

## **Investing in Non-Revenue Modes**

Historically, the states of the US and the Federal government have been reluctant to invest in transportation modes that do not produce a revenue stream or in facilities held in the private sector. The result of this tradition in freight has been that the highway mode--trucking--has become the fallback mode. When rail companies or maritime fleets cannot or chose not to move a product, it will be moved by truck, with the public sector holding responsibility for providing and maintaining the facilities. Although it is difficult to prove, this tradition has probably also resulted in more costly and environmentally damaging solutions to some transportation problems than might have been necessary, had funding constraints been less severe.

### **Exceptions**

Some exceptions to this tradition do exist. For example, public transit facilities never generate a revenue stream adequate to meet their operating and capital costs, but public policy makers have agreed that continuing public transportation is critical for many areas of the nation. Public agencies subsidize those transit service providers so that key services are maintained.

Similarly, in the wake of the terrorist attacks of 9-11, the Congress determined that continuing services from the troubled air carriers was in the national interest. Rather than allowing massive bankruptcies, the airlines were provided public funding, primarily in the form of low cost loans, to ease them over the terrorist-caused disruptions. In this case, the justification was only partially related to service needs. The larger rationale was the impact of the national emergency that was disproportionately felt by the airlines.

AMTRAK is a continuing, if reluctant, exception. In the late 1960's and 1970's, as rail companies all moved out of the passenger business, the federal government established the national passenger rail service, subsidizing both operations and capital. Each renewal cycle, the system is on the funding bubble as Congress and the President argue about the continuation of the service. To date the service continues, albeit at funding levels that continue to degrade services. But the national interest in having passenger rail service is continually reaffirmed.

Another category of exceptions deals with the interface of public and private modes. Rail-highway crossings are the primary example of this category. Within federal programs and in most states, the public benefit in assuring safe crossings has been recognized. The public often installs crossing protection devices and shares the maintenance costs with the rail companies.

### **Economic Rationale for Investment**

Rail crossings illustrate the usual economic justification for public participation in private or non-revenue modes: The public sector should share in costs in proportion to the public and non-public benefit. This concept was recently

affirmed by the Government Accountability Office (GAO) in their review of the proposed expansion of the federal role in short sea shipping:

When public subsidization is being considered for freight infrastructure projects—which to a large degree would likely benefit the private sector—the appropriate scope of government involvement must be considered carefully. Apportioning the cost burden of freight projects among participants equitably is important not only to guard against the waste of limited public resources but also to enhance the efficiency of the transportation system by supporting only the most worthy projects. (GAO July 2005)

In the case of rail crossings, standard benefit-cost analysis procedures can be used to define the relative benefits that will accrue to each sector, providing a basis for the allocation of costs. Items like crash avoidance and timesaving lend themselves to monetization. The process becomes more complex when the benefits considered are less direct, as is often the case with short sea shipping and other freight projects.

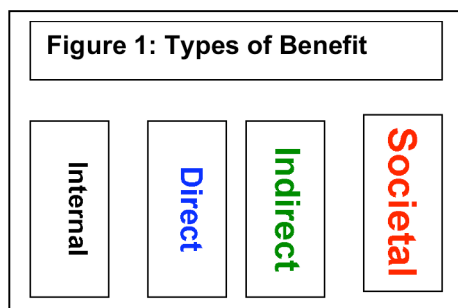


Figure 1 outlines the range of benefits that could be considered. At the core are those benefits that will be enjoyed internally by the agency or company funding the activity. In this case, we might think of rail capacity or operational improvements funded by the rail company from its own revenues. Or we could think of highway infrastructure funded by user fees or tolls. In both cases, a fairly direct relationship exists between those who benefit from an investment and those who provide the funding for it.

Rail-highway crossings would fall into the next level, direct. In this case, an investment causes benefits for one or more groups. Since the benefits are direct, for example accident avoidance and timesaving, they can be easily monetized and allocated to the benefiting groups.

Indirect benefits take the issues to the next levels. Perhaps a rail-highway separation project connects two parts of a city that were previously separated for long periods by train movements. In this case, a very real benefit might be an enhancement in the dependability and speed of the emergency response system. While the benefit is real, it accrues to the entire community and cannot be readily attributed to one particular group or sector.

Societal benefits share many attributes of indirect, they cannot be attributed to specific sectors of society; their benefit is widely felt; and they cannot be as easily quantified as direct benefits. They are, however, different from indirect benefits as a matter of degree. For example, a transportation investment might tend to direct urban growth in a desired direction, having a positive impact on

land use and the natural environment. Like the rail-highway separation discussed earlier, the benefits will be widely felt, but in this case they may also be felt over a long period of time, future generations may enjoy the natural spaces that are preserved. Allocating the benefits and the costs will be much more difficult. Another example that could fall into this category might be the introduction of a technology that significantly reduces the greenhouse gases emitted by the transportation sector. To increase the speed with which the impact of the technology is felt, the public sector might initiate a buy-back program to speed the turnover of the fleet, or it might subsidize the creation of a new fuel distribution system. In this case, the cost would be borne by the US government, while the benefits would literally be felt around the world and into future generations.

The preservation or enhancement of a transportation mode or service that is critical to a regional or national economy might also produce societal benefit. Consider the market-driven scenario in which freight rail and maritime services continue to be marginalized, serving increasingly narrow market niches. For the highway sector, one of two outcomes would be probable. The first is increased congestion, which will increase the cost of operations for industries, reducing their global competitiveness, ultimately degrading our quality of life. The second is the major construction of new or expanded highways, which may keep industries competitive, but which may also have a negative impact on land use and air quality, also degrading quality of life. Obviously, issues of quality of life can be very personal and value-laden, but not addressing them is, in effect, deciding on them. Something will happen. The only question will be if it is the result of deliberate policy choices made by our society or if it will be the result of thousands of decisions made by individuals and companies, each trying to maximize individual benefit without consideration of collective benefit.

To a large degree the issue for consideration is how broadly we define benefit, do we consider the societal issues or only the benefits that are more closely felt and more easily measured. A case can easily be made that the continued viability of freight rail and maritime freight for more than narrow niche markets can produce major benefits to society. They each move freight using less fuel than truck or air. They produce fewer green house gases. And they can have a beneficial impact on land use patterns, when compared to highway-based transport.

### **Private Ownership**

The issue of private ownership, particularly of rail companies, does raise a number of issues that must be addressed specifically. Public dollars should not be used to enrich private firms. Moreover safeguards must be employed to ensure that the benefit expected is actually derived, or at least is not frustrated by operating decisions made by those same private companies. Finally, care must be taken to protect rail companies from a return to the fiscal peril they endured before regulation. All of these things can be accomplished.

Assistance agreements have to clearly spell out the expectations and responsibilities of both parties and the consequence of non-performance. Of equal importance, they must be built on a base of mutual objectives and mutual benefit. For example, the discussions of the past few years on the possible expansion of passenger rail, using existing freight corridors, have begun with the assumption that public investment in rail infrastructure would leave the freight rail companies in a better condition in so far as capacity is concerned than they are now. This mutual benefit approach has kept the private companies at the table. If public funding is ever made available, agreements will be reached that provide for public investment and use of private facilities.

In the highway realm, the cry of the past several years has been "public-private" partnerships. These partnerships all originate with the desire to bring private dollars into what are normally public facility projects. They take many forms. The variation that is most relevant for this discussion is public funding in the development of a privately operated and maintained and tolled facility. The need for this arrangement exists when a desired facility will probably not produce sufficient toll collections to be viable as a purely private venture. Public involvement may take several forms, but typically it involves the use of taxpayer subsidy of the construction cost or the extension of tax-exempt bonding authority to the concessionary. Both approaches are subsidies designed to make an otherwise unattractive project work. As suggested for the "non-revenue" modes, assistance agreements in this case must spell out the expectations, responsibilities and benefits to both parties. They must also be based on a premise of mutual benefit.

### **Funding Source**

Whenever public investment in a new area of transportation is considered, the source of the funding must be evaluated. Typically the sources considered are General Fund Revenues (GPR) and Highway Trust Fund (HTF) monies. This can be a very divisive issue. It is also an increasingly important issue.

Transportation in the US is funded from a crazy-quilt variety of taxes and fees that are not sustainable in the long run. They are not sustainable, because, despite the number of permutations that exist among the states and at the federal level, the workhorse of transportation funding is the motor fuel tax (MFT). Over the next decade we can expect increasing numbers of vehicles fueled electricity, hybrids, compressed natural gas, fuel cells, hydrogen and other non-traditional fuels. As this happens, the historic link between use and payment, which the MFT has generally maintained, will be broken. This will reduce the acceptance of the MFT by the public. Moreover, as the available fuels grow in the marketplace, the revenue derived from the MFT will be increasingly inadequate to meet our transportation needs.

We will have to embrace new methods of funding transportation in the relatively near future. As new methods are developed, attention should be given to a wider range of modal applications than currently exist.

### **Conclusions**

The decision to invest public money in a transportation project depends largely on the range of benefits expected from the project and the groups or individuals who will enjoy those benefits. In the case of non-highway freight modes a strong case can be made that significant benefits exist for our economy and our society.

If we chose to recognize those benefits and investment in what are often privately held modes, care must be taken to protect the public interest and ensure that expected benefits are found. This can be done with clear contractual agreements and mutually beneficial arrangements.

The issue of the appropriate source of public money—HTF or GPR—is controversial. It should be addressed over the next decade as new transportation funding methods are developed and implemented.