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STATE AND LOCAL TAXATION OF THE BITUMINOUS COAL INDUSTRY

JAMES H. THOMPSON*

Few industries have presented more troublesome problems for legislators and tax administrators alike, over the years, than has bituminous coal. There are two principal reasons for this. One stems from the physical character of this resource. Lying hidden beneath the earth's surface, coal deposits not only represent an asset of uncertain worth, but also one the value of which will gradually decline as mining activity proceeds. Consequently, the task of making equitable assessments for property tax purposes would be a difficult one even for an experienced mining engineer, and sometimes may verge on the impossible for an untrained local assessor. The other reason is that although the coal industry is still the primary source of income, employment, and tax revenue in many predominantly coal-mining areas, it has been the "sick man" of American industry for more than a quarter century.

The purpose of this paper is to describe and analyze, from an economic standpoint, present methods of taxing this product and industry at the state and local levels. Although the analysis will encompass all major forms of taxation currently applied to the industry in the principal coal-producing states, special attention will be given to one particular state, West Virginia, and one revenue source, the property tax.

In order to provide the necessary background for this analysis, the discussion will begin with a brief review of the chief economic and other considerations affecting the taxation of this industry. Among these are the criteria of a good tax, the physical characteristics of coal deposits and coal production, the economic condition of the industry, and the policy objectives of taxing bodies. Next, the practices currently followed by state and local governments in the taxation of this industry will be discussed. In this part of the paper, the structure and administration of coal-industry taxation in the principal coal-mining states will be described, and the level of taxation of the industry in West Virginia will be compared with that found in each of the five adjoining states. Following this, the strengths and weaknesses of the three principal types of taxes presently applied to the industry (property

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taxes, production or severance taxes, and corporate net income taxes) will be discussed. Finally, some concluding comments will be made with regard to the taxation of this important but long-ailing industry in West Virginia.

I. Economic Considerations Governing the Taxation of Coal

Criteria of a Good Tax

Economic thinkers have grappled for centuries with the question of what characteristics a good tax or sound tax system should possess.¹ Among those most frequently cited by modern economists are productivity, equity, economy of administration, convenience, certainty, simplicity, acceptability, and neutrality. By productivity is meant the revenue-yielding capacity of a tax. No matter what other merits it may possess, a tax is of little value if it fails the productivity test. The equity principle implies that all taxpayers should be treated fairly and impartially, that those of equal taxing capacity should pay the same amount of taxes (horizontal equity) and that the tax bills of those of different taxing capacities should accurately reflect such differences (vertical equity). The concept of certainty means that the tax base, rates, deductions, exemptions, etc., should be specified clearly, so that the amount owed will be intelligible to both the taxpayer and tax administrator. Simplicity, convenience, and economy of administration are largely self-explanatory. As applied to the taxation of coal, a severance tax would meet these three criteria rather well, an ad valorem property tax rather poorly. The acceptability of a tax to taxpayers is important from the standpoint of compliance. Whatever its defects, the West Virginia Business and Occupation Tax seems to possess this attribute. Neutrality is a more complex concept and means that a good tax should interfere as little as possible with economic decision making. Ideally (in the jargon of the economist), resources should be allocated in exactly the same way with the tax as they would be in its absence.²

Obviously, no tax or tax system can meet all of these criteria perfectly. Taken as a group, however, they provide the best yard-

¹The most famous discussion of this topic by an early economist was Adam Smith's statement of the canons of taxation—equity, certainty, convenience, and economy. A. Smith, The Wealth of Nations (1776).

²In practice, all taxes distort the making of economic decisions to one degree or another. Supporters of the value-added tax claim that it comes closest of any tax to being completely neutral as to economic effects.
stick available for comparing the strengths and weaknesses of different taxes and tax systems. In addition to measuring up well with respect to this yardstick, a good tax should be capable of justification on the basis of either the ability-to-pay or the benefits-received principle of taxation. While the first principle is the more frequently cited, some tax economists believe the second to be the more appropriate basis for state and local taxes.³

Physical Characteristics Affecting Taxation

As suggested previously, coal-bearing lands possess characteristics which have made their evaluation for property tax purposes a notoriously inexact "science." Because the coal deposits lie beneath the earth's surface, the quantity and quality of coal contained in them cannot be known precisely, nor can all of the difficulties which may be encountered in mining operations be foreseen. Because the mining and marketing of the coal will not take place until some indefinite future time, further uncertainty is created with regard to many cost and price variables, and the need also arises for converting future values into present ones. Because the value of a tract of coal-bearing land declines as mining operations proceed, additional difficulties are created for both the assessor and taxing unit.

All of the complicating factors described above apply with special force to the taxation of mineral lands and mining enterprises by means of the property tax. Consequently, some students of public finance believe that this tax should either be modified considerably or else replaced by another form of taxation, where coal and other minerals are concerned.⁴ There is still considerable support for the continued application of the property tax to this type of property, however. Groves, for example, argues as follows:

[The ad valorem tax] is the clearest means of equating the tax burden on mines with that on other property. It provides the


⁴If state-local business taxation is to be justified on the basis of some generally accepted principle (other than expediency) and if ability to pay has little meaningful application in the field of state-local business taxation, then the benefit principle is the only appropriate one.

state and local governments more stable revenue than any other form of mine taxation, and it is less arbitrary than its rivals.  

The physical character of coal production has affected the level as well as the form of taxation. Because coal deposits constitute an irreplaceable natural resource, it is often contended that mining enterprises should bear a heavier tax burden than other forms of business activity, as a means of compensating society for depletion of the nation's social wealth. This line of reasoning, sometimes called the "natural heritage argument," is often used to justify a severance tax when imposed as an additional—as opposed to an in lieu—levy on extractive industries. It seems pertinent to mention at this point the inconsistency of penalizing extractive industries at one level of government for the depletion of natural resources, while rewarding them at another governmental level for the same acts. (The reference, of course, is to federal depletion allowances).

Finally, the fact that mining enterprises are essentially immobile (as compared to most manufacturing establishments) possesses special significance from the standpoint of taxation. This characteristic renders mining firms more vulnerable than most other forms of business activity to excessive, arbitrary, or otherwise inequitable taxation.

Economic Condition of the Industry

No less significant to the tax planner than the physical character of the coal industry is its economic condition. As mentioned earlier, coal has been a seriously depressed industry for a generation or more. The peak year for bituminous coal production in both the United States and West Virginia was 1947, when 631 million tons were produced nationally and 174 million tons in this State. In the same year, coal mining employment averaged 419,182 in the United States and 116,421 in West Virginia. Despite occasional upward spurts, the trend of both production and employment in

\[\text{H. Groves, Financing Government 347 (1965).}\]
\[\text{McGeorge, Approaches to State Taxation of the Mining Industry, 10 Nat. Res. J. 156, 168 (1970).}\]
\[\text{2 BUREAU OF MINES, U.S. DEP'T OF INTERIOR, MINERALS YEARBOOK 50-51 (1965).}\]
\[\text{W. VA. DEP'T OF MINES, ANNUAL REPORT 10 (1972).}\]
\[\text{2 BUREAU OF MINES, supra note 7. United States' coal mine employment used in these comparisons are for average monthly employment.}\]
\[\text{W. VA. DEP'T OF MINES, supra note 8. State employment data used in these comparisons are for average number of men working daily.}\]
the industry was strongly downward for more than a decade thereafter. By 1960, the total annual tonnage produced by the national industry had fallen to 416 million tons, with total employment declining even more precipitously—to 169,400.11 The story was much the same in West Virginia. By 1961, the total coal production in this State has declined to a twenty-three year low of 111 million tons, while coal mining employment has plummeted to a modern low of 42,557.12

The major factors in the sharp decline in coal production and employment during the late forties and the fifties were:

1. [T]he replacement of steam by diesel locomotives, resulting in the loss by coal of virtually the entire railroad fuel market;
2. the loss of the greater part of the retail (space-heating) market to natural gas and fuel oil;
3. a declining market share in the one expanding domestic market—electric power generation.

An encouraging revival took place in both the national and State coal industries during the decade of the sixties. By 1970, total production in the United States industry stood at 603 million tons (up forty-five percent from 1960) and total employment at 140,140 (down seventeen percent).13 Meanwhile, in the West Virginia segment, production recovered to 143 million tons (a gain of nineteen percent during the period), but employment continued to slide downward, reaching 45,261 (a loss of five percent).14 The diverging trends of production and employment during this decade reflected two factors—rapid mechanization and an increasing proportion of surface mining.

The principal cause of the improved performance of the coal industry during the 1960's was the extremely rapid growth in the demand for electric power. Although coal's percentage share of this market continued to decline, its overall growth was strong enough to produce a substantial increase in the total tonnage of coal consumed.

Both the national and State coal industries turned downward again in the early seventies, but with the decline in the State

112 Bureau of Mines, supra note 7.
113 W. Va. Dep't of Mines, supra note 8.
115 W. Va. Dep't of Mines, supra note 8.
industry being much more severe. By 1972, the national coal output stood at 595 million tons (down 1.3 percent from 1970), but employment, surprisingly, had increased about six percent, to 149,265. Also in 1972, the West Virginia coal production total was 123 million tons and the coal employment total, 48,190. The first figure represented a decrease of fourteen percent and the second an increase of six percent, as compared to 1970.

Both the State and national industries were adversely affected during this recent period by new, stricter legislation in two critical areas—air pollution control and miners’ health and safety. The comparatively weaker performance of the State industry in this period chiefly reflected two adverse factors—the large proportion of high-sulfur coal produced in West Virginia and the very high percentage of the State production which comes from underground mines. One indication of the weakening competitive position of the State industry is found in recent trends in productivity. Between 1965 and 1972, output per man-day in coal mining decreased from 15.90 tons to 12.55 tons in the State while increasing from 17.52 tons to 17.74 tons in the nation. In other leading coal mining states, the number of tons produced per man-day in 1972 were 33.75 in Indiana, 24.39 in Illinois, 22.59 in Ohio, 21.26 in Kentucky, 12.82 in Pennsylvania, and 12.62 in Virginia. Like West Virginia, the last two states depend largely on underground mining.

Compensating to some extent for the low productivity of the West Virginia industry is the high quality of the coal produced in this State. In 1972, the average value per ton of West Virginia coal at the mine was $10.31, highest of any major coal mining state. The United States average for the same year was only $7.66.

As shown by the preceding analysis, the coming of the energy crisis found both coal production and coal mining employment at substantially lower levels than those attained immediately following World War II. Over the entire twenty-five year period, 1947-72, an era of unprecedented economic growth and upward-spiraling demand for energy, coal production decreased five percent in the nation as a whole and thirty percent in West Virginia, while much greater declines occurred in mining employment.

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5. Id.
Despite the many setbacks suffered by this industry in the postwar period, the energy crisis and subsequent indications of a significant change in federal policies with regard to coal have done much to rekindle hopes for a more prosperous future. As recently stated in the Wall Street Journal, 800 billion tons of coal constitute "what many believe to be the best, perhaps the only, answer to the nation's energy crisis."

Among recent favorable developments at the federal level have been the removal of price controls on long-term coal purchase contracts, passage by the Senate of legislation temporarily relaxing national air quality standards, the granting of authority to the President to require many electric power plants now burning oil or natural gas to convert to coal, and the formulation of a large-scale, long-range national energy program which, among other things, would substantially increase the funds available for coal research. The coal industry, in short, has suffered through a miserable past but at the moment has high hopes for a prosperous future.

Policy Objectives

The policy objectives sought by governmental units in the taxation of coal lands and mining enterprises represent still another factor which needs to be taken into account in evaluating alternative methods of taxing the coal industry. Policy goals will necessarily differ to some extent from one governmental unit and time period to another. However, one student of mineral taxation has summarized the principal ones as "raising public revenue, imposing equitable tax burdens, maintaining high levels of employment, providing for economic development and public security, and conserving valuable natural resources." Most of these objectives would be equally applicable to other forms of business taxation. The conservation objective, on the other hand, possesses special significance for mineral industries. For example, there is considerable support for the argument that the type of tax levied on mining enterprises can be instrumental in determining both the rate of extraction and the percentage of the original deposit that

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21Id.
23Id.
25McGeorge, supra note 6, at 167.
will be recovered in a mining operation. Generally speaking, a tax which acts in the direction of retarding the rate of extraction, and which does not encourage wasteful mining practices, will get high marks from the conservationist standpoint.

II. Present Status of Coal Industry Taxation

Substantial differences exist among the major coal-producing states as to both the type and level of taxation placed upon this industry. Each of these aspects will be covered in the empirical analysis which follows. This analysis will consist of two parts. In the first, descriptions will be provided of the salient features of coal industry taxation in each of the ten most important coal-producing states. In the second, tax-level comparisons will be made for the coal industry between West Virginia and the five adjoining states. This second step will be accomplished by comparing the tax bill (total and for specific major taxes) that a representative coal mining corporation would have paid in 1973 in each of these states.

The hypothetical model corporation used in this part of the analysis is one the characteristics of which were developed several years ago by Stanley J. Kloc of the West Virginia University Bureau of Business Research. The balance sheet and income statement figures for this model firm were originally calculated by dividing 1965 totals for all active corporations in the industry (as reported in United States Department of the Treasury, Statistics of Income—1965, Corporation Tax Returns) by the total number of returns from firms in the industry. The resultant figures were then compared with actual data for individual coal mining companies to determine whether or not the model firm was realistic in size. Because these comparisons showed the figures obtained by the averaging procedure to be unrealistically small, these were adjusted proportionately upward to levels more representative of major coal mining firms operating in West Virginia.

In order to make the simulation as realistic as possible, the mining operation was assumed to take place in a specific county
and taxing district of each state. The mining firm was further assumed to be a branch operation of an out-of-state corporation, this being the most likely case in West Virginia. The rule-of-thumb used in allocating most balance sheet and income statement data between in-state and out-of-state operations was to assume a fifty-fifty split. In cases where a more detailed breakdown of an item was needed (e.g., in dividing Depreciable Assets into Buildings and Equipment) typical figures from Moody’s Industrial Manual were used as a guide.\textsuperscript{28}

The financial characteristics finally developed by Kloc described a mining company of greater than average size, but which could be considered reasonably representative of the large firms which annually account for the bulk of bituminous coal production. To conserve space, the balance sheet and income statement data will not be shown in full. However, some selected figures may be of interest. The company was assumed to have total assets of $129.0 million, net depreciable assets of $51.5 million, net depletable assets of $12.5 million, and an owners’ equity of $77.2 million. Total business receipts were estimated as $121.0 million, net income as $4.7 million, and federal taxable income as $3.7 million.\textsuperscript{29} The company was, therefore, considerably smaller than either Consolidated or Peabody, but about the same size as Island Creek. It was not patterned after any of these firms, however, and would be expected to differ substantially from any of them in tax liability.

To the model coal corporation data developed by Kloc, the author applied current tax data obtained primarily from the state tax reports published by Commerce Clearing House. This source was supplemented by returns from a questionnaire sent to state tax departments in the principal coal mining states. In addition, current property tax rates and assessment ratios were obtained by telephone from local assessment personnel in the selected counties and states. The results of this two-part analysis are shown below, beginning with the state-by-state summaries.

(1) \textit{West Virginia}\textsuperscript{30} (1972 production: 123.7 million tons)

By far the most important single tax levied on the coal industry in this State is the \textit{business and occupation tax}, better known

\textsuperscript{28}Id.
\textsuperscript{29}Based on working papers furnished by Stanley J. Kloc.
\textsuperscript{30}Except as noted, tax data in the following description are from CCH \textit{STATE TAX REP.}, W. VA. (1973).
to many West Virginians as the gross sales tax. This much-criticized but very productive tax is levied on nearly all forms of business activity but at widely varying rates, ranging from 0.27 percent on wholesalers to 8.63 percent on natural gas. The rate for coal production is now 3.5 percent, having been increased from 1.35 percent in 1971. By way of comparison, the rate applicable to manufacturing is 0.88 percent (a rate which, incidentally, many manufacturers look upon as excessive). The rate for coal is applied to a base described in the statutes as "value of the articles produced, as shown by the gross proceeds derived from the sale thereof by the producer." 31 Aside from the fact that it is a general, rather than a special, tax, the business and occupation tax does not differ essentially from a value-base severance tax in its impact on the coal industry.

West Virginia also levies a six percent corporate net income tax, but allows the business and occupation tax paid by a firm to be credited against its income tax liability. As a result, few firms in the coal industry pay any State corporate income tax in West Virginia. There is also a low, graduated-charge, corporation franchise tax, ranging from $20 for $5,000 or less capital stock to $2,500 on $15,000,000 or more for domestic corporations. The charges for foreign corporations are seventy-five percent higher, with a $250 minimum.

West Virginia has the reputation of having low property taxes, primarily because of the rigid overall rate limits established by the Tax Limitation Amendment of 1933. Under this amendment, the rate ceilings per $100 assessed valuation are set at $0.50 for Class I property (chiefly intangible personality); $1.00 for Class II (residential and farm real estate); $1.50 for Class III (all real and personal property, not in Classes I and II, situated outside municipalities); and $2.00 for Class IV (all real and personal property, not in Classes I and II, situated within municipalities). 32 Upon approval by sixty percent of those voting in local referendum, taxing units in the State are permitted to make excess levies, thereby increasing the rate ceilings for particular districts by up to fifty percent. 33

The tax-lowering effects of rigid rate limitation are partially offset in this State by higher-than-average assessment ratios. In McDowell County, the assumed West Virginia location used in the

33 Id.
model corporation analysis to be described later, the average assessment ratio is currently 60.43 percent of appraised value. Nevertheless, the results of the model corporation study suggest that the level of property taxation for the coal industry is substantially lower here than in two of the five surrounding states (Ohio and Maryland), slightly lower than in two others (Kentucky and Pennsylvania), and only higher than in one (Virginia).

(2) Kentucky\(^{(2)}\) (1972 production: 121.2 million tons)

In 1972, Kentucky enacted a four percent severance tax, the highest tax of this type levied by any major coal-producing state. Imposed like most such taxes as an additional tax, it has had the effect of converting Kentucky from a low-tax to a high-tax state—quite possibly the very highest—insofar as the coal industry is concerned.

Kentucky also levies a two-stage tax on corporate net income—four percent for the first $25,000 of taxable net income allocated to the State and 5.8 percent on that portion over $25,000. A firm is permitted to exclude fifty percent of the gross income derived from coal if it does not claim percentage depletion.

The most widely publicized fact about the property tax as administered in Kentucky is that assessment at "100 percent of fair cash value" has been required since 1966 as a result of a court ruling.\(^{(3)}\) This actually may mean something less than one hundred percent in practice; in the county studied (Pulaski) the actual ratio was estimated to be eighty-five percent.\(^{(4)}\) Nevertheless, this still constitutes an unusually high assessment ratio. An equally important but less known aspect about property taxation in Kentucky is that the rates tend to be quite low. For example, the Pulaski County location had a much lower total rate for real property than any of the other five locations used for tax-comparison purposes. As a result, the level of property taxation for the coal industry in Kentucky does not appear to be as high as in some of the other states adjoining West Virginia.\(^{(5)}\) A well designed method for the

\(^{(2)}\) See Appendix II.


\(^{(4)}\) Except as noted, the tax data in the following description are from CCH State Tax Rep., Ky. (1973).

\(^{(5)}\) Russman v. Luckett, 398 S.W.2d 694 (Ky. 1965).
assessment of coal-bearing lands, including most of the requisites suggested by authorities on mineral taxation, is used by several major coal mining counties in eastern Kentucky.29

Kentucky has a moderately heavy corporation franchise tax amounting to seventy cents on each thousand dollars of capital stock employed in a business, as allocated to Kentucky. Even so, this tax represented less than two percent of the model corporation’s total tax bill for that State.

(3) Pennsylvania30 (1972 production: 75.9 million tons)

The level of business taxation is more closely related to profitability in Pennsylvania than in any other major coal-producing state. This is true because the principal business tax in that state is an eleven percent corporate net income tax, the highest tax of this type levied by any important coal-producing state. Because the hypothetical mining firm used in the tax-comparison study earned only a moderate profit (about six percent net return on the owners’ equity), Pennsylvania emerged from this study as having the next-to-lowest level of coal industry taxation among West Virginia and contiguous states. Should the profitability of coal mining enterprises improve markedly in the future, Pennsylvania’s rank in this regard would undoubtedly change.

A second factor contributing to Pennsylvania’s apparently low current level of coal industry taxation is the fact that all industrial equipment, including movable mining machinery, is exempted from property taxation. This factor, plus a relatively low assessment ratio (forty percent) in the county studied,31 resulted in a low property tax liability for the model corporation (this despite the imposition of a rather high total rate on real property). Some qualification of this low property tax finding may be needed, however, in generalizing with regard to the Pennsylvania coal industry. According to information received from the State Department of Environmental Resources, the level of taxation for this industry varies a great deal from one county to another.32

29Letter from John M. Ross, Comm’r, Ky. Dep’t of Rev., to James H. Thompson, Jan. 18, 1974.
30Except as noted, tax data in the following description are from CCH State Tax Rep., Pa (1973).
31Based on information obtained by telephone from the County Assessor’s Office, Washington County, Pa.
32Based on information from questionnaire completed by Eugene Friend, Chief of the Mineral Section, Pa. Dep’t of Environmental Resources.
Assessment of coal lands is strictly a county function in Pennsylvania, apparently carried out with little or no supervision from the state level. As a result, there is little uniformity in methods of evaluation. Some counties have developed assessment formulas for coal mining properties, and where such a formula exists its use is mandatory within the particular county.  

While Pennsylvania levies a franchise tax, this does not represent a significant factor in the overall level of coal industry taxation.  

(4) Illinois\(^4\) (1972 production: 65.5 million tons)  

The principal taxes imposed on the coal industry in Illinois are a four percent corporate income tax and a property tax. Two facts concerning the latter appear significant. One is that a seventy-five cent (per hundred dollars assessed value) rate limit is placed on the county tax except by vote of the people. The other is that the State Tax Department has been ordered to raise all assessments to full value after determining county equalization factors.  

The Illinois Department of Local Government Affairs has devised a simple assessment formula for coal-bearing lands ("tons of coal per foot acre, times depth of coal vein. This times value less expense"). However, its use by local assessors is not mandatory.  

Coal mining firms operating in Illinois are also subject to initial and annual franchise taxes. All in all, however, the level of coal industry taxation in this State appears to be lower than in many other states.  

(5) Ohio\(^5\) (1972 production: 51.0 million tons)  

If the model corporation is, as intended, broadly representative of the industry, the property tax still constitutes the largest single tax paid by coal mining firms, in Ohio, despite the existence of a substantial franchise/income tax and the recent addition of a severance tax. Ohio has a relatively broad based property tax, the coverage of which includes machinery and equipment (after instal-
lution), together with other tangible and intangible property used in business.

Real property is assessed at the county level. No assessment formula is provided by the State, but broad guidelines for the assessment of coal mining properties are laid down by the State Board of Tax Appeals. A 1965 law provides for assessment at fifty percent of "true value in money." However, the actual assessment ratio in the county studied was estimated to be forty percent. Ohio has a constitutional tax rate limitation of ten mills, with provision for special levies when authorized by a majority vote in the taxing district. That this limit is not unduly rigid is suggested by the fact that the total rate for the site selected for comparative purposes was $39.90 per thousand dollars assessed valuation. Among the six states covered by the analysis, Ohio was found to have the second highest property tax.

The second largest tax now paid in Ohio by coal-producing firms of typical characteristics is the four cents per ton severance tax which took effect in 1972. Although it constituted about one-third of all state and local taxes paid in this State by our model firm, this still represented a comparatively low severance tax. Assuming an average value for coal of $10.00 per ton at the mine, which is a low figure for today's market, this tax would be equivalent to a levy of only four mills on a value base.

A third major tax paid by Ohio coal producers is the hybrid franchise/income tax. Under this somewhat unique tax, a corporation pays the higher of (a) a net income tax equal to four percent of the first $25,000 of net taxable income and eight percent of that over $25,000; or (b) a five mill levy on its issued and outstanding shares of stock. In either case, an allocation formula is used to determine the Ohio portion.

(6) Virginia (1972 production: 34 million tons)

If the results of the model corporation study are used as a yardstick, the state and local tax burden on the coal industry in Virginia is the lightest to be found in any state bordering West Virginia. The two principal taxes levied on the industry in Virginia are the property tax and a six percent (increased from five percent

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*Ohio Bd. of Tax Appeals, Valuation of Land (1973).

*Except as noted, tax data in the following description are from CCH State Tax Rep., Va. (1973).
in 1972) corporate net income tax. The former can be described as a very low tax of its type; the latter as falling in the middle range of state income taxes.

In the case of the property tax, the key to the well below average level of taxation is found in the very low assessment ratios which exist in the coal mining counties of southwestern Virginia. For example, the average ratio for Wise County (the location selected for model corporation analysis) is currently estimated to be about ten percent of market value. In view of the resulting small base, it is not surprising that the model firm's property tax bill was extremely low for Virginia, despite a moderately high ($55.00 per thousand) rate at that location.

An unusual feature of coal industry taxation in Virginia is that counties are permitted to levy local severance taxes not to exceed one-half of one percent of gross receipts in lieu of the property tax on improved mineral lands.

(7) Indiana (1972 production: 25.9 million tons)

Although no model firm calculations were made for Indiana, examination of the State's tax structure suggests that it ranks as one of the higher tax states for coal mining enterprises. In 1973, coal mining corporations operating in that State paid the higher of (a) a three percent adjusted gross income tax or (b) a very broad based two percent gross income tax. The latter tax, comparable in some respects to the West Virginia business and occupation tax, is being gradually phased out, with the rate being reduced five percent each year beginning in 1974. Regardless of which of these taxes is paid, the firm also must pay the two percent supplemental corporate net income tax which took effect on January 1, 1973.

The amount of information obtainable on the Indiana property tax was limited. Nevertheless, the state-recommended assessment ratio of 33 1/3 percent for real and personal property seems indicative of a lower than average assessment ratio. The rate on intangibles is fixed by a 1933 law at five cents on each twenty dollars valuation. Indiana has a severance tax, but this is not applicable to coal.

Based on information obtained by telephone from the County Assessor's Office, Wise County, Va.
Id.
Tax data in the following description are from CCH STATE TAX REP., IND. (1973).
(8) Alabama\textsuperscript{22} (1972 production: 20.8 million tons)

In all likelihood, the highest tax that a firm such as the hypothetical one would pay in Alabama is the 13.5 cents per ton severance tax. At an assumed value of ten dollars per ton, this would be equivalent to a 1.35 percent tax on value of production. The State also levies a five percent tax on corporate net income and a franchise tax of three dollars per thousand dollars of the "actual amount of capital employed in the state."

Like West Virginia, Alabama has a classified property tax. In this case, however, the classifications relate to assessment ratios, rather than tax rates. Along with other business property, coal property falls in the middle category, for which the assessment ratio is specified as twenty-five percent of "fair and reasonable" value. There is also a rate limitation of 1.5 percent, suggesting that a representative mining firm's property tax bill would be lower in Alabama than in other major coal-producing states.

(9) Tennessee\textsuperscript{23} (1972 production: 11.3 million tons)

Like the neighboring states of Kentucky and Alabama, Tennessee imposes a severance tax on coal production. In this case, the rate is set at 1.5 percent of market value, but not to exceed ten cents per ton. "Market value" is based on findings of the Federal Bureau of Mines.

A second major state tax paid by coal mining corporations in Tennessee is the six percent corporate excise (income) tax. Depletion is allowed as a deduction under this tax. A franchise tax of fifteen cents per hundred dollars of issued and outstanding stock, surplus, and undivided profits is also levied at the state level.

Tennessee's general property tax is broad based, covering all "real, personal, or mixed" property. In 1973 and thereafter, assessment is to be at not less than fifty percent of "value as defined by law."

(10) Wyoming\textsuperscript{24} (1972 production: 10.9 million tons)

Wyoming ranks only tenth among the states in coal produc-
tion, but if innovativeness in taxation of mineral industries were the criterion, it would undoubtedly stand much higher on the list. For example, this is the only major coal-producing state to levy a severance tax on an "in lieu" basis, rather than as an additional tax. Coal-bearing lands are not subject to assessment as such, but are assessed as other lands for the surface value. In addition, the "40-acre subdivision on which coal production is being had" is entirely exempted from taxation. In lieu of the conventional taxation of coal deposits on the basis of their assessed value, the State levies a one percent severance tax upon the value of coal produced and local ad valorem tax rates are applied to this same base. Machinery and equipment above ground continue to be assessed locally for property tax purposes, but mining equipment in underground mines is exempted. No other major tax is applied to the coal industry in Wyoming.

Level of Coal Industry Taxation

The second half of this analysis of the current status of coal industry taxation consists of an attempt to compare the level of taxation placed on this industry in West Virginia and adjacent states. As already noted, the method used was to assume that a hypothetical coal-mining corporation was situated, in turn, at a specific location in each of these states. The tax rates and other data applied to the model firm were those applicable to the calendar year 1973.

The results of this part of the analysis are summarized in Appendices I and II. The first shows the estimated tax bills that the model corporation would have had to pay in 1973 in each of these states. In addition to the grand total for four major taxes, subtotals are shown for property, corporate income or business and occupation, severance, and franchise taxes. The results indicate that insofar as the coal industry is concerned, West Virginia ranks as the second highest tax state of the group. It suggests further that, overall, Kentucky and West Virginia stand in a class by themselves as to the level of taxation placed on this industry. The high rank of West Virginia in this regard is chargeable almost entirely to the heavy burden imposed by the business and occupa-

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26Id.
tion tax. The level of property taxation on the industry was found to be second lowest among this group of states.

Appendix II further emphasizes the comparatively high level of coal industry taxation in this State, and also shows the extent to which the model corporation's tax bill would have changed in each state during the period 1968-73. As this appendix shows, the model corporation's 1973 tax bill for a West Virginia location was about one-fifth lower than that which it would have incurred in Kentucky, but more than three times as great as it would have had to pay in Ohio or Maryland, and five to six times as large as it would have faced in Pennsylvania and Virginia. The appendix shows further that the spread between the highest and lowest tax states increased considerably between 1968 and 1973. Finally, it shows that, contrary to the overall trend, the level of property taxation changed only slightly in West Virginia over this period.

The preceding analysis has demonstrated that the principal state and local taxes levied on the coal industry at this time are the property tax, franchise or production taxes, and corporate net income taxes. In the next section, the advantages and disadvantages of each of these taxes will be examined.

III. METHODS OF MINERAL TAXATION

A. Evaluation of the Property Tax

Probably no tax has been so roundly criticized through the years as the property tax. In 1895, E.R.A. Seligman, a leading American economist of the day, made the following emphatic, though scarcely diplomatic, judgment: "The general property tax, as actually administered, is beyond all doubt one of the worst taxes known in the civilized world."57 Three quarters of a century later, the tax remains by far the most important source of local revenue in this country, yet continues to be the target of frequent attacks from economists, politicians and the general public alike. Several years ago, a nationwide opinion poll conducted among a representative cross-section of taxpayers found it to be the most unpopular of all major revenue sources.58

A great deal has been written about the advantages and disadvantages of the property tax. Much of this debate, however, has

been concerned largely with the application of this tax to residential property. In the discussion which follows, only those aspects will be considered which appear relevant to the taxation of the coal industry.

Advantages

Why does this unpopular tax continue as the principal revenue source for local governments in the United States? There are two principal reasons. One is that it is highly productive. School districts, county governments, and townships receive virtually all their tax revenue and three-fourths or more of all their locally raised funds from this source. The other major reason for its widespread use is that it is better adapted to the limited territorial jurisdictions of small units of local government than any other tax which can be made to yield as much revenue. At the local level, a sales tax invites avoidance and distorts business patterns, while an income tax presents some very sticky administrative problems. The property tax, on the other hand, can be administered with relative ease, is amenable to small rate changes, and permits local autonomy in fiscal operations.

When viewed through the eyes of the tax administrator, the property tax possesses other merits as well. One that is somewhat controversial, yet highly valued at the local level, is stability of yield. Because the tax does not fluctuate to any great extent with cyclical swings in business activity, it provides a revenue floor for local governments during recession periods.

Another advantage is that it provides a means of taxing people with large wealth accumulations who may not incur sizeable tax liabilities under sales and income taxes. In this connection, it can also be said to enable governments to capture part of the "unearned" social gains accruing to persons or corporations holding coal lands or other property speculatively during periods of rising land values.

Finally, the tax is regarded by governments as a means of charging property owners for services related to their owning property. This last advantage is a rather dubious one in the case of

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5D. Netzer, Economics of the Property Tax 9 (1966).
6DeCoster & Kiefer, supra note 57, at 16.
7Id.
8Id.
9Id.
business taxpayers, who receive little direct benefit from many of the services provided by local governments.

It may be worth noting that all of the advantages described above relate to governmental units, while most of the disadvantages of this tax relate to taxpayers, mining companies included. This is not to say that the tax is utterly lacking in benefits to business (and other) taxpayers. No doubt many of them would prefer it to possible alternatives, for it possesses the homely virtue of familiarity, is probably easier to shift than a net income tax, and is less subject than some other state and local taxes to sudden, drastic rate increases. A case in point is the 1971 increase in the West Virginia Business and Occupation Tax rate on coal production from 1.35 percent to 3.5 percent.

Disadvantages

Many coal operators would regard the unpopularity of the property tax as well earned, for it possesses some serious shortcomings as it relates to the coal industry. The most serious of these concerns the inequities resulting from uncertain, inadequate assessment. The special problems inherent in the assessment of mineral-bearing lands have given rise to attempts at corrective action in some states. Among these have been the assessment of mineral-bearing lands at the state level; the development of special assessment formulas; modification of the property tax base with respect to this type of property; and even the replacement of the property tax on mining property with a severance tax, as was done in Wyoming. These reform efforts have been much more common in the case of metallic minerals than in that of coal. In all but a few states, coal property continues to be treated much as other business property is treated under the tax, with the important step of assessment being handled locally and, for the most part, unscientifically. Even in states where assessment formulas exist, they are usually not mandatory, and, hence, are not uniformly applied at the local level.

A second disadvantage of the property tax, as applied to mineral industries, is that it may provide an incentive for accelerating the rate of removal. This criticism assumes that the operator will attempt to "mine out from under" the property tax. If a mine is operated at a high percentage of capacity, the tax per unit of output will be low; while if it is operated at a low percentage of capacity, the tax per unit of output will be high. Hence, the tax,
considered alone, would seem to favor early and rapid removal.\textsuperscript{64} It seems quite possible that this supposed defect may have been overemphasized by tax commentators. Other factors usually are much more important than taxation in determining the rate of mining activity. Even if some tendency in this direction is acknowledged, property taxation is not necessarily the least desirable form from a conservationist viewpoint. Unlike a tonnage based severance tax, for example, it does not provide any incentive for "skimming" the richer deposits.

A third disadvantage of the property tax, as viewed by mining (or other business) firms, is that both rates and assessment levels may vary considerably, not only from one state to another but also among different localities within a state. As a result, companies competing in the same markets may bear substantially different property tax burdens. Two points require mention with regard to this criticism. One is that the combination of comparatively rigid rate ceilings (which makes for rates uniformly set at or near the limits) and the continuing reappraisal program renders the intra-state differential problem less serious here than in many states. The second is that other forms of taxation have contributed much more to the large interstate tax-level differentials which exist today than has the property tax.

A fourth disadvantage affects both the local government which levies the tax and the mining company which pays it. This stems from the fact that the value of a developed tract of coal land tends to decrease over time as mining operations proceed. Consequently, when mining activity passes its peak in a predominantly coal mining county, property tax revenue will normally begin to decline, while the demand for local government services may continue to increase. As a result, pressure will be felt to increase property tax rates, and some local governments may resist reducing individual assessments as coal lands are gradually mined out.

There is considerable support for the belief that many of the shortcomings of the property tax are correctable. For example, Gronouski argues that, assuming the job of assessment is assigned to technically competent personnel, the difficulties of mine appraisal can be overstressed.\textsuperscript{65} In his opinion, many of the problems

\textsuperscript{64}M. Kendrick, Public Finance 275 (1951).
confronting the appraiser of mineral deposits are not different in type from those present in the valuation of other complex business installations (large industrial concerns, public utilities, multistory office buildings, etc.) He argues further that those who object to the difficulty of mine appraisal too often implicitly, and wrongly, assume a degree of precision in the valuation of other types of property which does not exist. His solution to the problems of inaccuracy and lack of uniformity in assessment of mining property would be to have the job carried out at the state level with the assistance of mine appraisal specialists.60

A poorly constructed assessment formula, or one which is not uniformly applied throughout a state, can scarcely be expected to produce satisfactory results. By the same token, a well conceived formula, broadly applied, should result in more equitable assessments than the informal, hit-or-miss techniques now used in many places.

Coal mining states might also consider taking a cue from certain metal mining states and modifying the property tax base applied to coal lands. Gronouski notes that, because of the difficulties inherent in mine taxation and the lack of trained personnel to do the job, a number of metal mining states have adopted a net or gross proceeds basis for the valuation of mines. He continues:

Usually this method is used for only designated types of mines with all others assessed on the standard ad valorem basis. In some states the property tax base is determined by deducting costs of production from gross mine proceeds, or by taking a certain percent of the gross receipts. In other states no allowance is made for operating costs.67

As a final possibility, consideration might be given to the partial or total replacement of the property tax on coal by a severance tax on the value of production. Of the ten leading coal-mining states, only Wyoming has taken this step.68

B. Evaluation of the Severance Tax

As the name suggests, a severance tax is a tax on the act of separating natural wealth, such as minerals or timber, from the soil. This type of tax is usually levied as an additional charge on

60"Id.
61"Id. at 350.
extractive industries, presumably to compensate society for the depletion of natural resources. However, it may also be levied in lieu of another tax, such as the property tax.

The first severance tax in the United States was levied by Michigan in 1846. In 1971, twenty-nine states levied severance taxes, with the rates ranging from as little as seven-tenths of a cent per ton (in Colorado) to as much as 13.5 cents per ton (in Alabama) and four percent of gross value (in Kentucky).\(^{69}\) Of the ten leading coal mining states, five now levy severance taxes at the state level, while Virginia permits counties to levy a low tax of this type in lieu of the ad valorem taxation of improved mineral lands. While West Virginia is not usually considered a severance tax state, the section of the State Code extending the business and occupation tax to natural resource industries refers to it as a tax on the business of "severing, extracting, reducing to possession . . . ."\(^{70}\)

**Advantages**

The strengths and weaknesses of a severance tax depend in part on whether it is based upon the physical quantity produced or upon the gross value of production. As compared to the property tax, both types are easier to administer and provide better opportunities for sharing revenue with local units in a way which will best promote the interests of the state.\(^{71}\) In addition, both may tend to retard the rate of extraction, a desirable attribute from the standpoint of conservation.

**Disadvantages**

As in the case of the property tax, however, the conservationist effects of this tax are mixed. A severance tax based on physical production provides an incentive for mining only the richer deposits, as the tax rate per ton remains the same regardless of unit value. The value based variant is less objectionable in this regard, but both forms represent additions to variable costs. Hence, they may contribute to wasteful mining practices by making some high-cost portions of a deposit unprofitable to mine.\(^{72}\)

Beyond this, severance taxes make no allowance for differ-

\[^{69}\text{CCH STATE TAX HANDBOOK (1971).}\]
\[^{70}\text{McGeorge, supra note 6, at 169-70.}\]
\[^{70}\text{Steele, Natural Resource Taxation, Resource Allocation and Distribution Implications, in EXTRAcTIVE RESOURCES AND TAXATION 246-47 (M. Gaffney ed. 1967).}\]
ences in production costs or profitability, and, hence, do not rate well in terms of the important criterion of equity. To correct this last defect, Kendrick has suggested the adoption of a severance tax "imposed on the value of units of output at the source, according to a schedule graduated by differences in the cost of extraction." The administrative problems resulting from such a tax would be formidable, however.

C. Evaluation of the Corporate Net Income Tax

Besides being a major source of federal revenue, the corporate net income tax is an important state tax. In 1971, forty-two states and the District of Columbia imposed net income taxes on business corporations, at rates ranging from two percent in Nebraska to 11.33 percent in Minnesota. Of the ten leading coal producing states, eight levied a corporate income tax in 1973.

Advantages

Although the corporate income tax conforms less closely than the individual income tax to the ability to pay principle, it still must be adjudged more equitable than any of the other state and local taxes paid by business firms. The relatively unprofitable firm or industry bears a much lighter tax burden under this type of tax than under any other equally productive form of business taxation. For example, according to estimates for 1968 by Lewis C. Bell, the West Virginia coal industry would have had a total State tax liability of only $2.0 million under even a very high (14.14 percent) corporate net income tax, as compared to $6.9 million under a 2.6 percent value added tax and slightly less than $10 million under the business and occupation tax (then only 1.35 percent for coal, as compared to the present 3.5 percent rate). The corporate income and value added tax rates used by Bell in this comparison were selected to provide approximately the same overall yield as the business and occupation tax.

A second advantage possessed by this tax is a high income-elasticity. In practical terms, this means that in a growing economy the yield from this tax should increase substantially over time, even at constant rates.

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73M. KENDRICK, supra note 64, at 278.
74See CCH STATE TAX HANDBOOK (1971).
On the other hand, business profits, and, therefore, the yield from this tax, tend to fluctuate widely over the business cycle. Such cyclical instability is the most serious defect of this widely used tax from the governmental standpoint.

The corporate income tax has also been criticized for having unneutral effects on business decision-making. Thus, it is claimed that this method of taxation favors partnerships and proprietorships over corporations, debt financing over equity financing, and other forms of income over corporate profits.

IV. Taxation of the Coal Industry in West Virginia: Comment

Probably the most important single conclusion to emerge from this research is that, as of 1973, West Virginia was decidedly a high tax state insofar as the bituminous coal industry was concerned. Because the research also suggests that the competitive position of West Virginia, relative to other major coal-producing states, weakened perceptibly in the early 1970s, this high tax state finding is believed to have useful tax policy implications. There is now increasing confidence that a new and more prosperous era for coal may be coming in the wake of the energy crisis. If the output and profitability of this key industry rise as anticipated during the next year or two, pressures may quickly develop for further increases in the level at which coal is taxed in the State. The message of the present study is simply this: Let us proceed with caution; “King Coal” is already bearing a relatively heavy tax burden.

The fact that only a minor fraction of the total tax burden on coal arises from property taxation is also believed to be significant. This is not to imply that opportunities to upgrade the property tax should be ignored, but rather to point out that the dominant element in the taxation of the coal industry in this State is the business and occupation tax. Therefore, it seems probable that the only way that appreciably more equitable tax treatment of the coal industry as a whole can be achieved in the State is by either modifying or replacing this much criticized yet remarkably durable bastion of our State tax system.

West Virginia appears to have been neither more backward nor more progressive than the majority of coal-producing states in applying the property tax to this industry. Few states have a good record in this regard. Underassessment of coal property actually seems less prevalent here than in many states, as evidenced by a comparison of assessment ratios. On the other hand, there is an
evident need for better trained assessors, a more adequate method of assessing coal deposits, and greater uniformity in assessment methods.

The State Tax Department is to be commended for its current efforts to develop an assessment formula which will more fully reflect the many determinants affecting the value of unmined coal. Some words of caution seem appropriate with regard to this project, however. First, members of the coal industry should be given an opportunity to provide some input in the determination of the new formula. Second, care should be exercised that it does not become an ad hoc device for raising the level of property taxation. And, third, steps should be taken to insure that the formula is actually used. To achieve this last objective, it should either be made mandatory or, better still, the responsibility for the assessment of coal property should be transferred from the county to the State level.
APPENDIX I

ESTIMATED TAX BILLS OF MODEL COAL-MINING CORPORATION FOR PRINCIPAL STATE AND LOCAL TAXES.
WEST VIRGINIA AND SURROUNDING STATES, 1973
(in thousands of dollars)

<table>
<thead>
<tr>
<th>State</th>
<th>Property Tax</th>
<th>Corp. Income or Business Tax</th>
<th>Severance Tax</th>
<th>Franchise Tax</th>
<th>Total, Four Major Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Virginia</td>
<td>216.8</td>
<td>2,035.8</td>
<td>...</td>
<td>2.2</td>
<td>2,254.7</td>
</tr>
<tr>
<td>Kentucky</td>
<td>238.0</td>
<td>82.1</td>
<td>2,316.2</td>
<td>35.4</td>
<td>2,671.9</td>
</tr>
<tr>
<td>Ohio</td>
<td>451.9</td>
<td>† 330.9</td>
<td>193.3</td>
<td>976.1</td>
<td></td>
</tr>
<tr>
<td>Maryland</td>
<td>536.3</td>
<td>163.0</td>
<td>...</td>
<td>...</td>
<td>699.3</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>225.0</td>
<td>184.7</td>
<td>...</td>
<td>4.7</td>
<td>414.5</td>
</tr>
<tr>
<td>Virginia</td>
<td>193.6</td>
<td>187.1</td>
<td>...</td>
<td>...</td>
<td>386.8</td>
</tr>
</tbody>
</table>

* Components may not add to total because of rounding.
† Ohio Franchise/Income Tax classified as franchise tax.

APPENDIX II

CHANGES IN ESTIMATED TAX BILLS OF MODEL COAL-MINING CORPORATION
WEST VIRGINIA AND SURROUNDING STATES, 1968-74

<table>
<thead>
<tr>
<th>State</th>
<th>Percent Change, 1968*-1973</th>
<th>Percent of W.Va. Total (Four Major Taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>1968*</td>
</tr>
<tr>
<td>West Virginia</td>
<td>+ 3</td>
<td>+125</td>
</tr>
<tr>
<td>Kentucky</td>
<td>+95</td>
<td>-64</td>
</tr>
<tr>
<td>Ohio</td>
<td>+ 3</td>
<td>+ 16</td>
</tr>
<tr>
<td>Maryland</td>
<td>-31</td>
<td>- 13</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>+29</td>
<td>+ 41</td>
</tr>
<tr>
<td>Virginia</td>
<td>+ 3</td>
<td>+ 20</td>
</tr>
</tbody>
</table>

* 1968 data used in calculating the percentages in this table were compiled by Stanley J. Kloc of the West Virginia University Bureau of Business Research.
† Ohio figure is for Franchise-Income Tax.
** Property, Corporate Income or Business and Occupation, Severance, Franchise.