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A State-Level Carbon Tax with Border Adjustments

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In this edition of Academic Perspectives on SALT, Gamage and Shanske offer their fourth and final article on the issue of taxation and greenhouse gas mitigation. The authors defend a border adjusted carbon tax against claims it would violate the dormant commerce clause by asserting the tax does not favor in-state industries, but is instead a tax on a global externality.

Introduction

This is our fourth and final essay considering taxation and greenhouse gas mitigation. In our prior essays, we began by laying out the policy argument for a state-level carbon tax with border adjustments. The argument, in brief, is that levying a carbon tax makes the products and services of the taxing state more expensive, and thus border adjustments are needed so that a carbon tax achieves more than economic harm to the state that levies it.

We also explained the consensus that the dormant commerce clause would prevent a state from levying a carbon tax with border adjustments. Again, the basic reason is straightforward: A border adjustment would, by definition, be a surcharge on goods and services produced out of state. Thus, border adjustments would seem to fly in the face of the core rationale for the dormant commerce clause, namely rejecting state protectionism.

We further distilled the doctrinal issues surrounding border adjustments into three questions:

- Can there be any special tax on imports, even if it is the same as a tax on domestic production?
- Could a state differentiate its border adjustments between products based on approximations of their carbon intensity if such approximations take geography into account?
- When questions 1 and 2 are answered in the affirmative, how much approximation is permissible?

Our most recent article concluded with one doctrinal argument that border adjustment could be permissible. That argument maintained that a carefully crafted system for border adjustment ought not fail dormant commerce clause scrutiny because such an adjustment would not constitute discrimination against out-of-state products and services. If the adjustments are keyed only to carbon intensity rather than geography, neither the imposing state nor other states are inherently advantaged or disadvantaged. We noted that the Ninth Circuit accepted a similar argument regarding a California regulation, the Low Carbon Fuel Standard, which accounts for carbon intensity in roughly the same way.[1]

In this article, we will lay out three additional doctrinal arguments and a background consideration, all of which support our conclusion that a state-level carbon tax with border adjustments could be permissible.

Facial Discrimination May Not Be Fatal Because of the Complementary Tax Doctrine

We now explore arguments that do not rely on the contention that a taxing scheme attuned to carbon intensity is not discriminatory. This is of particular interest because the Ninth Circuit was split in *Rocky Mountain Farmers Union v. Corey*[2] — a case that accepted an argument similar to that in our prior essay.

One argument would be that a border adjustment represents a complementary tax and, as such, the prima facie discrimination is not invalid because it "achiev[es] a legitimate local purpose that cannot be achieved through nondiscriminatory means."[3] The key modern application of the doctrine is *Henneford v. Silas Mason Co.*,[4] in which the U.S. Supreme Court upheld Washington's imposition of a use tax on out-of-state purchases to compensate for the sales tax it imposed on in-state sales. Thus, if a court does not accept the *Rocky Mountain* argument that there is no discrimination, it might accept an argument that the discrimination is justified based on the complementary tax doctrine. Certainly, if the carbon tax were identically imposed on imports — that is, taking no account of carbon intensity — the case looks pretty strong. But what if, as seems important, a state did try to take the carbon intensity of imports into account?

A leading recent case on the doctrine, and one seemingly similar to our scenario, is *Oregon Waste Systems*.[5] In that case, Oregon imposed a $2.25-per-ton surcharge on waste imported from out of state while charging 85 cents per ton for waste generated in state.[6] Oregon's statute required that the surcharge "be based on the costs to the State of Oregon and its political subdivisions of disposing of solid waste generated out-of-state which are not otherwise paid for."[7] While Oregon had a colorable argument that its surcharge was compensatory, it failed the demanding three-part test needed to justify upholding a discriminatory tax. Under that test, a special out-of-state burden must be identified; the out-of-state surcharge must approximate, but not exceed, the identified burden; and the event that triggers the in-state and out-of-state tax must be "substantially equivalent."[8]

The Oregon scheme failed the first and third prongs. The only identifiable charge was the charge paid by in-state producers, but that was only a third as much as charged to out-of-state producers. Thus, there was no identifiable burden, at least within the limits of the second prong's requirement that the charges not exceed the in-state charge. The state countered that the identified charge should take into account the general taxes that in-state producers paid but that out-of-state producers did not. Yet that argument ran smack into prong three; the occasion for paying a general property tax, for example, was not substantially equivalent to that of paying a special surcharge on imported waste. Indeed it was a kind of Catch-22; the only way to satisfy the first prong was to rely on other charges that failed the third prong.

Taking a step back, if the Court accepted that compensating for *general* taxes would suffice to justify a facially discriminatory surcharge, it seems likely that would lead to abuse and

[1] *Rocky Mountain Farmers Union v. Corey*, 730 F.3d 1070 (9th Cir. 2013).

[2] *Id.*

[3] *Oregon Waste Systems Inc. v. Department of Environmental Quality of State of Oregon*, 511 U.S. 93 (1994).

[4] *Henneford v. Silas Mason Co.*, 300 U.S. 577 (1937) (Cardozo, J.).

[5] *Oregon Waste Systems*, 511 U.S. 93 (1994). *Cf.* Jerome R. Hellerstein, Walter Hellerstein, and John A. Swain, *State Taxation* 4.14.[3][c] (2016) (arguing that making the exception limited makes pragmatic and principled sense).

[6] *Oregon Waste Systems*, 511 U.S. at 96.

[7] *Id.*

[8] *Id.* at 103.

retaliation, and so *Oregon Waste Systems* was sound.[9] It is, however, quite another thing for a state to adopt a tax on a broad new tax base, namely carbon, and then to try to mitigate its impact with border adjustments. That situation is much more analogous to *Henneford* — the case that upheld the use tax as a complement to the sales tax.

Or, to return to the test, a border adjustment would be based on an identified event — the production of carbon — and that event is substantially identical wherever it happens. With prongs one and three covered, that brings us to prong two — whether the border adjustment calculation is close enough for purposes of the dormant commerce clause — and herein, perhaps, lies the trouble. *Associated Industries of Missouri v. Lohman*[10] is recent precedent that seems to stand in the way.

Lohman was about local use taxes. Missouri imposed a 1.5 percent average use tax at the state level to compensate for the different sales tax rates imposed by some 1,000 localities.[11] The Court in *Lohman* found that this average use tax violated prong two of the complementary tax test — a statewide average did not eliminate the discrimination happening on all of the transactions in which imported goods were charged more than local goods.

Lohman suggests that the approximations that would be the necessary basis for border adjustments under a state-level carbon tax may fail. After all, the state would need to use an average or other kind of approximation to determine the tax.[12] And yet the border adjustments we propose could be distinguished from the average state-level sales tax at issue in *Lohman*. That is not a case in which a statewide average is essentially whitewashing local discrimination, which was the Court's concern in *Lohman*.[13] Here, the averages are being used to calculate what can only be calculated approximately; there is no underlying (known) fact of the matter.

Formulary Apportionment as Model for Approximation

The Court could still interpret *Lohman* broadly. In particular, it might decide that the case stands for the very general principle — there can be no averaging, only a precisely known amount can be compensated for. Or, relatedly, perhaps the Court would conclude that thereis an underlying fact about carbon intensity that can be discovered without a formula. The Court should be encouraged not to interpret *Lohman* by reference to its formulary apportionment cases.

The third prong of the *Complete Auto* test, the test for determining whether a tax scheme violates the dormant commerce clause, bars discrimination.[14] That test is very similar, perhaps identical, to the test for regulations. That is the prong we have essentially been discussing, but there is a second *Complete Auto* test prong, which requires that a tax be fairly apportioned. Of course, if a tax is not fairly apportioned, it is likely discriminatory, but that prong is not wholly duplicative. A typical apportionment formula, on its face, applies to all firms in the same way, whatever their location, but fair apportionment requires that the chosen method of apportionment be reasonable. The Court has long accepted rough formulas for apportioning the value or income of multistate enterprises, such as using the relative amount of railroad track within a state.[15] This is an area in which the Court accepted a reality on the ground, namely that

[9]*See also Fulton Corp. v. Faulkner*, 516 U.S. 325 (1996).

[10]511 U.S. 641 (1994).

[11]*Id*. at 644.

[12]*Cf. Rocky Mountain*, at 730 F.3d at 1093 (California fuel standard uses averages).

[13]*Lohman*, 511 U.S. at 649-650.

[14]*Complete Auto Transit Inc. v. Brady*, 430 U.S. 274 (1977).

[15]*See, e.g., Nashville, Chattanooga & St. Louis Railway Co. v. Browning*, 310 U.S. 362 (1940); and *Norfolk & Western Railway Co. v. Missouri State Tax Commission*, 390 U.S. 317, 324 (1968) ("A number of such formulas have been sustained by the Court, even though it could not be demonstrated that the results they yielded were precise evaluations of assets located within the taxing State"). Interestingly, *Norfolk* is the rare case in which the Court did find a formula irrational because there was a preexisting value against which the Court could compare the value arrived at by formula. That is not the case for carbon intensity.

railroads were multistate enterprises the value of which could not be precisely located in a given state. The analogy with carbon production seems evident.

Two key apportionment precedents are particularly notable. First, there is *Moorman*.[16] In *Moorman*, a manufacturer based in Illinois challenged Iowa's use of a single-factor sales method of apportionment for ascertaining where the income of a multistate corporation was earned (and therefore taxable). The Illinois manufacturer noted that Illinois, like most states at the time, used a three-factor method of apportionment. That method looked to the relative proportion of sales, property, and payroll that a multistate corporation earned in a particular state. Iowa used only the sales factor. That choice served to increase the income apportionable to Iowa of an Illinois business with Iowa sales, but to decrease the apportionable income of an Iowa business exporting to Illinois. Thus, Iowa's then-solitary use of the single sales factor seemed to advantage its domestic businesses. Nevertheless, the Court upheld Iowa's use of the single sales factor. At the heart of the Court's reasoning was the observation that it was not Iowa's formula that discriminated or was unreasonable; rather, it was the interaction of Iowa's system with the different systems of other states. The Court refused to dictate and enforce a uniform formula.[17] *Moorman* therefore stands for the principle that the Court will not pick and choose between formulas even if a chosen formula gives the state that adopts it an edge (or at least an apparent edge).

The second important precedent is *Trinova*.[18] In *Trinova*, the challenge was to Michigan's use of formulary apportionment in connection with its value added tax.[19] The plaintiffs asserted that value added could be more easily geographically located than total firm value or income, and thus use of a formula was unreasonable. The Court held otherwise. Presumably, Michigan could have attempted to locate value added more precisely, but the state was permitted to use an approximate formula given the still significant complexity and guesswork involved in locating value added.[20]

The formulary apportionment line of cases thus provides an argument, by analogy, that ought to buttress the use of approximate formulas for making border adjustments. If Michigan could use a formula rather than try to track down value added, why can't states do something similar regarding carbon intensity? Or, put another way, the plaintiffs in the formulary apportionment cases regularly insisted that they knew, via separate accounting, where the value or income of their firms was located. The Court has repeatedly rejected that contention; since locating multistate firm value or income is like "slicing a shadow,"[21] the states were not required to accept the shadow slices proffered by the plaintiffs. If that is true for property value or income or value added, why should that not be true for carbon intensity?

Sidebar: Application of the Spirit of the Public Utility Exception?

It must be granted that the Court could reject the fair apportionment analogy, instead holding that what is an acceptable approximation under the fair apportionment prong of the *Complete Auto* test is not necessarily acceptable under the anti-discrimination prong. As for anti-discrimination, no approximating is permitted. Yet there are hints in the Court's recent dormant commerce clause jurisprudence that it will not reach out to invalidate sensible state innovations.

We should remember that the dormant commerce clause is federal constitutional common law. The current dormant commerce clause test for whether a tax passes constitutional muster, the four-prong *Complete Auto* test, was a result of a backward look at what the Court had

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[16] *Moorman Manufacturing Co. v. Bair*, 437 U.S. 267 (1978).

[17] *Id*. at 278-279.

[18] *Trinova Corp. v. Michigan Department of Treasury*, 498 U.S. 358 (1991).

[19] There was also a challenge to the formula as discriminatory, a challenge the Court summarily dismissed. *Id*. at 384-386.

[20] *Trinova Corp.*, 498 U.S. at 379 ("The same factors that prevent determination of the geographic location where income is generated, factors such as functional integration, centralization of management, and economies of scale, make it impossible to determine the location of value added with exact precision").

[21] *Container Corp. of America v. Franchise Tax Board*, 463 U.S. 159, 192 (1983).

done in actual cases — all while overturning large parts of the doctrine to that point in the name of forging a more pragmatic test.[22] Since the advent of the *Complete Auto* test in 1977, one prong has become largely irrelevant,[23] another prong has taken on a surprising life of its own,[24] and (at least) two additional prongs are tucked into one of the remaining two prongs.[25] Thus, quite reasonably, Justice Antonin Scalia wrote (with Justice Clarence Thomas concurring), "I look forward to the day when *Complete Auto* will take its rightful place . . . among the other useless and discarded tools of our negative Commerce Clause jurisprudence."[26] Indeed, in a relatively recent majority opinion written by Chief Justice John G. Roberts Jr., the Court stated that the "dormant Commerce Clause is not a roving license for federal courts to decide what activities are appropriate for state and local government to undertake."[27]

That strong language comes from the Court's 2007 decision in *United Haulers*.[28] In that case, the Court essentially overturned a recent precedent[29] to allow localities to monopolize the local waste processing business. One of us has argued elsewhere that the best way to understand that decision is that it was accepting of a new economic reality.[30] The waste management industry used to be one in which competition was possible. Yet as the environmental impact of waste disposal has grown, so too has the expense of treating waste properly. Thus, as was apparently the case in the two-county region at issue in *United Haulers*, waste management had become a natural monopoly. That is, one very expensive treatment plant could handle all the waste in the region, and adding a second plant would only be wasteful. In such a circumstance, the Court narrowed earlier precedent to allow governments to pursue an economically sensible solution to a regional problem, namely the governments were permitted to build one expensive plant and then force local waste haulers to use it.[31]

By analogy, the problem of reducing carbon emissions is a new one, and one that transcends state borders. The science and economics of carbon leakage are hard to deny — or at least inappropriate for a court to deny. Why should the Court reject all the doctrinal arguments made thus far only to hamstring state efforts to address what the Court has already accepted is a major problem?[32] That is an apt place to review the arguments thus far to see just how many "offramps" are available to the Court, at least if confronted by a well-designed system of border tax adjustments (BTAs). First, following the argument of *Rocky Mountain*, the Court can find that there is simply no discrimination. Second, the Court could accept that BTAs satisfy the

[22] *Complete Auto*, 430 U.S. at 274, 277-278. *Cf.* Jesse H. Choper and Tung Yin, "State Taxation and the Dormant Commerce Clause: The Object-Measure Approach," 1998 *Sup. Ct. Rev.* 193, 199 ("The central problem with *Complete Auto* is that its four prongs are functionally overlapping and redundant in attempting to fulfill the bedrock constitutional value served by judicial review of state taxation of interstate commerce: nondiscrimination against interstate commerce").

[23] The fourth prong, so-called fair relation. *Complete Auto*, 453 U.S. at 609.

[24] This is the first prong, substantial nexus, which was held in *Quill* to require more substantial nexus than that required by the due process clause. *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992).

[25] The Court looks for the internal and external consistency of a tax; those requirements are sometimes placed under the anti-discrimination prong, sometimes the fair apportionment. *See, e.g., Armco Inc. v. Hardesty*, 467 U.S. 638, 644-45 (1984) (internal consistency required under fair apportionment and anti-discrimination prongs); and *Oklahoma Tax Commission v. Jefferson Lines Inc.*, 514 U.S. 175, 185 (1995) (internal and external consistency under fair apportionment prong).

[26] *Jefferson Lines*, 514 U.S. at 201 (Scalia, J. concurring).

[27] *United Haulers Association Inc. v. Oneida-Herkimer Solid Waste Management Authority*, 550 U.S. 330, 343 (2007).

[28] *Id.* at 330.

[29] *C & A Carbone Inc. v. Town of Clarkstown*, 511 U.S. 383 (1994).

[30] Darien Shanske, "The Supreme Court and the New Old Public Finance: A New Old Defense of the Court's Recent Dormant Commerce Clause Jurisprudence," 43 *Urb. Law* 659, 669 (2011).

[31] The Court has made similar adjustments to its doctrine in other, related, areas of law and, in particular, rate regulation in which the Court ultimately decided to leave the setting of utility rates to expert regulators (for the most part). *Id.* at 714-716.

[32] *Massachusetts v.Environmental Protection Agency*, 549 U.S. 497 (2007).

complementary tax doctrine as it stands. Third, the Court could accept that BTAs satisfy a slightly revised complementary tax doctrine; even if the BTAs contain approximations (as they must), they are acceptable by analogy with formulary apportionment. The Court should be propelled to one of those routes by the same sense of its institutional role as a federal court that led to the *United Haulers* opinion.

But perhaps the Court will refuse to follow these arguments. Or perhaps the uncertainty here will, as a pragmatic matter, prevent the implementation of a robust carbon tax with BTAs. Is there another way to structure a carbon tax to achieve the benefits of BTAs?

Alternative Design: Formulary Apportionment as a Substitute for Border Adjustments

Up to this point we have been considering formulary apportionment as an *analogy* for a border adjustment. Yet the mere fact that those adjustments would occur on imports (and exports) arguably might be too great a hurdle to clear with the Supreme Court. Fortunately, there is still one additional possible approach: *replace* border adjustments with formulary apportionment.

Here is roughly how that might work. Instead of taxing a refinery as it refines oil, the carbon tax would tax the refining firm once a year in much the same way states currently administer their corporate income tax. For example, an oil refiner would report how much oil it refined for use in the state, but before that number became the basis of the carbon tax, the state would apply an apportionment formula based on the carbon intensity of the oil it imported.[33] Thus, a firm that imports oil would need to pay its carbon tax after the amount of oil it imported was adjusted for the carbon intensity of its source, among other factors. As with current apportionment formulas, a taxpayer should be able to challenge the formula. Regardless of the statute, formulas can be challenged as unconstitutional because they are unreasonable. The Uniform Division of Income for Tax Purposes Act offers taxpayers the possibility of additional relief, even if a formula does not fall below the constitutional floor. That should be the case with carbon formulary apportionment as well.[34]

Using formulary apportionment to avoid the need for border adjustments is not a novel idea. That was part of the reform proposal of the California Commission on the 21st Century Economy (COTCE).[35] The heart of the COTCE proposal was a state-level VAT called a business net receipts tax (BNRT). Yet imposing a broad new tax, it was feared, would disadvantage California businesses. The commission did not believe it could impose border adjustments to strip out — or impose — its new tax. The COTCE proposal used formulary apportionment (only the sales factor) to try to make up for the lack of border adjustments. Unfortunately, and as critics noted, formulary apportionment cannot replace

[33] *See* Carol McAusland and Nouri Najjar, "The Carbon-Added Tax: A CAT That Won't Hunt," *Policy Options*, Oct. 2010, section 5, for more detailed discussion of how such a system might work in terms of estimating the cost of carbon embodied in products. *See also generally*, Charles E. McLure Jr., "The Carbon-Added Tax: A CAT That Won't Hunt, California Policy Options," Oct. 2010 ("The most efficient way to implement a carbon tax is to impose it upstream. It is true that an upstream carbon tax would not provide the information required to calculate BTAs; it should be necessary to calculate BTAs in some other ad hoc way. . . . Fortunately, [border adjustments] would be needed for trade only in a limited number of carbon-intensive basic products that are traded heavily with countries that do not limit CO2 emissions").

[34] UDITPA section 18.

[35] California Commission on the 21st Century, Final Report (2009).

border adjustments in that context.[36] For instance, actual exporters would have their BNRT reduced by use of the single sales factor because only in-state sales would be used in the formula, but domestic producers who sell to the exporters would not see any reductions because all of their sales were in-state. That is because the design of the BNRT did not allow the tax to be added or subtracted on a transaction-by-transaction basis.

That criticism does not hold for a carbon tax, at least in the form we are discussing. The carbon tax would only be remitted by a handful of large upstream producers; thus, there would not be the problem of many businesses having the carbon tax built into their prices without chance of rebate. Further, the deep issue with relying on apportionment in the context of a subnational VAT is that sales are different from value added. For a carbon tax, the formula would be measuring carbon intensity, which is the same as the base of the tax.[37]

Conclusion: A Uniform Division of Carbon for Tax Purposes Act?

Once one state made substantial progress with the base for a carbon tax, other states could copy the model and, ideally, coordinate their tax. There are some partial models for this. Many taxes, such as the sales tax and the corporate income tax, began with specific states taking the lead. And under federal pressure, the states eventually coordinated their corporate income taxes — at least somewhat. Also, the sales tax represents a major tax base that the states exploit and the federal government does not — in dramatic contrast to any other federal system we are aware of. Thus, the states adopting and coordinating a new and significant tax base would hardly be unprecedented and would not be, we believe, too difficult. Further, as we explained at the outset, such actions by the states can have significant impact.

We believe the constitutional issues would be reduced as other states joined in the use of a carbon tax. Suppose that California is the first state to adopt a carbon tax. California does not use any coal for the production of energy.[38] By taking carbon intensity into account, some California industries are going to be hurt relative to out-of-state competitors, but on the whole a court might see that it is mostly out-of-state suppliers that have their output labeled high intensity. As explained above, we do not think that should render the system unconstitutional, but the argument is much easier to see if, say, Illinois, were also to impose a carbon tax and do so in a coordinated way with California. Illinois does produce energy from coal.[39] Illinois's participation thus makes matters particularly clear: The carbon tax does not, by design or in effect, help in-state industries.[40] Rather, it is a tax on a global externality.

In the end, we recognize the many reasons states have to shy away from imposing a carbon tax. Our argument is that the inability to impose border adjustments in some form should not itself be seen as an insuperable obstacle. ■

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[36]Charles E. McLure Jr., "The Business Net Receipts Tax: A Dog That Will Not Hunt," 37 *Hastings Const. L.Q.* 745, 749-763 (2010); *see also generally* Kirk J. Stark, "Houdini Tax Reform: Can California Escape Its Fiscal Straitjacket?" *California Policy Options* 1 (Nov. 2010).

[37]One of us delves into some of the complexities of using sales as a proxy for income here: Darien Shanske, "A New Theory of the State Corporate Income Tax: The State Corporate Income Tax as Retail Sales Tax Complement," 66 *Tax L.Rev.* 305, 344-347 (2013).

[38]Energy Information Agency, California Energy Production Estimates, 2014.

[39]Energy Information Agency, Illinois Energy Production Estimates, 2014.

[40]It should be noted that according to the Energy Information Agency, the carbon intensity of the total energy produced in Illinois is actually a bit *lower* than that used in California. (At least one reason is that Illinois uses much more nuclear power than California.) The intensity of energy produced in New York is lower still. Thus, if those numbers were to be the basis of an adjustment, California would start out by apportioning less carbon intensity to many other states. *See* Energy Information Agency, Carbon Intensity by State (2000-2014).