead. Decontrol of natural gas is probably coming; the nuclear alternative is nearly dead; the WPT is programmed to self-destruct in a few years; and all three branches now in Washington are more pro-oil than in a long time. Royalty owners and strippers have already been relieved of WPT, and WPT on new oil reduced. New Arctic oil is now totally exempt. Twenty major oil firms with 188 million acres under lease are well set to gain from all this. Fifty lesser firms and a few thousand individuals, families, trusts, partnerships estates, institutions, local governments and so on doubtless swell that acreage figure much if we had the data. We never will, but it is clear that capital gains for oil is a large matter. Long lost in the shadow of percentage depletion, it should now be spotlighted. As Stephen McDonald predicted in 1963, eliminating percentage depletion would have little effect on oil incomes unless capital gains, which is "a close substitute for percentage depletion," were modified too.

3. Interest

Interest is always expensed, even though borrowed funds go to acquire "capital" assets like leaseholds whose gains are mainly tax-exempt when they appreciate. While this is a general loophole for all landowners, it is of greater consequence in oil because the nature of the major assets is to appreciate in situ as old oil is exhausted. The preference involved in deducting interest is compounded because borrowing on appreciated leaseholds is a way of realizing gains in cash without recognizing any taxable income. In contrast, pity the poor working girl. She reports and pays current income taxes on a big chunk of supposed income which she hasn't received because it was withheld for FICA. Some other I pension withholdings have the same effect. But pension rights are not bankable, as appreciated leaseholds are. So the worker gets a tax without cash; the oil firm gets cash without any tax.

Borrowed funds are also used to explore and develop leaseholds. The proved developed property, increased in value, may then be sold as capital gain, with the interest expensed (along with most of the principal).

C. Invisible Loopholes

Several loopholes go virtually unrecognized, even in the reform literature. Yet they are in plain sight. It is rather a trick of intellectual camouflage. They blend in with a background of assumptions tailored to the attitudes of a dominant group, and so escape notice. Even the beneficiaries are likely unaware of them, but regard them as the natural order of things. They may be exposed not so much by sleuthing as simply by taking thought.

1. Leasehold Abandonment

In the nature of exploration, several leases are taken for each that proves productive. It is a screening process. Something like fourth-fifths are culled out and then abandoned. A reasonable person would construe the cost of the four culls as part of the cost of acquiring the one producer, and this is the industry position when explaining the high returns on the producing leases. At Prudhoe Bay the lucky winners got some $50 Billions worth of oil on leases costing only $6 Millions, and reams have been written justifying this by the costs of acquiring and sifting through other leaseholds, which were abandoned.

Now if the cost of abandoned leaseholds is part of the real cost of acquiring producing ones, then it should be treated the same, tax-wise. But instead, abandonments are expensed. The only outlay capitalized is that for the specific lease that produces. Thus, some 80% of the de facto cost of land acquisition is expensed at an early date. Disappointing leaseholds are abandoned regularly, as in Baltimore Canyon recently, with "tax reasons" given as the motive.

On top of the benefits for lessees, lessors also gain from abandonments. There is a formula for diluting a lessor's cost basis by the amount of expected royalties, and abandonment reduces the diluting factor to zero. A lessor who gets bonuses on five tracts to get one producer can deduct 80% of his cost (on the four abandonments) however large the royalties expected on the producer.

Few other businesses have this avoidance avenue open to them on such a scale because abandonment of land is not routine in other businesses. A comparable privilege is enjoyed by orchardists who write off their early thinnings as abandonments and thus take off three-fourths of the capital cost before a grove is even mature. One writes off the abandoned trees pro rata, but as the others grow into the space thus opened, no offsetting appreciation is recognized. But on (continued on page 11)

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the whole, this ranks as an extraordinary privilege, open to few.

Abandonment is much better than a capital loss. It is an ordinary loss deduction, even though the producing leases are capital assets when sold. The basis for abandonment loss is leasehold cost, plus any unrecovered capital allocated to the lease. Most of this unrecovered capital is exploration cost allocated to the lease, for exploration must be capitalized until lease surrender. One may also pick up a good deal of miscellany not otherwise expensed, like allocated overhead. And there is no limit. There is no requirement to offset losses first against capital gains: the gross amount is an ordinary loss. There is no $3,000 limit, as under _ 1211 for net capital losses. There is no recapture, as with _ 1231 assets. As to timing, one can regulate this entirely for tax advantage because no sale is involved.

Putting it all together, the package of benefits is extraordinary: capital gains for winners, ordinary loss deduction for losers, no limits, no pooling, no recapture, no constraints on timing. To be sure, _ 1231 assets enjoy a small taste of the same advantage: they, too, get capital gains when they rise, and unlimited ordinary loss deduction. But the restrictions are much tighter. The class of assets excludes inventories held for sale to customers (oil deposits are certainly that). Gain and loss are recognized on a net basis only, not a gross basis. The net basis means that to take an ordinary loss, you must first report all your gains as ordinary income--quite a difference. And excess depreciation is recaptured.

More fundamentally, the abandonment "loss" comes at the front end: it is really part of the cost of acquiring assets, rather than a loss on selling them. The comparable provision in other businesses would be to allow expensing 80% of capital and land costs. No one else makes out so well. The reform literature neglects abandonments entirely, so far as I know. It is a gross oversight, especially now that lease acquisition has become the largest single outlay of oil firms.

The relative weight of lease purchase in oil industry costs may be judged by the data from the Joint Association Survey. By 1974, lease acquisition had jumped to 38% of the total spending of the industry. And what about now? In 1981, one single lease sale (Santa Maria Basin) brought $2.27B in winning bids on 81 tracts. In 1980, a Gulf of Mexico sale brought $2.6B. These two sales are a small fraction of total acquisitions currently, but together add up to 86% as much as 364 reporting firms spent in 1974. The treatment of leasehold payments is the weightiest question in oil tax law, in dollar values.

2. Scouting

A large share of exploration cost is expensed, or virtually so. Technically the cost is capitalized, and then deducted upon abandoning the exploration project or the property... Most preleasing exploration passes over vast properties before a lease is taken, and we may surmise that most is soon deducted, under the favorable treatment of abandonment. The portion that is allocated to a lease is either deducted on lease surrender, or under cost depletion.

Other established businesses may fare as well, when seeking property to expand, but not routinely, on such a scale. New businesses must generally capitalize costs of successful search, and forget the costs of unsuccessful search. Costs of job-search are, with small exceptions, not deductible. Oil search gets a much better break than job search, even though conservative economists now attribute what we used to consider the number one social-economic problem, unemployment, to the high cost of job search.

Expensing of early scouting forays is away up front in time, and therefore much weightier than the simple numbers reveal. Other businesses, too, succeed in expensing this or that which are really capital outlays that build up assets, but not on such a scale, so explicitly, or so many decades before taxable income results.

Substantial sums are involved. Seismology used in exploring is the second largest user of computers, after the federal government, and growing fast, for three-dimensional imaging of the underground, and interpreting data from Landsat, Geosat, Magsat et al. Exploration ranks after lease acquisition, development, and production expense as one of the major outlays of oil firms. Post-leasing exploration means drilling, mainly, and dry holes are expensed, even on productive leaseholds. Dry holes are an integral part of lease improvement, as noted above. In other businesses, such things must be capitalized for the term of the lease. Other post-leasing exploration is capitalized and recovered through abandonment or--finally--production. But overall, the larger share of exploration is written off before production begins.

3. Imputed Income

Leaseholds generate substantial imputed income. Most imputed land income in all industries escapes taxation. What is peculiar to oil is the vast area--we have cited 188 million acres held by 20 firms alone--and the information monopoly at the lease lines.

The oil lease gives exclusive rights to drill. Information gained is proprietary, and usually not even shared with the landowner, e.g. the U.S. Government. So-called dry holes (all expensable and non-recapturable) may be at the lease edge, giving the driller who keeps a "tight" (secret) hole a monopoly of data needed to bid on the adjacent tract. This valuable product (or sometimes by-product) is not taxable income. The extra security costs of guarding these valuable secrets are expensable, and they are treated like the Crown Jewels. Exploration data may also lead to finding other valuable minerals, as Exxon has found copper in Wisconsin.

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There is also a free-riding motive. Finds and production on other tracts may raise the value of unexplored leaseholds. A steady stream of new exploration technology may enhance the value of any leasehold. Revolutionary advances in satellite scanning have created new incentives to get more land to sift through a coarse screen, instead of sifting less land through a fine screen. Favorable tax treatment of abandonments further encourages this. This is a new kind of wildcatting, with white collars and dry feet. New pipelines and other infrastructure may also give lessees a free ride. Favorable tax changes are also good for the free ride, as occurred recently when Congress exempted new Arctic production (from old leaseholds) from WPT.

Larger firms that can afford to wait like to take positions in many fields in many countries and regions, maximizing the probabilities of getting the free ride. Each added tract leased raises the system diversity, lowers the aggregate uncertainty, and dives one another option. This benefit is universally recognized, but never recognized as taxable income.

For these benefits it may even pay one to buy and hold a lease and finally abandon it undrilled. Better is to hold it as long as the landowner allows, then drill at the last moment.

Major lessees today have acquired acreage well in excess of their drilling capacity, and we may reasonably infer that holding leases for the pure gains of holding has become a major element in the business.

It always has been an element. Humble Oil, for example, sat on the King Ranch twelve years, 1933-45, before bringing in the second largest reserves in Texas. They neglected King because other lessors were pressing harder, and they still are, according to disaffected King heir Robert R. Shelton. The propensity to sit on land and pray has a long history in America. But the prayers now rise to new Gods of the Satellites which join the traditional heavenly answering service to bring new converts and new kingdoms within the scope of this ancient propensity to prey.

In some areas, the monopoly factor may also rear its head. Precluding unwanted interlopers can be an advantage, where a few comradely firms have things under control. Sewing up the leases is a good way to keep newcomers from getting established.

4. Field Use of Crude Oil and Gas

It takes energy to extract energy. The share used in the field is surprisingly high, and growing higher as we get into heavy crudes, natural gas liquids, and so on. Steam injection can consume one-third of the oil produced. Gas is often reinjected to maintain pressure drive. In Alaska's Kuparuk field, 71% of the gas will be reinjected; 29% will serve the field's own fuel needs.

Field oil and gas are not taxable until sold. On the other hand, field use is not deductible either, but this is not quite a wash. For one thing, there is an excess, normally large, of value over cost, which thus escapes tax. For another, field consumption speeds depletion, thus increasing the annual depletion allowance. We may assume there is scope for substitution between field use and hardware items, but the latter are tangible and must be capitalized, thus creating a tax motive to prefer burning field crude and gas, adding to our dependence on OPEC.

5. Cost Depletion

By the time we get to production, not much cost remains to recover, but there is the bonus, and any exploration allocated to the producing lease. As for tangible well costs, and leasehold equipment after the "Christmas tree" (casinghead control), these are recovered separately through depreciation and will not concern us further.

The taxpayer solution is to establish a new basis by sale. No prior ordinary deductions are recapturable save intangibles. The buyer gets a new cost to recover from production. It would seem logical to transfer leaseholds just before production, and this does seem to occur regularly. I have not examined to what extent subsidiaries can sell to parents, to what extent prices can be fudged, etc., but the situation invites avoidance on a grand scale and may be one reason the IRS is several years behind in auditing oil firms.

The oil owner's next move is to accelerate depletion. Building owners may accelerate depreciation, too, but accelerated depreciation is recaptured on sale, unlike depletion. Now that buildings get 15 year life anyway, without acceleration and recapture, oil's relative advantage is not what it was. But the absolute advantage is still there, and worth a look.

With ordinary leases there is a definite term, and a bonus paid is deducted pro rata over the term of the lease. With oil leases the term is indefinite and ends only when commercial production ends. The bonus or other cost is deducted per unit of production, so one begins by estimating the number of units in place. To get in the fast lane for depletion, one lowballs the reserves, so each unit is a higher percentage of the "total." IRS lacks the expertise to challenge estimates by the industry and its consultants, so there you are. Industry practice is to define "reserves" in the narrowest ways anyway, so there is little resistance to acceleration at this point.

After a few years of this, we have an interesting problem when it becomes evident that the original estimate was low. One runs out of depletion units, but the wells still flow. At this point one might expect a recapture of prior excess depletion, but there is no provision for this. There is, on the contrary, a chance for double depletion, when a flowing lease is sold in mid-life. The buyer's basis is his cost, less

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prior depletion allowed, which sounds reasonable on the surface. But prior depletion is figured on a cash basis, not a physical basis. In a rising market the prior depletion allowed shrinks as a percentage of the new basis. For example, owner A has a basis of $10,000. He takes depletion of $5,000, then sells to B for $40,000. B's new basis is $35,000 instead of the $20,000 that would obtain if we figure that A used up half the cost depletion units.

Another route to low-balling reserves could be factitious subdivision of tracts. One might plan to develop a field sequentially, divide it into tracts 1, 2 and 3, and declare only the reserves in tract 1. I have not determined how common this is, but the regulations seem to invite it. "Various special rules let you . . . treat such properties as separate."

Vast interesting possibilities were opened up after 1956 by the Southwest Exploration Company case. Here, owners of land without oil in it were allowed a depletion deduction because the access to others' oil was through their land. Creative taxmen have presumably pursued this invitation since then.

6. Miscellany

For completeness, here are two more special benefits; for brevity, I say little more. Research related spending gets a 25% tax credit in the new tax bill. It remains expensable. Research in exploration and recovery from marginal sources is a growing factor in oil and gas.

WPT is deductible, from taxable income. Individuals cannot deduct federal payroll or excise taxes from their taxable income.

Major findings and their meaning

The income tax bears more lightly on oil and gas income than on most other property income and, a fortiori., than on work income. This remains true in spite of the abatement of depletion allowance, recapture of expensed intangibles, and a few minor reforms; and in spite of the easier treatment given to other property income in the 1981 tax law.

A standard list of well-known loopholes accounts for some of the preference for oil. These are the foreign tax credit; expensing intangibles; expensing dry holes; and creative transfer pricing. A second set of loopholes, known but neglected by reformers, are shown to deserve as much or more scrutiny. The remains of percentage depletion are lively. Capital gains treatment is highly preferential for whatsoever income receives it. Capital gains are unusually important in oil and gas firms, and the treatment is preferential compared to that for other property. The bulk of costs are expensed from ordinary income. Oil deposits would properly be treated as an inventory item yielding ordinary income.

The expensing of interest, while universally allowed, is especially preferential for the oil and gas firm, working in tandem with capital gains treatment of value accruing in the basic inventory being financed with borrowed money.

A third set of loopholes are virtually invisible to reformers. The greatest of these is expensing of leasehold abandonment, a process by which some 80% of the de facto cost of lease acquisition is expensed from ordinary income at an early date. Lease acquisition is now the largest industry outlay by a wide margin. Abandonments are treated much more favorably than capital losses.

Exploration is also mostly expensable from ordinary income: pre-leasing outlays via abandonment of an area, and post-leasing outlays via the dry-hole provision, or lease abandonment.

Imputed income on leaseholds is tax-exempt. This includes the monopoly of information from the lease, used to bid on others. Twenty firms alone hold 188 Million acres, making this a major item. There is a free-riding motive to gain value from the finds of neighbors; from price hikes; from advances in technology (notably today with satellite scanning and computers); from new infrastructure like pipelines and ports; from new tax breaks; and from cornering local markets. Questing for the free ride accounts for a rapid increase in holdings of undeveloped acreage.

Field use of oil and gas, a growing share of the whole, is not taxed.

Finally, the remainder of undeducted costs are depletable per unit of production. Depletion is inflatable by acceleration without recapture, followed by resale and redepletion of a large part at an advanced price.

The inequity of these provisions is manifest. Oil and gas firms cluster at the top of Fortune's 500; and corporate shares generally are more closely held than any other asset in the probated estates examined by Lampman, Smith and others. Royalties and bonuses go to prior owners of land. Drilling tax shelter partnerships are for those with high outside income.

The inequity is offset in the degree that benefits are passed through to buyers in lower prices: offset, but traded for misallocation of resources and overall national inefficiency. Because shifting implies elastic supply, which results from reallocating scarce resources to this industry. And there is a new kind of inequity created, because big energy consumers gain at the expense of other consumers. Energy is probably a superior good to consumers, overall. Studies purporting to show otherwise are of a piece with a spate of earlier studies alleging the property tax to be regressive, studies invalidated by use of the most elementary statistical blunders driving them to their foregone conclusion. And in production, energy complements land and capital and substitutes for labor, with obvious regressive effects on the distribution of income.

Besides drawing too much capital into the industry, tax favors also induce serious distortions (cont'd on page 14)

within the industry. Expensing, for one, is inherently biased against small, new and marginal firms that often lack other cash flow against which to take expenses. A nasty little IRS rule makes expensing, once taken, a binding option company wide, denying flexibility in time. Small firms need this the most. Capital gains preferences are of the greatest value to firms with financial reserves and waiting power to hold the most leases the longest time. Most tax favors involve some interplay of early expensing and deferred gains or sales, a game reserved mainly for players with many chips. Tax factors like these are bound to bias the structure of industry toward the top. This pervasive bias is somewhat countervailed by the specific cap on percentage depletion, although this cap is arguably too low to help most firms large enough not to be dependents of the majors.

The most consistent, total, unrelieved bias is in favor of investing upstream, "before the Christmas Tree" (controls at the wellhead). Lease improvements on the surface, after the "tree" – stock tanks, pipes, roads, clearing, drainage, housing, etc. – receive no special favors. It is rather drilling, pumping, exploring, and especially acquiring and holding leases that get the biggest breaks. These are the most purely acquisitive and appropriative aspects in the business, the ones that wrest raw materials from Nature and from rival humans. As a mnemonic, they are the ones most like raping Mother Earth and the least like husbandry thereof. This set of biases in the law speaks volumes about the social psychology of people who who shape and are shaped by them.

Some defend favors to explorers by citing spillover benefits to neighbors' lands. Perhaps there is such a case, although, if so, it applies as well to city buildings that upgrade their neighborhoods, to stores that raise neighborhood rents, and to city workers in labor pools that enhance industrial values. But what, then, about the free-riding neighbors? Should they not be singled out to pay the subsidy? Here is where the tax law fails utterly. Free riders with unearned increments get the best breaks of all, through combined expensing of abandonments and capital gains for winners. The industry responds by directing most of its new investment into hoarding up millions of acres of leaseholds, held idle, just hitch-hiking.

Another bias is in favor of bonus bidding for leaseholds. Reformers in this field have pushed for years for other leasing policies on public lands, with provisions to defer payments by lessees, thus opening the door to bids from weaker firms with less cash reserves. Weak firms have proven too passive in supporting these reforms. A reason for this is the very favorable tax treatment of bonuses, which are largely expensable by abandonment of losers. But royalties and other deferred payments do much less well. So the whole industry is locked into the bonus system for its tax benefits. A distinguished critic of high bonuses, Adam Smith, found them to be hurtful to lessor, lessee, and everyone else. He advised us to discourage their use by taxing them much heavier than annual payments. Our tax laws do the opposite, to our expense.

Tax law discourages use of certain lease provisions specifically designed to penalize free riding. One is the delay rental, a yearly charge that ends when production begins, an obvious incentive tool. A simple annual rental of modest amount is expensable, as noted earlier. But the privilege is precarious and may be lost in two ways. A large rental is liable to be construed as a delayed bonus, hence to be capitalized. A returnable rental which is creditable against later royalties -- a double incentive to action -- is considered an "advance royalty" and may not be expensed.

But the loss to the lessee is no gain to the lessor. To him, the receipts are ordinary current income. Bonuses and royalties, to be sure, are also ordinary: but they get offset by cost depletion, which rentals do not.

If the lessor is non-taxable anyway that makes no difference. But industry customs, often binding, grew up long ago when most lessors were private.

Lessor and lessee both suffered by using delay rentals. So to this day industry custom treats delay rentals like poor cousins.

Another device of lessors is the work commitment: a lease is auctioned or negotiated subject to the lessee's commitment to spend a given sum on exploration or development, or to perform specified acts. Tax calamity!

All the expensable items become lease acquisition costs: expensing denied.

Tax law is also hostile to field unitization. Surplus wells shut in upon unitization are not allowed to be abandoned and deducted. Avocados are treated better! One source says that all intangible outlays must then be capitalized, but I have not confirmed this. It is certain, though, that unitization slows cost depletion. The whole pay zone, and perhaps more, are now treated as a unit.

Cost depletion creates the principle that "cheaply bought is ill used."

Tax avoiders naturally allocate production to leaseholds of higher cost basis. Those of lower basis can be held for sale. Negotiating a sale may take years, in the narrow markets that characterize many fields. A lease may be held by producing a token flow. Others are often extended by complaisant officials. One abandoned lease off Santa Barbara was returned to Pauley Oil, even after several years, when oil was found next door.

But most big finds are cheaply bought under our bonus bidding system of shooting in the dark. Most of the true cost basis is written off by abandoning losers. The funds remaining tied up in the winners are away below their value. Not until the market has churned a few times are many leases ready to milk for the greatest tax advantage. Meantime, the lease speculator sits on his assets with minimal holding costs.

The sum of these tax-induced biases is extremely distorting, and patently inequitable. It is as though the laws were written by and for the free-riders at the expense of all. Thoroughgoing reform is in order. In a nation of hitch-hikers, no one rides.

(GroundSwell does not have space to publish Dr. Gaffney's footnotes. Economics Professor Emeritus Mason Gaffney may be emailed at m.gaffney@dslextreme.com)