

## **CHAPTER III**

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### **THE COMMISSION'S PROPOSALS AND RESOURCE ALLOCATION**

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States and localities are reluctant to build infrastructure projects whose benefits "spill over" into other jurisdictions. The National Infrastructure Corporation and the Infrastructure Insurance Company proposed by the Commission to Promote Investment in America's Infrastructure would improve the allocation of economic resources if they induced states and localities to build infrastructure projects that they would not otherwise build because of spillovers. Yet the commission's proposals for the NIC and IIC would not address spillover problems. Unless the proposals were financed with reductions in other federal spending or tax subsidies, their main effect would be to absorb funds that would otherwise be allocated to private investment. However, there is reason to believe that the alternative investments that the private sector would finance would have greater benefits to society than the investments financed by the commission's proposals. The principal effect of its proposals, therefore, would probably be to redistribute income.

To achieve the goals of the commission, policymakers could choose to finance the activities of the NIC and IIC with funds that would otherwise be spent on existing federal grants to finance state and local infrastructure. However, the commission's general objectives of encouraging projects financed with user fees and requiring state and local governments to pay a larger proportion of project costs could be achieved more simply by modifying existing federal grant programs or pricing policies (such as user fees) for existing infrastructure facilities. Moreover, it is not clear that the investments made by the corporations would enhance the allocation of resources more than the investments that would otherwise be financed by grant programs.

#### **SPILOVERS AND THE ALLOCATION OF RESOURCES TO STATE AND LOCAL INFRASTRUCTURE**

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Investment in infrastructure may be less than optimal if the projects produce benefits that spill over to people who do not help to finance the facilities. For example, a proposed wastewater treatment plant financed by a town might produce a large amount of benefits, some of which accrue to the town's residents and some of which accrue to residents of other communities. If the town's residents faced the prospect of paying all of the costs of the plant but not receiving all of the facility's benefits, the town might decide to invest less than the socially optimal amount and not build the facility. In the decentralized U.S.

system of state and local government, taxpayers in one political jurisdiction may be unwilling to invest in infrastructure if they cannot arrange for residents of other jurisdictions to pay for the spillover of benefits that the latter enjoy.<sup>1</sup>

Jurisdictions can approach the problem of spillovers in several ways, all of which help to prevent localities from demanding a less-than-optimal amount of infrastructure. First, a governmental entity with a broader jurisdiction can tax those who would otherwise receive such benefits without paying for them. For example, a state government can collect monies from residents of a county to subsidize construction of a project in another county that benefits the first county's residents. The subsidies can be provided by direct state grants or less directly through state-subsidized credit enhancements or credit pooling. With the beneficiaries of spillovers paying for the benefits that they receive, the investment in infrastructure is closer to the socially optimal level. Second, states and localities can jointly finance projects that benefit multiple jurisdictions. The Washington Metropolitan Area Transit Authority is an example of such an approach. Third, a jurisdiction that builds a facility--for example, a toll road--may be able to directly charge users who reside elsewhere for the benefits they receive from the project. Indeed, charging user fees to address spillovers mitigates the need for subsidies from higher levels of government.

The level of municipal infrastructure may also be too low if elected officials have incentives to prefer spending that produces short-term benefits. Short-term preferences could dominate if voters think they will not be residing in a jurisdiction long enough to receive benefits commensurate with the costs of long-term projects or if short-term programs produce greater benefits for elected officials. Municipalities, however, usually try to match debt-service payments with a project's long-term benefits by financing the project with long-term debt. Thus, the possibility that residents would be forced to pay all of the costs of a long-lived project in the first years of its existence would not adequately explain why voters reject such projects. Although elected officials may reap benefits from supporting short-term programs, capital projects also offer advantages--jobs and prestige, for example--that would make infrastructure spending attractive. Those advantages may help to explain why municipal capital spending has increased in recent years during a period of scaled-down budgets.<sup>2</sup>

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1. The phenomenon of "public goods" is often used to explain why the government and not the private sector initially undertakes certain types of investment or service provision. The defining characteristics of a public good--such as clean air--are that one person's consumption does not limit another person's use and that producers cannot economically deny consumption to those who do not pay for the good.

2. See John Petersen, "A Star Amid the Fiscal Gloom," *Standard and Poor's Creditweek*, February 4, 1991, p. 58.

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## EFFECTS OF THE ACTIVITIES OF THE NIC AND IIC

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The NIC and the IIC would be unlikely to produce a more desirable allocation of resources, for three reasons. First, as detailed in Chapter II, their activities would be unlikely to increase the efficiency of the municipal debt market. Second, although spillovers might lead state and local governments to underinvest in infrastructure, the NIC and IIC could not address or resolve that problem. The corporations could not tax those who benefit from spillovers but who do not pay for the capital projects. Moreover, they would have no mandate to attempt to subsidize projects with spillover benefits. In fact, the commission proposed that the NIC assist projects that had the potential to be self-supporting through direct fees paid by users. Such projects would be unlikely to have spillover benefits that would justify assistance from the federal government on the grounds of enhancing efficiency.

For example, the commission identified several local toll road projects as worthy of federal assistance. The benefits of such projects would seem to accrue to toll payers and those people in the projects' immediate areas. If spillovers on a multistate or multicity level develop from the infrastructure projects that the commission argued should be funded, states or localities can join together (without federal assistance) and use taxes and subsidies to correct such problems.<sup>3</sup>

A third reason that the NIC and IIC are unlikely to improve the allocation of resources is the disputable assumptions on which the commission based its proposals. Many analysts do not subscribe to the commission's view that economic output would be enlarged by significant increases in public infrastructure spending for many types of projects at the expense of alternative investments. As Box 4 discusses, some of the studies of the nation's infrastructure needs that the commission cited tend to systematically overstate how much infrastructure spending the country requires. Moreover, strong evidence indicates that only a limited set of new infrastructure projects would provide greater returns than alternative investments and that high returns could be achieved at much lower cost by improving the pricing of existing facilities.

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3. Some empirical research has found a lack of large interstate spillovers. See Douglas Holtz-Eakin, "New Federal Spending for Infrastructure: Should We Let This Genie Out of the Bottle?" *Jerome Levy Economic Institute Public Policy Briefs*, no. 4 (1993), p. 38.

BOX 4.  
THE NEED FOR AND ECONOMIC RETURNS OF  
GREATER INFRASTRUCTURE INVESTMENT

The Commission to Promote Investment in America's Infrastructure argued that a wide gulf exists between the current level of spending on public infrastructure and the nation's needs. The changes in policy that it proposed were intended to eliminate that gap by encouraging a large increase in the amount of infrastructure spending. Its proposals, however, make two assumptions that are inaccurate or exaggerated. First, the size of the infrastructure "gap" that the commission takes for granted is probably overstated. Second, substantial investments in new public physical infrastructure are not likely to generate higher economic returns than alternative private investments.

Some of the "needs" and "use" that the commission cites tend to overstate the spending required for infrastructure for a number of reasons. First, they usually reflect the cost of repairing facilities to a given engineering standard, regardless of whether the benefits exceed the costs involved. As a result, the studies often suggest that a project is needed even if its costs outweigh its benefits. Second, the studies usually ignore the potential savings that can be achieved by using existing infrastructure more productively and thus base future needs on the current misuse of existing structures. Third, they often inflate required spending by assuming that both technology and existing pricing policies will remain unchanged. Fourth, support for the existence of a large infrastructure gap is often based on historical spending patterns or comparisons with other countries, even though the optimal level of spending for public works should vary with the structure of a nation's economy. It is possible that the United States does not need as much investment in traditional physical infrastructure as it once did. Finally, some analysts criticize needs studies as depending on unreliable, unverifiable data. Such studies often produce "wish lists" rather than measures of economic demand.

To increase investment in public infrastructure, resources must be diverted from other potential uses. The commission apparently believed that the large increase in investment that it proposed would produce more benefits than alternative uses of the same resources. In fact, there is little evidence to suggest that substantially increasing spending for a wide variety of public infrastructure would produce higher returns than the spending it would displace. Supporters of large increases in infrastructure spending often justify their view by pointing to studies that indicate that public capital investment is much more productive than private capital investment. However, reviews of such studies suggest that their findings are probably flawed because of problems with data, statistical techniques, and faulty interpretations of results.

Certainly, the existing stock of physical infrastructure has provided important benefits, and some new investments could produce returns that would be greater than the average return on private capital. As a rule, the highest level of benefits would result from maintaining existing infrastructure and building select new facilities in congested urban areas. However, much of the benefit generated by additional investments could be achieved at much lower cost by altering pricing through such means as charging users of infrastructure a higher price during times of congestion and charging users a fee based on the damage they cause to the facility or structure.

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SOURCES: Congressional Budget Office, *How Federal Spending for Infrastructure and Other Public Investments Affects the Economy* (July 1991), and *New Directions in Public Works* (September 1988), Appendix; Office of Management and Budget, *Supplement to Special Analysis D* (February 1985); and "Whatever Happened to the Infrastructure Crisis?" *Governing* (July 1993), pp. 59-67.

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## EFFECTS OF INCREASING TAX SUBSIDIES

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The changes in federal tax policy that the commission recommended to subsidize municipal infrastructure borrowers would increase the flow of investment to infrastructure projects. Yet there is reason to believe that the subsidies provided by the current exemption--interest on most municipal debt is not subject to income tax--may already distort resource allocation and lower economic output. One reason for that belief is that the tax subsidy is not restricted to bonds that finance projects with spillovers. In addition, even if the subsidy were going to projects with spillovers, its parameters are not set to correct for the inefficiencies that spillovers cause.<sup>4</sup> Exempting municipal bonds from federal income taxes encourages municipalities to allocate resources in favor of capital spending over noncapital spending--such as for public safety--which residents may value more.<sup>5</sup> Providing additional tax subsidies for infrastructure borrowing would increase those potential biases without improving the allocation of resources.<sup>6</sup>

Some analysts suggest that exempting municipal debt from income taxes actually increases economic efficiency by encouraging local governments to fund projects in a market that provides fiscal "discipline." But state and local governments would still go to the debt market to finance needed infrastructure if the tax exemption did not exist. In fact, by far the most important sources of discipline of municipal spending are state and local residents and infrastructure

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4. For a discussion of the inefficiency of untargeted interest rate subsidies, see Irene Lurie, "A Note on the Inefficiency of Interest Subsidies," *National Tax Journal*, vol. 35, no. 4 (December 1982), pp. 491-495. Dennis Zimmerman, *The Private Use of Tax-Exempt Bonds* (Washington, D.C.: Urban Institute Press, 1991), pp. 106-109, finds little evidence to support efficiency rationales for the tax subsidy.
  5. Some economists hold the alternative view that the tax exemption does not have any significant effect on municipal investment because it does not lower borrowing costs. These economists argue that the tax exemption does not affect the costs of funds for a municipality as long as the tax rate of the marginal investor in municipal bonds equals the tax rate faced by the municipal resident. See Roger Gordon and Gilbert Metcalf, "Do Tax-Exempt Bonds Really Subsidize Municipal Capital?" *National Tax Journal*, vol. 44, no. 4 (December 1991), pp. 71-79. Another analyst argues that the tax exemption still subsidizes municipal investment even if it provides no subsidy for debt finance. See Peter Fortune, "On the Tax Subsidy for Municipal Investment," Working Paper 93-04 (Tufts University, Department of Economics, 1993).
  6. For example, Peter Fortune, "The Municipal Bond Market. Part II: Problems and Policies," *New England Economic Review* (May/June 1992), compares the current policy with a perfectly competitive economy without subsidies and estimates that the efficiency loss from the federal tax exemption for municipal debt was \$3.5 billion for the 1980-1985 period. An earlier study found that the tax exemption reduced output \$14 billion in 1975 relative to an economy with an optimal allocation of resources. See Peter Fortune, "Tax Exemption and Resource Allocation: Implications for Prices, Production and Factor Choice," *Public Finance Quarterly*, vol. 12, no. 3 (July 1984), pp. 347-364. Roger Gordon and Joel Slemrod, "A General Equilibrium Simulation Study of Subsidies to Municipal Expenditures," *Journal of Finance*, vol. 38, no. 2 (May 1983), pp. 585-594, found very small gains in the benefits to society from eliminating the tax-exempt status of municipal bonds.

users. (Governments cannot finance projects with municipal debt or general tax revenues if taxpayers and users do not support the investments.)

The commission's recommendation to create a new tax break for participants in qualified pension plans that invest in eligible infrastructure securities would subsidize projects that are not currently considered public in nature and, because of legal restrictions, not presently allowed to use tax-exempt municipal debt for financing. These restrictions were put in place after the early 1980s, when the strategy of financing private activities through tax-exempt municipal bonds negatively affected traditional infrastructure projects by crowding out state and local capital spending and causing borrowers for public-purpose projects to pay much more in interest costs to attract funds.<sup>7</sup> In response, the Congress developed the current definition of private activities and set out restrictions on the tax-exempt financing of them to limit the ability of private firms to benefit from the subsidy generated by the tax exemption. There is evidence that some of those restrictions reduce neither spending for infrastructure nor the benefits that the public receives.<sup>8</sup>

The problem of financing private activities through tax-exempt bonds might also exist in the commission's proposal for targeting new tax subsidies toward debt used to finance environmental and transportation projects. The commission maintained that this exemption would apply if the projects had substantial benefits for the general public, notwithstanding the private-sector participation in the project. But the commission neither defined what it meant by substantial public benefits nor offered criteria for distinguishing them from the benefits that would accrue to private firms from lowering their borrowing costs.

The changes in tax law that the commission proposed would reduce federal revenues and increase the budget deficit. Easing the current restrictions on issuing tax-exempt bonds would reduce federal revenues by increasing the volume of outstanding tax-exempt debt. The new tax subsidy for qualified pension plans would reduce federal revenues when the plans distributed the investment income attributable to the infrastructure securities they held. Although some of the losses in revenue from both proposals would occur in the

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7. See Zimmerman, *The Private Use of Tax-Exempt Bonds*, pp. 92 and 267.

8. For example, the General Accounting Office (GAO), in its report *Environmental Infrastructure: Effects of Limits on Certain Tax-Exempt Bonds* (1993), found that the volume cap on private-activity bonds noted in Box 2 on page 13 of this paper did not appear to reduce overall investment in environmental infrastructure. Another GAO report, *Industrial Development Bonds: Achievement of Public Benefits Is Unclear* (1993), found it doubtful that private-activity bonds financing industrial development created new public benefits.

next few years, most of the increases in the federal deficit would occur in the next century.

Another aspect of the commission's proposal is the substantial administrative costs that would be associated with implementing the proposed new tax break for qualified pension plans. The Internal Revenue Service (IRS) would have to promulgate and enforce regulations that required individuals who participated in qualified plans to maintain accounting records that distinguished between income earned from investing in infrastructure securities and income from other assets that would be subject to federal income tax. If the IRS did not require such records, individuals might attempt to evade taxes on the distributions from qualified plans by shifting their funds into infrastructure securities shortly before they retired.

Some of the commission's tax proposals should also be considered in a broader context. For example, the proposals to modify the current arbitrage rebate requirement and small issuer limits may or may not be as compelling for bonds that finance schools and prisons as they are for infrastructure. A broader analysis would consider the significant costs of administering and enforcing the proposed changes in law and the costs to bond issuers of adhering to the restrictions.<sup>9</sup>

### ENCOURAGING INVESTMENT BY PENSION FUNDS IN MUNICIPAL INFRASTRUCTURE

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The major feature of the commission's charge was to determine how to increase investment by pension funds in municipal infrastructure. Yet the low level of pension fund investment in municipal bonds does not appear to prevent states and localities from financing investments in infrastructure, and there is no evidence of a shortage of funds in the municipal debt market.<sup>10</sup> As noted in

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9. Such a review could consider another argument. Some municipal bond professionals argue that the current absence of banks from the municipal market, in which previously they acted as buyers of last resort, may lead to steep price declines and market instability if individual investors who now dominate the market sell off their holdings. Thus, to encourage market stability, those experts support restoring some of the tax-exempt features of municipal debt repealed in 1986. See the testimony of Andrew Kintzinger, National Association of Bond Lawyers, before the Committee on Energy and Commerce, Subcommittee on Telecommunications and Finance, October 7, 1993, p. 5. Richard Lehmann of the Bond Investors Association, in his testimony before the Subcommittee on Telecommunications and Finance, October 7, 1993, pp. 4-5, also discusses the potential instability of the market.

10. William Chew, managing director of Standard and Poor's, argued, for example, in his testimony before the commission on September 25, 1992, that it was voter and user resistance and, ultimately, limits on household budgets, rather than insufficient financial capital, that restricted the ability of municipalities to borrow to finance infrastructure projects.

Chapter II, the volume of outstanding debt in this market exceeds a trillion dollars.

In fact, federal tax subsidies are the cause of the low level of investment by pension funds in municipal infrastructure. Pension plans hold little municipal debt because policymakers have already exempted income on their investments from federal income tax and because nearly all municipal debt is also tax-exempt. Thus, the plans prefer to invest in taxable bonds, which pay higher interest rates than tax-exempt ones. As Chapter II discusses, municipalities minimize their borrowing costs by issuing tax-exempt debt. To attract pension funds, states and localities could issue taxable debt, but taxpayers and infrastructure users would be reluctant to pay for interest rates that were higher than necessary.

Policymakers could induce pension plans to increase the supply of funds in the municipal debt market by reducing federal tax subsidies for municipal borrowers. Repealing the current tax exemption for infrastructure bonds would induce states and localities to issue taxable debt. Then, pension plans would probably purchase a portion of highly rated municipal bonds, such as those insured by bond insurance firms. The commission did not propose this option, however, almost certainly because the increase in the interest payments of infrastructure borrowers caused by taking away the subsidies provided by the current tax exemption would be greater than the reduction in rates from pension fund purchases of taxable bonds. The commission could also have called for eliminating the tax break on assets held by pension funds in order to increase their investment in municipal debt. Instead, the commission proposed that federal tax subsidies to pension plans be increased to induce the plans to supply more funds to municipal infrastructure borrowers. As argued earlier, those additional subsidies could further distort decisions about investment.

#### OVERALL EFFECTS OF THE PROPOSALS ON RESOURCE ALLOCATION

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In summary, the commission's proposals would shift resources in a manner that is unlikely to improve resource allocation. It is doubtful whether the proposals would improve pricing in the municipal debt market or induce state and local governments to demand a superior amount and mix of infrastructure. Municipalities would be able to finance more infrastructure with debt because of the new federal subsidies they would receive from the NIC and the changes in the tax laws. The proposals would not increase the pool of savings available for investment, however, and as a result would divert funds from alternative uses, such as investment in private entities and activities. Moreover, the new

investments would probably yield a lower level of benefits than the alternative investments they displaced because the decisions to produce and invest in the new facilities would be distorted by federal subsidies. If the new investments had lower economic returns than alternative investments, they would produce fewer benefits for society. As a consequence, the principal economic effect of the commission's plan would probably be to reduce and redistribute income. Those who gained from increased federal subsidies would benefit at the expense of others whose income declined because of higher federal taxes or lower economic output.<sup>11</sup>

Arguments for and against the commission's proposals parallel the above conclusions about their potential economic effects. On the one hand, the proposals can be supported on grounds other than their effects on resource allocation. For instance, some policymakers may believe that the initiatives would alleviate inequities in the current distribution of income among communities. Others may assert that the preferences of state and local officials, voters, and users of infrastructure projects should not guide decisions about the construction of new facilities. An additional argument is that, because the federal government directs the use of state and local resources by requiring states and localities to build new facilities, such as wastewater treatment plants, it therefore should help subsidize those investments.

On the other hand, the commission's proposals can be opposed on the grounds that they would not improve the allocation of resources. The major reason that state and local governments finance the vast majority of all physical infrastructure in the United States is the belief that officials at these levels of government and voters are best positioned (especially in comparison with policymakers at the federal level) to evaluate the costs and benefits of infrastructure and use this information to make investments.<sup>12</sup> Yet state and local elected officials, voters, and users appear unwilling to finance construction of the new infrastructure projects supported by the commission, even with existing federal subsidies. Voters and users may be reluctant to do so because they believe that the costs of the facilities exceed the benefits--or that equal expenditures on other programs, such as public safety or education, have greater benefits. Furthermore, the commission's proposals would not target federal

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11. If policymakers also required pension plans to make investments that produced lower returns than they currently earn, pensioners would fund part of the income redistribution. Ray Schmitt, *Pension Fund Investment in Infrastructure* (Congressional Research Service, 1993), discusses the risks to pension fund participants of the commission's proposals.

12. See Bruce Hamilton and Edwin Mills, *Urban Economics* (Chicago: Scott, Foresman and Company, 1989), pp. 313-321, for a discussion of the ability of local governments to provide an efficient amount of government services. Douglas Holtz-Eakin, "Why a Federal Plan Isn't Needed," *Spectrum* (Fall 1993), p. 39, argues that capital spending by local governments is usually commensurate with economic conditions.

subsidies solely toward projects that federal mandates require states and localities to build. Policymakers can defray the costs of mandated projects by providing additional funds to state and local governments simply and directly through grants.

### COMPARING THE COMMISSION'S PROPOSALS WITH CURRENT FEDERAL GRANTS

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In 1993, federal grant programs gave state and local governments an estimated \$26.8 billion to build and maintain physical infrastructure.<sup>13</sup> To capitalize the NIC and IIC, policymakers could choose to divert some of those funds. This would not reduce the overall amount of federal grants but would change the organizations that distributed subsidies to infrastructure borrowers, the criteria used to select projects, and the amount of subsidies that the average project received. Specifically, the NIC and IIC would target projects that had the potential to be self-supporting through user charges. The commission also believed that credit assistance provided by the corporations would absorb a much smaller portion of total project costs than do existing federal grants. An important question, however, is whether capitalizing the NIC and IIC with funds taken from existing programs would be either necessary or likely to yield an allocation of resources that produced more benefits.

The general goals of increasing reliance on user fees to pay for infrastructure and raising state and local financial contributions for some infrastructure projects can be justified as improving resource allocation. If fees are not charged, infrastructure users have an incentive to use more than an optimum amount of infrastructure services. To achieve efficiency, user fees must be set to equal the marginal cost of providing the services. Although the commission supported user fees, it did not suggest that they be set according to marginal cost principles. The federal government, however, could give jurisdictions an incentive to charge user fees and force them to increase their share of project financing simply by changing the terms of existing grant programs. Recent legislation allows municipalities to use federal grant funds to pay up to 50 percent of the cost of toll highways, bridges, and tunnels. Jurisdictions may also use federal funds to pay up to 80 percent of the cost of rehabilitating existing toll facilities or converting existing free facilities to toll facilities. The federal government could take more steps in this direction by reducing the remaining restrictions on the use of grants and altering the terms under which projects are eligible for them.

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13. Congressional Budget Office, "Updating Trends in Public Infrastructure Spending and Analyzing the President's Proposals for Infrastructure Spending from 1994 to 1998," CBO Paper (August 1993), p. 60.

Policymakers could also finance federal assistance for state and local infrastructure through new user fees. For example, the Congress could finance physical capital grants by charging fees based on congestion and damage to facilities. By altering the terms of its grants to lower the percentage of a project's cost that it pays, the federal government could also achieve the "leveraging" of federal funds advocated by the commission more directly than would the NIC or IIC. In addition, if municipalities had to pay more for new facilities, they would have an incentive to develop new sources of revenue such as user fees.

Although a policy of requiring user fees would encourage more optimal use of infrastructure facilities--and might make funds available for future maintenance and modernization--it would be neither necessary nor sufficient to ensure that states and localities used federal subsidies to make efficient investments in new resources.<sup>14</sup> That outcome can follow only from properly conducted benefit-cost analysis that ranks projects on the basis of their expected benefits-to-costs ratios. Certainly, projections of the prices that people would pay to use a facility can support benefit-cost analysis by providing data on the demand for the infrastructure. But the absence of user charges does not imply that a project will yield few benefits. In fact, relying on user fees may lead to underinvestment in some facilities that would bring high levels of economic returns. For example, jurisdictions may not be able to finance some high-return projects primarily with fees if the projects have spillover benefits and the costs of collecting user fees are high. Political resistance from users may also limit fees on high-return projects. In sum, properly set user fees, especially for existing facilities, can achieve a use of infrastructure that is more in line with an efficient allocation of resources and produce high returns at low costs. But the existence of user fees should not be the primary criterion by which the government determines which projects should be assisted with federal funds.

By paying for a smaller proportion of total project costs, the NIC and IIC could use federal funds to support a larger number of projects. It would be the benefits produced by the facilities, however, and not the number of facilities financed that would determine how federally assisted investments affected resource allocation. Federal funding for state and local infrastructure can produce a better allocation of resources if it corrects for benefit spillovers. The NIC and IIC would restrict federal assistance to projects that had the potential to pay for themselves with user fees, but assistance to such projects would probably not correct for spillovers. Subsidizing projects that could be paid for

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14. The distinction between encouraging user fees on existing projects so that infrastructure is used more efficiently and employing user fees to encourage efficient investment decisions is discussed in Congressional Budget Office, *Paying for Highways, Airways, and Waterways: How Can Users Be Charged?* (May 1992), p. 9.

directly by charging their beneficiaries will seldom improve the allocation of resources--user fees imply that people who benefit from spillovers are paying their share of the costs. There is evidence that current grant programs for highways and other physical infrastructure overcompensate for spillover problems.<sup>15</sup> However, it is not clear that diverting current grant funds that oversubsidize projects relative to their spillovers to finance projects that lack significant spillovers would enhance the allocation of resources.

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15. One analyst estimated that total highway spending and economic efficiency would be increased and the federal government would save money--all by noticeable amounts--by lowering federal matches on current grants and removing the caps on these grants. See Edward Gramlich, "How Should Public Infrastructure Be Financed?" in Alicia Munnell, ed., *Is There a Shortfall in Public Capital Investment?* Conference Series, No. 34 (Boston: Federal Reserve Bank of Boston, undated), p. 227.