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INDUSTRIAL DEVELOPMENT BONDS AND ECONOMIC POLICY

ROBERT L. BIRMINGHAM*

I. INTRODUCTION

A. PROPOSED LEGISLATION

Subsection 103(a)(1) of the Internal Revenue Code of 1954 excludes from income subject to tax "the obligations of a State, a Territory, or a possession of the United States, or any political subdivision of any of the foregoing, or of the District of Columbia"¹ This provision repeats in substantially unchanged form a part of section 22(b)(4) of the 1939 Code,² itself an extension of a rule in effect since 1913.³ By a series of revenue rulings the Treasury Department has interpreted it to allow state and local governments to use the immunity from taxation accorded income from their securities as a source of subsidy to industry permitting attraction of new firms without direct cost.

The principle was clearly stated in 1954:

Bonds duly issued by or on behalf of a municipality for the purpose of financing the acquisition or construction of municipally owned industrial plants for lease to private enterprises constitute obligations of a political subdivision Interest paid on such bonds is exempt from Federal income tax . . . notwithstanding the purpose for which they were issued or the fact that the promise to pay is limited to the revenue to be derived from leasing the property to be acquired or erected with the proceeds of the bonds. It is not necessary . . . that the obligation be a general one, pledging the general credit of the municipality or the use of its taxing power.⁴

Three years later bonds of an industrial development board established under the Alabama Industrial Development Act were held tax-exempt because issued on behalf of a political subdivision of

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1. INT. REV. CODE OF 1954, § 103(a)(1).

2. Revenue Act of 1938, ch. 289, § 22(b)(4), 52 Stat. 447, 458.

3. Revenue Act of 1928, ch. 852, § 22(b)(4)(A), 45 Stat. 791, 798; Revenue Act of 1918, ch. 18, § 213(b)(4)(a), 40 Stat. 1057, 1065; Revenue Act of 1916, ch. 463, § 4, 39 Stat. 756, 758; Tariff of 1913, ch. 16, § II-G(a), 38 Stat. 114, 172.

4. Rev. Rul. 54-106, 1954-1 CUM. BULL. 28-29.

the state.⁵ A 1963 ruling that "obligations issued by a nonprofit corporation formed under the general nonprofit corporation law of a state for the purpose of stimulating industrial development within a political subdivision of the state" will under certain conditions "be considered issued 'on behalf of' the political subdivision"⁶ has been termed by a critic "a blueprint for issuance of tax-exempt bonds to finance private ventures, provided a state, municipality, or political subdivision is willing to cooperate."⁷ Conforming securities have been thus described:

[I]ndustrial development bonds are municipal bonds issued to finance a city's acquisition of a suitable site and the construction of an industrial building thereon. Under the terms of firm contracts made prior to the sale of the bonds, this facility will be leased to a private industrial concern with rentals at least sufficient to cover the debt service and all costs connected with the bond issue. The bonds are secured by a pledge of the rentals and, in most cases, by a mortgage on all property acquired or constructed with the proceeds of the bonds. In some states, the full faith and credit of the municipality involved may be pledged to the payments of the bonds, or they may be additionally secured by a pledge of surplus revenues from other municipal projects.⁸

On July 24, 1967, Representative John W. Byrnes of Wisconsin, ranking Republican member of the House Ways and Means Committee, introduced a bill which would limit the exclusion granted by subsection 103(a)(1).⁹ He proposes adoption of a new subsection 103(c), paragraph (1) of which would remove from tax-exempt status "any industrial development bond . . . issued after Decem-

5. Rev. Rul. 57-187, 1957-1 CUM. BULL. 65.

6. Rev. Rul. 63-20, 1963-1 CUM. BULL. 24, 25. Five requirements are enumerated:

- (1) the corporation must engage in activities which are essentially public in nature;
- (2) the corporation must be one which is not organized for profit (except to the extent of retiring indebtedness);
- (3) the corporate income must not inure to any private person;
- (4) the state or political subdivision thereof must have a beneficial interest in the corporation while the indebtedness remains outstanding and it must obtain full legal title to the property of the corporation with respect to which the indebtedness was incurred upon the retirement of such indebtedness; and
- (5) the corporation must have been approved by the state or a political subdivision thereof, either of which must also have approved the specific obligations issued by the corporation.

Id. at 25.

7. Spiegel, *Financing Private Ventures with Tax-Exempt Bonds: A Developing "Truckhole" in the Tax Law*, 17 STAN. L. REV. 224, 227 (1965).

8. Abbey, *Municipal Industrial Development Bonds*, 19 VAND. L. REV. 25, 26 (1965).

9. H.R. 11645, 90th Cong., 1st Sess. (1967).

ber 31, 1967." Securities covered are designated in paragraph (2) of the suggested addition. Subparagraph (A) states the general rule:

For purposes of this subsection, the term "industrial development bond" means an obligation the payment of the principal or interest on which is—

(i) secured in whole or in part by a lien, mortgage, pledge, or other security interest in property of a character subject to the allowance for depreciation, or

(ii) secured in whole or in part by an interest in (or to be derived primarily from) payments to be made in respect of money or property of a character subject to the allowance for depreciation

which is or will be used under a lease, sale, or loan arrangement, for industrial or commercial purposes.

That not all tax-exempt securities used by state or local government to finance private industrial enterprise and thus commonly considered industrial development bonds are included within the suggested definition is made clear by comment on the scope of the proposed legislation: "The bill does not affect the interest from bonds . . . which are: (a) Unsecured general obligations of the local government, or an agency thereof, regardless of the purpose for which the funds may be used."¹⁰

Further exceptions are set forth in subparagraph (B):

For purposes of subparagraph (A), property shall not be treated as used for industrial or commercial purposes if it is used—

(i) to provide entertainment (including sporting events) or recreational facilities for the general public;

10. *Scope of Proposed Amendment to Section 103 of the Internal Revenue Code of 1954 Relating to Industrial Development Bonds*, 113 CONG. REC. H9191 (daily ed. July 24, 1967). This statement also more clearly delineates the target of corrective efforts:

The bill would make subject to tax interest on industrial development bonds issued after December 31, 1967, which are:

(a) Secured by the obligation of an industrial or commercial enterprise to make payments on account of the use of depreciable property such as buildings, machinery and equipment, and other property of a character subject to an allowance for depreciation.

(b) Secured by the obligation of an industrial or commercial enterprise to make payments on account of the purchase of depreciable property such as buildings, machinery and equipment, and any other property of a character subject to an allowance for depreciation.

(c) Secured by the obligation of an industrial or commercial enterprise to make payments on account of funds received from the issuing agency as a loan, advance, or other contribution to capital.

- (ii) to provide facilities for the holding of a convention, trade show, or similar event;
- (iii) as an airport, dock, wharf, or similar transportation facility;
- (iv) in the furnishing or sale of electric energy, gas, water, or sewage disposal services; or
- (v) in an active trade or business owned and operated by an organization described in subsection (a) (1).

Paragraph (3) further restricts the advocated change by excluding from coverage by paragraph (1) any obligation issued before January 1, 1969, for a project assisted by the federal government under Title I of the Housing Act of 1949¹¹ or under Titles I or II of the Public Works and Economic Development Act of 1965.¹²

B. IMPETUS

The proposed legislation is by no means the first attempt to preclude the financing of private ventures with tax-exempt securities.¹³ The recent rapid growth in the size and number of such offerings has however added urgency to the demands of critics that use of industrial development bonds be curtailed.

Promotion of enterprise through use of tax advantages granted securities of units of state and local government first gained prominence as a part of the Mississippi Balance Agriculture With Industry (BAWI) plan of 1936.¹⁴ Under this program as initially structured the sponsoring community pledged its credit to obtain the necessary capital but charged only nominal rent to attracted lessees. It was also possible for a municipality itself to operate an enterprise thus financed. Only twelve plants were established with its aid between 1936 and 1940, and none in the following four years; the amount raised to finance an individual facility during this initial period in no case exceeded 300,000 dollars.¹⁵

11. 42 U.S.C. §§ 1450-65 (1964). H.R. 11645 would also provide for amendment of § 102(g) of the Housing Act of 1949 to eliminate industrial revenue bonds from the group of securities there granted tax-exempt status. See *id.* § 1452(g).

12. *Id.* §§ 3131-43.

13. See Abbey, *supra* note 8, at 57; Lent, *The Origin and Survival of Tax-Exempt Securities*, 12 NAT'L TAX J. 301, 304-14 (1959); Spiegel, *supra* note 7, at 225. In 1966 Representative Byrnes himself proposed parallel legislation which would have treated "the rental value of a facility supplied to an industry by a municipality or other governmental authority, adjusted for the actual rents paid, as taxable income to the user of the facility." 112 CONG. REC. 7416 (daily ed. April 6, 1966). See H.R. 14313, 89th Cong., 2d Sess. (1966).

14. MISS. CODE ANN. § 8936 (5) (1957).

15. MOES, LOCAL SUBSIDIES FOR INDUSTRY 74 (1962). See *id.* at 71-80; Abbey, *supra* note 8, at 27.

No state followed the pioneering efforts of Mississippi until 1946, when the Kentucky legislature authorized issuance of revenue bonds, supported solely by project rents, to finance construction of facilities to be leased to private industry.¹⁶ Alabama introduced the local development corporation in 1949.¹⁷ Proliferation of aid programs since 1951 resulted in statutes permitting use of industrial development bonds in twenty-three states by 1965.¹⁸ The trend is continuing:

Today, some 35 States have qualified either directly, or through municipalities, or through State or county industrial development agencies, to issue revenue bonds exempt from Federal tax, the proceeds to be used for the benefit of private industry. Some 13 more States have either authorized or are considering the authorization of industrial financing through local or State bonding. . . . [W]e are fast approaching the day when all 50 States will be engaged in this form of financing.¹⁹

The proposed bond issue in the test case under the Mississippi act totaled 35,000 dollars.²⁰ In 1951 public offerings of securities which would be denied tax-exempt status under the bill amounted to less than 7 million dollars.²¹ Current figures dwarf these sums and continue to increase: "As recently as 1960, less than \$50 million worth of revenue bonds were issued. Last year the volume was more than \$1 billion and included a \$70 million and a \$60 million offering."²² Capital raised is frequently dramatically in excess of that which could be obtained by the sponsoring community through pledge of its own credit:

Take the case of Camden, Ala., with a population of only 1,132. This community borrowed \$70 million to finance a venture of United Fruit Co. and MacMillan Bloedel, Ltd., of Canada. . . . Or the case of the aluminum plant to be built in Warrenton, Oreg., with an issue of \$140 million in tax-free municipal industrial bonds. Warrenton is a town of 1,117 population. In another typical case—that of Jerome, Ark.,—35 registered voters were asked to vote upon a \$20 million bond authorization last October, the purpose of which was to finance a knitting mill. The bond issue represented more than a half million dollars per voter.²³

16. KY. REV. STAT. §§ 103, 200-85 (1963).

17. ALA. CODE tit. 37, § 815-30(1) (1958).

18. Abbey, *supra* note 8, at 29.

19. 113 CONG. REC. H9190 (daily ed. July 24, 1967).

20. Abbey, *supra* note 8, at 27.

21. 113 CONG. REC. H9190 (daily ed. July 24, 1967).

22. Metcalf, *War Between the States*, MAGAZINE WALL STREET, Feb. 18, 1967, at 26, 27.

23. 113 CONG. REC. H9190 (daily ed. July 24, 1967).

Advantages of industrial development bonds to sponsoring communities and attracted firms sufficiently explain their increasingly widespread use. Exclusion of interest on such securities from taxable income permits their issuance at rates between 1 and 1.5 per cent below those which would otherwise be required.²⁴ Gain from inexpensive financing of plant construction may be passed directly to private concerns to induce location where such subsidization is available: rental payments are deductible as business expense by the leasing enterprise²⁵ and local government pays no income tax on funds thus received.²⁶ Since the credit of the issuing political unit is generally not pledged and promotional and other expenses can be recovered as rent, it is possible to lure industry without risk or cost. Attracted firms benefit from reduced production costs.

II. POLEMICAL SUPPORT OF REMEDIAL ACTION

The most vociferous attacks on the use of tax-exempt securities to support local programs promoting industrialization have been made by those opposing such government intervention as in principle politically unjustifiable. Criticism by this outraged group, more entertaining than impressive, early assumed a standard form. A Mississippi banker, dissatisfied with small-scale subsidization of enterprise by his state under the pioneering Balance Agriculture With Industry plan of 1936, claimed: "The thing was outright Socialism and should never have been attempted, much less held constitutional."²⁷

24. Bridges, *State and Local Government Financial Inducements for Industry*, TAX POLICY, Jan.-Feb. 1965, at 3, 5.

25. Deduction may be made for "rentals or other payments required to be made as a condition to the continued use or possession, for purposes of the trade or business, of property to which the taxpayer has not taken or is not taking title or in which he has no equity." INT. REV. CODE OF 1954, § 162(a)(3).

26. Gross income does not include "income derived from any public utility or the exercise of any essential governmental function and accruing to a State or Territory, or any political subdivision thereof, or the District of Columbia." *Id.* § 115(a)(1).

27. MOES, *supra* note 15, at 74. Accusations of subversion are common with respect to tax measures: "With the passage of the Sixteenth Amendment, American citizens have no constitutional right to keep a single dollar of their income. One plank of the Communist Manifesto of 1848 has been achieved." Pettengill, *The History of a Prophecy: Class War and the Income Tax*, 39 A.B.A.J. 473, 475 (1953). It may be argued that greater dangers exist: "The destiny of our Western civilization turns on the issue of our struggle with all that Madison Avenue stands for more than it turns on the issue of our struggle with Communism." A. Toynbee, quoted in *Books*, TIME, Oct. 20, 1967, at 102.

This approach has been widely followed. The Idaho court, holding a statutory authorization to issue industrial development bonds unconstitutional, stated:

The evident purpose of the exemption contained in the act is to extend to the purchasers of the bonds and securities the protection and advantage of an exemption from taxation. . . . It is obvious that private enterprise, not so favored, could not compete with industries operating thereunder. If the state-favored industries were successfully managed, private enterprise would of necessity be forced out, and the state, through its municipalities, would increasingly become involved in promoting, sponsoring, regulating and controlling private business, and our free private enterprise economy would be replaced by socialism. The constitutions of both state and nation were founded upon a capitalistic private enterprise economy and were designed to protect and foster private property and private initiative. Socialism is as foreign to our constitutional, political and economic system as our private enterprise system is to the socialist system of Russia.²⁸

A member of the Alabama court, dissenting from an advisory opinion approving such securities, asserted: "The declared purpose of the scheme . . . is to induce business interests to migrate to and settle in Alabama and become lessees of publicly owned and controlled tax-free projects The present drift is leading to socialism."²⁹ A more recent critic has proclaimed:

The trend to federalization or state socialism has been marked in the last 30 years. . . . There has been some quibbling as to whether municipal industrial aid is in effect state socialism. Definitions are advanced to indicate that in effect municipal industrial aid does not transfer ownership of private industry to the public sector. . . . To say that ownership of an industrial plant leased to private enterprise is not a step toward socialism is playing with semantics. Even though the municipal aspects might be construed as a subterfuge to cloak the real ownership, the very fact that this has been accomplished in the guise of a municipal project stamps the process as socialistic. In addition, the acceptance of inducements, including tax exemption of the interest on the municipal industrial bonds, is another step toward socialism.³⁰

28. *Village of Moyie Springs, Idaho v. Aurora Mfg. Co.*, 82 Idaho 337, 349-50, 353 P.2d 767, 775 (1960).

29. *In re Opinion of the Justices*, 53 So. 2d 840, 845 (Ala. 1951) (dissenting opinion).

30. Browne, *The Case Against Municipal Industrial Revenue Bonds*, *Tax Policy*, Jan.-Feb. 1965, at 12, 15. "The financing of private enterprises with public funds is foreign to the fundamental concepts of our constitutional system. To permit such encroachments upon the prohibitions of the

Opposition to innovation without discussion of its benefits or dangers appears founded on a principle enunciated by a Duke of Cambridge in the eighteenth century: "Any change of any kind at any time for any purpose is to be deplored."³¹ Such an attitude unhappily finds substantial support in legal literature: "Sir, the law is as I say it is, and so it has been laid down ever since the law began; and we have several set forms which are held as law, and so held and used for good reason, though we cannot at present remember that reason."³² To the extent that cries of socialism mask more legitimate appeals for preservation of the economic efficiency of our present system they will be treated in greater detail below; as emotional outbursts, however, they should be disregarded.³³

Constitution would bring about, as experience and history have demonstrated, the ultimate destruction of the private enterprise system." *State ex rel. Beck v. City of York*, 164 Neb. 223, 229-30, 82 N.W.2d 269, 273 (1956). See also *State v. Town of North Miami*, 59 So. 2d 779, 785 (Fla. 1953).

31. Quoted in Wheat, *Panel: Mutual Funds as Investors of Large Pools of Money*, 115 U. PA. L. REV. 669, 671 (1967).

32. Pronouncement by Chief Justice Fortescue in 1458, Y.B. 36 Hen. 6, f. 25b, pl. 26, quoted in LEACH, *PROPERTY LAW INDICTED!—OR THE PEOPLE VS. BLACKSTONE, KENT, GRAY AND STARE DECISIS (ACCESSORIES: PONTIUS PILATE AND THE LAWS OF THE MEDES AND THE PERSIANS)* 2 (1967). Even earlier precedent exists:

In the year AD 61 the prefect of the city of Rome, Pendanius Secundus, was murdered by one of the slaves in his town house. Under the law, not only the culprit but all the other slaves in the household had to be executed, in this instance numbering four hundred. There was a popular outcry and the Senate debated the question. Some senators rose to plead clemency, but the day was carried by the distinguished jurist, Gaius Cassius Longinus, who argued that all change from ancestral laws and customs is always for the worse. When a mob tried to prevent the sentence from being carried out, the emperor personally intervened on the side of the law, though he rejected another proposal that Pendanius's ex-slaves should also be punished by banishment. That, he said, would be unnecessary cruelty.

Finley, *Book Review*, N.Y. REV. OF BOOKS, Jan. 26, 1967, at 6.

33. Deviation from laissez-faire principles occurred even in early nineteenth-century Britain. MacDonagh, discussing the Passenger Act of 1803, 43 Geo. 3, c. 56, states:

The new act was introducing a revolutionary principle to English law, a principle of first importance which was to have no true counterpart in other fields for thirty years to come. This innovation was the interference of the legislature with freedom of contract—for to buy a passage was after all to make a contract—upon the ground that the free, sane and adult citizens concerned required a peculiar statutory protection in these transactions.

MACDONAGH, *A PATTERN OF GOVERNMENT GROWTH, 1800-1860*, at 59 (1961), quoted in BURN, *THE AGE OF EQUIPOISE—A STUDY OF THE MID-VICTORIAN GENERATION* 165 (Norton Library ed. 1965).

III. ARGUMENTS OF INEFFICACY

A. PRISONER'S DILEMMA

More sophisticated advocates of reform claim that use of industrial development bonds is now so common that firms seeking new facilities expect such financial aid in any case and thus base locational decisions on other considerations:

Is it sound policy for states and municipalities to grant tax exemptions? Certainly something will depend here upon the universality of the exemption program. If one merchant keeps his store open on Sunday while others are closed he can make money by so doing. But if all merchants follow the same policy none of them are benefited. Similarly, if only one municipality were to offer special tax advantages, it could attract, perhaps, a considerable number of desirable industries, but when the favors are universalized they cease to be effective. Of course, one municipality can outdo another in its inducements. The question then arises as to when and where will the competition in subsidies stop?³⁴

They reason: "As the process spreads, the actual effect on the location of industry diminishes, and the net effect will be simply to erode the federal corporate tax base and to raise interest charges on all tax-free state and municipal securities, thus in the end hurting the protagonists in the process."³⁵ Byrnes concludes: "This tax avoidance has become so widespread that no one benefits except the private borrower."³⁶

The situation described by these critics is best analyzed as an instance of Prisoner's Dilemma, a paradox of game theory which is currently the focus of much attention from economists and other social scientists.³⁷ Assume two individuals, 1 and 2, have

34. Groves, *Effects of Tax Exemption and Tax Differentials on the Location of Business*, in NATIONAL TAX ASS'N, PROCEEDINGS OF THE THIRTY-FIRST ANNUAL CONFERENCE ON TAXATION 557, 564-65 (1939), quoted in MOES, *supra* note 15, at 222.

35. Cooper, *National Economic Policy in an Interdependent World Economy*, 76 YALE L.J. 1273, 1296 n.39 (1967).

36. 113 CONG. REC. H9190 (daily ed. July 24, 1967). "[U]ndesirable competition may and does usually result, with only the companies benefiting at the expense of the general public The greatest evil is that a vicious circle is created" Derber, *Municipal Subsidy of Private Industry*, 32 THE MUNICIPALITY (1937), quoted in MOES, *supra* note 15, at 226. See also SCHULTZ & HARRISS, *AMERICAN PUBLIC FINANCE* 81 (1959).

37. The pioneering exposition of game theory is VON NEUMANN & MORGENTHAU, *THEORY OF GAMES AND ECONOMIC BEHAVIOR* (1953). The most satisfactory text is LUCE & RAIFFA, *GAMES AND DECISIONS* (1957). A good introductory work is RAPOPORT, *TWO-PERSON GAME THEORY* (1966). See also RAPOPORT & CHAMMAH, *PRISONER'S DILEMMA* (1965); Rapoport, *Escape from Paradox*, SCIENTIFIC AM., July 1967, at 50.

robbed a bank. They have been apprehended by the police and isolated in separate cells. The district attorney tells each that although he is certain of their guilt he has insufficient evidence to convict them of robbery. He asserts, however, that even without further information he will be able to secure their conviction on a lesser charge carrying a penalty of imprisonment for one year. He urges each of the prisoners to confess, promising that if one cooperates and the other remains silent, he will escape punishment, while his recalcitrant partner will be incarcerated for ten years. If both confess, each will receive a sentence of six years. 1 and 2 accept the accuracy of this outline of possible consequences and must decide whether to confess.

Results of choices which confront the prisoners are depicted in the diagram below. The first and second numbers in each set of parentheses measure on an ordinal scale the worth or utility of designated outcomes to 1 and 2 respectively. The value of solutions to each individual is here assumed to vary inversely with the length of the prison sentence imposed on him. An ordinal scale is one which "allows only the determination of the rank of a set of objects, but not the 'distances' between them."³⁸ Following Bentham, we may define "utility" as "that property in any object, whereby it tends to produce benefit, advantage, pleasure, good, or happiness (all this in the present case comes to the same thing)."³⁹

	a ₂	b ₂
a ₁	(1, 1)	(-2, 2)
b ₁	(2, -2)	(-1, -1)

By choosing a₁ (remaining silent) or b₁ (confessing) player 1 can select the outcomes of either the first row or the second row. Similarly 2 can choose between the first and second columns. For example, the value of joint silence, a utility of 1 to each prisoner, can be determined from the upper left set of solutions. Since 2 > 1 > -1 > -2, individual 1 will prefer the outcome at the lower left. The upper left is more desirable to him than the lower right, while the upper right is least satisfactory. Outcomes may be similarly ranked in order of decreasing desirability to individual 2: upper right, upper left, lower right, lower left.

Obviously each prisoner can maximize his own well-being through confession. Assume that player 1 chooses to confess. Then, if player 2 remains silent, 1's choice yields to 1 a utility of 2, greater than the level 1 which he could obtain through silence.

38. RAPOPORT, *STRATEGY AND CONSCIENCE* 310 (1964).

39. BENTHAM, *AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION* 18 (Dolphin ed. 1961).

On the other hand, if player 2 confesses, player 1's confession gives a utility of -1, rather than the -2 which 1 would obtain if he remained silent. Player 2 faces a similar outcome pattern. Thus each prisoner, acting rationally, will confess. Their joint confessions will dictate the outcome in the lower right corner, a utility of -1 to each. If both had remained silent, each would have obtained a utility of 1. Rational decision paradoxically results in incarceration of each prisoner for five more years than would be necessary if both had irrationally remained silent.⁴⁰

B. EVALUATION

A Pareto Optimum is a set of imputations such that it is impossible to increase the utility of any one individual without reducing the utility of some other.⁴¹ In games fitting the Prisoner's

40. A recently devised game provides a striking if unrealistic illustration of the impact of inability to enforce cooperation among individuals. Assume three players. Player 1 will pay \$1 to the other player bidding the most for it. Players 2 and 3 may not coordinate their bids. After each bid by either 2 or 3, the other is informed of his opponent's offer and may raise his bid by a cent or more. The game terminates when neither player wishes to rebid. Player 1 is awarded the last bids of both players. Each player bids so as to utilize any opportunity to increase his gain or reduce his loss, always calculating the advantage of any action without regard to the possibility of subsequent responsive readjustment of the competing offer. Under these conditions bidding will continue indefinitely, the loss to 2 and 3 eventually exceeding any finite sum. Ability to cooperate would have allowed them to divide a small gain. I am indebted to one of my students, Mr. Arthur Wolfe, for this example.

41. Tullock has recently provided a striking illustration of Pareto Optimality:

Benefactor organizes an enterprise called "Aid for the Sick and Starving Children of Gwondonaland," and solicits voluntary gifts for its support. This enterprise does not, however, waste any of its money in Gwondonaland. All of the contributions that it receives (except Benefactor's entrepreneurial profit) are devoted solely to raising the utility of the donors. It publishes a newsletter (on what appears to be cheap paper) full of affecting stories of suffering and its alleviation. These stories, produced by the best writers money can hire, are illustrated by touching before and after pictures produced by skilled photographers using all the resources of the New York modeling agencies. Any donor who gives more than \$10.00 receives a "personal letter" in a childish scrawl expressing gratitude and suggesting further contributions. Donors of more than \$100.00 receive "native handicraft" allegedly produced by the children of Gwondonaland. . . . As a result of Benefactor's activities, many contributors have the satisfaction of thinking that they are alleviating suffering. . . . [T]hey are happier about this charity than they would be if money were put into actually helping the children and the flow of newsletters, etc., were less well financed.

Tullock, *Information Without Profit*, 1 PAPERS ON NON-MARKET DECISION MAKING 141, 142-43 (1966). The author comments: "This project . . . meets the welfare criteria of Paretian economics. . . . There is no change which

Dilemma model all solutions except that resulting from the anticipated independent decisions are Pareto optimal. The prisoners cannot obtain the outcome in the upper left corner, preferred by each to that in the lower left, because they are unable convincingly to commit themselves to silence. Since equilibrium is inefficient in that both players could gain if an alternate solution could be reached, one would expect participants, competitors in some respects, to unite in seeking from the legal system a means of enforcing agreements. The common law of contracts provides this in the general case. On a macropolitical level so does the Social Contract.

Much legislation either prohibits private agreement or substitutes for it. Section 1 of the Sherman Act, for example, provides: "Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal . . ."⁴² Conversely government programs restricting agricultural output may be viewed as the only technique by which the members of the farming community can bind themselves to joint action. It is apparent that competition itself is a Prisoner's Dilemma situation. Where rivals are few government intervention is frequently necessary to preclude its elimination. Where there are many buyers or sellers, on the other hand, costs of negotiating private agreements and rewards of individual nonparticipation are often sufficiently great to require public action if mitigation of market forces is found desirable.

Enforced cooperation will unquestionably benefit those involved in a Prisoner's Dilemma game. Legislation does not eliminate all major instances of its play because the community includes not only the participants but also others affected by their actions. Thus Darwinian competition, admittedly painful to competitors, is frequently considered advantageous to society. Pleas for elimination of rivalry, even among units of government, therefore cannot be adequately supported merely by demonstrating that these units would profit from controls: the impact of corrective measures on other groups must be taken into account.

can be suggested which would 'benefit at least one person while injuring no one.' " *Id.* at 143. With respect to the purported recipients of the charitable contributions he adds: "In particular it should be noted that the starving children of Gwondonaland are in no way injured by the organization. They would, of course, be better off if the AFTSASCOG were to divert some of its resources from directly serving its customers, the donors, to help in Gwondonaland, but they would also be better off if U. S. steel similarly made contributions to their welfare." *Id.*

42. 15 U.S.C. § 1 (1963).

Concern for local development preceded a widespread desire to industrialize. Sinclair, discussing settlement of the Midwest in the nineteenth century, notes: "Agricultural journals and local newspapers frantically painted the Western skies into the colors of a peacock's tail to keep old settlers where they were and to attract fresh ones. For if a small town did not grow, it was abandoned; Iowa, in less than a hundred years, held more than two thousand deserted settlements."⁴³ However the urge to expand was rationalized,⁴⁴ resulting competition among communities did not go unexploited by private enterprise:

The railroad promoters, asking communities to bid against one another, profited by deflecting their route this way or that. Citizens of North Liberty, Iowa, in public meeting adopted a resolution (December 13, 1865), "That Johnson County donate half a million dollars rather than this Rail Road should be made twenty miles east or west of us." In 1869 Indiana railroad-builders were openly offering to run their line through Covington in return for a donation of eighty thousand dollars; otherwise, they threatened to move it in the direction of Perryville. Sometimes this competition produced bizarre results.

The New York and Oswego Midland railroad, completed in 1873, had gone zigzagging across the state in search of municipal bonds. When larger cities like Syracuse refused to subscribe, the line actually secured some six million dollars in municipal aid from nearly fifty towns, mostly small. To pick up these sums it ended up crossing the breadth of the state without passing through a single major city.⁴⁵

Recent efforts to attract manufacturing activity are nevertheless not without venerable precedent. As early as 1791 a private venture in New Jersey was financed by local government debt and granted exemption from state taxes. In the nineteenth century Vermont, Delaware, and Rhode Island enacted legislation relieving new enterprise of at least a part of its normal fiscal burden.⁴⁶

43. SINCLAIR, *PROHIBITION: THE ERA OF EXCESS* 12-13 (1962).

44. The settlement of the country and the increase of the timber has already changed for the better the climate of that portion of Nebraska lying along the Missouri, so that within the last twelve or fourteen years the rain has gradually increased in quantity and is more equally distributed through the year. I am confident that this change will continue to extend across the dry belt to the foot of the Rocky Mountains as the settlements extend and the forest-trees are planted in proper quantities.

Statement by Ferdinand V. Hayden, Director of the Geological and Geographical Survey of the Territories, to the Secretary of the Interior, 1867, quoted in BOORSTIN, *THE AMERICANS* 232 (1965).

45. *Id.* at 255-56.

46. Morgan, *The Effects of State and Local Tax and Financial In-*

Rivalry has increased as the benefits of industry have become more widely recognized. Units of state and local government frequently tender inducements requiring substantial financial sacrifice by the offeror:⁴⁷ the cost in lost revenue of tax concessions granted new or expanded enterprise between 1958 and 1961 in Alabama, Kentucky, Louisiana, Mississippi, Rhode Island, South Carolina, and Vermont has been estimated to total more than 167 million dollars.⁴⁸ Industrial development bonds have been singled out for attack not because they are a weapon in the competition for new factories but because the cost of their use falls only incidentally on the sponsoring community.

Critics have been almost unanimous in designation of the undesirable characteristics of industrial development bonds. Most agree that they lower federal revenue and reduce the progressivity of the tax structure. It is also urged that their continued use, by "greatly increasing the total of exempt bonds outstanding will eventually drive up the interest rates paid by all states and municipalities for their borrowing. Yet there will be no commensurate increase in public service to compensate for the cost to the taxpayers."⁴⁹ Other unhappy consequences are foreseen: "[S]erious reservations . . . had to do with the possibility that the bonds might hinder the sale of legitimate municipal issues. 'If an investor has a choice between speculating on a large corporation or on the East Turkey-foot Authority, chances are he's going to buy the industrials.'"⁵⁰ Byrnes concludes:

Not only is there a serious revenue loss to the Federal Treasury, but the cost of other public financing by State and local agencies has been increased. There are innumerable cases where school districts and municipalities have been required to pay interest in excess of 5 percent on tax-exempt issues because these obligations must be offered in competition with industrial development bonds. Unless prompt action is taken . . . the savings in interest costs enjoyed by our local governments will be completely eroded.⁵¹

ducements on Industrial Location 115 (unpublished dissertation in University of Colorado Library 1964).

47. See, e.g., Bridges, *State and Local Inducements for Industry* (pts. 1-2), 18 NAT'L TAX J. 1, 175 (1965); Gold, *Subsidies to Industry in Pennsylvania*, 19 NAT'L TAX J. 286 (1966).

48. Morgan, *supra* note 46, at 126 (Table IX). Calculations incorporate the assumption that local investment would not have been reduced if such tax relief had not been available.

49. Fowler *Hints of Steps to Narrow Exemption of Some Tax-Exempts*, Wall Street J., June 17, 1966, at 25, col. 3.

50. THE WEEKLY BOND BUYER, Sept. 11, 1967, at 45, 47.

51. 113 CONG. REC. H9190-91 (daily ed. July 24, 1967).

Interest rates on tax-exempt securities have risen dramatically in the last two decades. A group of long-term bonds which yielded an average of 1.78 per cent in December 1946 returned 3.57 per cent and 4.01 per cent ten and twenty years later.⁵² This trend has continued: one popular average, which stood at 4.02 per cent in December 1966, had reached 4.37 per cent by November 22, 1967, its highest level since April 1934.⁵³ The value of outstanding state and local government issues concomitantly increased from less than 16 billion dollars in 1946 to more than 47 billion dollars in 1956 and almost 105 billion dollars in 1966.⁵⁴ Since only a small proportion of these securities were industrial development bonds,⁵⁵ it is unlikely that their growing importance played a substantial role in the rise in interest rates. That yields of taxable securities have increased more rapidly than those of tax-exempts over the last decade⁵⁶ indeed suggests that factors other than disproportionate supply of one type of bond, for instance monetary policy, have played key roles.

Critics correctly urge that if income from industrial development bonds were taxable the government would receive more revenue. However the goal of tax policy should not be to raise funds to cover public expenditures but rather to control private demand. Presumably authorities can perform this function with almost equal facility regardless of the status of the securities in question.

The availability of industrial development bonds reduces the progressivity of the tax structure by enabling the more wealthy to shield their receipts from government levy at the expense of the general taxpayer. Assuming that the marginal utility of income to an individual decreases as income rises⁵⁷ and that the rich on

52. MOODY'S MUNICIPAL AND GOVERNMENT MANUAL a23-24 (1967).

53. Allan, *Rates up Sharply on Tax-Exempts*, N.Y. Times, Nov. 23, 1967, at 67, col. 1.

54. MOODY'S MUNICIPAL AND GOVERNMENT MANUAL a16-17 (1967).

55. See § I.B *supra*.

56. See MOODY'S MUNICIPAL AND GOVERNMENT MANUAL a21-22 (1967).

57. The proof of this proposition, widely accepted as intuitively correct, is implicit in the St. Petersburg Paradox. Reconciliation of subjective estimates of the worth of the game with its fair value in money terms requires recognition that little utility is attached to the marginal dollars of relatively large sums:

The nature of the paradox is this: a coin tossed until heads appears; if heads appears on the first toss, A pays B \$1; if heads appears for the first time on the second toss, A pays B \$2, and so on, always paying $\$2^{n-1}$ for each toss if heads appears. What fee should B be willing to pay for the privilege of playing the game if it is to be a "fair game"? A "fair game" is one in which the player pays no more than the total mathematical expectation

the average do not take greater pleasure from a given amount of money than the poor, a policy dividing a fixed national income equally among the people would be most likely to maximize welfare. Since national income is itself a result of productive effort, however, some degree of income inequality must be preserved to provide work incentive. The most satisfactory compromise is probably at a higher level of progressivity than has been achieved in the United States. Even if the distribution of income is considered optimal, however, it may be argued that exemptions making nominal rates of taxation illusory⁵⁸ or granting artificial advantage to the conservative investment should be eliminated. Nevertheless opposition to industrial development bonds on these grounds cannot logically be divorced from attack on all tax-exempt issues: if subsidization of state and local government financing efforts is considered desirable, it may be accomplished without simultaneously benefiting those in the upper income brackets. Thus Musgrave advocates "the removal of tax exemption on state and local securities, which now offer a low-risk haven to potential risk capital, and substitution (if needed) of a more efficient technique of federal aid to state and local debt financing."⁵⁹

IV. IMPACT ON ENTERPRISE

While both critics and proponents of industrial development bonds agree that their use normally benefits attracted corporations by reducing plant and equipment costs, most discussion of the consequences of assistance has concerned its effect on plant location. Advocates of reform urge: "[T]he ability of a local governmental unit to offer tax-free financing to industry no longer constitutes an inducement. It has become a way of life. A company desiring to build a new plant almost assumes that tax-free financing will be available."⁶⁰ Such aid should stimulate invest-

of success, the actuarial value of the gamble, at each stage of the game. The expected gain or loss of income from a "fair bet," therefore, always equals zero. The mathematical expectation of heads on the first toss is $p \cdot \$1 = (\frac{1}{2}) \cdot \$1 = \$0.50$; on the second toss $(1-p) \cdot (p) \cdot \$2 = (\frac{1}{2}) \cdot (\frac{1}{2}) \cdot \$2 = \$0.50$; on the n th toss $(\frac{1}{2})^n \cdot \$2^{n-1} = \$2^{n-1} / 2^n = \$0.50$. Since the total expectation E is the sum of the expectations at each state, $E = \$0.50 + \$0.50 + \dots$. The sum of this infinite series is infinite and so B must pay A an infinite sum of money for the privilege of playing this "fair game."

BLAUG, *ECONOMIC THEORY IN RETROSPECT* 307 (1962). See Jensen, *An Introduction to Bernoullian Utility Theory*, 69 SWED. J. ECON. 163 (1967).

58. See Bittker, *A "Comprehensive Tax Base" as a Goal of Income Tax Reform*, 80 HARV. L. REV. 925 (1967).

59. Musgrave, *Growth with Equity*, 53 AM. ECON. REV. (PAPERS & PROC.) 323, 329-30 (1963).

60. 113 CONG. REC. H9190 (daily ed. July 24, 1967).

ment generally by rendering it more profitable.

Boulding asserts: "Economists tend to assume . . . that the 'success' of government is measured by the rate of increase of the gross national product."⁶¹ Fiscal incentives have been widely considered important tools for encouraging economic growth: "The effectiveness of tax policy in altering investment behavior is an article of faith among both policy makers and economists. Whatever the grounds for this belief, its influence on postwar tax policy in the United States has been enormous."⁶² Research confirms assumptions of impact: "[T]ax policy is highly effective in changing the level and timing of investment expenditures. . . . The effects of accelerated depreciation are very substantial The effects of the investment tax credit of 1962 are quite dramatic and leave little room for doubt about the efficacy of tax policy in influencing investment behavior."⁶³ Although the expansionary stimulus of reduced borrowing costs has not yet been satisfactorily quantified,⁶⁴ it is obvious that exemption from taxation of income from industrial development bonds complements more conscious government growth measures. Since investment is advantageous if the marginal efficiency of capital is greater than its cost, a firm able to obtain funds at an artificially low rate of interest can profitably undertake a wider range of projects.⁶⁵

61. Boulding, *The Legitimacy of Economics*, 5 W. ECON. J. 299, 307 (1967). Prediction may be substituted for performance:

Sheik Abeid Karume, the first Vice-President of the Republic of Tanganyika and Zanzibar, on June 6, 1964, promised the 320,000 people of Zanzibar that they "would all be earning £450 by 1966," an income £25 greater than the 1962 U.K. average. This remarkable objective is to be achieved by a three-year Zanzibar development plan prepared by the revolutionary government of Zanzibar. When I questioned an important figure in the revolutionary government about the feasibility of this promise, he replied, "If the Government says it will happen, it will," and eagerly dropped the subject. The Chinese People's Republic has already promised Zanzibar an interest-free loan of £5 million, but this is, unfortunately, only about 1 per cent of the investment required to reach the promised per capita level.

Keegan, *Tanganyika's Five-Year (1964-1969) Development Plan: Sober Realism or Buoyant Optimism?*, in FINANCING AFRICAN DEVELOPMENT 11, 12 n.3 (T. Farer ed. 1965).

62. Hall & Jorgenson, *Tax Policy and Investment Behavior*, 57 AM. ECON. REV. 391 (1967). "Tax devices to stimulate investment have certainly been the greatest fad in economic policy in the past ten years." Eckstein, *Discussion*, 52 AM. ECON. REV. (PAPERS & PROC.) 351 (1962). See INT. REV. CODE OF 1954, §§ 38, 46, 47, 48.

63. Hall & Jorgenson, *supra* note 62, at 392, 413.

64. See, e.g., Tarshis, *The Elasticity of the Marginal Efficiency Function*, 51 AM. ECON. REV. 958 (1961).

65. Gentry, *The Economic Impact and Accounting Treatment of Investment Incentives* 47 (unpublished dissertation in University of North Carolina Library 1966).

Government intervention appears necessary to achieve ideal intertemporal allocation of resources: "General equilibrium theory, being static, is inapplicable to the theory of investment."⁶⁶ We should reject "the twin notions (1) that the rate of interest determined in an atomistic competitive market need have any normative significance in the planning of collective investment, and (2) that the market-determined rate of investment, and hence the market-determined rate of economic growth, need be optimal in any welfare sense."⁶⁷

The cost of borrowing is a rate of discount allocating consumption among time periods. Illogical personal preference for immediate enjoyment allegedly raises this cost above the most advantageous level:

Generally speaking, everybody prefers present pleasures or satisfactions of given magnitude to future pleasures or satisfactions of equal magnitude, even when the latter are perfectly certain to occur. . . . Our telescopic faculty is defective, and . . . we, therefore see future pleasures, as it were, on a diminished scale. That this is the right explanation is proved by the fact that exactly the same diminution is experienced when . . . we contemplate the past. Hence the existence of preference for present over equally certain future pleasures does not imply that any economic dissatisfaction would be suffered if future pleasures were substituted at full value for present ones. The non-satisfaction this year of a man's preference to consume this year rather than next year is balanced by the satisfaction of his preference next year to consume next year rather than to have consumed this year. . . . People distribute their resources between the present, the near future and the remote future on the basis of a wholly irrational preference.⁶⁸

It has been argued that "the market rate of interest has nothing to do with the social time preference discount rate."⁶⁹ Principles of intertemporal equality should motivate government divergence from personal weightings: "Society should not discriminate among generations; hence, it should not have a discount factor."⁷⁰

66. MISHAN, *WELFARE ECONOMICS—FIVE INTRODUCTORY ESSAYS* 98, 116 (1964).

67. Marglin, *The Social Rate of Discount and the Optimal Rate of Investment*, 77 Q.J. ECON. 95, 111 (1963).

68. PIGOU, *THE ECONOMICS OF WELFARE* 24-25 (4th ed. 1932).

69. Horvat, *The Optimum Rate of Investment Reconsidered*, 75 ECON. J. 572 (1965).

70. Kurz, *Optimal Paths of Capital Accumulation Under the Minimum Time Objective*, 33 ECONOMETRICA 42 (1965). "A time discount should not govern a nation's decisions—in contrast with an individual's decisions, where it should." Tinbergen, *Optimum Savings and Utility Maximization*

Adjustment of interest rates to reflect more accurately social time preference would nevertheless leave investment below ideal levels because of excessive divergence between returns satisfactory to the saver and those required by the businessman. Although externalities and market imperfections contribute to this differential, it is due in large measure to distaste for risk and uncertainty on the part of the entrepreneur.⁷¹ While avoidance of uncompensated earnings variability may prove advantageous to the individual, such personal gain is usually irrelevant to planners seeking maximization of community income. Solow states: "Single productive investments are far from riskless. . . . But a large number of investments taken together carry a greatly reduced risk per dollar, if only they have some statistical independence."⁷² Tobin asserts:

It is not clear that society should take a risk-averse position . . . and charge a risk premium against those projects entailing more uncertainties than others. Presumably society can pool such risks and realize with a very small margin of uncertainty the actuarial return on investments.

Moreover, some private risks are not social risks at all.⁷³

Phelps advocates "subsidies to investment, particularly investments with demonstrably high variations in rates of return."⁷⁴

Exemption from taxation of income from industrial revenue bonds appears to encourage capital formation by reducing the cost to the firm of financing expansion. Since investment is probably currently below the socially optimum level, this stimulus would seem beneficial.

over Time, 28 *ECONOMETRICA* 481 (1960). "Es scheint wie ein Naturgesetz, dass Wirtschaftsplaner eine niedrigere Diskontrate als die Konsumenten haben." Gehrels, *Wachstum durch Investition in Wissenschaft und Bildung*, 94 *WELTWIRTSCHAFTLICHES ARCHIV* 215, 225 (1965).

71. Risk occurs when the probability distribution over the set of possible outcomes is known. That the individual will normally prefer an unambiguous solution has been frequently demonstrated. Raiffa reports, for example, that a group of Harvard Business School students, including some experienced executives, were willing to pay an average of only \$30 for an even chance to win \$100. The highest price offered for the opportunity was \$45; the lowest only \$10. A situation is labeled uncertain when the probability distribution of possible outcomes is unknown. Here an even greater monetary discount is normally demanded. Most of Raiffa's students, when offered reward for selection of a ball of a designated color, either red or black, preferred to choose from an urn containing an equal number of balls of each color rather than from an urn containing red and black balls in unknown proportions. Typically they would pay \$35 for an opportunity to draw for \$100 from the first, but only \$5 to choose from the second. Raiffa, *Risk, Ambiguity and the Savage Axioms: Comment*, 75 *Q.J. ECON.* 690, 693 (1961).

72. SOLOW, *CAPITAL THEORY AND THE RATE OF RETURN* 46 (1963).

73. Tobin, *Economic Growth as an Objective of Government Policy*, 54 *AM. ECON. REV.* 1, 14 (1964).

74. PHELPS, *FISCAL NEUTRALITY TOWARD ECONOMIC GROWTH* 85 (1965).

V. LOCATIONAL CONSEQUENCES

A. IMBALANCE

Only a small fraction of expenditures for new manufacturing and distribution facilities, now totaling about 60 billion dollars annually in the United States, can be financed by current industrial development bond issues of 1 billion dollars per year.⁷⁵ In 1965 between three and four per cent of investment in manufacturing plant and equipment was supported by issue of such securities or by tax concessions on the state or local level.⁷⁶ The small proportion of expansion recently receiving aid obviously refutes the assertion that firms generally assume its availability. There is nevertheless no consensus concerning the extent to which fiscal inducements either lead to capital expenditures which would not have occurred in their absence or attract investment which otherwise would have been made in areas offering no or less enticing concessions. Claims that issue of tax-exempt bonds is "the most effective technique yet devised for rebuilding local economy"⁷⁷ are countered by studies concluding that "tax cost competition for new industry can have little effect on industrial location decision making."⁷⁸

Advocates of reform assert: "The programs artificially stimulate development in areas which are not otherwise the most efficient location for the industry in terms of markets, material and productivity."⁷⁹ Therefore "it is taken for granted that when communities compete with each other for industry, this must necessarily lead to either a cancellation of benefits when all engage in this game equally vigorously . . . or else will lead to a distortion of resource allocation."⁸⁰ This position has been attacked as neglecting wage rigidities allegedly precluding optimal response to market forces.⁸¹ A less obvious but more convincing argument for retention of at least some of the characteristics of the present tax exemption rests on evidence that unconstrained competitive forces induce a nonoptimal geographical distribution of economic activity.

Economists have observed: "A free market system of organization, by nature, causes advanced regions . . . to grow, at least in

75. Metcalf, *supra* note 22, at 26.

76. Bridges, *supra* note 24, at 6.

77. Note, *Industrial Development Bonds: Judicial Construction vs. Plant Construction*, 15 U. FLA. L. REV. 262, 297 (1962).

78. Morgan, *supra* note 46, at 149.

79. 7 B.C. IND. & COM. L. REV. 696, 701 (1966).

80. MOES, *supra* note 15, at 221.

81. See MOES, *LOCAL SUBSIDIES FOR INDUSTRY* (1962). For a review of the dispute concerning this thesis see Morgan, *supra* note 46, at 110-13.

part, at the expense of other regions."⁸² Consider a uniformly undeveloped plain. By hypothesis, a pioneering industrial enterprise may locate at any point with equal advantage. Its establishment, however, differentiates its site from the remaining territory: erection of other manufacturing facilities requires choice by the decision maker between contiguous and relatively distant plots. Such possible benefits as "the availability of economic overhead facilities (transportation, gas, electricity, water supply, waste disposal, etc.), the availability of a skilled labor force, ease of exchange of technical information, and the existence of linked processes (vertical and horizontal specialization, auxiliary services, etc.)"⁸³ weight selection probabilities heavily in favor of the agglomerative alternative. In addition, payments to workers by previously established enterprises may provide a spatial demand differential allowing freight expense minimization through juxtaposition: "The very market-oriented nature of much modern production tends to lead to large industrial centres becoming even larger as market expansion feeds on itself to create more market expansion."⁸⁴ Ullman summarizes:

The concentration becomes the important geographical fact. A host of complementary activities and services is established, each helping the other in pyramiding the productive process; the largest market in the country is created, in which transport costs dictate location of much industry if national distribution is desired to take advantage of scale economies. For the fringe areas to develop in the face of this formidable competition poses an almost insuperable obstacle.⁸⁵

Effects of such forces are evident in United States growth patterns. Grunwald asserts: "Some States probably experienced a loss in their economic welfare by joining the U.S. customs union."⁸⁶

82. Hughes, *Interregional Income Differences—Self-Perpetuation*, 28 S. ECON. J. 41 (1961).

83. BALASSA, *THE THEORY OF ECONOMIC INTEGRATION* 195 (1961). "The advantages of concentrating production at one location for many industries include the scale factor and the possible pecuniary gains from the localisation of similar industries, as well as economies from the spatial juxtaposition of unlike industries. For example, the cost of production in industry X may fall as industry Y expands, owing to the development of specialised auxiliary services such as machinery repair." Bird, *The Need for Regional Policy in a Common Market*, 12 SCOT. J. POL. ECON. 225, 232 (1965).

84. Bird, *supra* note 83, at 232.

85. Ullman, *Regional Development and the Geography of Concentration*, 4 PAPERS & PROC. REGIONAL SCI. ASS'N 179, 180 (1958).

86. Statement by Joseph Grunwald, *Hearings on Latin American Development and Western Hemisphere Trade Before the Subcommittee on Inter-American Economic Relationships of the Joint Economic Committee*,

Manufacturing activity is highly concentrated: "In the northeast . . . about 7% of the U.S. area has about 70% of the nation's industrial employment; the rest of the country fights for the remainder not unlike a pack of hungry dogs fighting over a dry bone."⁸⁷

B. ADJUSTMENT

The need for intervention is apparent: "The State . . . cannot stand still and allow economic forces free play, because this can only mean an aggravation of the problem and the most unfavored regions tend to be pushed further into the background in this way."⁸⁸ Planners frequently concede that balance can be achieved only through sacrifice of efficiency:

There exist two equally valid criteria, each of which, however, leads to diverging and even opposite results. The first is related to the needs for accelerated development believed to exist in certain regions due to the present depressed state of their economies. This criterion asserts that the task of the central government is, in the first instance, to use its resources to stimulate development in the more backward areas of the country, so that these areas might, within a reasonable period, attain to levels of living that are more compatible with those in the rest of the nation. The other criterion is oriented towards a better utilization of resources. Accordingly, resources should be invested wherever the rates of return to the national product and to foreign exchange are highest. The application of this criterion is defended on the grounds that thus the maximum benefits will accrue to the nation as a whole and that

89th Cong., 1st Sess. 20 (1965). The alternative to amalgamation is demonstrated by local protective efforts prior to 1789: "New York attempted to keep out firewood from Connecticut and produce from New Jersey by imposing heavy duties on those goods; . . . New Jersey replied by placing a prohibitive tax on the Sandy Hook lighthouse, which happened to be on New Jersey soil, and the town of New London in Connecticut suspended all trade with New Yorkers." Freund, *Foundations and Development of American Federalism*, in *FEDERALISM AND THE NEW NATIONS OF AFRICA* 153, 155 (D. Currie ed. 1964). For a modern example of similar practices see *Garden State Dairies, Inc. v. Sills*, 46 N.J. 349, 217 A.2d 126 (1966); 80 HARV. L. REV. 1357 (1967).

87. Ullman, *supra* note 85, at 198.

88. BARZANTI, *THE UNDERDEVELOPED AREAS WITHIN THE COMMON MARKET* 332 (1965). "If things were left to market forces unhampered by any policy interferences, industrial production, commerce, banking, insurance, shipping and, indeed, almost all those economic activities which in a developing economy tend to give a bigger than average return—and, in addition, science, art, literature, education and higher culture generally—would cluster in certain localities and regions, leaving the rest of the country more or less in a backwater." MYRDAL, *ECONOMIC THEORY AND UNDERDEVELOPED REGIONS* 26 (1957).

backward regions will eventually participate in them.⁸⁹

Economies and diseconomies of plant location external to the firm nevertheless cause unconstrained competition to yield concentration beyond the optimal level. Balassa states:

The diseconomies of agglomeration . . . arise as the further influx of capital leads to the congestion of urban areas, overcrowding of transportation facilities, increased cost of social utilities, and rising factor prices. Such diseconomies . . . lead to a divergence between social and private productivity. Entrepreneurs base their investment and production decisions on private profitability and take into account the agglomeration economies appropriated by the firm, whereas the external economies and diseconomies created through the activities of the enterprise are not subject to cost calculation.⁹⁰

Hirschman asserts: "The external economies due to the poles, though real, are consistently overestimated by the economic operators."⁹¹ Surveying the American urban experience, Rapkin reports: "There is little doubt that some cities have developed beyond the optimum point."⁹² Therefore "[t]he better areas are crowded beyond reasonable capacity and remoter areas, many with reasonably good natural endowments, are relatively empty."⁹³

Potential divergence of social from private advantage may be simply demonstrated. Assume externalities affect only firm utility levels. Define:

u_a = utility derived by firm from unit of investment in advanced region of nation

u_b = utility derived by firm from unit of investment in backward region of nation

q_a = amount of investment in developed region of nation

q_b = amount of investment in underdeveloped region of nation

U_a = total social utility generated by all firms in developed region of nation

U_b = total social utility generated by all firms in underdeveloped region of nation

89. OFICINA CENTRAL DE COORDINACIÓN Y PLANIFICACIÓN, PLAN DE LA NACIÓN, 1963-1966, at 414, quoted in FRIEDMANN, REGIONAL DEVELOPMENT POLICY—A CASE STUDY OF VENEZUELA 48 (1966). "Whether industry is forced to establish at one place rather than another . . . or whether incentives are created that tend to favor one point relative to another for certain types of industries, the net result is certain to be a reduction in the total flow of industry into the area. . . . Subsidizing 'lagging sectors' is a luxury" Massell, East African Economic Union—An Evaluation and some Implications for Policy 58-59 (Rand Corporation Memorandum RM-3880-RC, Dec. 1963).

90. BALASSA, *supra* note 83, at 195-96.

91. HIRSCHMANN, THE STRATEGY OF ECONOMIC DEVELOPMENT 185 (1958).

92. Rapkin, *Some Effects of Economic Growth on the Character of Cities*, 46 AM. ECON. REV. (PAPERS & PROC.) 293, 297 (1956).

93. Ullman, *supra* note 85, at 180.

Write:

$$(1) \quad u_a = f(q_a)$$

$$(2) \quad u_b = f(q_b)$$

$$(3) \quad U_a = u_a q_a$$

$$(4) \quad U_b = u_b q_b.$$

Differentiate (3) and (4) with respect to q to obtain:

$$(5) \quad \frac{dU_a}{dq_a} = u_a + q_a \frac{du_a}{dq_a}$$

$$(6) \quad \frac{dU_b}{dq_b} = u_b + q_b \frac{du_b}{dq_b}.$$

Investment by the entrepreneur will be directed toward the leading sector of the nation as long as $u_a > u_b$. On the other hand, incremental application of capital to projects in the less developed area will provide greater gain to the community if:

$$(7) \quad u_b + q_b \frac{du_b}{dq_b} > u_a + q_a \frac{du_a}{dq_a}.$$

Thus, if left uncontrolled, the market mechanism will dictate un-economic geographical concentration of production facilities when:

$$(8) \quad u_a - u_b < q_b \frac{du_b}{dq_b} - q_a \frac{du_a}{dq_a}.$$

It seems likely that $q_b \frac{du_b}{dq_b}$ will frequently exceed $q_a \frac{du_a}{dq_a}$; asser-

tions of urban congestion imply that $q_a \frac{du_a}{dq_a}$ is negative. Since the probability of use of industrial development bonds by a given community would appear positively correlated with the magnitude of expected local benefit, their availability should alleviate imbalances caused by competitive forces. Indeed such securities have thus far been issued primarily by authorities in lagging southern states.⁹⁴ Unlike alternative means of attracting manufacturing activity, these bonds may be employed at no cost to the locality. Without the tax exemption, it may be argued, "an impoverished community would not have it within its economic power to outbid other areas in offering . . . inducements."⁹⁵

VI. CONCLUSION

The difficulty of evaluating the proposals to remove the tax exemption presently granted income from industrial development

94. MORGAN, *supra* note 46, at 155.

95. Walker, *The Plant, the Office and the City* (pt. 2), TAX POLICY, Jan.-Feb. 1956, at 3, 15.

bonds lies less in identifying their advantages and defects than in quantifying these characteristics for purposes of comparison. Even conceding that geographical dispersion of manufacturing activity resulting from use of such securities is beneficial while the concomitant decrease in tax progressivity is harmful, for example, empirical evidence is insufficient to demonstrate conclusively that gains from the former outweigh losses from the latter. Reduction of the problem to whether the financing technique in question should be eliminated is irresponsible oversimplification: reform should seek to isolate desirable consequences and preserve them while avoiding other effects through introduction of more sophisticated alternative fiscal instruments. If this is done the present interdependence among decisions concerning income distribution, concessions to local government, encouragement of capital expenditure, and subsidization of industry locating in less developed regions can be substantially lessened. Criticism of use of industrial development bonds appears well founded only when directed toward their availability as an almost riskless tax shelter to the affluent.