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STATE LEGISLATURE /

MEMORANDUM

March 16, 1976

TO: Senator John Huber
Chairman, Senate Subcommittee on Taxation and Revenue

FROM: Franklin D. Fleeks
Tax Counsel

SUBJECT: Oil and Gas Taxation -- Second Report

Submitted for your review and approval is the staff's second report on oil and gas taxation. In addition to Ed Sterner's work I would like to gratefully acknowledge the contributions of staff members Janis Gull, Dee Derr, and Karen Boness. Their assistance was invaluable.

OIL AND GAS TAXATION -- SECOND REPORT

Prepared For

SENATE SUBCOMMITTEE ON TAXATION AND REVENUE

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Introduction

Since the initial report to the Legislative Council, the proposed bills affecting taxation of the oil and gas industry have been filed as:

- 1) SSSB 567; SSHB 638 -- An act concerning the oil and gas properties production tax.
- 2) SB 620; HB 699 -- An act relating to assessment and taxation of oil and gas properties net proceeds tax.
- 3) SB 621; HB 703 -- An act relating to assessment and taxation of oil and gas properties excess value surtax.

The Committee staff has prepared this report to facilitate candid and rational discussion. The report will describe how the proposed taxes will affect oil and gas developments in general. The appendix provides examples of how specific oil and gas fields are affected by both the current law and the proposed legislation.

Committee History

If you did not have an opportunity to review the initial report, the following is presented to acquaint you with the ideas and philosophies under which the bills were drafted.

To be perfectly frank, one of the goals of any tax is to produce state revenues. In proposing an increase in revenue the Committee staff used as a guide the following principles:

- 1) The economic activity must be vigorous enough to provide a sustained flow of tax revenues without impairing the activity itself.
- 2) The tax revenue must be collected at a reasonable cost.
- 3) The statute must be easy to administer in a fair and even-handed manner, under straight forward rules that are easy for the taxpayers to understand.

To effectively tax the oil and gas industry and to stabilize the state's taxing policy on the industry, any proposed tax should be based on the industries' profitability measured by values established and expenses incurred within the state. Research also determined that the present corporate income tax law, with its allocation formula, was not adequate for the job. A review of the filed bills, excluding the severance tax bill, shows that this has been accomplished. The bills also propose that the taxes, again excluding the severance tax bill, be in lieu of state corporate income taxes.

The proposed bills will tax the oil and gas industry on their Alaskan profitability at the regular state corporate income tax rates of 9.4 percent. The measures will also tax any excess value, determined on a profitability basis, not needed to implement long-term exploration and development at a 41 percent rate.

Brief Synopsis of the Proposed Bills

(a) SSSB 567; SSHB 638 -- Severance Tax

The purpose of this bill is to raise the graduated rate of the severance tax by adding two new levels and to provide a corresponding increase in the per barrel rates used as a floor. The effect of these raises will be to tax production from wells in excess of 3,000 to 9,000 barrels per day at an effective rate of between 8 and 12½ percent.

This addition will have an immediate effect on state revenues. From the records of the Department of Oil and Gas, there are 24 wells now producing over 3,000 barrels per day. These wells account for nearly 40 percent of the state's daily average production of 200,000 barrels. It is also projected that when production begins at Prudhoe Bay field, its wells will be subject to the effective rate of between 10½ and 12½ percent.

The severance tax proposal will generate approximately 20 percent more revenue from Cook Inlet production. Based on the Department of Revenue's estimates of Cook Inlet production and price levels, this will produce an increase of \$5-6 million in the next fiscal year.

Based on estimates of Prudhoe Bay production and price levels for the fiscal year in which production starts, the proposal will yield approximately 50 percent more than the current severance taxes. For Prudhoe Bay this will result in a \$100 million increase in severance taxes levied.

The Department of Revenue was also contacted and their wording was added to the proposed bill.

(b) SB 620; HB 699 -- Oil and Gas Properties Net Proceeds Tax

From the staff studies it was found that the current state income tax does not affect the oil and gas industry in the same way domestic Alaskan corporations are affected. In order to remedy this situation and also place the multinational/multistate oil and gas corporations on the same level with domestic Alaskan income tax paying corporations, the proposed bill has been submitted. It should be pointed out that from the outset the proposed tax will be in lieu of the current corporate income tax.

This is a tax based on the income to the property. To determine profitability certain statutory deductions incurred within the state are allowed. Accelerated write offs of drilling costs, capital expenditures and exploration costs are also allowed. Interest expenses and overhead costs incurred outside Alaska cannot be deducted. The rationale used was limiting the statutory deductions to those expenses incurred in the state and to plug the "fatal loopholes" through which the value subject to taxation would be reduced to inconsequential amounts.

(c) SB 621; HB 703 -- Oil and Gas Properties Excess Value Surtax

From studies done by Ed Sterner, a staff member of the Committee, Dr. Michael Tanzer, under contract to the Committee, and Gregg Erickson,

Director of Research Services, it has been proven that the producing Alaskan oil fields and the projected Prudhoe Bay oil field are tremendously profitable. The purpose of this tax is to tax the excess value not needed by the oil and gas industry to implement long term exploration and development in the state.

It should be stressed again that this is a tax on profitability. The discussion under (b) of this section is applicable. A detailed analysis of the workings of the tax is provided by Ed Sterner's attached report.

Conclusion

Unlike the major oil producing states in the lower 48, Alaskan oil is found principally on state lands. In supervising the exploitation of this nonrenewable resource, the Legislature and the Administration serve the people of Alaska in a fiduciary capacity. The state has a duty, created by its proprietary power and its taxing power, to act primarily for the benefit of the people of Alaska. In this fiduciary capacity, the Legislature and the Administration must not only provide for current state outlays but must also provide for future generations.

An individual oil and gas lease owner can will to his heirs the largesse from the nonrenewable resource found on his land. In this way, he provides his future generations with revenue from the nonrenewable resource. The individual's current revenue is used to build up his estate.

Unlike the individual oil and gas lease owner, the state cannot, by will, pass on its largesse from its nonrenewable oil and gas resource. The state cannot derive its just share through the current royalty payments. The state cannot provide to Alaskan citizens, now and in the future, their share of their legacy from the largest oil and gas field in North America without currently taxing the nonrenewable resource to provide for the legacy. As fiduciaries, strictly liable to the people of Alaska, the Legislature and Administration must see that this legacy is protected. The revenue produced will fund current outlays and provide the continuing legacy for all Alaskan citizens, both current and future generations.

PETROLEUM TAXATION: A SUMMARY

Prepared by:

Edwin Sterner

PETROLEUM TAXATION: A SUMMARY

It is hoped that the following paper will add needed perspectives and explanations to the petroleum taxation debate. The paper contains a summary of the tax package proposed by the Special Committee on Taxation and Revenue and the arguments supporting it.

The Severance Tax

The tax package is comprised of three parts. The first part is the extension of the graduated scale of the severance tax. This is designed to take into account the broader range of production levels which will soon prevail in the state. It will bring the effective tax rates on highly productive wells into line with other major producing states. While wells producing 7,000 barrels per day or less would pay taxes at the current tax rates, wells producing 9,000 barrels per day would pay an effective rate of 12.5 percent. Wells producing 7,000 barrels per day would pay an effective rate of 11.4 percent. Thus, wells producing 6,000 to 9,000 barrels per day will pay 50-60 percent more in severance taxes than under the current severance tax law.

The Oil and Gas Properties Net Proceeds Tax

The second part of the package is the bill to bring the tax treatment of oil production profits into line with that of other Alaskan profits. Many methods have been used in the past to determine a person's or organization's ability to pay taxes and then to collect those taxes.

In a time when cash was only one of many means of exchange, property was considered the best indicator of an ability to pay taxes. As monetary exchanges came to dominate the economy, current income became a fairly accurate means to estimate ability to pay. Thus, income taxes have dominated property taxes. The oil industry, however, due to its vertical integration, sometimes has no real arms length cash transactions until the product reaches the retail level.

The Oil and Gas Properties Net Proceeds Tax is designed to avoid the short comings of the income tax. Since arms length cash payments are made for only a small portion of Alaska's crude, the Department of Revenue is empowered to make an assessment of the value of Alaska's gas and oil to the producers. The producers report their allowable expenses for the year. The net proceeds (the gross value minus the reported expenses) are taxed at the normal corporate income tax rate.

Many methods have been used in the past to tie taxes to an ability to pay: severance taxes, income taxes, gross receipt taxes, franchise taxes, property taxes, and sales taxes to name a few. The proposed tax bears an administrative similarity to severance taxes and property taxes. Its economic effect is similar to that of an income tax. What is important is that it is simple to administer, fair and effective. An income tax, no matter how it is structured, is subject to legal attack since income in terms of actual cash transactions rarely occurs in the state. The net proceeds approach was chosen because a similar approach has been used successfully for many years in Nevada for mineral production, and Utah has implemented similar legislation for oil production.

The Excess Value Surtax

The petroleum industry has recently experienced a rapid and artificially induced increase in crude petroleum prices. This increase has produced large returns which many have called excessive. If these returns are likely to produce benefits to the state and its citizens commensurate with the high rate of return, perhaps these greatly increased returns should be taxed only at the regular tax rates. Other enterprises have or have had large returns to investments. First, one must determine how high prices or returns might tend to benefit the public as a whole and try to determine if the artificially high oil prices and returns are likely to produce such benefits. Second, one must determine if there are any private interests which would outweigh the public interest and dictate the application of only the low tax rates against the artificially high returns.

Public Benefits of High Returns

High returns to investment can be of benefit to all, either directly or indirectly. High returns, provided through the patent system, reward useful development and stimulate more. High returns can also reserve capital and natural resources for their best uses. For example, increasing returns in agriculture make possible greater investments in fertilizers and machines. By increasing the value of land for agricultural purposes farm land is protected from "urban sprawl" in some areas.

High prices which are the natural result of supply and demand factors give potential suppliers of substitutes (e.g., synthetic fuels, shale oil) a firm idea of the feasibility of developing and expanding

those substitutes. More generally, when high prices are the natural result of free market forces, they provide an accurate indication of the needs and demands of both the supply and consumption sectors.

The Petroleum Production Industry and High Returns

The current high returns to the production sector of the petroleum industry are the result of artificial prices and market controls, not a balance of supply and demand. They are the result of artificial prices not technological advancement. They are not preserving a resource for a better use. Indeed, the high returns may be causing the country to deplete a vital resource rashly and prematurely.

It is the high price of oil, not the high returns to its production, that may stimulate the development of substitutes. Even these substitutes will be developed only to the degree that continued high prices can be counted on.

The artificially high prices are making it difficult to determine the true needs of the supply sector, disrupting the orderly development of the resource from the most economic to the least economic. This confused development pattern is forcing the serious consideration of price floors to protect investment. Most recently, the European Commission has proposed a \$7/bbl floor on oil entering the EEC (The Oil and Gas Journal, Jan. 26, 1976, p. 79).

The high returns are not the result of free enterprise and the functioning of a free marketplace. They are the result of artificial market manipulations and therefore do not serve the beneficial function which high returns due to free market conditions often do.

Other Interests and their Relation to High Returns

Even though the returns to production due to the artificial price levels may not serve their normal roles, there may be other reasons not to tax the higher profits at higher levels. Three major areas of consideration are: the need for capital in the oil industry; the effect of taxation on investment decisions; and most seriously, the legitimate interests of private resource owners in the state.

The proposal and the Supply of Capital from Alaska Oil and Gas Production. (For charts on this section see Appendix A)

The need for capital in the oil industry will be great. A Sohio report, "Domestic Petroleum Industry Capital Needs and Availability 1975-1985," indicates that ". . . a return of 16 percent on stockholder equity of the domestic petroleum industry. . ." is needed to attract the required capital (p. 19). With \$12 oil and the proposed tax package, Prudhoe Bay by the third year will be producing one-tenth of all the returns needed in the nation to produce that 16 percent return. This does not include the over \$500 million in possible pipeline earnings or the depreciation of the field and pipeline.

The same report shows that in 1975 dollars approximately \$30 billion will be needed annually for oil investment in the U. S. (Appendix, Table I). Given the proposed tax package, Alaska would be providing \$900 million per year net from Prudhoe Bay, \$500 million net from the Trans-Alaska Pipeline, \$300 million in cash flows from exploration amortization

and Prudhoe Bay depreciation, \$200-300 million in pipeline amortization, and \$100 million from other gas and oil development in the state. If this two billion dollar cash flow is leveraged with a 40 percent debt-equity ratio, as suggested by the Sohio report (p. 17), Alaska's return would be providing an investment base of \$3.3 billion annually, or over ten percent of the entire industry's needs.

Unfortunately, this is probably overstated since dividends tend to absorb "45 to 55 percent of net income," (p. 17, Sohio Report). Only \$700 million of the approximately \$1.4 billion in net returns from the field and pipeline will be available directly for reinvestment. This reduces the cash flows available from \$2 billion to \$1.3 billion and reduces the total available base including debt capital to \$2.2 billion.

What would the capital availability be under current taxation levels? Although the proposed package may increase tax revenues by approximately \$900 million, federal taxes would have absorbed 48 percent of that amount, so the net loss to the industry is approximately \$470 million. Of this, \$235 million would typically be distributed in dividends (in the case of Prudhoe Bay, a large portion to Her Majesty's Government in London). This leaves a net reduction in funds available for investment of \$235 million. If this amount were leveraged at a 40 percent debt-equity ratio, the total amount not available directly to industry would be \$390 million, or .0126 of total investment needed annually by the industry. The proposed tax package would reduce the total capital available including leveraged capital from \$2.6 to \$2.2 billion.

As the pipeline has demonstrated, major projects can have debt-equity ratios much higher than 40 percent, and in the case of the pipeline, 85 percent. Should overall development in Alaska be financed at a 50 percent debt-equity ratio, Alaskan development will still generate \$2.6 billion in annual development capital. Should the state make part of its temporary surplus available for the underwriting of exploration in the state, it is most likely that a 50 percent leveraging of private funds in the more secure development and transport phases would be feasible. This presents the possibility that more capital might actually be available for oil development with the package than without.

Relative to the total capital needs of the industry, the impact of this tax package upon the availability of capital will be almost negligible. Even with the tax proposals, the generated cash flows and returns to stockholder equity will be substantial.

The Proposal and Future Development

In spite of the huge cash flows which current Alaskan development will generate there is a concern that the proposed legislation may discourage so much marginal development that the potential revenues lost would exceed the revenues actually raised.

First, one must determine just how much investment would have to be discouraged before the state would be losing tax revenues. The present tax and royalty structure yields 25-30 percent of net production income for the state and in theory 9.4 percent of transport facility net

income. Although this includes the state's royalty, it is hoped that royalties received by private interests would be reinvested in the state. If the average portion of net earnings retained by the state or private interests in the state was 25 percent or \$900-\$950 million and the average pre-tax return on investment was 25 percent, or \$3.6-\$3.8 billion, approximately \$15 billion in investment would have to be discouraged before the annual loss of taxes might approach the annual gain in taxes from this proposal. This \$15 billion investment would be enough to finance a three million dollar well every ten miles across the entire state.

Second, one must consider the likelihood that the investment will actually be discouraged. Conversations with petroleum industry officials indicate that in the foreseeable future they will primarily be interested in those geological formations most likely to support wells producing in the range of 1,000 barrels per day or more. This is an indication that they are interested only in wells that can recover their capital and provide an attractive return given a price of around \$7 per barrel FOB on the west coast (e.g., Los Angeles). This is the industry's method of protecting itself against a future fall in prices (certainly a wise policy). Artificially high prices whose duration is indefinite will not cause the industry to make investments which may become marginal or losing ventures in the future. On the other hand, if a reserve can provide sufficient cash flows and net returns at \$7 per barrel, any additional income due to the artificial price level will only be providing extra income; it will not be inducing an already viable investment.

Given the need for secure domestic supplies, it is virtually certain that viable reserves will be developed, even with a higher tax on the artificial price levels. In general, the proposed tax package will place its greatest burden on income which is not inducing greater investment, and at most, is "discouraging" investment that would not be made now anyway. (See Appendix B for graphic explanation.)

It is possible that the tax package may tilt the investment decision against some reserves that are at the edge (margin) of viability. This is probably just as well since it may keep the state or private interests from over-extending themselves based on predicted income from projects which end up being losing propositions. Most of those will very likely be merely delayed until the world price, supply, and demand situation stabilizes. The probability of a future, permanent reduction in development of the magnitude needed to offset the certain gains from the tax proposals is remote.

Third, one must balance the certain revenues received now, versus the possible revenues which may be lost in the future. When one compares the remote possibility of lost revenues against the certain current revenues which the tax proposal will provide, the argument against the higher tax rates on the artificially high prices becomes tenuous. Opponents of the higher tax rates are actually asking the state to sacrifice the certain current revenues to avoid the possible loss of future revenues. The same possibility applies to private resource holders.

The Proposal and Private Resource Interests

There is a legitimate concern that the proposed tax package could place private resource holders in a much less favorable position. Generally, this means that the private interest will receive less after taxes with the proposed tax package than without. It is important to determine how great such a reduction might be and whether such a reduction would outweigh the benefits to the state as a whole.

First, the severance tax proposal leaves wells producing up to 2,000 barrels per day at current tax levels. Wells producing 2,000-3,000 b/d are taxed at effective rates only slightly higher than current rates. Only the unusually large producers would be subject to significantly higher severance taxes.

The Net Proceeds Tax is designed to replace an ineffective net income tax. Domestic corporations would be paying this tax anyway. The proposal will be placing interstate corporations on an equal tax basis with the domestic corporations. Any taxes paid under the Net Proceeds Tax are in lieu of net income taxes. The impact of the tax on the private resource holder is also negligible.

The tax on value due largely to the artificial, posted price levels is the only tax which would adversely affect domestic interests. It is important to determine just how great that effect might be. As an example, take five wells producing 1,000 bbls per day with oil selling for \$12 per barrel, \$3 in transport costs per barrel, and a 20 percent royalty interest for the resource owner. Before taxes the royalty oil

is worth \$3.3 million for the year, after transport costs are paid. The severance taxes and regular 9.4 percent income tax (under current law) or a net proceeds tax would be the same under both current law and the proposed package. After all state and federal taxes are paid under current law, the net after tax income would be \$1.45 million. Under the proposed package, the net after tax income would be \$1.1 million, or a 25 percent reduction in net income. The state on the other hand, would see its income jump from \$.5 million to \$1.2 million, or a 140 percent increase. (See Appendix C-1 and 2 for calculations).

The reduction in net income to potential resource owners is not nearly as great as some have suggested. Furthermore, the additional tax burden falls upon that portion of income due to the high posted prices of oil. This leaves untouched the income upon which future investment and income projections can be responsibly based.

Finally, the short term surpluses which the proposals may generate for the state could provide potential private resource holders with an alternative to the oil industry sources of capital to finance their exploration work. This could help them reduce or avoid the need to sell their resource through royalty or participation agreements at pre-discovery prices. Past experience clearly demonstrates the willingness of industry to pay far more for proven reserves than for the right to search among potential reserves. Should private resource holders be able to use this stronger bargaining position to increase their gross returns by only one third (e.g., royalty interest increased from 18 percent to 24 percent or participation from 40 percent to 53.2 percent), the entire

additional tax burden would be counterbalanced. In view of past royalty bidding, increases of much more than 33 percent are quite possible.

(See Appendix C-3 for further explanation.)

Summary

Alaska will be a major supplier of national petroleum industry capital in the future. There are few other areas in the country, on or off shore, whose production is likely to provide for such rapid capital recovery. Furthermore, the excess value surtax is levied upon only part of net returns, over 75 percent of which would not be directly available for capital investment due to federal taxes and historic dividend policy. The net reduction in available capital which can be generated by Alaska operations is not significant when compared to national needs or tax benefits to the state.

The assertion that higher taxation might cause a marginal reduction in development great enough to cause a net loss of revenues to the state is most difficult to accept. When the time-value of money is considered and the certainty of present revenues is balanced with the possibility of future revenues, such assertions become untenable. The idea that one should sacrifice the "bird in the hand" for not two, but only one bird which might be received at some unspecified future time should be carefully examined before it is accepted. Prudent business practices would dictate that much of the capital produced by the state's petroleum resources will be exported from the state. Only through taxation can the state retain this capital, produced by its nonrenewable resource for present or future investment.

The severance tax and net proceeds tax proposals will have little or no adverse impact on private resource holders in the state. The excess value surtax could temporarily reduce their net returns by approximately 25 percent. Should competitive conditions return to the oil price market, the reduction will approach zero. The tax is designed to center its burden upon those net returns which cannot responsibly be relied upon when making future investment decisions. Finally, the state's financial strength achieved through this tax proposal will strengthen the position of private resource holders. The potential sources of capital provided by the state could enable private resource holders to partially or completely offset the additional tax burden they will temporarily face. These private resource holders would then continue to retain a greater portion of the return from their resource even after the return of competitive conditions.

The excess value proposal is not simply for a tax on high profits. It is for a tax on high profits which due to their artificial and possibly short-term nature will produce at best a very marginal benefit for Alaska and the nation. At worst, these artificial returns may be fostering a disorderly development of a vital natural resource. The excess value proposal is not simply for a tax on high profits. It is designed to retain for the people of Alaska at least a portion of the profits due to the market strength of the oil producing and exporting countries' cartel. The tax is designed to last as long as the cartel's strength lasts and to fall as the cartel's market power falls. The surtax is a levy, not on returns due to free enterprise but on returns due to the lack of it.

APPENDIX C-1

Effect of Proposed Tax on Private Resource Owners
(in thousands of dollars)

5 wells producing 1000 b/d
 Price: \$12/bbl
 Transport cost: \$3/bbl
 Royalty interest of resource owner: 20%

	<u>Current</u>	<u>Proposed</u>	
Price/bbl	\$12	\$7 "long term"	\$5 "excess value"
Gross after transport (annual)	3,285	1,466	1,825
Severance taxes (5.7%)	187	83	104
State net tax (9.4%)	<u>291</u>	<u>129</u>	<u>162</u>
Sub-total	2,807	1,248	1,559
Excess value tax (41%)	---	---	706
Federal income tax (48%)	<u>1,347</u>	<u>599</u>	<u>410</u>
Net income after taxes	1,460	1,092	
Net difference		(368)	
Percent net reduction		25%	

Ratio of net to gross income - current: .44
 Ratio of net to gross income - proposed: .33

If x = gross under current law, and y = gross under proposed law,
 for net income to be equal:

$$.44x = .33y$$

$$1.33x = y$$

An increase of 33% in gross income would off-set the proposed tax increase (see chart next page)

Gross Returns to the Private Resource Holder

1. A reduction in pre-discovery expenses, either through reductions in bonus bids or exploration expenses (resource owner partially finances exploration), tends to increase the royalty or participation share which the industry is willing to offer for the right to explore for and use the resource owner's oil and gas.

A Department of Revenue example provides this possible comparison:

For example, tract C29-11, one company would be indifferent to the State of Alaska acceptance of any of the following bids:

- (a) 16.67% royalty plus a bonus bid of \$6,314,000
(\$2,466/acre)
- (b) 20% royalty plus a bonus bid of \$5,064,00
(\$1,978/acre)
- (c) 40% royalty plus a negative bonus bid of \$526,000
(-\$987/acre)

2. If cash is not needed until after a discovery is made, producers are willing to bid far more for the rights to develop.

- (a) Sale #13 (North Slope, 12/9/64) \$7.66/acre
- (b) Sale #14 (North Slope, 7/15/65) \$15.25/acre
- (c) Sale #18 (North Slope, 1/24/67) \$34.87/acre
- (d) Sale #23 (North Slope, 9/10/69) \$2,181.66/acre

As the first example demonstrated, this increase in the bonus bids could be translated into significant increases in the royalty or participation share offered to the resource owner.

3. By combining a reduction of pre-discovery expenses with a delay in the sale of the resource until after discovery, the resource owner's interest in oil or gas production can be greatly increased.

Division of Net Income -- \$7 Price

Private Royalty Owner

<u>Net To:</u>	<u>Current Law</u>	<u>Percent</u>	<u>Proposed Law</u>	<u>Percent</u>
Royalty Interest	.30	11	.30	11
State	.43	16	.43	16
Federal	.92	33	.92	33
Producer	<u>1.10</u>	<u>40</u>	<u>1.10</u>	<u>40</u>
	2.75	100	2.75	100

Division of Net Income -- \$7 Price

State Royalty Owner

<u>Net To:</u>	<u>Current Law</u>	<u>Percent</u>	<u>Proposed Law</u>	<u>Percent</u>
Royalty Interest (state)	.67	24	.67	24
State (as tax power)	.33	12	.33	12
Federal	.65	24	.65	24
Producer	<u>1.10</u>	<u>40</u>	<u>1.10</u>	<u>40</u>
	2.75	100	2.75	100

Division of Net Income -- \$12 Price

Private Royalty Owner

<u>Net To:</u>	<u>Current Law</u>	<u>Percent</u>	<u>Proposed Law</u>	<u>Percent</u>
Royalty Interest	66	9	50	7
State	1.20	15	3.09	40
Federal	3.15	41	2.05	26
Producer	<u>2.74</u>	<u>35</u>	<u>2.11</u>	<u>27</u>
	7.75	100	7.75	100

State Royalty Owner

Royalty Interest (State)	1.50	19	1.50	19
State (as tax power)	.98	13	2.55	33
Federal	2.53	33	1.59	21
Producer	<u>2.74</u>	<u>35</u>	<u>2.11</u>	<u>27</u>
	7.75	100	7.75	100

Division of Net Income -- \$12 Price

1977

Private Royalty Owner

<u>Net To:</u>	<u>Current Law</u>	<u>Percent</u>	<u>Proposed Law</u>	<u>Percent</u>
Royalty Interest	66	9	.52	7
State	1.20	15	2.93	38
Federal	3.15	41	2.12	27
Producer	<u>2.74</u>	<u>35</u>	<u>2.18</u>	<u>28</u>
	7.75	100	7.75	100

State Royalty Owner

Royalty Interest (state)	1.50	19	1.50	19
State (as tax power)	.98	13	2.42	31
Federal	2.53	33	1.65	22
Producer	<u>2.74</u>	<u>35</u>	<u>2.18</u>	<u>28</u>
	7.75	100	7.75	100

Division of Net Income -- \$13.50 Price in 1982

Private Royalty Owner

<u>Net To:</u>	<u>Current Law</u>	<u>Percent</u>	<u>Proposed Law</u>	<u>Percent</u>
Royalty Interest	.70	9	.64	8
State	1.23	16	2.03	26
Federal	3.18	40	2.56	33
Producer	<u>2.74</u>	<u>35</u>	<u>2.62</u>	<u>33</u>
	7.85	100	7.85	100

Division of Net Income -- \$13.50 Price in 1982

State Royalty Owner

<u>Net To:</u>	<u>Current Law</u>	<u>Percent</u>	<u>Proposed Law</u>	<u>Percent</u>
Royalty Interest (state)	1.58	20	1.58	20
State (as tax power)	1.00	13	1.69	22
Federal	2.53	32	1.96	25
Producer	<u>2.74</u>	<u>35</u>	<u>2.62</u>	<u>33</u>
	7.85	100	7.85	100

Pipeline Profits and their Relation to
Production Profits

Much has been written and said concerning the inclusion or exclusion of the pipeline costs and profits in the calculation of the return on the Prudhoe Bay development. The eagerness of several concerns to build a heavily regulated gas line indicates that getting a product to market is not all that unprofitable, even if one does not own the product. It must be recognized, though, that the Prudhoe Bay development and the pipeline are mutually dependent. One would not have been built without the other, and in that sense, they may be viewed together.

In its simplest form, combining the returns to the production and transportation phases of petroleum supply is like combining the returns of an eastern coal mine and the Penn Central to see if coal mining is profitable. When a coal miner finds a deposit, he calculates how much he can afford to pay to get the coal to market. He asks the railroad how much it would charge to build a spur to his mine. If the two amounts overlap, they are in business. Neither offers to subsidize the other, even though neither would be developed without the other.

In the case of Prudhoe Bay, the amount the field could pay for transport and the amount the pipeline needs to charge overlap with much to spare. In the case of a coal mine, the coal miner would not offer the railroad some of these spare profits to beef up its return. In the case of gas, it is certain the producers will not offer the pipeline operators some of their return if the pipeline proves to be a marginal investment. When the producing concern and shipping concern are owned by the same company that relationship does not change. It is an economic

fact of life that reproducible capital such as a pipeline tends to receive competitive returns to capital, while owners of resources such as land or oil may collect what the markets will bear. A billion dollars worth of pipeline, no matter where it is built, would be allowed the same return and must stand on its own merits. A field, no matter where it is found, must be able to cover the transport charges needed to get its petroleum to market and must stand on its own merits.

It could be argued that as a regulated monopoly, any oil pipeline is forced to accept an artificially low rate of return. Since the artificially low charges make the returns to production seem artificially high, it would only be fair for the state to consider the overall return to both production and transportation when reviewing tax policies.

In order to accept the preceding argument, one must determine whether or not the returns to the pipeline are really lower than in other competitive industries. Housing is a competitive industry which uses high debt-equity ratios like those financing the Trans-Alaska Pipeline. As recent trends have shown, housing is at least as risky as pipeline construction. The following table compares a typical return on housing with a projected return on the pipeline.

TABLE

Housing: \$1,000,000 apartment complex, 90% debt financed, rent 1% of total value/month (12%/year), maintenance and management \$10,000/year, property taxes \$20,000 (2% or 20 mills).

Pipeline: \$7.5 billion, 85% debt financed, 7% after tax return, operation and maintenance \$70 million, property taxes \$130 million (2% of assessed value).

	Housing	Housing	Pipeline (in millions)
Income	120,000	120,000	2,219 (5.06/bbl)
Expenses	30,000	30,000	200
Interest	<u>76,500</u>	<u>76,500</u>	<u>637</u> (10% of 6.38 billion)
Net Cash Flow	13,500	13,500	1,382
Depreciation	(40 yr) <u>25,000</u>	(20 yr) <u>50,000</u>	<u>215</u> (35 yr)
Taxable Income (loss)	(11,500)	(36,500)	1,167
Net Taxes (50% rate saved)	<u>(5,750)</u>	<u>(18,250)</u>	<u>642</u> (55% state and federal)
Net after taxes	(5,750)	(18,250)	525
Cash flow after taxes	19,250	31,750	740
Net Return to Equity - after Depreciation and Taxes	(5.75%)	(18.25%)	46.67%
Cash Return to Equity	19.25%	31.75%	65.78%
Net Return to Equity if no real depreciation and housing stands alone	13.5%	13.5%	---
Book Return to Equity*	8.85%	17.23%	46.67%

* If only one-third of the housing depreciation is real, and one-third of the taxes saved are merely deferred, the "book" return would show cash of \$13,500 minus \$8,500 depreciation plus \$3,852 or \$12,227 in taxes actually saved, or a book net of \$8,852 or \$17,227 respectively.

It is clear that if a 7 percent return on the entire value of the pipeline is allowed, it will fare quite well when compared to the housing industry. It would also be doing quite well when compared to the still profitable western and southern railroads, the trucking industry, or airlines. Although the book returns on housing range from 8 to 18 percent, the cash flows generated make the investments attractive. The same is true of the pipeline investment. The following table presents a comparison of the net returns and cash flows which the pipeline would generate at net return rates of 8-25 percent.

Pipeline Equity Yields at Rates Similar
To Other Competitive Industries

(\$7.5 Billion Pipeline, 15% equity)

(in millions)

	<u>8% Equity Return</u>	<u>10% Equity Return</u>	<u>20% Equity Return</u>	<u>25% Equity Return</u>
Income	1,252 (\$2.86/bbl)	1,301 (\$2.97/bbl)	1,552 (\$3.54/bbl)	1,677 (\$3.82/bbl)
Expenses	200	200	200	200
Interest	<u>637</u>	<u>637</u>	<u>637</u>	<u>637</u>
Net Cash Flow	415	464	715	840
Depreciation	<u>215</u>	<u>215</u>	<u>215</u>	<u>215</u>
Taxable Income	200	249	500	625
Taxes (55% state and federal)	<u>110</u>	<u>137</u>	<u>275</u>	<u>344</u>
Net after Taxes	90	112	225	281
Cash Flow after Taxes	305	327	440	495
Net return to Equity	8%	10%	20%	25%
Cash return to Equity	27%	29%	39%	44%

It is clear that this pipeline, with a tariff between 3 and 4 dollars, would compare favorably with housing industry investments. The housing industry regularly attracts capital far in excess of \$30 billion per year.*

It has been suggested that the high risk of the pipeline merits the incentive of a high potential return. The project is certainly huge but no more risky than housing. The major portion of the construction costs and cost overruns have come since the Yom Kippur war and the subsequent embargo and higher oil prices. The probability that the value of oil will not be able to cover a tariff of \$3 to \$4 is nil, and a minimum demand for the pipeline's services is assured. The greatest risk is that the ICC may not be too generous in setting tariff limits or that excess capacity may force tariff charges down. This is no greater a risk than that posed by local utility regulators, zoning boards, building inspectors, or a collapse in the housing market.

There is simply no economic basis, either in theory or fact, to support the averaging of the production and transport costs and returns related to Prudhoe Bay. Indeed the facts show that the pipeline stands on its own as a sound investment, just as all transport systems must. It is a truism that no transport system will be developed unless there is something to transport. This fact does not mean that incomes should

* 1.2 million units at \$25,000 per unit is \$30,000,000,000 per year. This does not include additions or improvements to older units or mobile home construction.

be averaged. The Trans-Alaska pipeline is no different. The costs and returns of the production and transport activities related to Prudhoe Bay should not be combined. Conclusions drawn from such an averaging would be no more accurate than the conclusion that eastern coal mines are not profitable because the Penn Central loses money. Furthermore, when the returns to the pipeline are properly looked at it is evident that it is a highly productive investment on its own, as is the field itself.

CAPITAL AVAILABILITY FROM ALASKA OPERATIONS

(IN MILLIONS)

CURRENT TAX STRUCTURE

PROPOSED TAX STRUCTURE

PROPOSED TAX STRUCTURE WITH 50% DEBT-EQUITY RATIO

PROPOSED TAX STRUCTURE WITH STATE GUARANTEE OF LOANS

PROPOSED TAX STRUCTURE WITH 50% DEBT-EQUITY RATIO AND LOAN GUARANTEES

TOTAL 2.6B

TOTAL 2.2B

TOTAL 2.6B

TOTAL 2.4B

TOTAL 2.8B

STATE UNDER-WRITING

1,065

DEBT FINANCING

40% DEBT FINANCING

CASH FROM CAPITAL RECOVERY (DEPRECIATION)

550

DEPRECIATION

NET PROFITS AFTER TAXES AND DIVIDENDS

985

NET PROFITS

PRUDHOE BAY 710

PIPELINE 250

OTHER 25

1,300

50% DEBT FINANCING

900

40% DEBT FINANCING

550

DEPRECIATION

750

PRUDHOE BAY 475

PIPELINE 250

OTHER 25

750

PRUDHOE BAY 475

PIPELINE 250

OTHER 25

200 -- LOAN GUARANTEES

900

40% DEBT FINANCING

550

DEPRECIATION

750

PRUDHOE BAY 475

PIPELINE 250

OTHER 25

200 -- LOAN GUARANTEES

1,300

50% DEBT FINANCING

550

DEPRECIATION

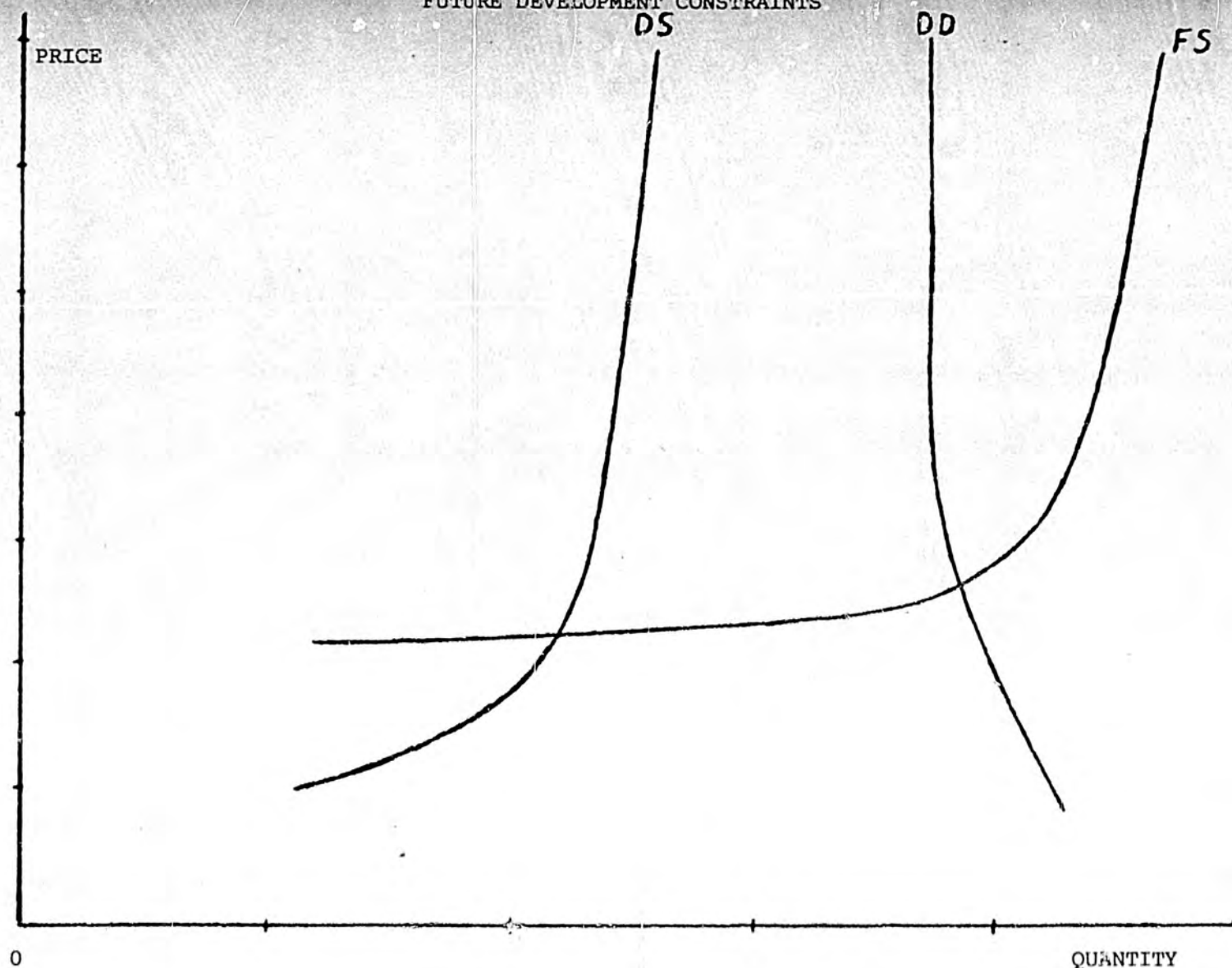
750

PRUDHOE BAY 475

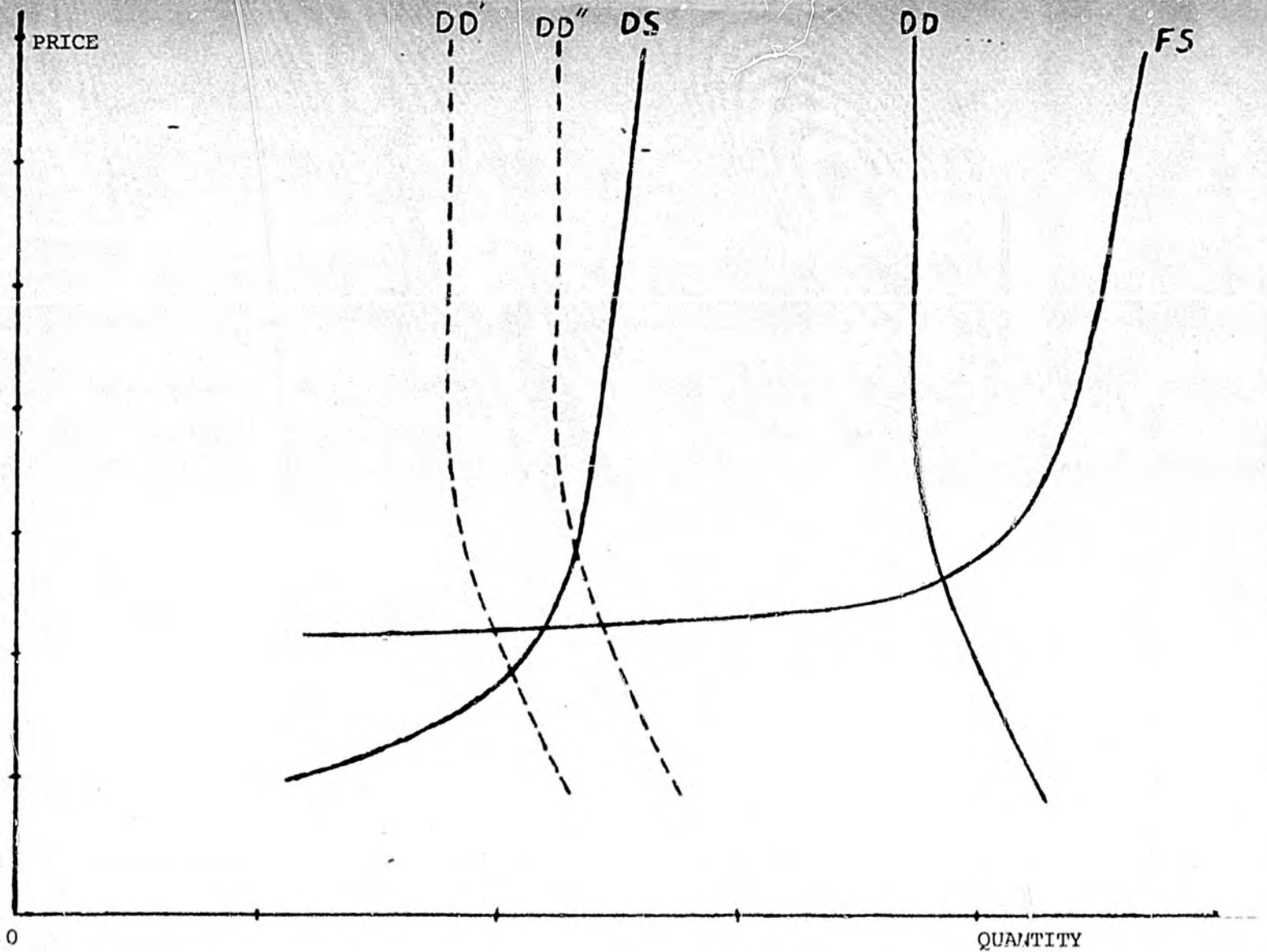
PIPELINE 250

OTHER 25

FUTURE DEVELOPMENT CONSTRAINTS

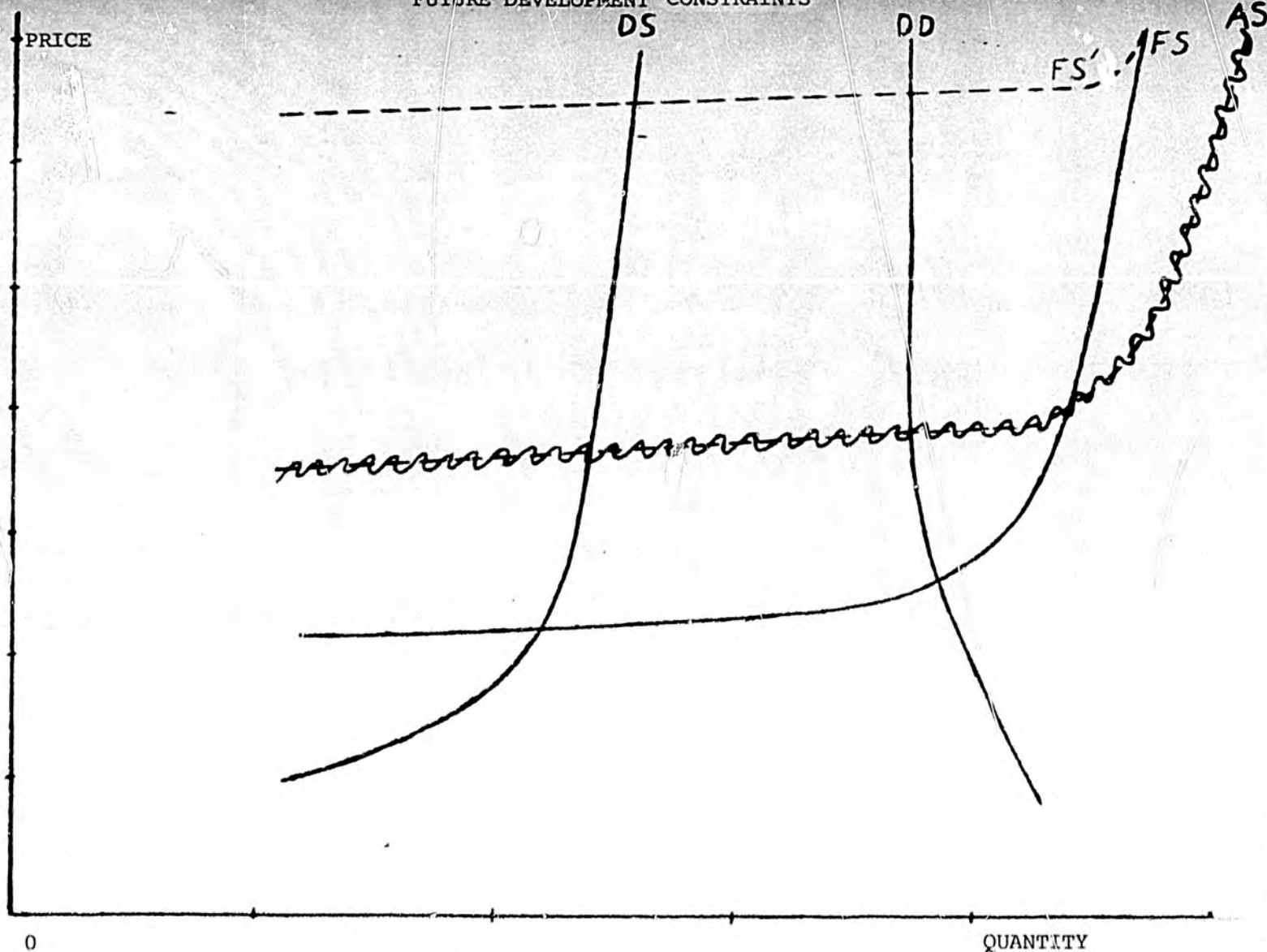


1. Domestic Demand (represented by line DD) varies little with price. Although people do buy less when oil prices go up, the amount consumed with very high prices (at the top of the line) is not much less than the amount consumed with very low prices (at the bottom of the line).
2. Domestic supply (DS) also varies little with price. Supplies may gradually increase as time passes and more investments are made. Over any short term (e.g., less than 2-3 years), however, supplies cannot be greatly increased even with very high prices (at the top of the DS line).
3. Foreign supplies (FS) are now necessary to fill the gap between domestic supply and demand. Until recently this was supplied at the fairly low prices indicated by the part of line FS that connects the domestic supply and demand lines.

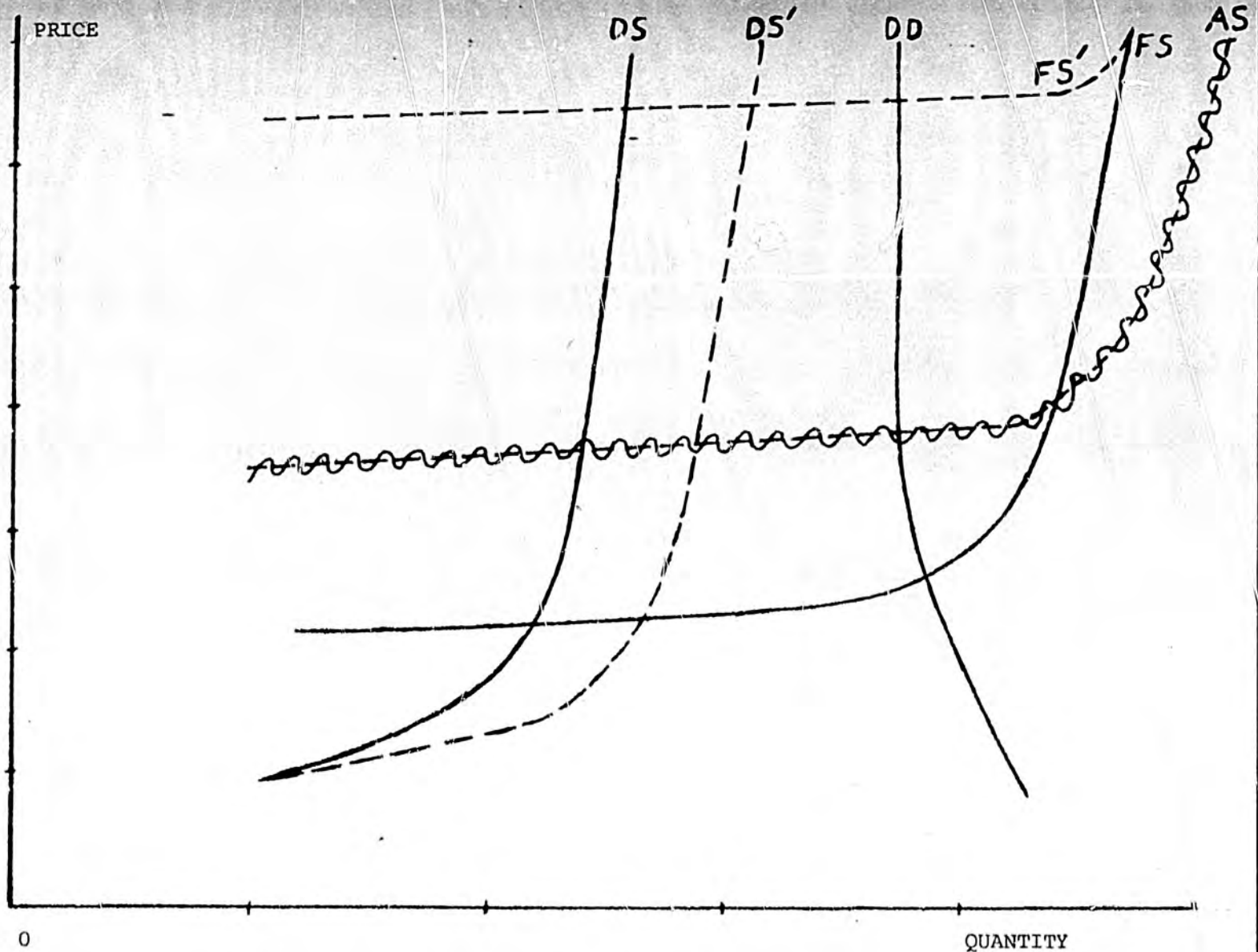


1. In the past (as recently as the early 60's), demand for oil could have been met by domestic supplies. When demand was at a level represented by DD', foreign supplies were imported for convenience or were refined and exported as finished products.
2. When demand was at a level represented by DD'', foreign supplies were imported because they were cheaper than potential domestic supplies.

FUTURE DEVELOPMENT CONSTRAINTS



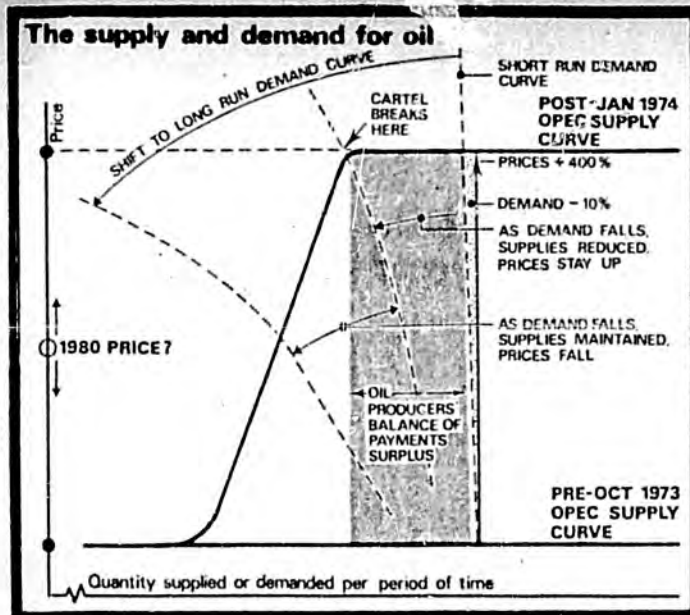
1. Alternate supplies (AS) could have filled the gap between domestic supply and demand, but foreign supplies were less expensive so foreign supplies were used instead.
2. Since domestic supply and demand do not change very much when prices rise, foreign suppliers could greatly increase their prices and still sell almost as much as before. Realizing this, they formed a cartel and posted an artificial price for oil. Foreign suppliers will supply as much (or as little) as consumers want to buy, but at the posted price shown by line FS'.



1. Domestic Demand (DD) varies little with price.
2. Domestic Supply (DS) also varies little with price.
3. Foreign Supplies (FS) are now necessary to fill the gap between domestic supply and demand.
4. Alternate Supplies (AS) could have filled the gap between domestic supply and demand.
5. Foreign Suppliers will supply as much or little as consumers want to buy, but at the posted price shown by line FS'.
6. Increased domestic oil supplies (DS') may result from increased investment. To protect itself, the oil industry must select investments which will still pay for themselves if and when the cartel's market power weakens. National policy will certainly protect alternate sources of energy, or at least provide a price floor which may give them a change to compete. Thus, long-term oil investment must be made in light of the long-term price outlook, not a temporary, artificial surge in prices.

FUTURE DEVELOPMENT CONSTRAINTS

Conclusion and graph from:
The Economist, "The Oil Story,"
 April 26, 1975, page 37.



It seems clear that by 1980 Britain will be able to get enough oil from the North Sea to supply its own oil needs and to start some exporting. But note:

- (1) Development of the North Sea involves a large claim on resources for investment (about \$15 billion or £6 billion to develop the 16 major British fields) before any oil is produced.
- (2) When in production, North Sea oil may cost about \$5-\$6 a barrel to produce, which is far above the production costs of Middle East oil.

The advantage of North Sea oil depends on oil prices remaining high. Will they?

The best way to consider prospects for Opec oil prices is to look at the shape of the supply and demand curves for oil, illustrated in our diagram.

Before the Yom Kippur war the supply of oil was very elastic at a low price (supply is elastic if a 1% rise in price causes more than a 1% increase in amount supplied, inelastic if it causes less than a 1% increase). After the war the oil supply curve was jacked up sharply (the supply curve "shifted"), but our guess is that it has not been raised over its whole length.

The reason is that among Opec countries are some with large populations and low incomes—such as Algeria, Iran, Iraq and Venezuela—which can spend all the money they earn from oil exports; and some with small populations and high average incomes—such as Kuwait—which can earn far more than they wish to spend. As demand for oil falls because of high prices and the appearance of substitutes,

countries like Kuwait will probably be very willing to cut output in order to keep up price. But countries with larger populations, and more need for money, will be less willing to agree to do so. They will be aware that by dropping the price from \$10 to \$9 a barrel they could undercut other Opec countries, and could sell at \$9 all they could produce of a commodity which costs them only a few cents a barrel. So we have assumed that there is a "kink" or "cartel-breaking point" in the supply curve, with potential production from the more heavily populated countries who want to keep up oil exports and spend what they earn, to the left of it. To the right of the kink is the production countries are willing to cut; most earnings from this at present go into the "unwanted" balance of payments surpluses of Saudi Arabia, Kuwait etc.

Now look at the demand curve. In the short run, over a year or two, it is highly inelastic (a 1% rise in price makes very little difference to the amount demanded). Even a 400% increase in the raw material price has cut demand by only 10% so far.

As time goes on and alternatives are produced, even though they may be quite expensive, the demand curve will shift to the left (and possibly change its slope). If it shifts far enough to the left, the inelastic section of the supply curve will be reached; the cartel could then break and prices crumble. But nobody can know exactly whether or when this will happen. How far, that is, a country like Saudi Arabia will be willing to shoulder the burden of production cuts while the main benefits from higher prices go to other producers.

NET RETURNS TO PRIVATE RESOURCE OWNERS IN THE STATE
 BASED ON \$12.00 OIL

26.6% ROYALTY-PROPOSED TAX STRUCTURE
 4.4 MILLION

20% ROYALTY
 CURRENT TAX
 STRUCTURE
 (IN THOUSANDS)

3.3 MILLION

190 - SEVERANCE TAX
290
STATE NET TAX
1,350
FEDERAL NET TAX
1,470
NET RETURN

20% ROYALTY
 PROPOSED TAX
 STRUCTURE

3.3 MILLION

190
SEVERANCE TAX
290
STATE NET TAX
710
EXCESS VALUE SURTAX
1,010
FEDERAL NET TAX
1,100
NET RETURN

250
SEVERANCE TAX
390
STATE NET TAX
940
EXCESS VALUE SURTAX
1,350
FEDERAL NET TAX
1,470
NET RETURN

If Oil Sells For \$7 in 1976

<u>1000 b/d Well</u>	<u>Current Law</u>	<u>Proposed Law Book</u>	<u>Proposed Law cash basis (accounting for proposal's accelerated depreciation provisions)</u>
Price	\$7.00	\$7.00 + 0 "excess"	\$7.00 + 0 "excess"
Transport Costs	3.00	3.00	3.00
Royalty (1/6th)	.67	.67	.67
Producer's Severance Tax (.057)	.19	.19	.19
Operating Expense	.25	.25	.25
Capital Expense	<u>1.00</u>	<u>1.00</u>	<u>1.40</u>
Pre-tax net	1.89	1.89	1.49
State net tax	.18	.18(.04 deferred)	.14
State excess surtax	--	--	--
Federal net tax (.48% rate, assumes U.S. & State capital treatment approximately equal)	<u>.82</u>	<u>.82</u> (.17deferred)	<u>.65</u>
Net to Producers	.89	.89	.70
Plus deferred taxes	.21	.21	
Plus accelerated dep.	—	—	<u>.40</u>
Net to Producers cash basis	1.10	1.10	1.10
Royalty Holders': Severance Tax	.04	.04	.04
State Net Tax	.06	.06	.06
Federal Net Tax	.27	.27	.27
Net	.30	.30	.30

If Oil Sells for \$12.00 in 1976

<u>1000 b/d Well</u>	<u>Current Law</u>	<u>Proposed Law Book</u>		<u>Proposed Law Cash Basis (accounting for proposal's accelerated depreciation provisions)</u>	
Price	\$7.00	\$7.00 + 5 "excess"		\$7.00 + 5 "excess"	
Transport Cost	3.00	3.00	--	3.00	--
Royalty (1/6th)	1.50	.67	.83	.67	.83
Producer's Severance Tax (.057)	.43	.19	.24	.19	.24
Operating Expense	.25	.25	--	.25	--
Capital Expense	<u>1.00</u>	<u>1.00</u>		<u>1.40</u>	
	5.82	1.89	3.93	1.49	3.93
State Net Tax	.55	.18	.37	.14	.37
State excess surtax	--	--	1.61	--	1.61
Federal Net Tax (48% rate assumes U.S. & State capital treatment approximately equal)	<u>2.53</u>	<u>.82</u>	<u>.94</u>	<u>.65</u>	<u>.94</u>
Net to Producers	2.74	1.90		1.71	
Plus deferred Taxes	---	.21		---	
Plus Accelerated Dep.	<u>---</u>	<u>---</u>		<u>.40</u>	
Net to Producers cash basis	2.74	2.11		2.11	
Royalty Holder's:					
Severance Tax	.09	.09		.09	
State Net Tax	.13	.13		.13	
Excess Surtax	--	.32		.32	
Federal Tax	.62	.46		.46	
Net	.66	.50		.50	

If Oil Sells for \$12.00 in 1977
(with wholesale index inflation of 6% annually)

1000 b/d Well	Current Law	Proposed Law Book		Proposed Law Cash Basis (accounting for proposal's accelerated depreciation provisions)	
Price	\$12.00	\$7.40	\$4.60 "excess"	\$7.40	\$4.60 "excess"
Transport Costs	3.00	3.00		3.00	
Royalty (1/6th)	1.50	.73	.77	.73	.77
Producer's Severance Tax (.057)	.43	.21	.22	.21	.22
Operating Expense	.25	.25	--	.25	--
Capital Expense	<u>1.00</u>	<u>1.00</u>	--	<u>1.40</u>	--
	5.82	2.21	3.61	1.81	3.61
State Net Tax	.55	.21	.34	.17	.34
State Excess Tax	--	--	1.48	--	1.48
Federal Net Tax 48% rate assumes U.S. & State capital treatment approximately equal	<u>2.53</u>	<u>.96</u>	<u>.86</u>	<u>.79</u>	<u>.86</u>
Net to Producers	2.74	1.97		1.78	
Plus deferred taxes	--	.21		--	
Plus Accelerated Dep.	<u>--</u>	<u>--</u>		<u>.40</u>	
Net to Producers cash basis	2.74	2.18		2.18	
Royalty Holder's:					
Severance Tax	.09	.09		.09	
State Net Tax	.13	.13		.13	
Excess Surtax	--	.29		.29	
Federal Tax	.62	.47		.47	
Net	.66	.52		.52	

If Oil Sells for 13.50 in 1982 (2% inflation)
but Wholesale Index Inflation of 6% Annually

<u>1000 b/d Well</u>	<u>Current Law</u>	<u>Proposed Law Book</u>		<u>Proposed Law cash basis (accounting for proposal's accelerated depreciation provisions)</u>
Price	\$13.50	\$11.20 + 2.30 "excess"		\$11.20 + 2.30 "excess"
Transport Costs	4.00	4.00		4.00
Royalty (1/6th)	1.58	1.20	.38	1.20 .38
Producers Severance Tax (.057)	.45	.34	.11	.34 .11
Operating Expense	.35	.35		.35
Capital Expense	<u>1.30</u>	<u>1.30</u>		<u>1.80</u>
Pre-tax net	5.82	4.01	1.81	3.51 1.81
State net tax (.094)	.55	.38	.17	.33 .17
State excess surtax (.41)	--	--	.74	-- .74
Federal net tax (.48)	<u>2.53</u>	<u>1.74 .43</u>		<u>1.53 .43</u>
Net to Producers	2.74	2.36		2.12
Plus deferred taxes	--	.26		--
Plus accelerated dep.	<u>--</u>	<u>--</u>		<u>.50</u>
Net to Producers cash basis	2.74	2.62		2.62
Royalty Holders':				
Severance Tax	.09	.09		.09
State Net Tax	.14	.14		.14
Excess Surtax	--	.11		.11
Federal Tax	.65	.60		.60
Net	.70	.64		.64

Introduction

The wholesale liquor industry in Alaska is dominated by three firms: K & L Distributors, Alaska Distributors, and Odom Company. One of the unique characteristics of the three major groups is the out-of-state ownership and control of wholesale liquor even though some of the participating members are Alaskan corporations. K & L Distributors is controlled by the Levine Family of Bellevue, Washington, Alaska Distributors is controlled by Alex Shulman of Seattle, Washington and Odom Company is controlled by M. W. Odom of Seattle, Washington.

Details on the operations of the industry are contained in the attached report from staff researcher Janis C. Gull.

There are currently twenty-two (22) wholesale liquor licenses issued. Under current Alaska law, AS 04.10.110, a general wholesale license is required for each distributing point. As shown in the attached report three major firms have more than one (1) distributing point and are thus multiple licenses.

The taxes and license fees collected by the Department of Revenue for the past five years are:

<u>Fiscal Year</u>	<u>Gross Income</u>	<u>License Fees</u>	<u>Excise Tax</u>	<u>*Income Tax</u>
1975	\$41,162,932	\$81,850	\$6,598,213	\$72,834
1974	33,607,680	81,500	5,690,909	42,195
1973	31,426,323	80,200	5,234,678	52,042
1972	31,379,627	80,350	4,871,156	78,862
1971	30,816,351	80,600	4,936,399	46,045

1970

tu (taxes)

* Furnished by the Department of Revenue based on four companies. Identities of the companies were not furnished.

Janis
3773

AG0 529839

West Coast Dist
Alaska Dist.
Odom
K&L
Amherst
Stobryn