

ANALYSIS OF OIL AND GAS ROYALTY TRUSTS

Staff Working Paper

December 1983

The Congress of the United States
Congressional Budget Office

This study was requested by Congressman Robert Shuster of the House Budget Committee. It was prepared by Robert Lucke of the Tax Analysis Division of the Congressional Budget (CBO) under the supervision of Rosemary D. Marcuss. In accordance with CBO's mandate to provide the Congress with objective and impartial analysis, the report contains no recommendations.

SECTION I.**INTRODUCTION**

In the last few years, interest has grown in the use of royalty trusts as a means of distributing the income from oil and gas properties to investors. Income from mineral properties placed in such trusts is not liable for corporate income taxes, thus providing potentially large tax advantages for companies (and their shareholders) that use them. If many major oil and gas companies decided to form such entities, the implications for federal revenues might be fairly significant.

Most recently, attention has been focused on the efforts of Mesa Petroleum Corporation to induce the stockholders of the Gulf Oil Corporation to set up a trust consisting of a large share of Gulf's oil reserves. As a large shareholder of Gulf stock, Mesa is in a strong position to influence management decisions at Gulf. At this point, however, Gulf has resisted the efforts of Mesa, and does not currently contemplate setting up a royalty trust. As discussed below, the income tax consequences from the formation of a royalty trust are complex and raise several important tax policy issues. Because a royalty trust does not involve any new investment or development of oil or gas properties—it simply involves a change in legal ownership—any new wealth that is created for stockholders by the trust's formation is a result of lower net taxes paid to the Treasury over the life of the property.

This analysis reviews the mechanics of royalty trusts and the tax issues involved. The creation of an oil royalty trust is significantly affected by the tax law regarding corporate distributions of property and the differential tax treatment of corporate versus noncorporate entities. Section II describes how a typical oil royalty trust is formed and how it operates, and Section III discusses the relevant tax rules and their associated implications. Section IV presents an example of a hypothetical royalty trust and discusses the tax implications for various kinds of shareholders (for example, individuals or corporations). Lastly, Section V estimates the potential effect that widespread use of royalty trusts might have on revenues collected by the U.S. Treasury.

SECTION II. DESCRIPTION OF AN OIL ROYALTY TRUST

An oil royalty trust is a legal entity that owns "nonoperating" mineral interests and distributes substantially all its earnings directly to the holders of trust units.¹ (Trust units are similar to stock shares in that they represent investor ownership claims on the income of the trust and can be traded on the stock market.) For purposes of this analysis, attention is primarily focused on "spin-off" trusts—that is, trusts created by oil and gas corporations solely for the benefit of their stockholders. In a spin-off trust, the corporation usually remains an ongoing business enterprise, retains some interest in the trust properties, and often is the field operator. This type of royalty trust is set up by a corporation with the intention of distributing nonoperating mineral interests directly to its shareholders. In a typical trust, the firm allocates certain interests to the trust and simultaneously allocates trust units (shares) to the corporation's shareholders in proportion to their stockholdings. This mechanism avoids the so-called "double taxation" of corporate income—first, when the corporations pay corporate taxes and second, when the stockholders pay individual income taxes on any distributed dividends or capital gains.

For the trust to avoid taxation as a corporation, generally it must avoid any business activity and can own only "passive" investments. Nonoperating mineral interests are considered proper investments for a trust because of their passive nature. Investments in a trust are considered passive if (1) the trustees are not engaged in any business activities related to the trust properties, and (2) the trustees are restricted from changing the composition of the initial investment portfolio.² The passive classifi-

¹ Mineral interests can generally be classified into two categories: operating and nonoperating interests. The owner of an operating interest has the right to actively explore for, and produce, the oil and gas related to a property. In contrast, ownership of a nonoperating interest entitles the owner to receive a portion of a property's production or revenues, but the owner has no right to conduct exploratory or production activities related to the property. As a result, the owner of a nonoperating mineral interest has no control over the operations conducted by the owner of the operating interest associated with the property.

² See Internal Revenue Service, General Counsel Memorandum #38791 (August 28, 1981).

cation of a nonoperating mineral interest is not affected by the fact that the income is generated by a firm that is in the business of producing oil and gas.

Nonoperating mineral interests can take the form of true royalties or net profits interests. A true royalty interest typically is defined as a percentage of the gross production or the value thereof. A net profits interest is usually stated as a share of net revenues—that is, gross revenues less certain specified operating and development costs of the owner of the operating interest. The difference between the two is that a royalty interest is not reduced by any production or development costs, whereas a net profits arrangement allows the operator to reduce the trust payout by certain agreed upon costs.

In general, the basic advantage of setting up a trust to distribute oil and gas income is that the trust revenues are not subject to corporate taxation before any dividends are distributed, even though the owners enjoy the benefit of limited liability. Generally, once the corporate tax has been paid, firms can retain their earnings and/or distribute them to their stockholders as dividends. Corporate dividends paid to individuals are subject immediately to the personal income tax at a rate of up to 50 percent. To the extent that the market value of stock is enhanced through retained earnings, the increased value is taxed as capital gains when stockholders sell their shares. Because of the 60 percent exclusion of long-term capital gains from taxable income, capital gains are taxed at a much lower effective rate than dividends. Although a royalty trust avoids the corporate income tax, its earnings are generally subject to full personal taxation because trusts distribute virtually all of their income on a current basis. Because trusts do not retain earnings, they do not generally provide a means of converting current income into more lightly taxed long-term capital gains. Thus, the corporate tax savings are in part offset by higher personal taxes.

It should be noted that a royalty trust is similar to a partnership in that both avoid the corporate tax. Indeed, limited partnerships are quite similar to royalty trusts. In theory, a corporation could spin-off a limited partnership that would involve many of the same tax advantages as royalty trusts.

SECTION III. THE RELEVANT TAX LAW

The tax law related to oil royalty trusts can be separated into two distinct categories: (1) tax aspects related to the ownership of the royalty trust units, and (2) tax aspects related to the initial distribution of trust units.

TAX ASPECTS RELATED TO OWNERSHIP OF ROYALTY TRUST UNITS

The basic purpose of a spin-off royalty trust is to eliminate the corporate tax burden, and, therefore, it is essential that the trust be properly established to qualify for federal income tax purposes. Since oil royalty trusts are not engaged in any active business operations or decisions related to their oil properties, they have been regarded as trusts and are not taxable as corporations.³ Aside from agreed upon expenditure deductions, a royalty trust distributes virtually all its revenue to trust unit holders on a current basis. This income is generally subject to full income taxation the same as any regular corporate dividend. This is true for both individual and corporate trust unit holders. (Corporate unit holders, however, are not allowed to deduct the 85 percent of dividends received, which applies to other corporate share holdings.)

Depletion

The owner (individual or corporate) of an economic interest in an oil royalty trust is entitled to cost depletion.⁴ Cost depletion allows unit

³ Thomas Crichton IV, "Royalty Trusts and Other Exotic Distributions to Shareholders," New York University Law Journal, vol. 40 (1982), p. 12-27.

⁴ There are some circumstances in which a trust unit holder may be entitled to percentage depletion. Provided that the owner qualifies as an independent producer (that is, the owner has neither significant refining or retail sales of oil and/or gas products), percentage depletion is only allowed on properties that are proven after they have been acquired (that is, after the trust unit has been acquired). In addition, percentage depletion is limited to 1,000 barrels per day of oil production (or an equivalent amount of natural gas).

holders to deduct an amount equal to their current tax basis times the ratio of current production to remaining reserves, as estimated by the corporation. For example, if a holder's tax basis is \$100 and 20 percent of the remaining reserves are produced in a given year, the cost depletion deduction would be \$20 ($\100×20 percent).

For individuals, the original tax basis upon distribution is the trust unit's initial market value. As explained later, the initial distribution may be treated as a dividend or as a return of capital. Each year the taxpayer reduces the initial tax basis by the amount of cost depletion previously taken. As royalty trusts generally have declining production over time, the market value of trust units should also decline over time.⁵ To some extent, cost depletion allows taxpayers to recover this decline in value, just as other asset holders would recover depreciation from deteriorating physical assets. Thus, cost depletion is consistent with current income accounting of income and expense.

Note that for the corporate shareholder, the cost depletion deduction is based on the distributing company's adjusted tax basis because of the carryover provisions. That is, the distributing firm's old tax basis becomes the initial tax basis for corporate shareholders. Thus, the stream of cost depletion deductions taken by corporations does not change upon transfer of properties between corporations. Furthermore, although the corporate shareholder will usually recognize a lower dividend amount than an individual upon distribution, this advantage is offset by lower depletion deductions in future years.

Sale of Units

Once a trust has been formed and units have been distributed to stockholders, the units can be sold or bought on the stock exchanges. Generally, upon the sale of a unit, the owner will realize a gain or loss as measured by the difference between the unit's selling price and the owner's adjusted tax basis.⁶ For individual sellers, the sale will be taxed as a long-term capital gain or loss if a unit has been held for more than one year. Under the rules for long-term gains, 60 percent of an individual's gain is excluded in the determination of taxable income. In the case of corporations, the sale is taxed at the long-term rate of 28 percent (or the

⁵ Of course, if oil and/or gas prices should unexpectedly rise, the value of trust units would rise at the same time.

⁶ The adjusted tax basis is the initial tax basis upon distribution less deductions for cost depletion or abandonment losses.

corporation's ordinary marginal tax rate, if lower) if the holding period of the current owner plus that of the distributing corporation is longer than one year. This results from the carryover holding period on the distribution of property as specified in the tax code.

The new tax basis of both individual and corporate purchasers of trust units is the sale price. That is, new owners (both corporations and individuals) have an initial tax basis equal to a unit's market value. Future cost depletion deductions will be determined with reference to the new owner's tax basis.

Foreign Sales

The trust units may also be purchased by foreign individuals or corporations. The trust is required to provide an information report to the IRS on all foreign investors (both individuals and corporations) whose trust units have a market value over \$50,000. In addition, foreign individuals or corporations are required to report information on their trust unit holdings if they exceed \$50,000.⁷

Unit owners who are foreign individuals or corporations are subject to a 30 percent tax on the gross income (without any deductions) derived from oil royalty trust units, unless foreign tax treaties specify otherwise. This amount is withheld by the trustees and deposited with the Treasury. A foreign taxpayer will, however, generally find it preferable to elect to treat the income as connected with a trade or business in the United States. In this case, the income is taxed on a net basis, subject to all the same deductions (including depletion), rates, and rules that apply to domestic taxpayers. This treatment is available because royalty trust units are considered real property under the tax code, even though they are securities traded on the stock markets.⁸ (Real property is subject to this election regardless of whether it is effectively related to the taxpayer's trade or business in the United States.)⁹ Once the foreign owner has elected to treat royalty trust income as effectively connected to U.S. business, a foreign unit holder is required to file a U.S. income tax return in order to claim all relevant deductions.

⁷ IRC Sec. 6039C.

⁸ IRC Sec. 897.

⁹ IRC Sec. 882(d)(1) and S. 871(d)(1).

There has been some concern that the royalty trust entities might allow foreign (possibly hostile) shareholders or countries to gain greater control over U.S. energy resources. Because trust units are traded on the stock exchanges, foreign interests could purchase controlling shares in the trusts, perhaps secretly through third-party intermediaries. Thus, it is argued that foreign countries might be able to impede the orderly development of the nation's resources.

This should not, however, be a major concern in the analysis of royalty trusts. First, trust holders are not entitled to any voice in the management of the trust's properties. Indeed, the trustees can take no part in the active management of the royalty properties. All the operating and management decisions regarding the royalty properties are made by the owner of the operating interest in the properties. In a typical royalty trust, the owner of the operating interest is the corporation that originally created the trust. Thus, even if foreign shareholders controlled a royalty trust, they would have no say regarding the development of the trust's properties.

Second, foreign control over U.S. mineral interests can already be achieved through purchases of oil company stock and/or outright purchase or leasing of properties. In both these cases, foreign ownership could result in some control over the development of U.S. energy resources. It does not appear, however, that the royalty trust vehicle offers any new advantage to foreign interests if their goal is to affect U.S. oil and gas production decisions.

Windfall Profit Tax Considerations

The Crude Oil Windfall Profit Tax of 1980 (P.L. 96-223) imposed an excise tax on the domestic production of crude oil. Under the Economic Recovery Tax Act of 1981 (P.L. 97-34), a two-barrel per day exemption (rising to three barrels per day in 1985) from the tax was allowed for private royalty owners. While this exemption applied to holders of royalty trust units already in existence, it does not apply to any trusts created after June 9, 1981, nor does it apply to trust units that were acquired after that date, regardless of when the trust itself was established. Thus, the exemption for royalty holders will not generally be available for trusts created in the future.

The creation of a royalty trust by an independent producer may result in higher windfall profit taxes than if the trust had not been formed. The formation of a trust could increase windfall profit taxes if it eliminated the benefit of lower tax rates now applicable to independent

producers.¹⁰ In general, independent producers pay lower windfall profit taxes on their first 1,000 barrels of production per day and are exempt from the windfall tax on their stripper production.¹¹ If the corporation forming the trust is an independent producer, the creation of a royalty trust would disqualify the trust's production from lower tax rates. (Non-operating or royalty interests are not eligible for the lower windfall rates and the stripper exemption applicable to independent producers.)¹² Note that all holders of an economic interest in an oil property (including royalty holders or holders of trust units) are themselves liable for their pro rata share of windfall profit taxes attributable to the property's production.¹³

A trust created by a major oil company, and therefore subject to regular windfall profit tax rates, will not generally have any effect on future windfall tax receipts (This assumes that production from the trust properties would be the same under either form of ownership.)

TAX IMPLICATIONS OF THE DISTRIBUTION OF THE TRUST

Tax Consequences for the Corporation Forming the Trust

The tax code allows a corporation to set up an oil royalty trust and treats the assignment of a nonoperating mineral interest to a royalty trust as a distribution of property by the corporation to its shareholders on a pro rata basis.¹⁴ In general, the corporation itself is not required by tax law to recognize a gain or loss on the distribution, even if the market value of the

¹⁰ An independent producer is an oil and gas company that refines fewer than 50,000 barrels per day and has petroleum product retail sales of less than \$5 million annually.

¹¹ Stripper production is production from wells that produce an average of less than 10 barrels per day.

¹² Nonoperating interests are taxed at the same rate as all other oil production, such as that produced by the major integrated firms.

¹³ In general, the windfall profit tax is withheld by the producer or the first purchaser.

¹⁴ IRC S. 311 (a).

property exceeds its tax basis.¹⁵ For example, if a corporation distributes oil royalty interests with a market value of \$100 million and a tax basis of \$60 million, it does not recognize a gain on the transaction.¹⁶ The staff of the Senate Finance Committee did propose that such a distribution would trigger the recognition of a gain by the distributing corporation.¹⁷ The distributing firm would be taxed under this proposal on the difference between the property's market value and its tax basis, or \$40 million in this example. The proposal has not been enacted into law, however.

One possible exception to the general nonrecognition rule in the case of oil and gas properties is the recapture of intangible drilling costs on transfers of property. Under Section 1254 of the Internal Revenue Code, accumulated deductions for intangible drilling costs allocated to a transferred property are treated as ordinary income by the distributing firm.¹⁸ Suppose that, in the above example, intangible drilling costs associated with the trust property were \$10 million. The distributing firm would be required to recognize this amount (less cost depletion deductions that would have been allowed if the expenditures had been capitalized) as ordinary income and pay tax on it. This provision was adopted in the Tax Reform Act of 1976 (P.L. 94-455) and only applies to intangible drilling expenditures made after 1975.

Although the distribution of nonoperating mineral interests is considered a disposition of property, it is not clear whether intangible drilling costs are considered part of the property transferred. The Tax Reform Act of 1976 is unclear on this point and proposed Treasury regulations (Prop. Reg. 1.1254-1) do not clarify whether drilling costs are chargeable to

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- 15 The tax basis of a property is its original capital cost, less accumulated deductions for depletion, depreciation, or intangible drilling costs.
- 16 In the case of royalty trusts, the market value of the property is established by the initial market price of trust units on the stock market.
- 17 Senate Committee on Finance, Staff Report, The Reform and Simplification of the Income Taxation of Corporations, Committee Print (September 22, 1983), p. 76.
- 18 Intangible drilling costs are only recaptured to the extent that they are less than or equal to the gain resulting from the transfer. In addition, the amount of drilling costs is reduced by the cost depletion deductions that would have been allowed had the costs been capitalized.

distributed royalty interests. This issue will have to be resolved through future revised regulations and/or litigation.

Upon distribution of mineral interests into a trust, the company reduces its accumulated "earnings and profits" account by the tax basis of the distributed property. As discussed in the next paragraph, the balance of the earnings and profits account is important in determining whether a distribution of property to a trust is to be treated by stockholders as a dividend or a return of capital. For corporate tax purposes, earnings and profits are roughly the accumulated taxable income (less dividends) earned by the corporation over its existence. Regardless of the market value of the interests distributed, the corporation only reduces its earnings by its tax basis in the property.

Tax Effects on Recipient Individual Shareholders

The tax consequences of the distribution to individual shareholders are primarily related to whether the distribution is recognized as dividend income or a return of capital. For individuals, the amount recognized as a dividend (and taxed at normal rates) is the excess of the market value of the distributed property over the corporation's earnings and profits. To the extent that the value of the distribution exceeds earnings and profits, the distribution is treated as a return of capital, which is not taxable, rather than as a dividend which is.

For example, suppose a firm has earnings and profits of \$20 per share and distributes royalty interests with a market value of \$35 per share, but with a tax basis of \$5 per share. In this case, the individual would recognize dividend income equal to \$20 per share, and the remaining \$15 (\$35-\$20) would be treated as an untaxed return of capital. Note, however, that the return of capital lowers the shareholder's tax basis in common stock by a like amount. (The tax basis in a share of stock equals its historical acquisition cost, less any return of capital.) If the return of capital exceeded the stockholder's tax basis, the difference would be taxed as a capital gain. For stocks held for over one year, 60 percent of the gain is excluded from income, as permitted for long-term capital gains in general. The above distribution would also reduce the corporation's earnings and profits account by its tax basis in the property (\$5 per share), leaving a balance in the account of \$15 (\$20-\$5) per share.

From the perspective of the individual taxpayers, royalty trusts are more desirable if created by firms with low accumulated earnings and profits. For example, a new firm with a relatively short earnings history can distribute royalty interests that would be treated as untaxed returns of capital or as lightly-taxed capital gains. In each of Mesa's two existing

spin-off trusts, for example, the company did not have any earnings and profits, and the full distribution was treated as a return of capital and thus untaxable. On the other hand, a mature firm might have much higher accumulated earnings and profits and so the distribution could be fully taxed to the shareholders immediately as dividend income.

Tax Effects on Corporate Shareholders

The tax effects on corporate shareholders are significantly different from those on individual shareholders. In the case of a property distribution, the corporate shareholder is deemed to have received the lesser of (1) the market value of the property, or (2) the distributing company's old tax basis in the property. For an oil and gas property, the tax basis is usually substantially less than the market value of the property. Thus, any dividend recognized for tax purposes to the corporate shareholder is usually much less than its market value. Furthermore, the new tax basis of the distributed property (trust units in the case of a royalty trust) in the hands of the corporate shareholder will be the old tax basis of the distributing firm. All future gains and losses on the trust units will be measured relative to that basis.

In addition to providing for a "carryover" tax basis, the tax code allows the corporate shareholder to include the holding period of the distributing firm in its calculation of its own holding period.¹⁹ The importance of this distinction is that the carryover basis may allow the corporate shareholder's subsequent gain on any sale of the trust units to be taxed as a maximum long-term capital gain, even though the units may not have been held by the corporation for the requisite one year. (In the case of corporations, the maximum long-term capital gains tax rate is 28 percent, whereas the regular marginal tax rate for most corporations is 46 percent.) Because the market value of a royalty trust unit will normally exceed its tax basis, the shareholder corporation can often realize a long-term capital gain immediately upon the trust's formation.

As mentioned above, the distribution is generally valued as a dividend at its old tax basis amount. In general, the tax code also allows corporations to deduct from their income 85 percent of the dividends they receive. The rationale for this tax preference is to limit the double

¹⁹ This only applies where the new tax basis is determined in reference to the old tax basis. When, the tax basis is determined to be the property's market value, the holding period is not carried over, but starts on the date of distribution.

taxation of income in the corporate sector. Furthermore, as in the case of individuals, the distribution is only counted as a dividend to the extent that the distributing company has earnings and profits. Otherwise, it is treated as a return of capital, which is not taxable.²⁰

Example

The distribution rules for corporate shareholders can be illustrated by an example. The distributing firm (Company A) is assumed to form a royalty trust whose units have a market value of \$50 per unit and a tax basis of \$30 per unit. Trust units are assumed to be distributed on the basis of one unit for each share of common stock. The stock sold for \$90 per share just prior to the distribution and \$40 after the distribution. (Note that the combined value of the pretrust value—\$90—of the stock is equal to the posttrust value of the stock (\$40) and associated trust unit—\$50.)

The amount distributed by Company A to Company B, an owner of Company A's stock, is deemed to be \$30, since the tax basis (\$30) is less than the market value (\$50) of the unit. Thus, assuming Company A has sufficient earnings and profits, Company B recognizes taxable dividend income of \$4.50 (15 percent of \$30) after taking into account the 85 percent deduction of received dividends. (Company B must hold the stock for a minimum of 15 days to take advantage of the dividends-received deduction.) Assuming the dividend income is taxable at the corporate rate of 46 percent, this transaction results in a tax payment of \$2.07 (46 percent of \$4.50). Also, Company B's tax basis in the trust units is \$30 (the carryover basis from Company A), and its holding period includes the time that Company A held the property.

Note that if the royalty property earns the same income as it would have if held by Company A, there is no future change in total corporate tax payments. This is because the cost depletion deductions allowed Company B would be the same as those for Company A had the property not changed ownership. The transfer of property between the corporations changes the payor of taxes, but not the total amount. Therefore, the only tax effect of this transaction would be the tax payment by Company B of \$2.07 from the recognized dividend income, and the Treasury gains that amount. This assumes that the property is retained by company B for the rest of its productive life.

²⁰ If the return of capital exceeds the shareholder's historical cost basis in the stock, however, the excess is recognized as a capital gain and taxed as such.

Tax Arbitrage

When corporate shareholders are concerned, there is a substantial opportunity for tax arbitrage in the case of property dispositions. (In general, tax arbitrage refers to transactions that are essentially riskless and generate a profit purely through certain provisions of the tax code.) Suppose that, in the example above, Company B bought Company A's stock for \$90 just prior to the distribution of the royalty trust. Also assume that Company A had held the royalty property for at least one year prior to the distribution. If Company B sold both its stock and trust unit 16 days later, it would recognize a long-term gain on the trust unit of \$20 (\$50 market value less a \$30 carryover tax basis) and a short-term capital loss of \$50 (\$90 stock purchase price less a \$40 post-distribution price) on its stock. (It would also recognize \$4.50 in dividend income as before.) The long-term capital gain would be taxed at 28 percent resulting in a tax of \$5.60 ($0.28 \times \20.00). The short-term capital loss could be used to offset other short-term capital gains at the normal tax rate of 46 percent. Assuming that Company B has a net short-term gain, the value of the tax offset is \$23.00 (46 percent of the \$50 loss). These three tax effects yield a net tax saving of \$15.33, even though on a pretax basis the cash flow to the firm from the transaction was zero. The tax effects from this arbitrage example are shown below:

| <u>Transaction</u> | <u>Tax Saving</u> |
|--|-------------------|
| Dividend Tax (46% tax rate x 15% dividend inclusion x \$30 dividend) | - \$2.07 |
| Long-Term Capital Gain Tax (28% tax rate x capital gain of \$20)) | - \$5.60 |
| Short-Term Capital Loss Tax (offset (46% tax rate x capital loss of \$50): | <u>+ \$23.00</u> |
| Net Effect | + \$15.33 |

Even though the transaction generated no tangible economic benefits, Company B was able to profit from such activities.

The above arbitrage possibility arises for two basic reasons: (1) the 85 percent dividend deduction, and (2) the carryover holding period.

Companies are allowed to take the 85 percent deduction for dividends received if they hold the stock for more than 15 days. This provision might allow corporations to buy stock immediately before a dividend record date, take the 85 percent dividends deduction, and deduct 100 percent of the short-term capital loss that occurs automatically on the stock's value as a result of the dividend. This is especially important in the case of extraordinary dividends that might occur as the result of an oil royalty trust. In order to reduce the potential for tax arbitrage that may occur from using the dividends-received deduction, it has been proposed that the minimum holding period be increased from two weeks to one year.²¹

The second source of tax arbitrage occurs because of the carryover basis combined with the carryover holding period. Because long- and short-term capital gains are taxed at different rates, firms can take advantage of the difference to reduce their overall tax burden. In the case of royalty trusts, the carryover holding period allows the firm reduced long-term rates on the gain from the trust units, while simultaneously allowing a full loss offset for the short-term loss on the stock. Because of the carryover holding period, the firm is required only to hold the distributing firm's stock on the date of record for the distribution to be eligible for long-term capital gains treatment on any sale of trust units, rather than the generally applicable one-year rule.

Two possible alternatives for reducing the arbitrage opportunity for transactions that involve the transfer of property between corporations are:

- o Proposal 1. Eliminate the carryover holding period along with repeal of the dividend deduction for stock held for less than one year (the carryover basis would be retained). This would tax all gains and losses on stocks or trust units held for less than one year at regular corporate rates; stocks or trust units held for more than one year would be taxed at the long-term rate.
- o Proposal 2. If a shareholder corporation held stock for less than one year, the stock's basis would be reduced by the market value of property distribution (less any amount considered taxable as a dividend). Furthermore, the holding period for property distributions could not exceed the corporation's holding period for stock in the distributing firm. The property carryover basis and the dividends-received deduction would be retained.

²¹ Senate Committee on Finance, Staff Report, The Reform and Simplification of the Income Taxation of Corporations, p. 78.

The following table shows the effect of each of these proposals.

| Type of Tax | Proposal 1 | | Proposal 2 | |
|---------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | Stock Held Less Than One Year | Stock Held More Than One Year | Stock Held Less Than One Year | Stock Held More Than One Year |
| Dividend Tax | -\$13.80 | -\$2.07 | -\$2.07 | -\$2.07 |
| Tax on Gain From Sale of Trust Units | -\$9.20 | -\$5.60 | -\$9.20 | -\$5.60 |
| Tax Offset on Loss From Sale of Stock | <u>+\$23.00</u> | <u>+\$14.00</u> | <u>+\$2.07</u> | <u>+\$14.00</u> |
| Net Effect | \$0.00 | +\$6.33 | -\$9.20 | +\$6.33 |

In each case, the sale prices of both the stocks and trust units are the same as before—only the holding periods are varied. As the table indicates, there would no longer be any short-term prospects for arbitrage; any gains made for purely tax reasons would require the investor to hold the stock at least one year. Thus, firms would have to expose their investment to market risks for a significant period of time in order to take advantage of the tax law.

Tax Consequences for Nonresident Foreign Stockholders

In general, foreign stockholders (whether corporations or individuals) are treated the same as domestic unit holders in royalty trusts, if the distributed property is effectively connected with the taxpayer's business in the United States. Under the tax code, shareholders may elect to treat royalty trust units as real property, thereby establishing this linkage.²² (Real property is treated as being connected with United States trade or business, regardless of whether it is in fact related to the foreign shareholder's business in the United States.) If a foreign corporation does not choose the real property election, it will be treated the same as a domestic or foreign individual investor—that is, the distribution amount is determined by the fair market value of the trust units.

²² IRC S. 882 and S. 871.

Foreign corporations and individuals may also be subject to a 30 percent withholding tax on the market value of the trust distribution. If foreign shareholders do not elect to treat their units as real property (thereby connected with U.S. business), withholding is required on the full amount of the distribution. Such stockholders, however, may file for claim of a refund of the portion of the distribution that is considered a nontaxable return of capital.

Tax Consequences for Tax-Exempt Institutions

Tax-exempt institutions that are shareholders in a corporation that forms a royalty trust should not be subject to any tax as a result of the distribution of trust units. That is, if the institution's ownership of corporate stock was already exempt from tax, the distribution of property (trust units) would likewise be nontaxable.

SECTION IV. A ROYALTY TRUST IN ACTION

In order to analyze the effect of the creation of a royalty trusts on overall federal tax revenues, it is useful to study the total tax effects of a hypothetical trust. First, a base case scenario is presented, followed by four alternatives to the initial assumptions in order to analyze the sensitivity of tax revenues to specific situations.

THE BASE CASE

The analysis begins with a description of the hypothetical royalty trust property and the tax status of the various parties. The following factors are assumed:

- o The trust is created by Corporation A, which is not an independent oil producer under the tax code definition.
- o The company distributes royalty property that has a 20-year production life to the trust.
- o The distributing corporation is assumed to be in the marginal tax bracket of 46 percent.

- o The corporation discounts future cash flows at 15 percent.
- o The corporation has sufficient earnings and profits to cover all distributions.
- o The corporation's current tax basis in the royalty property distributed is \$10,000.

Table 1 sets out the corporation's income statement for the royalty property. Net operating revenue is the firm's gross revenue from the property, less all operating costs and excise taxes. Taxable income is net revenue less cost depletion. Cost depletion is based on the tax basis of \$10,000 and allocated to years according to the percentage of reserves produced in each year. The corporate tax is 46 percent of taxable income; net cash flow is net operating revenue less corporate tax payments.

From the firm's viewpoint, the property is worth \$49,620. This is the discounted (at 15 percent) net cash flow of the property. Note that the value of the property exceeds its tax basis—the tax basis is only about 20 percent of the property's value—because the tax basis has been reduced by expensed intangible drilling costs in prior periods. The last column in Table 1 shows how the value of the property declines over time until it reaches zero by year 20. (The value of the property at any given time is the discounted present value of all future net cash flows.) The difference in the market value of the property from one year to the next is referred to as economic depletion—that is, it is the decline in market value that the asset experiences over time. For example, the first year's economic depletion equals \$5,390, or \$49,620 less \$44,230.

From the perspective of the individual stockholder, the value of the property in the hands of the corporation is reflected by the market price of the firm's stock. For the purposes of this example, it is assumed that the corporation's stock price is determined by the individual investor in the 40 percent marginal tax bracket. Initially, it is also assumed that all stock is held by individuals in the 40 percent bracket; this assumption will be varied below. In order to determine personal taxes related to the holding of corporate stock, it is necessary to make several further assumptions:

- o The stockholder in the 40 percent tax bracket has a posttax discount rate of 11.1 percent.
- o Stockholders hold their shares for three years and then sell them.
- o Corporate net cash flow is distributed as follows: 50 percent of the excess of net cash flow over economic depletion is retained; the remaining 50 percent is distributed as dividends.

TABLE 1. INCOME STATEMENT OF ROYALTY PROPERTY HELD BY CORPORATION A, UNDER THE BASE CASE (In dollars)

| Year | Net Operating Revenue | Cost Depletion | Tax Basis | Taxable Income | Corporate Tax | Net Cash Flow | Current Market Value |
|------|-----------------------|----------------|-----------|----------------|---------------|---------------|----------------------|
| 0 | | | 10,000 | | | | 49,620 |
| 1 | 22,854 | 1,068 | 8,932 | 21,786 | 10,022 | 12,832 | 44,230 |
| 2 | 20,672 | 971 | 7,961 | 19,701 | 9,063 | 11,610 | 39,255 |
| 3 | 18,649 | 882 | 7,079 | 17,767 | 8,173 | 10,476 | 34,667 |
| 4 | 16,773 | 802 | 6,277 | 15,971 | 7,347 | 9,426 | 30,441 |
| 5 | 15,033 | 729 | 5,547 | 14,304 | 6,580 | 8,454 | 26,553 |
| 6 | 13,420 | 663 | 4,884 | 12,757 | 5,868 | 7,552 | 22,984 |
| 7 | 11,925 | 603 | 4,282 | 11,322 | 5,208 | 6,717 | 19,715 |
| 8 | 10,538 | 548 | 3,734 | 9,990 | 4,595 | 5,942 | 16,730 |
| 9 | 9,252 | 498 | 3,235 | 8,753 | 4,027 | 5,225 | 14,015 |
| 10 | 8,059 | 453 | 2,783 | 7,606 | 3,499 | 4,560 | 11,557 |
| 11 | 6,953 | 412 | 2,371 | 6,542 | 3,009 | 3,944 | 9,346 |
| 12 | 5,928 | 374 | 1,997 | 5,554 | 2,555 | 3,373 | 7,375 |
| 13 | 4,977 | 340 | 1,656 | 4,637 | 2,133 | 2,844 | 5,637 |
| 14 | 4,095 | 309 | 1,347 | 3,786 | 1,742 | 2,354 | 4,129 |
| 15 | 3,278 | 281 | 1,066 | 2,997 | 1,378 | 1,899 | 2,849 |
| 16 | 2,520 | 256 | 810 | 2,264 | 1,041 | 1,478 | 1,798 |
| 17 | 1,817 | 232 | 578 | 1,584 | 729 | 1,088 | 980 |
| 18 | 1,165 | 211 | 367 | 954 | 439 | 726 | 401 |
| 19 | 560 | 192 | 175 | 368 | 169 | 391 | 70 |
| 20 | 0 | 175 | 0 | -175 | -80 | 80 | 0 |

- o Dividends are taxed at the full 40 percent personal tax rate and capital gains are subject to the 60 percent exclusion because they are long-term gains. Note that the capital gain earned in a given year is equal to the excess of retained earnings over economic depletion. (Retained cash from economic depletion leaves the value of the stock unchanged.) Further, the capital gain earned in any given year is not taxed until three years later when the stock is assumed to be traded.

The cash related to economic depletion is assumed to be retained by the firm, thus maintaining the stock price. It is also assumed that the new investment resulting from corporate retentions earns the same 11.1 percent posttax return to shareholders as the royalty property. Because this return equals the investor's discount rate, the individual is indifferent between receiving the invested capital now or in the future. For simplicity of this analysis, it is assumed the taxpayers receive their return of capital in accordance with the pattern of economic depletion, even though they would not, in fact, receive it until they sold their stock. This assumption does not affect the following analysis.

The cash flow accounts of the individual investors are shown in Table 2. Net corporate cash flow is split between retained earnings and dividends. As a percentage of corporate cash-flow, dividends decline from 29 percent in year one to 6 percent in year 20. The retained earnings (in excess of economic depletion) are taxed as capital gains three years after they have been accrued at a rate of 16 percent (40 percent tax rate times 40 percent capital gains inclusion.)²³ Dividends are taxed at 40 percent. The discounted cash flow of the stock shares is \$49,620--the same amount at which the firm valued the property. The personal discount rate (11.1 percent) is lower than the corporate rate (15 percent), because the personal income tax imposes a tax "wedge" between the discount rates of corporations and their shareholders.²⁴

Total personal taxes are the sum of capital gains taxes plus dividend taxes. After tax income is the sum of current capital gains and dividend income less total personal taxes. Total personal cash flow is the sum of after-tax income plus the hypothetical annual return of capital. For the personal investor, the cash flow of the property is of primary importance in making investment decisions.

²³ In Table 2, the capital gains tax in each year equals 16 percent of each year's gain, discounted by three years.

²⁴ The tax wedge of 3.9 percent reflects an effective personal tax (on dividends and capital gains) of 26 percent.

The last column of Table 2 totals all taxes related to the property, prior to formation of the trust, including both corporate and personal income taxes. The government is assumed to discount future tax payments at the same rate as individual shareholders—that is, 11.1 percent.²⁵ The total present value of taxes is \$52,630—\$44,649 in corporate taxes, \$6,180 in dividend taxes, and \$1,801 in capital gains taxes. The present value of the stock or property (\$49,620) is by definition equal to the difference between the present value of pretax net operating revenues (\$102,250) less the present value of taxes (\$52,630). This is the market valuation of the property by the stockholders prior to the distribution of the royalty trust.

The tax implications of the creation of the trust can be broken into two parts: the taxes paid related to the distribution, and the taxes paid on the ongoing royalty income of the trust. Although all tax effects are interrelated, for simplicity it is easier to analyze their separate effects. For purposes of this analysis, it is assumed that all production revenues remain the same as if the property continued to be held by the corporation.

The new market value of the trust units is determined by the discounted value of its new future cash flows as evaluated by private investors. (Table 3 sets out the income accounts of the new royalty trust.) The trust generates the same net operating revenues as before. The investors (still all individuals in the 40 percent tax bracket) are allowed cost depletion based on their tax basis in the units. Their tax basis initially equals the market value of the units. The investors' cash flow is net operating revenues less current taxes. In the trust, all operating revenues are distributed when earned; all taxes are based on current income and are levied at regular rates. The new market value of the trust units (and the property) is \$77,409; this is equal to the new present value (discounted at 11.1 percent) of the net cash flow of the trust.

The value of the property in the trust exceeds its initial value when held by the corporation by \$27,789 ($\$77,409 - 49,620$), an increase of 56 percent. This difference is entirely attributable to differences in taxes; the present value of total tax payments has been reduced by \$27,789. This amount consists of reduced corporate taxes (\$44,648 on a present value basis) and higher personal taxes of \$16,859 (new income taxes of \$24,840 less old dividend taxes of \$6,180 and old capital gains taxes of \$1,801). Thus, the trust vehicle allows the property to escape taxation at the corporate level, although this is offset in part by higher taxes at the

²⁵ The present value of the revenue loss or gain to the Treasury is sensitive to the interest rate used to discount cash flows. In general, a lower discount will result in a larger revenue loss (or a smaller revenue gain) than shown for this hypothetical trust.

TABLE 2. INCOME STATEMENT OF INDIVIDUAL INVESTORS IN CORPORATION A RELATED TO THE ROYALTY PROPERTY, UNDER THE BASE CASE (In dollars)

| Year | Net Corporate Cash Flow | Current Market Value | Economic Depletion | Annual Capital Gain | Dividend Income | Capital Gains Tax | Total Personal Dividend Tax | Total Personal Taxes | Personal Cash Flow | Total Taxes (Including Corporate) |
|----------------------------|-------------------------|----------------------|--------------------|---------------------|-----------------|-------------------|-----------------------------|----------------------|--------------------|-----------------------------------|
| 0 | | 49,620 | | | | | | | -49,620 | |
| 1 | 12,832 | 44,230 | 5,389 | 3,721 | 3,721 | 434 | 1,489 | 1,922 | 10,910 | 11,944 |
| 2 | 11,610 | 39,255 | 4,975 | 3,317 | 3,317 | 387 | 1,327 | 1,714 | 9,896 | 10,776 |
| 3 | 10,476 | 34,667 | 4,588 | 2,944 | 2,944 | 343 | 1,178 | 1,521 | 8,956 | 9,694 |
| 4 | 9,426 | 30,441 | 4,226 | 2,600 | 2,600 | 303 | 1,040 | 1,343 | 8,083 | 8,690 |
| 5 | 8,454 | 26,553 | 3,887 | 2,283 | 2,283 | 266 | 913 | 1,179 | 7,274 | 7,759 |
| 6 | 7,552 | 22,984 | 3,569 | 1,992 | 1,992 | 232 | 797 | 1,029 | 6,523 | 6,897 |
| 7 | 6,717 | 19,715 | 3,269 | 1,724 | 1,724 | 201 | 690 | 891 | 5,826 | 6,099 |
| 8 | 5,942 | 16,730 | 2,985 | 1,479 | 1,479 | 172 | 591 | 764 | 5,179 | 5,359 |
| 9 | 5,225 | 14,015 | 2,715 | 1,255 | 1,255 | 146 | 502 | 648 | 4,577 | 4,675 |
| 10 | 4,560 | 11,557 | 2,458 | 1,051 | 1,051 | 123 | 420 | 543 | 4,017 | 4,042 |
| 11 | 3,944 | 9,346 | 2,211 | 867 | 867 | 101 | 347 | 448 | 3,496 | 3,457 |
| 12 | 3,373 | 7,375 | 1,971 | 701 | 701 | 82 | 280 | 362 | 3,011 | 2,917 |
| 13 | 2,844 | 5,637 | 1,738 | 553 | 553 | 64 | 221 | 286 | 2,558 | 2,419 |
| 14 | 2,354 | 4,129 | 1,508 | 423 | 423 | 49 | 169 | 218 | 2,135 | 1,960 |
| 15 | 1,899 | 2,849 | 1,280 | 310 | 310 | 36 | 124 | 160 | 1,739 | 1,538 |
| 16 | 1,478 | 1,798 | 1,051 | 214 | 214 | 25 | 85 | 110 | 1,368 | 1,152 |
| 17 | 1,088 | 980 | 818 | 135 | 135 | 16 | 54 | 70 | 1,018 | 798 |
| 18 | 726 | 401 | 579 | 73 | 73 | 9 | 29 | 38 | 688 | 477 |
| 19 | 391 | 70 | 331 | 30 | 30 | 4 | 12 | 16 | 375 | 185 |
| 20 | 80 | 0 | 70 | 5 | 5 | 1 | 2 | 3 | 78 | -78 |
| Present Value ^a | --- | --- | --- | --- | --- | 1,801 | 6,180 | 7,980 | 49,620 | 52,630 |

a. Discounted at 11.1 percent.

TABLE 3. INCOME STATEMENT OF THE ROYALTY TRUST, UNDER THE BASE CASE (In dollars)

| Year | Net Operating Revenues | Cost Depletion | Tax Basis | Taxable Income | Tax | Cash Flow | Total Taxes | Change in Taxes ^a |
|----------------------------|------------------------|----------------|-----------|----------------|--------|-----------|-------------|------------------------------|
| 0 | | | 77,409 | | | | 11,116 | 11,116 |
| 1 | 22,854 | 8,266 | 69,143 | 14,588 | 5,835 | 17,019 | 5,835 | -6,109 |
| 2 | 20,672 | 7,514 | 61,629 | 13,158 | 5,263 | 15,409 | 5,263 | -5,513 |
| 3 | 18,649 | 6,831 | 54,797 | 11,818 | 4,727 | 13,922 | 4,727 | -4,966 |
| 4 | 16,773 | 6,210 | 48,587 | 10,563 | 4,225 | 12,548 | 4,225 | -4,465 |
| 5 | 15,033 | 5,646 | 42,942 | 9,388 | 3,755 | 11,278 | 3,755 | -4,004 |
| 6 | 13,430 | 5,132 | 37,809 | 8,288 | 3,315 | 10,105 | 3,315 | -3,582 |
| 7 | 11,925 | 4,666 | 33,143 | 7,259 | 2,904 | 9,021 | 2,904 | -3,195 |
| 8 | 10,538 | 4,242 | 28,902 | 6,296 | 2,518 | 8,019 | 2,518 | -2,841 |
| 9 | 9,252 | 3,856 | 25,045 | 5,396 | 2,158 | 7,093 | 2,158 | -2,517 |
| 10 | 8,059 | 3,506 | 21,540 | 4,554 | 1,821 | 6,238 | 1,821 | -2,220 |
| 11 | 6,953 | 3,187 | 18,353 | 3,766 | 1,507 | 5,447 | 1,507 | -1,950 |
| 12 | 5,928 | 2,897 | 15,456 | 3,031 | 1,212 | 4,716 | 1,212 | -1,704 |
| 13 | 4,977 | 2,634 | 12,822 | 2,343 | 937 | 4,040 | 937 | -1,481 |
| 14 | 4,095 | 2,394 | 10,428 | 1,701 | 680 | 3,425 | 680 | -1,280 |
| 15 | 3,278 | 2,177 | 8,251 | 1,101 | 440 | 2,837 | 440 | -1,098 |
| 16 | 2,520 | 1,979 | 6,272 | 541 | 216 | 2,303 | 216 | -935 |
| 17 | 1,817 | 1,799 | 4,474 | 18 | 7 | 1,810 | 7 | -791 |
| 18 | 1,165 | 1,635 | 2,838 | -470 | -188 | 1,353 | -188 | -665 |
| 19 | 560 | 1,487 | 1,352 | -926 | -370 | 931 | -370 | -555 |
| 20 | 0 | 1,352 | -0 | -1,352 | -541 | 541 | -541 | -463 |
| Present Value ^b | --- | --- | --- | --- | 24,840 | 77,409 | 35,955 | -16,674 |

a. Total taxes less total taxes from Table 2.

b. Discounted at 11.1 percent.

personal level. In terms of ongoing operations, the tax burden on the property has been reduced by \$27,789 in present value terms. This amount represents the direct loss to the U.S. Treasury in this hypothetical case.

The initial distribution of the trust units, however, also has significant tax consequences. The distribution is valued at its new market price (\$77,409) and is treated as a distribution of property. Assuming that the distributing firm has sufficient earnings and profits, the distribution is treated as a dividend and taxed at regular rates. For the investors, the distribution tax amounts to \$30,964 ($0.4 \times \$77,409$). The current investors in the corporation's stock, however, will suffer a capital loss on their holdings equal to the old value of the property. That is, their stock shares will go down in value by \$49,620 when the trust is distributed. Assuming these are short-term losses, they can be used to offset short-term gains (or ordinary income up to \$3,000).²⁶ Thus, the losses result in tax deductions worth \$19,848 ($0.4 \times \$49,620$) if the stock is sold after the distribution.²⁷ The net tax payments resulting from the distribution are the difference between the tax on the dividend amount and the short-term loss offset, or \$11,116 ($\$30,964 - 19,848$). If the stock had been held for more than one year, and the loss used to offset long-term gains, the loss offset would be only 40 percent of the short-term offset—\$7,939 in this case. The total tax related to the distribution would then be \$23,025 ($\$30,964 - 7,939$), instead of \$11,116. Both these effects are based on the assumption that the stock is not sold prior to the trust distribution.

In general, once formation of a trust has been publicly announced, the value of a firm's stock will change to reflect any appreciation that the trust vehicle induces. Once investors know a trust is to be formed, the price of a stock in the company will tend to reflect that fact. If stockholders sell their shares prior to the distribution, they will realize any capital gains associated with the trust's formation. Assume that the value of the firm's stock rises by \$27,789 ($\$77,409$ trust value less \$49,620 pretrust value) prior to the distribution. If stockholders sell their shares prior to distribution they will owe a tax of \$11,116 ($0.4 \times 27,789$) if the gain is short term, and \$4,446 ($0.16 \times 27,789$) if it is long term. New individual

²⁶ In addition, short-term losses can be carried over indefinitely.

²⁷ If the stock had been held for more than one year, the loss would be deducted as a long-term capital loss. To the extent that the individual had short-term gains, the long-term loss could be used to offset these gains just like a short-term loss. Long-term losses can also be used to offset long-term gains or ordinary income (but only 50 cents of ordinary income per dollar of loss), up to \$3,000. Like short-term losses, long-term losses can be carried over indefinitely.

shareholders will purchase shares prior to distribution at a price of \$77,409. Upon distribution of the trust, the new shareholders will be unaffected—that is, they will be taxed on dividends of \$77,409, but will also record a short-term capital loss of an equal amount. Thus, the two tax effects of the distribution are \$11,116 in the short-term case and \$4,446 in the long-term case.

Total Revenue Effects

The combined effect on Treasury revenues is the difference between the reduced taxes on the ongoing operations of the trust less the taxes payable upon the trust distribution. Table 4 summarizes the total effects on the Treasury in the four situations discussed above.

TABLE 4. TOTAL TAX EFFECT ON TREASURY REVENUES IN FOUR SITUATIONS UNDER THE BASE CASE a/

| Cases | Pre-Trust Taxes | Change in Tax Related to Ongoing Trust Operations | Tax on Distribution | Total Tax Effect | Total Effect As a Percent of Pretrust Taxes |
|---|-----------------|---|---------------------|------------------|---|
| Stock Not Traded Prior to Distribution | | | | | |
| Loss used to offset short-term gains | 52,630 | -27,789 | +11,116 | -16,673 | -32 |
| Loss used to offset long-term gains | 52,630 | -27,789 | +23,025 | -4,764 | -9 |
| Stock Traded Prior to Distribution | | | | | |
| Short-term gain recognized | 52,630 | -27,789 | +11,116 | -16,673 | -32 |
| Long-term gain recognized | 52,630 | -27,789 | +4,446 | -23,343 | -44 |

a. All amounts are present values discounted at 11.1 percent.

In all these situations, the formation of the trust reduces the taxes paid to the Treasury, but by varying amounts. These tax reductions are direct gains to the pretrust shareholders—that is, the shareholders as a group have their wealth increased by the present value of reduced federal tax payments, all else being equal. For example, when short-term gains and losses are realized, the net loss to the Treasury (in present value terms) is \$16,673; the net gain of the stockholders is the same amount.

SENSITIVITY ANALYSIS

In the base case, the present value of total tax receipts is reduced by \$16,673 from the formation of the royalty trust. (This assumes that the loss on distribution is used to offset short-term losses—the first line in Table 4.) In this section, the sensitivity of this result to the base case assumptions is examined. Four alternative cases are analyzed below to study the effect of modified assumptions on the present value of federal Treasury tax receipts.

Case 1—50 Percent of Shareholders are in the 50 Percent Bracket, 25 Percent in the 40 Percent Bracket, and the Remaining 25 Percent in the 30-Percent Bracket²⁸

All other base case assumptions are held constant. In addition, all taxpayers are considered to have short-term capital gains that can be reduced by capital losses upon distribution. The pretrust taxes are calculated at \$53,129, or \$499 more than in the base case. The posttrust taxes consist of \$26,393 from trust operations and \$11,811 from the initial distribution, yielding a total net present value of \$38,204. This exceeds the trust taxes in the base case by \$2,249. On net, the trust reduces the present value of federal receipts by \$14,925, or \$1,748 (\$14,925 - \$16,673) less than in the base case. The \$14,925 reduction in taxes is equal to 28 percent of pretrust collections.

Case 2—The Distributing Corporation Has No Earnings and Profits for Tax Purposes

This implies that the full amount of the distribution is treated as a return of capital and is not taxed as a dividend. The return of capital

²⁸ It is still assumed that the market value of the property is determined by the investor in the 40 percent tax bracket.

simultaneously reduces the shareholders' tax bases and the market value of their stocks by the same amount. Thus, no gain or loss is recognized as a result of the distribution (this assumes that each shareholder's tax basis in the stock is not reduced to below zero). Maintaining the other assumptions in the base case, the present value of taxes is reduced by \$27,789 (53 percent) from their pretrust level. This is the same reduction that is produced in the base case, except that the \$11,116 in taxes resulting from the distribution are not included.

Case 3—The Stock Is Held Completely by Other Corporations²⁹

The market value of the property is lower if held by corporations (which are assumed to be held ultimately by individuals in the 40 percent tax bracket), because of the taxes that must be paid on intercorporate dividends and intercorporate capital gains. In general, intercorporate dividends are subject to the 85 percent deduction, and thereby are effectively taxed at 6.9 percent ($0.46 \times (1 - 0.85)$). Long-term gains earned by corporations are taxed at 28 percent. In the pretrust case, it is assumed that 50 percent of the cash flow (in excess of economic depletion) is retained and the other 50 percent is paid out as dividends. This is assumed to apply to the corporation that owns the property, as well as to the corporations that hold stock in the controlling firm. In the pretrust scenario, the tax burden (in present value terms) is calculated in the following table.

²⁹ Again, the share prices of all firms are determined by individual stockholders in the 40 percent bracket.

| | Present Value of Taxes <u>a/</u> |
|---|-------------------------------------|
| Corporate Tax on Owning Corporation at 46 Percent | \$44,650 |
| Corporate Tax on Intercorporate Dividends at 6.9 Percent | 1,144 |
| Corporate Tax on Intercorporate Capital Gains at 28 Percent | 3,382 |
| Personal Tax on Dividends (Distributed by the Holding Corporations) at 40 Percent | 5,726 |
| Personal Tax on Capital Gains (Accrued within the Holding Corporations) at 16 Percent | <u>1,669</u> |
| Total taxes (pretrust) | \$56,571 |

a. All taxes discounted at 11.1 percent.

The total taxes in this scenario (pretrust) are \$3,941 higher than in the base case. The market value of the property is, therefore, \$3,941 less valuable to investors than in the base case.³⁰ The \$56,571 in total taxes is the reference point for determining the change in tax revenues from the creation of a royalty trust.

The distribution of the royalty trust to corporate shareholders eliminates the intercorporate tax liabilities shown above. Because of the carryover of the tax basis, the distributing firm's tax liabilities are simply transferred to the new corporate holders of the trust units. In fact in this case, the posttrust taxes from ongoing operations are the same as in the pretrust situation in the base case. That is, posttrust taxes (corporate and personal) from the ongoing trust operations are \$52,630. On net, the taxes

³⁰ Note that if intercorporate dividends on capital gains were not taxed, the pretrust taxes would be the same as in the base case.

from the ongoing operations of the royalty property are reduced by an amount (-\$3,941) that consists of reduced intercorporate taxes (-\$4,526) and increased personal taxes of \$585.

The distribution of the trust units, however, creates an offsetting tax increase. Since it is assumed that the distributing company has sufficient earnings and profits, the distribution is treated as a dividend by the recipient corporation. The amount of the dividend recognized is the old corporation's tax basis in the property because it is received by another corporation. Moreover, the dividend is subject to the 85 percent dividends-received deduction. The tax basis is assumed to be \$10,000 (as it is for all cases), and the tax due on the distribution is therefore \$690 (46 percent x \$10,000 x (1 - 0.85)). This reduces the tax loss from ongoing operations and leaves a total reduction in taxes of \$3,251 (\$3,941 - \$690), or 6 percent of pretrust tax revenues. The foregoing assumes that once the trust is distributed, it remains in the hands of the recipient firms.

As discussed in Section III, royalty trust distributions allow tax arbitrage opportunities by the shareholding corporations. Assume that a shareholding corporation purchased the stock of the distributing firm at the market price just prior to the distribution. In addition, assume that 16 days after the distribution the corporation sells both its stock in the firm, as well as its trust units. Because it would be well known that the trust was soon to be distributed, the price of the firm's stock just prior to the distribution would be bid up to its new expected value. The pre-distribution market value of the stock is assumed to be \$77,409—an amount equal to the value that individual taxpayers in the 40 percent tax bracket would place on the trust. The purchase of stock shares and their subsequent sale (along with the trust units) would result in a capital loss of \$77,409 on the stock shares, and a capital gain of \$67,409 (\$77,409 market value less carryover tax basis of \$10,000) on the trust units. Because of the carryover holding period, the capital gain would be taxed at the long-term rate (28 percent) if the property had been held by the distributing firm for more than one year. The short-term capital loss would be used to reduce taxes owed on other short-term gains at the regular tax rate of 46 percent. The purchasing firm would also be taxed on the dividend distribution, but would be eligible for the dividends-received deduction if the stock was held for more than 15 days. The tax effects of this transaction are shown in the following table.

| | <u>Tax Effect (on Purchasing Company)</u> |
|--|---|
| Tax Due on the Recognized Dividend (6.9 percent of \$10,000) | \$690 |
| Tax Due on the Long-Term Gain (28 percent of \$67,409) | \$18,875 |
| Tax Offset due to Short-Term Capital Loss (46 percent of \$77,409) | <u>-\$35,608</u> |
| Net tax effect | -\$16,043 |

The arbitraging corporation could reduce its taxes by \$16,043 even though the transaction is a break-even proposition on a cash basis—that is, the corporation bought stock worth \$77,409 one day and sold it for the same amount 16 days later.³¹ All other tax effects would be the same as in the base case in which the trust is directly distributed to individual taxpayers in the 40 percent tax bracket. Thus, the arbitrage profit is in excess of any other tax reduction that might occur as the result of the royalty trust.

Case 4—The Effective Corporate Tax Rate on the Distributing Firm is 20 Percent

The effective marginal tax rate on an oil and gas company may fall below 46 percent because of tax benefits, such as expensing of intangible drilling costs or accelerated depreciation. The lower the corporate tax currently being levied on royalty properties, the less attractive will be a royalty trust. In other words, the lower the federal corporate tax, the smaller is the advantage of escaping it. Assuming that the effective tax for an oil company is 20 percent, the pretrust market value of the property

³¹ The firm could further reduce the riskiness of this transaction by selling the trust units the day after distribution, instead of waiting fifteen days. This would, however, make the firm ineligible for the dividends-received deduction. The tax due on the dividend distribution would then be \$4,600 (0.46 x \$10,000), thereby reducing the pure arbitrage profit to \$12,134.

is \$71,398—higher by \$21,778 ($\$71,398 - \$49,620$) than in the base case, primarily because of lower corporate taxes. The total pretrust discounted taxes are \$30,854, or \$21,776 less than in the pretrust base case.

The taxes related to the ongoing trust operations (posttrust) remain the same as they were in the base case—that is, \$24,839. The tax effect upon distribution is also the same (\$11,116), resulting in total present discounted taxes of \$35,955. (Note that no variable has been changed that would affect the posttrust tax liabilities.) The posttrust market value of the property is \$77,409 (the same as in the base case), and the increase in the market value of the trust property is \$6,011 ($\$77,409 - \$71,398$) or 8.4 percent. This is a result of lower taxes of \$6,011 related to ongoing operations.

Such a trust, however, would not be attractive to shareholders of the corporation that forms the trust, since the decreased future taxes (\$6,011) would be more than offset by the tax upon distribution of the trust amounting to \$11,116, which occurs when taxpayers realize short-term gains and losses. This transaction would leave stockholders with a net loss in wealth of \$5,105, clearly not an advantageous prospect. This results from the fact that the increase in trust value would not be sufficient to cover the fixed dividend charge levied upon the trust's formation. Thus, even though the value of the trust rises, the current stockholders could be worse off.

On the other hand, if the distributing firm does not have earnings or profits for tax purposes (not an unlikely occurrence), the distribution would be considered an untaxed return of capital. In this case, shareholders would receive a positive change in wealth of \$6,011.³² This amount is again the present value of the Treasury revenue loss.

In this sensitivity case, the Treasury revenue loss is likely to be quite small (or possibly even a gain), if the distributing companies have low effective marginal corporate tax rates. In fact, this appears to be the case; the Joint Committee on Taxation (JCT) has estimated that in 1982 large petroleum corporations paid tax at an average rate of 18.2 percent.³³ Thus, companies that have low tax rates may not find it in their shareholders' interests to spin-off trusts.

³² This assumes that the return of capital does not reduce the shareholder's basis in the stock to below zero. If it does, the excess of the return over the current basis would be taxed as a capital gain.

³³ Joint Committee on Taxation, Study of Effective Tax Rates of Selected Large U.S. Corporations (November 14, 1983), p. 13.

Table 5 summarizes the results of this sensitivity analysis. Note that all figures refer to the net present discounted value of total tax payments. Annual tax losses or gains would be substantially lower, as indicated, for example, by Table 3.

TABLE 5. SENSITIVITY ANALYSIS OF THE CHANGE IN DISCOUNTED FEDERAL TAX RECEIPTS FROM A ROYALTY TRUST, USING FOUR ILLUSTRATIVE ALTERNATIVES (In dollars)

| Case ^a | Pretrust Taxes ^b | Posttrust Taxes ^b | Change ^b |
|--|-----------------------------|------------------------------|---------------------|
| Base Case | 52,630 | 35,956 | -16,673 |
| Case 1. Individual Investors in Different Tax Brackets | 53,129 | 38,204 | -14,925 |
| Case 2. Corporation Has No Earnings and Profits | 52,628 | 24,839 | -27,789 |
| Case 3. Shareholders All Corporate | 56,571 | 53,320 | -3,251 |
| Case 4. Corporate Tax Rate is 20 Percent | | | |
| The firm has earnings and profits | 30,854 | 35,955 | +5,101 |
| The firm does not have earnings and profits | 30,854 | 24,839 | -6,015 |

a. For further explanation of cases, see text.

b. All taxes are present values discounted at 11.1 percent.

SECTION V. CURRENT STATUS OF ROYALTY TRUSTS

CBO has identified eight publicly traded oil and gas royalty trusts that have been set up in recent years.³⁴ The aggregate market value of the trusts ranges between \$2 billion to \$3 billion, depending on stock market fluctuations.

The federal income tax implications for these trusts are likely to be fairly small, since the trusts as a group are not very large. For example, if it is assumed that the trusts generate income at a pretax level of 15 percent, on the basis of \$2.5 billion in assets, this would be an annual income stream of \$375 million. If this stream was now taxed in full at 40 percent, the current tax liability would be \$150 million. On the other hand, if the combined corporate and personal tax on the undistributed trust was 60 percent, for example, the old liability would have been \$225 million, resulting in an annual tax loss of \$75 million (\$225 million less \$150 million). If this level was maintained for ten years, and discounted at 10 percent, the discounted tax loss would be about \$460 million.

The tax loss would have to be balanced against the tax levied upon the distribution of the trust units. If 33 percent of the value of the distributions was taxable as dividends, the tax would be \$330 million on a basis of \$2.5 billion.³⁵ Thus, the net present value tax loss would be about \$130 million (\$460 million - \$330 million). On an annualized basis, this would amount to about \$20 million per year over ten years. Note that these are illustrative calculations and are based on assumptions that are subject to substantial error.

Although the above calculations suggest that the aggregate tax loss from existing royalty trusts may be rather small, it could be much larger if the major oil corporations created such trusts. For example, in their 1982

³⁴ The trusts are: Mesa Corporation's Mesa Royalty Trust and Mesa Offshore Trust; Southland Royalty's San Juan Basis Royalty Trust and Permian Basin Royalty Trust; Tenneco's Houston Oil Royalty Trust and Houston Oil Trust; Sabine Corporation's Sabine Royalty Trust; and Louisiana Land and Exploration Company's LL & E Royalty Trust. Another trust has been announced by the Freeport-McMoRan Corporation, but has not yet been distributed.

³⁵ Assuming dividend recipients were in the 40 percent tax bracket.

annual reports, Shell and Arco reported the present value of their domestic reserves (on a Securities and Exchange Commission standardized basis) at \$14.7 billion and \$12.5 billion, respectively. Two considerations, however, may weigh heavily against major corporations using the royalty trust vehicle. First, the older, established companies have significant earnings and profits and a trust distribution would probably be fully taxed as a dividend. Secondly, the average effective tax rate on oil corporations is probably low and therefore the advantage of escaping the corporate tax is small. As shown above, there may be a Treasury revenue gain if the corporate tax rate is low and the distribution is taxed in full. This is especially important because the trust vehicle results in full current taxation of the royalty income, unlike a corporation in which current income can be retained and subject to much lower capital gains rates when it is realized by shareholders.

PRODUCTION INCENTIVES

The royalty trust vehicle should not inhibit the production and/or the development of oil and gas resources. Although a trust would significantly reduce the distributing firm's future retained earnings, the total capital devoted to petroleum exploration and development might increase. This could happen if the posttax return in the industry increased (because of lower overall taxes) and investors chose to reinvest their trust earnings in oil and gas firms. Instead of raising capital from retained earnings, firms that formed trusts would have to place greater emphasis on the bond and stock markets for financing. As long as the posttax return in the energy industry remained competitive, royalty trusts should not impede the flow of capital to that sector.³⁶ Moreover, royalty trusts are not limited to the oil and gas industries, and could be extended to coal or other minerals. The same basic considerations that apply to royalty trusts for oil and gas would also apply in these other industries.

There has also been some concern that royalty trusts might affect federal revenues from federally leased lands. Although the royalty trust device could be used for properties under lease from the federal government, the revenue impact would be the same as with private properties. Federal royalty revenues should not be affected unless production from federal lands were to change. As long as the owner of the operating rights

³⁶ Royalty trusts might actually make capital markets operate more efficiently by removing the built-in incentive for firms to retain earnings. Thus, one result of oil royalty trusts could be to tilt investment decisions away from corporate managers and toward individual investors.

retained a significant interest in the royalty properties, the owner-operator would have an incentive to optimize production over time. Although royalty trusts themselves might affect federal tax revenues, the changes would be the same, whether the lands were held by federal or private owners, all else being equal. Thus, the concerns over royalty trusts are general and are not directly related to the status of the landowner.

CONCLUSION

Royalty trusts provide an opportunity for corporations and their shareholders to reduce their overall taxes on income from oil and gas properties. The creation of a royalty trust is strictly a paper transaction that entails a change in title and tax status of oil and gas interests. The spin-off trust is not economically productive—that is, it does not directly result in any additional oil and gas reserves or production. The overall tax reductions that occur because of the formation of a trust depend heavily on the interaction of several tax code provisions and the taxpaying status of the current corporate shareholders. Although the amount of tax revenues that could be lost through the formation of future trusts is uncertain, the revenue loss on current trusts is probably small. While it is possible that a trust could actually raise tax revenues, such an arrangement would be contrary to the best interests of the current shareholders and probably would not be undertaken. The potential for future oil royalty trusts is uncertain, but the existing trusts raise a number of tax policy issues that the Congress might want to consider in the future.

