SOLID WASTE POLLUTION: CONTROL OF CONTAINER PACKAGING THROUGH TAXATION

Solid waste not only pollutes in the sense that vast amounts are discarded into the environment, but it poses a serious problem of disposal once collected. As more and more waste is produced, current methods of disposal such as landfill and incineration will become increasingly costly and inadequate.[1] Moreover, these methods themselves may be sources of pollution.[2] Consequently, many cities are facing a disposal crisis.[3]

The proliferation of containers is viewed as a major contributor to this pending crisis, and recycling of this particular waste product (indeed, solid waste in general) has been heralded as the solution.[4] In an attempt to promote the recycling of containers and reduce the cost of waste disposal,[5] a new subdivision was added to the Tax Law of New York.[6] The provision authorizes municipalities with populations of one million or more to impose a tax on the sale of all rigid or semi-rigid containers of various forms and materials from glass bottles to metal pots.[7]

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1. P. EHRLICH & A. EHRLICH, POPULATION RESOURCES ENVIRONMENT 128 (1970). New York City has a mammoth waste disposal problem. *See* Harvith, *Problems of Solid Waste Disposal*, 35 ALBANY L. REV. 91 (1970).

2. P. EHRLICH & A. EHRLICH, *supra* note 1, at 129.

3. *Id.* at 128.

4. Harvith, *supra* note 1, at 103; Spofford, *Solid Residuals Management: Some Economic Considerations*, 11 NATURAL RESOURCES J. 561, 562 (1971) [hereinafter cited as Spofford].

5. Society of Plastics Indus. v. City of New York, 68 Misc. 2d 366, 372, 326 N.Y.S.2d 788, 794 (Sup. Ct. 1971).

6. N.Y. TAX LAW § 1201(f) (McKinney Supp. 1971).

7. *Id.* § 1201(f)(1). The tax is levied on:

> the sale of containers made in whole or in part of rigid or semi-rigid paperboard, fibre, glass, metal, plastic or any combination of such materials, including but not limited to, barrels, baskets, bottles, boxes, cans, cartons, carrying cases, crates, cups, cylinders, drums, glasses, jars, jugs, pails, pots, rigid foil containers, trays, tubs, tubes, tumblers, and vessels intended for use in packing or packaging any product intended for sale.

Id.

While use of a tax in a scheme designed to induce recycling of containers is novel,[8] other means of inducing or encouraging recycling have been employed. For example, outright prohibition of the sale of soft drinks or beer in non-returnable containers is provided by a Lake County, Michigan ordinance.[9] Such a ban can be a valid exercise of the police power. One commentator has suggested that the Lake County ordinance can be upheld on aesthetic and sanitation grounds since the "principal objective is to promote the health, safety, convenience, and general welfare of [Lake County's] citizens."[10] Elimination and abatement of nuisances such as refuse or litter are also possible justifications and have long been recognized as inherent in the police power.[11] In addition, exercise of the police power in this manner can be justified on grounds of public safety, as illustrated by *Anchor Hocking Glass Corp. v. Barber*.[12] The *Barber* court held that minimizing the danger of injury to persons and property by prohibiting the sale of beer or ale in non-returnable glass containers was a valid exercise of the police power.[13]

Banning statutes, however, require separation and collection of returnables from other solid waste in order to effect recycling. But the relative worth of used containers and existing technology make separation and collection economically unfeasible once returnables have been mixed with other municipal wastes.[14] Thus, an incentive must be provided in order to encourage the user to separate the returnables and return them to collection points. Although a deposit provides some incentive, the efficacy of the deposit has been demon-

8. *Cf.* Model Litter Control Act, ch. 307, § 12 [1971] Wash. Laws 1st Extraord. Sess. 1181. The Washington statute imposes an "annual litter assessment" on manufacturers, wholesalers and retailers, the purpose being to control litter and to apportion the cost of administration of litter control.

9. Lake County, Mich., Ordinance Prohibiting the Sale of Certain Non-Returnable or Disposable Beverage Containers Within the County of Lake, Nov. 9, 1970.

10. Hollister, *To Reduce Litter*, 8 HOUSTON L. REV. 687, 698 (1971).

11. *Id.* at 700.

12. 118 Vt. 206, 105 A.2d 271 (1954).

13. The court concluded: "The legislators well may have found that these containers because of their number, construction and the likelihood of their being thrown away when empty, having no return value, caused special danger of injury and damage." *Id.* at 214, 105 A.2d at 277.

14. Spofford at 570.

strated to be questionable.[15] However, despite the doubtful incentive effect of the deposit, legislation requiring a deposit has been enacted in Maryland and Oregon. A Bowie, Maryland ordinance requiring a five-cent deposit on all beer and soft drink containers was recently upheld by a Maryland circuit court.[16] The Oregon statute,[17] being somewhat more complex, requires a five-cent deposit on beer and soft-drink containers, but provides for a reduction to two cents if the particular container can be reused "by more than one manufacturer in the ordinary course of business."[18] The declared purpose of this latter provision is to "promote the use . . . of reusable beverage containers of uniform design, and to facilitate the return of containers to manufacturers for reuse as a beverage container."[19] The statute also bans all cans with pull-tab tops and detachable lids.[20]

Of course, community and industry-run collection centers are also a method of control. However, these efforts have been largely ineffective.[21] The industry itself admits that "collection and recycling efforts today reclaim only a miniscule amount of the containers put into the [environment]."[22] Moreover, most of the collection centers in operation today are operating at a loss.[23] While the industry

15. A major soft drink company tested the efficacy of the deposit by marketing several million returnables, each carrying a five-cent deposit. Within six months the bottles had disappeared. Note, *Control of Redeemable Solid Waste: A Proposed National Bill*, 5 SUFFOLK U.L. REV. 962, 966 (1971). Additional costs to consumers, supermarkets and reusers are involved, and additional residual waste will be created due to breakage. Spofford at 565.

16. Maryland Soft Drink Ass'n, Inc. v. City of Bowie, Equity No. D-5085 (Cir. Ct. Prince George's County, Md. 1971). The court held that language in the home rule charter—a general welfare clause and a provision relating to the " 'maintenance of good order' within the community"—granted the authority to enact the ordinance. *Id.* at 8, 9. The court also held that the ordinance was not preempted by state laws concerning the environment and alcoholic beverages. *Id.* at 10.

17. ORE. REV. STAT. §§ 459.810-.992 (1971). For a discussion of possible constitutional challenges to this type of legislation see Hollister, *supra* note 10, at 702-07.

18. *Id.* § 459-860(2)(a).

19. *Id.* § 459.860(1). Apparently, the drafters recognized the effect of a higher deposit, *i.e.*, decreased consumer demand and an added budgetary burden (on distributors and ultimately the manufacturer).

20. *Id.* § 459.850.

21. *Control of Redeemable Solid Waste: A Proposed National Bill, supra* note 15.

22. NATIONAL SOFT DRINK ASS'N, IF YOU WANT TO RECYCLE 1 (1971).

23. *Id.* at 4.

reportedly views such centers as an interim solution, operational losses are justified as good public relations and a way of forestalling container legislation.[24]

The New York tax scheme offers yet another method of controlling containers and, from an economist's viewpoint, is preferable to others.[25] The tax, which is levied on the seller or supplier, is analogous to the effluent charges imposed by air and water pollution legislation. Imposition of the effluent charge or tax introduces market price decision-making in an area where "the absence of normal, functioning markets is the major problem."[26] In other words, increasing the price of a product through a charge or tax will cause producers and consumers to make different decisions with respect to how much will be bought and how much will be produced. For example, suppose a non-returnable and a returnable container are the same price. Since the non-returnable must be disposed of, it costs society more to have it produced. This disposal cost is "external" in the sense that it is not reflected in the price of the product because it is not part of the manufacturer's cost of production. Therefore, in applying the charge or tax to the non-returnable, the "external" cost is reflected in the increased price of the product. The higher price will induce consumers (wholesalers under the New York statute) to substitute lower-priced returnables for the higher-priced non-returnables. This change in consumer demand will result in a compensating change in production, *i.e.*, more returnables and less non-returnables will be produced. Obviously, the recycling objective would be furthered by the relative increase in the use of recyclable containers.

This kind of scheme is often referred to as "incentive pricing,"[27] and, theoretically, the New York statute could induce recycling in this manner. Under the statute, containers are taxed from one to three cents per container depending upon the component material, with plastic containers receiving the highest tax.[28] Because plastic

24. *Id.*

25. Russell, *Effluent Charges*, in C. MEYERS & A. TARLOCK, SELECTED LEGAL AND ECONOMIC ASPECTS OF ENVIRONMENTAL PROTECTION 183 (1971).

26. *Id.*

27. Spofford at 587.

28. N.Y. TAX LAW § 1201(f)(1) (McKinney Supp. 1971). Maximum rates are provided: "(i) three cents for each plastic bottle, (ii) two cents for each other plastic container, (iii) two cents for each glass container, (iv) two cents for each metal container except one cent for metal containers shown to be made of one metal only." *Id.* When a container is made of a combination of materials, it is classified as that component material carrying the highest tax.

containers appear to be the least recyclable,[29] the tax rates make sense. The incentive (lower price) must favor recyclable containers in order for recycling to be induced. However, the tax rate for each component material also reflects disposability,[30] and the inclusion of both considerations presents the possibility of conflicting objectives. In short, a container which is difficult or costly to dispose of may be more recyclable than one which is easily disposed of, or vice versa. Plastic containers, for example, while apparently the least recyclable, may prove to be no less disposable (in terms of cost) than other types of containers. Thus, if plastic containers were to receive a lower tax because of the disposability consideration, the "disincentive" to consume containers with low recyclability would be lessened. But, beyond the basic tax rates, the New York statute attempts to further the recycling incentive through a system of tax credits.

First, the New York statute encourages the use of waste materials by providing a mandatory credit against the tax where the container is composed of a minimum percentage of recycled material.[31] Second, the statute provides for a mandatory credit against the tax if a

29. In fact, plastic container wastes might best be recycled into energy. *Chemicals*, 2 ENVIRONMENT RPTR., CURRENT DEVS. No. 32, at 956 (1971). The factors which the local government must consider in determining whether to grant additional credits or impose a surcharge suggest that recyclability was a major factor in differentiating the New York container tax: "(A) the difficulty the container's material poses to the process of making recycled material. (B) the difficulty of its manufacture from recycled materials. . . . (E) the degree to which the container can or cannot be reused. . . ." N.Y. TAX LAW § 1201(f)(5)(ii) (McKinney Supp. 1971).

30. N.Y. TAX LAW §§ 1201(f)(5)(ii)(C), (D) (McKinney Supp. 1971); NEW YORK CITY ENVIRONMENTAL PROTECTION ADMINISTRATION, THE ENVIRONMENT AND PACKAGING: AN ECONOMIC AND LEGISLATIVE ANALYSIS, REPORT TO THE UNITED STATES SENATE COMMERCE COMM., SUBCOMM. ON THE ENVIRONMENT 87 (1972).

31. N.Y. TAX LAW § 1201(f)(4)(i) (McKinney Supp. 1971). A credit of one cent shall be allowed for each taxable container containing the following minimum percentages of recycled material:

(A) Paperboard and fibre containers: eighty per cent, if made of boxboard; thirty per cent if made of foodboard, fibre or containerboard.

(B) Metal containers: thirty per cent if taxed during the period beginning July first, nineteen hundred seventy-one and ending June thirtieth, nineteen hundred seventy-two; and forty per cent, if taxed thereafter.

(C) Glass containers: twenty per cent if taxed during the period beginning July first, nineteen hundred seventy-one and ending June thirtieth, nineteen hundred seventy-two; and thirty per cent, if taxed thereafter.

(D) Plastic containers: thirty per cent.

Id.

minimum percentage of containers are reused during the taxable period.[32] By allowing such credits, the price of reused containers and containers composed of recycled materials can be decreased. Substitution would then occur and further induce the production of reusable containers or containers composed of recycled material. Firms would have an incentive to recycle since their competitive positions would erode if they did not.

Thus, it would appear that the recycling objective sought by the New York statute could be accomplished. Furthermore, this method is attractive in that the tax revenue could be used to defray disposal costs. However, *Society of Plastics Industry v. City of New York*[33] held an ordinance, imposing a two-cent tax only on plastic containers, enacted pursuant to the state statute, to be *ultra vires* and unconstitutional.[34] The supreme court's opinion raised some important questions concerning the New York tax scheme. In *Society of Plastics Industry*, the court stated that New York City had no authority under the state act to impose the tax only on plastic containers since the taxable class, established by statute, encompasses "rigid and semi-rigid containers."[35] Moreover, the court concluded that restricting the tax to plastic containers would defeat the purpose of the state statute: "The only 'incentive' created by a tax on one, rather than all types of containers, would be the incentive to switch from the taxed type to the exempted types, with no reduction in the volume of containers used and no recycling."[36] However, it was the constitutional basis for the New York court's decision which had important implications for the state act.

Although the local tax was limited to plastic containers, the language of the state act, "rigid and semi-rigid," was used to designate which plastic containers were to be taxed. Because there were no standards by which the meaning of these terms could be determined, the local law was also held void for vagueness under the due process

32. *Id.* § 1201(f)(4)(ii). The second provision allows a one cent credit for: "each container of a clearly distinct type, class, pattern or form taxed during any taxable period provided that sixty per cent or more of all the containers of such distinct type, class, pattern or form subject to tax during such period were reused containers." *Id.*

33. 68 Misc. 2d 366, 326 N.Y.S.2d 788 (Sup. Ct. 1971).

34. *Id.*

35. *Id.* at 373, 326 N.Y.S.2d at 796.

36. *Id.* at 374, 326 N.Y.S.2d at 797.

clauses of both the New York and United States Constitutions.[37] While the court was not ruling on the constitutionality of the state act, identical language in that legislation indicates that it would fail on the same grounds. The incorporation of specific standards by which to measure rigidity would cure this constitutional defect, but the court also found the ordinance unconstitutional on equal protection grounds. Although imposing the tax on all containers delineated in the statute would cure the *ultra vires* defect of the local law, it would not eliminate plaintiff's equal protection argument.

Defendant attempted to justify imposing the tax only on plastic containers by showing, with a paucity of evidence, that disposal costs of plastic containers are higher.[38] Plaintiff, however, produced overwhelming expert testimony that disposal costs of plastic containers are approximately the same whether they are incinerated or deposited in sanitary landfills.[39] Therefore, even if a local law imposed a tax on the entire class of containers delineated in the state act, the higher tax on plastic containers authorized by the act could not be justified on this basis. Although low recyclability would seem to be a rational basis for discriminating against plastic containers, this argument does not appear to have been made by defendant in this case.[40] While the constitutional arguments had important implications for the state act, the New York case also raised a more fundamental problem concerning container legislation.

Substantial doubt was raised in *Society of Plastics Industry* with respect to the New York statute's effectiveness in achieving the recycling of *any* containers: ". . . expert evidence established that there is no economically feasible way to reclaim any of the types of containers enumerated in the Enabling Act from the solid mass of waste

37. *Id.* at 383, 326 N.Y.S.2d at 805.

38. Defendant's contentions concerning increased cost were based on a greater percentage of plastic than could be shown to presently exist in the City's waste load. It was also a greater percentage than could be shown to exist in the near future. Moreover, the City did not even know what the actual composition of the waste load was. *Id.* at 379, 326 N.Y.S.2d at 801.

39. *Id.* at 378-80, 326 N.Y.S.2d at 800-02. Plaintiff proved to the court's satisfaction that weight was the significant cost factor in collection. Thus, since plastics were lighter, they were cheaper to collect. In addition, plaintiff proved that plastic containers took up no more space in a landfill than other containers and that they were actually cheaper to incinerate.

40. *Supra* note 29. Note the court's discussion of this basis. 68 Misc. 2d at 380-81, 326 N.Y.S.2d at 802-03.

collected by the City."[41] That conclusion is puzzling since the percentages in the credit provisions were supposedly "set at levels within reach of current technology."[42] Of course, the term "within reach" is enough in itself to stimulate debate, but the current state of recycling technology seems to support the New York court's conclusion.[43] While the New York statute, to a certain extent, might provide some incentive by creating demand for recycled containers and containers composed of recycled material, the incentive may not be wholly effective in light of separation and collection costs and the low values of discarded containers.[44] Until methods are developed by which separation and collection can be accomplished more cheaply, virgin materials may still be more attractive even though the tax places a premium on used materials. Such development requires funding. Unfortunately, municipalities are already hard-pressed financially, and industry appears to be unwilling to undertake a development program on its own.

Subsidization of the development of separation and collection methods is necessary, and the federal government has already begun to act in this area. Amortization of pollution control facilities is provided under the Tax Reform Act of 1969.[45] Recycling facilities are included, but in order to prevent a "windfall," certification for this benefit is denied where the cost of the facility would be recovered from its operation.[46] In short, break-even and profitable operations cannot take advantage of this provision. In addition, the Resource

41. 68 Misc. 2d at 380, 326 N.Y.S.2d at 802.

42. NEW YORK CITY ENVIRONMENTAL PROTECTION ADMINISTRATION, *supra* note 30, at 92.

43. *See* Spofford at 571; *Solid Waste: Speaker Sees Recycling of Waste as Valuable Anti-Inflationary Force*, 2 ENVIRONMENT RPTR., CURRENT DEVS. No. 27, at 796 (1971); *Energy: Counting the Cost*, NEWSWEEK, Feb. 21, 1972, at 92.

44. In order to take advantage of the credit provisions of the New York statute, manufacturers may be willing to incur higher costs in using waste materials and used containers. But the question remains whether manufacturers could absorb the current costs of separation and collection and stay in business.

Depending on the type of container, processing costs can also be significant in determining the economic feasibility of recycling. Tin cans, for example, are the easiest to separate from other wastes, but they have the lowest recycling value because the multiple alloys of which they are composed cause processing costs to be higher. *See* T. CLARK, ECONOMIC REALITIES OF RECLAIMING NATURAL RESOURCES IN SOLID WASTE 2-6 (U.S. Environmental Protection Agency 1971).

45. INT. REV. CODE OF 1954, § 169.

46. Note, *The Use of Tax Incentives to Abate Pollution*, in C. MEYERS & A. TARLOCK, SELECTED LEGAL AND ECONOMIC ASPECTS OF ENVIRONMENTAL PROTECTION 181 (1971).

Recovery Act of 1970 provides for federal technical and financial assistance of recycling programs.[47] However, at present the Environmental Protection Agency, which administers the act, is apparently hesitant to assist such programs. Instead, emphasis is being placed on upgrading current disposal systems.[48]

The technological problem which currently plagues recycling efforts seems destined to remain unresolved at least for the near future. And, unfortunately, the New York scheme is not unaffected. In view of the fact that in many cases even a tax of a few cents is equal to the price of the container,[49] imposition of the tax can result in substantial changes in competitive positions. Of course, the actual impact of such a tax scheme will depend on the market conditions in a given locality. In locales where highly recyclable containers, such as aluminum cans and returnable bottles, are predominant in the market, recycling may be economically feasible.[50] Thus, the recycling objective may be achieved through the recycling tax scheme in these locales. For the most part, however, resort to recycling will be economically unfeasible. Consequently, the recycling objective will be frustrated, and for those containers which cannot be economically recycled or economically produced from recycled materials, the effect may be comparable to that of an outright ban.[51]

Michael J. Doster

47. 42 U.S.C. §§ 3251-59 (1970), *amending* 42 U.S.C. §§ 3251-59 (1965).

48. *Solid Waste: Hale Says Bulk of Federal Funds to Go for Upgrading Municipal Waste Systems*, 2 ENVIRONMENT RPTR., CURRENT DEVS. No. 34, at 1031 (1971).

49. 68 Misc. 2d at 382, 326 N.Y.S.2d at 804.

50. Where collection centers are in operation, aluminum cans are being redeemed at 10 cents a pound, the highest rate for used containers, due to low processing costs. One company's collection operation has reportedly passed the breakeven point. T. CLARK, *supra* note 44, at 4.

51. If a court finds that no permissible public objective will be served by destroying or damaging a business in such a manner, it will find a deprivation of property without due process of law. Grosjean v. American Press Co., 297 U.S. 233 (1936); Society of Plastics Indus. v. City of New York, 68 Misc. 2d 366, 383, 326 N.Y.S.2d 788, 805 (Sup. Ct. 1971).

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