

Research Department  
Federal Reserve  
Bank of  
San Francisco

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## American Emirates?

Key energy-producing states—located mainly in the West—were heartened by a recent Supreme Court decision upholding Montana's right to levy a stiff "severance" tax on coal mined there. (The name "severance tax" comes from the fact that it is applied at the production stage, as the product is "severed" from the ground.) The decision supports those states' efforts to use energy severance taxes as a major source of general revenue. But industries, utilities and other energy consumers in the energy-resource deficient states—mainly in the Midwest and Northeast—were angered by the decision.

Producing states argue that severance taxes are necessary to provide for the roads, sewers, schools and other facilities required to support rapid energy development—and to ensure that some revenues are left in state coffers following the depletion of their energy resources. But opponents argue that the tax drains income from energy-poor to energy-rich states, and thereby precipitates one of the largest capital transfers in the nation's history. Indeed, they envision the creation of a de facto "United American Emirates"—a group of energy-producing states whose control over domestic energy sources leads to a major transfer of wealth. Also, they maintain that, because of the increased revenue from this source, energy-producing states can reduce other business taxes and thereby encourage business to locate there, facilitating further transfers of wealth. These states, moreover, can qualify for additional Federal payments on revenue sharing and other programs, because the allocation formulas sometimes reward states for their "tax effort," the amount of revenue they raise on their own.

The arguments against the tax bear closer scrutiny. There is no question that severance taxes constitute an important and growing source of state revenue for the resource-rich states, particularly now that domestic oil

prices have been decontrolled. It is also true that severance-tax revenues are making it possible for state governments to reduce other taxes below levels that might otherwise prevail. But the argument that such taxes are being passed on to out-of-state customers through higher energy prices undoubtedly holds true only for certain energy sources. Most of the pass-through apparently pertains to coal and uranium, which account for less than one-tenth of the total state revenues derived from energy severance taxes.

### Montana decision

Since 1921, Montana has imposed a severance tax on the output of its coal mines, including coal mined on Federal lands. In 1975, however, the state legislature voted to raise the tax for surface-mined coal to a range of 20 to 30 percent of the contract sales price, with the maximum applying to coal with the highest heat content. In 1978, four Montana coal producers and eleven of their out-of-state electric-utility customers sought tax refunds on constitutional grounds. The trial court—and later the Montana Supreme Court—upheld the tax, and the utilities then appealed the decision to the U.S. Supreme Court.

The utilities contended that the Montana tax discriminates against interstate commerce, because 90 percent of Montana coal is shipped to other states under contracts that shift the burden primarily to non-Montana utility companies and thus to residents of other states. Those contracts typically provide for a pass-through of state-taxation costs to the utilities, while fuel-adjustment clauses in turn provide for a further pass-through of such costs to utility customers. The utilities argued further that the tax is excessive, being unfairly related to the value of the mine-related services the state provides or the mine-related costs it incurs. Finally, they argued that the tax violates Federal law—namely the Mineral Lands Leasing Act of 1920—because it

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reduces the Government's royalty payments from output from Federally-owned land.

The Supreme Court ruled that a state severance tax is subject to Constitutional review even though imposed on goods prior to their entrance into the stream of interstate commerce. The Court added, however, that the Montana tax is even-handed and nondiscriminatory with regard to out-of-state users, because it is computed at the same rate regardless of the coal's final destination. The Court ruled further that the question of what constitutes an "excessive" rate is a matter for Congress and not the courts to resolve. Finally, it ruled that the tax does not violate the purposes of the Mineral Lands Leasing Act, which expressly authorized the states to levy and collect taxes as though the Federal government were not concerned.

#### **Rising revenues**

Only a few states are net exporters of primary energy: Louisiana, Wyoming, New Mexico, Kentucky, Alaska, Oklahoma, West Virginia, Montana and Texas (1976 data). The major oil-and-gas producing states are Texas, Alaska, Louisiana, California and Oklahoma. Coal resources are more widely dispersed, with the largest producers being Kentucky, West Virginia, Pennsylvania and Wyoming. (Montana actually is one of the smaller producers, with about 4 percent of the total.) New Mexico and Wyoming produce most of the nation's uranium.

Many producing states now impose severance taxes. The Alaska legislature recently raised that state's petroleum-severance tax from 12.25 percent to 15.0 percent, making it the highest in the nation. Louisiana charges 12.5 percent, while other states charge rates ranging from 7.0 percent to 1.5 percent. In the case of coal, Wyoming charges the second highest rate after Montana—namely 10.5 percent—while other states' rates range from 8.4 percent to as little as 0.2 percent.

Tax revenues from this source have grown substantially, from \$840 million in 1973 to

\$3.7 billion in 1980—largely reflecting the upsurge in domestic energy prices during this period. Coal revenues showed the most rapid growth, rising from \$38 million to \$329 million over the period, but still comprised only 9 percent of the total by 1980. Oil-and-gas severance tax revenues—the bulk of the total—rose from \$808 million to \$3.4 billion. As a result of this growth, energy severance taxes rose in importance as a source of state revenue—in 1980, accounting for over one-third of Alaska's total revenues and over one-fourth of Oklahoma's and Wyoming's totals.

The growth in severance-tax revenues occurred in the face of price controls on domestically-produced oil and gas. But revenues may now soar, in the wake of (full or partial) decontrol of these prices. Moreover, rents and royalties on state-owned oil and gas properties add even more to the total. According to Treasury Department estimates, oil-producing states could collect \$128 billion during this decade simply as a result of decontrol. More than \$100 billion of that total would flow to just four states: Alaska, California, Louisiana and Texas. (That accounts for Alaska's ability to repeal its income tax and to refund 1979 and 1980 taxes.) Phased decontrol of natural-gas prices under present law would yield producing states another \$50 billion, with immediate decontrol yielding revenues many times greater.

#### **Who really pays?**

Energy resource-deficient states argue that these taxes are shifted forward fully to consumers; and that, since most of the production is sold in interstate markets, most of the tax is "exported". But that argument neglects the fact that the structure of the markets for most energy sources will not permit a full pass-through of severance taxes to consumers, even when the regulatory framework is not an impediment.

Indeed, producers' ability to pass on a production tax depends largely upon the elasticity of demand for the product in question. The more unresponsive the quantity demanded is to a given change in

price—i.e., the more inelastic the demand schedule—the greater is the ability to pass on the tax to consumers through a higher price.

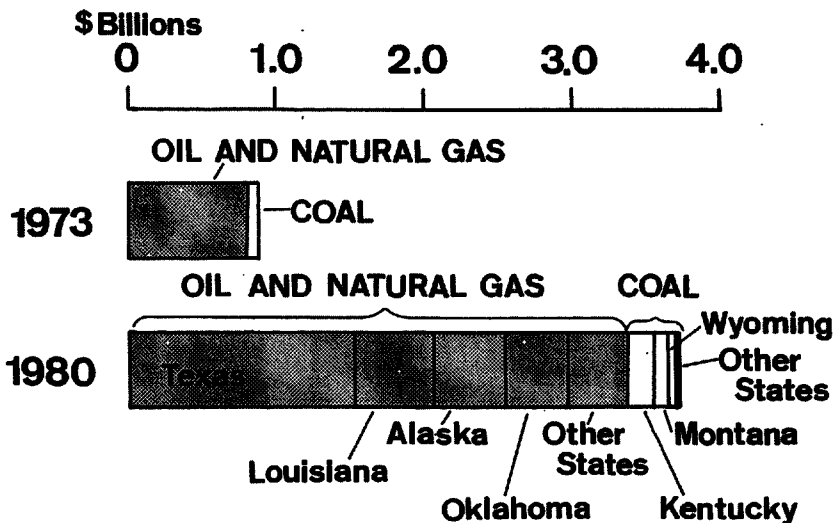
In the case of domestically-produced crude oil in an unregulated environment, imports constitute a near-perfect substitute, and the demand for domestic oil approaches infinity—i.e., is perfectly elastic—at the landed price for imported oil. Even in the absence of Federal controls, domestic producers cannot raise their price above the world (import) price regardless of tax-related changes in marginal costs and shifts in domestic supply. Refiners simply will not pay more for domestic oil than the world price, because a virtually unlimited supply of imported oil is available at the world price. Given the world price, the severance tax must be fully absorbed by domestic producers—including owners of the resource in question—through a lower after-tax realized price. The regulatory framework for natural gas apparently allows for the pass-through of severance taxes to final consumers in interstate markets, but the ability of producers to fully avoid those taxes may be limited by interfuel substitution, namely competition from fuel oil.

Severance taxes appear to be largely or fully passed on to consumers only in the cases of coal and uranium. A large proportion of coal production is sold to electric power plants under long-term fixed supply contracts which allow for “pass-through” of increased production taxes. Also, the high costs of coal transportation tend to segment the national market, reducing the competition among producing states and making the demand schedule relatively inelastic. The highly concentrated nature of the uranium industry, together with the lack of substitutes for nuclear purposes, also suggests a full pass-through of severance taxes.

These two fuels, however, account for a relatively small share of the total tax revenue generated by energy severance taxes. For that reason, we may question the claim that these taxes generally result in a massive shift of income to energy resource-rich states. Nonetheless, coal provides the greatest potential for such an income transfer, and consequently, large energy-consuming states may continue their attempts to limit severance taxes on that particular fuel.

Yvonne Levy

### State Energy Severance Tax Revenues



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**BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT**  
 (Dollar amounts in millions)

Selected Assets and Liabilities	Amount Outstanding 9/23/81	Change from 9/16/81	Change from year ago	
			Dollar	Percent
<b>Large Commercial Banks</b>				
Loans (gross, adjusted) and investments*	151,894	- 215	11,012	7.8
Loans (gross, adjusted) — total#	130,986	- 206	12,021	10.1
Commercial and industrial	39,286	15	4,708	13.6
Real estate	54,459	193	6,206	12.9
Loans to individuals	23,039	11	- 927	- 3.9
Securities loans	1,534	- 3	497	47.9
U.S. Treasury securities*	5,715	11	- 786	- 12.1
Other securities*	15,193	- 20	- 219	- 1.4
Demand deposits — total#	38,834	-3,092	- 4,339	- 10.1
Demand deposits — adjusted	27,002	-1,039	- 5,530	- 17.0
Savings deposits — total	29,311	- 477	- 210	- 0.7
Time deposits — total#	85,287	170	19,789	30.2
Individuals, part. & corp.	77,182	189	20,292	35.7
(Large negotiable CD's)	33,918	- 74	8,807	35.1
<b>Weekly Averages of Daily Figures</b>	<b>Week ended 9/23/81</b>	<b>Week ended 9/16/81</b>	<b>Comparable year-ago period</b>	
<b>Member Bank Reserve Position</b>				
Excess Reserves (+)/Deficiency (-)	n/a	249		52
Borrowings	n/a	20		136
Net free reserves (+)/Net borrowed(-)	n/a	229		- 85

\* Excludes trading account securities.

# Includes items not shown separately.

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