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MARINE TRANSPORTATION

Federal Financing and an Infrastructure Investment Framework

Statement of JayEtta Z. Hecker
Director, Physical Infrastructure Issues

G A O

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GAO-02-1090T

Mr. Chairmen and Members:

We are pleased to be here today to discuss challenges in defining the federal role with respect to freight transportation issues. There are concerns that the projected increases in freight tonnage for all transportation modes will place pressures on the marine, aviation, and highway transportation systems. As a result, there is growing awareness of the need to view various transportation modes, and freight movement in particular, from an integrated standpoint, particularly for the purposes of developing and implementing a federal investment strategy and considering alternative funding approaches. An intermodal perspective appears especially important as the nation reacts to the increased security needs for transportation networks and as it plans for better, more efficient transportation for the future. At your request, we have done work focusing on the marine component of the national transportation system.

My testimony today, which is based on our report[1] that is being issued today, addresses three topics: (1) the federal funding approaches used for the marine transportation system as compared with the aviation and highway systems, (2) the amount of customs duties on imported goods shipped through the marine, aviation, and highway systems, and (3) a framework to assist the Congress as it considers future federal investment decisions. Our recently completed work on marine transportation is based on our analysis of data collected from 15 federal agencies that expended revenue on the various transportation systems and/or collected funds from users of the systems during fiscal years 1999 through 2001. We also collected data from the U.S. Customs Service on the amount of duty collected on commodities imported by the various transportation modes. We applied the estimates developed by the U.S. Census Bureau on the percent of collections attributable to water, sea, and land transportation modes to total customs duties collected by the U.S. Customs Service during fiscal years 1999 through 2001. To develop a framework to assist the Congress in making decisions about the federal role in financing the marine transportation system, we built on prior GAO work on federal investment approaches and managerial best practices and interviewed U.S. Army Corps of Engineers and Department of Transportation officials. See appendix I for a more detailed explanation of our scope and methodology.

[1]U.S. General Accounting Office, *Marine Transportation: Federal Financing and a Framework for Infrastructure Investments*, GAO-02-1033 (Washington, D.C.: Sept. 9, 2002).

In summary:

- The federal approach for funding the marine transportation system relies heavily on general revenues, while the approach for funding the aviation and highway systems relies almost exclusively on collections from users of the systems. During fiscal years 1999 through 2001, funding for about 80 percent of the average $3.9 billion expended each year on the marine transportation system came from the U.S. Treasury's general fund. During the same period, nearly all of the $10 billion in federal funds expended each year for the aviation system and the $25 billion in federal funds expended each year for the highway system came from revenues generated by users of those two systems.

- During fiscal years 1999 through 2001, customs duties on imported goods transported through the transportation systems averaged $15 billion each year for the marine transportation system, $4 billion each year for the aviation system, and $900 million each year for the highway system. Customs duties are taxes on the value of imported goods and have traditionally been viewed as revenues to be used for the support of the general activities of the federal government. Unlike the collections based on the use of the highway and aviation systems, customs duties are paid by the importers of the taxed goods. Revenues from these duties are deposited into the U.S. Treasury's general fund, and the majority of these revenues are used for the general support of federal activities. To help finance improvements to the marine transportation system, some maritime stakeholders, such as port authorities, have suggested earmarking a portion of revenues generated from customs duties. Some customs duties are currently earmarked for specific purposes, such as agriculture and food programs. However, in that case, a portion of the duties on imports must be used to encourage the export and the domestic consumption of farm products and to reestablish farmers' purchasing power— that is, for assisting markets that are arguably adversely affected by the importation of goods. Further earmarking of customs duties for new spending would have significant budget ramifications in an already constrained federal budget environment.

- Diverse industry stakeholders believe that substantial new investments in the maritime infrastructure may be required from public and private sources because of an aging infrastructure, changes in the shipping

industry, and increased concerns about security.[2] A systematic framework would be helpful to decision makers as they consider the federal government's purpose and role in providing funding for the system and as they develop a sound investment approach to guide federal participation. In examining federal investment approaches across many national activities, we have identified four key components of such a framework—establishing national goals, defining the federal role, determining appropriate funding tools, and evaluating performance—could potentially be applied to all transportation systems.

- The first component—establishing national goals for the system—requires an in-depth understanding of the needs of the system and the relationship of the system to other transportation modes. For example, the efficient movement of freight often involves using several different transportation modes, making investment decisions, and developing coherent freight policies would logically need to occur while focusing on the entire transportation system rather than a single mode.
- The second component—clearly defining the federal role relative to other stakeholders—is important to help facilitate the planning and implementation of improvements across modes and to better ensure that federal participation supplements and enhances participation by others, rather than simply replacing their participation.
- A third component—determining the funding tools and other approaches that will maximize the impact of any federal investment—is important to help expand the capacity to leverage funding resources and to promote shared responsibilities. For example, in the $2.4 billion Alameda Corridor Program, state and local stakeholders had both a financial incentive to relieve congestion and the commitment and ability to bring financial resources to bear.
- The final component ensures that a process is in place for evaluating performance and accountability periodically so that defined goals, roles, and approaches can be reexamined and modified, as necessary.

Background

The nation's surface transportation systems facilitate mobility through an extensive network of infrastructure and operators, as well as through the vehicles and vessels that permit passengers and freight to move within the

[2]We did not systematically evaluate the claims regarding new infrastructure investments. Recent work has recognized the as yet undefined financial requirements for enhancing the security of ports. See U.S. General Accounting Office, *Port Security: Nation Faces Formidable Challenges in Making New Initiatives Successful*, GAO-02-993T (Washington, D.C.: Aug. 5, 2002).

system. Maintaining the systems is critical to sustaining America's economic growth. This is especially important given that projected increases in freight tonnage will likely place pressures on these systems. According to the Federal Highway Administration, domestic and international freight tonnage across all surface modes will increase 41 percent, from 14.4 billion tons in 1998 to 20.3 billion tons in 2010. According to the forecasts, by 2010, 15.6 billion tons are projected to move by truck, a 44 percent increase; 3 billion tons by rail, a 32 percent increase; and 1.5 billion tons by water, a 27 percent increase.[3] Some freight may be moved by more than one mode before reaching its destination, such as moving by ship for one segment of the trip, then by truck to its final destination.

Over 95 percent of the U.S. overseas freight tonnage is shipped by sea. The United States accounts for 1 billion metric tons, or nearly 20 percent of the world's oceanborne trade. As the world's leading maritime trading nation, the United States depends on a vast marine transportation system. In addition to the economic role it plays, the system also has an important role in national defense; serves as an alternative transportation mode to roads and rails; and provides recreational value through boating, fishing, and cruises.

Traditionally, federal participation in the maritime industry has been directed mainly at projects related to "waterside" issues, such as keeping navigation channels open by dredging, icebreaking, or improving the system of locks and dams; maintaining navigational aids such as lighthouses or radio systems; and monitoring the movement of ships in and out of the nation's coastal waters. Federal participation has generally not extended to "landside" projects related to ports' capabilities, such as building terminals or piers and purchasing cranes or other equipment to unload cargo.[4]

These traditional areas of federal assistance are under pressure, according to a congressionally mandated report issued by the Department of

[3]The Federal Highway Administration's maritime freight projections do not include international trade of bulk products and some inland domestic bulk shipments.

[4]One exception has been intermodal connections, such as rail or highway connections. The federal government has traditionally participated in funding such projects.

Transportation in 1999,[5] which cites calls to modernize aging structures and dredge channels to new depths to accommodate larger ships. Since this report, and in the aftermath of September 11, the funding focus has further expanded to include greater emphasis on port security. Many of the security improvements will require costly outlays for infrastructure, technology, and personnel. For example, when the Congress recently made $92.3 million in federal funding available for port security as part of a supplemental appropriations bill,[6] the Transportation Security Administration received grant applications totaling almost $700 million.[7]

With growing system demands and increased security concerns, some stakeholders have suggested a different source of funding for the marine transportation system. For example, U.S. public port authorities have advocated increased federal funding for harbor dredging. Currently, funding for such maintenance is derived from a fee on passengers and the value of imported and domestic cargo loaded and unloaded in U.S. ports. Ports and shippers would like to see funding for maintenance dredging come from the general fund instead, and there was legislation introduced in 1999 to do so.[8] Regarding funding for security, ports are seeking substantial federal assistance to enhance security in the aftermath of the events of September 11. In other work we have conducted on port security,[9] port and private-sector officials have said that they believe combating terrorism is the federal government's responsibility and that, if

[5]U.S. Department of Transportation, *An Assessment of the U.S. Marine Transportation System: A Report to Congress* (Washington, D.C.: September 1999). GAO did not verify the accuracy of the information contained in this report.

[6]Although $93.3 million was made available in the supplemental appropriations bill, $1 million was authorized for administrative expenses. As of June 17, 2002, 77 grants for 144 ports security projects were awarded.

[7]The Transportation Security Administration, the Coast Guard, and the Maritime Administration reviewed applications under the Port Security Grants Program, which is based on the seaport security provisions contained in the Department of Defense and Emergency Supplemental Appropriations for Recovery from and Response to Terrorist Attacks on the United States Act of 2002 (Pub. L. No. 107-117, H.R. Conference Report 107-350). An additional $105 million was appropriated for the Port Security Grant Program as part of another supplemental appropriation act passed August 2, 2002 (Pub. L. No. 107-206).

[8]H.R. 1260 was introduced, but not enacted, in the 106th Congress to repeal the Harbor Maintenance Tax and return to funding the costs of operating and maintaining federal navigation channels from general revenues.

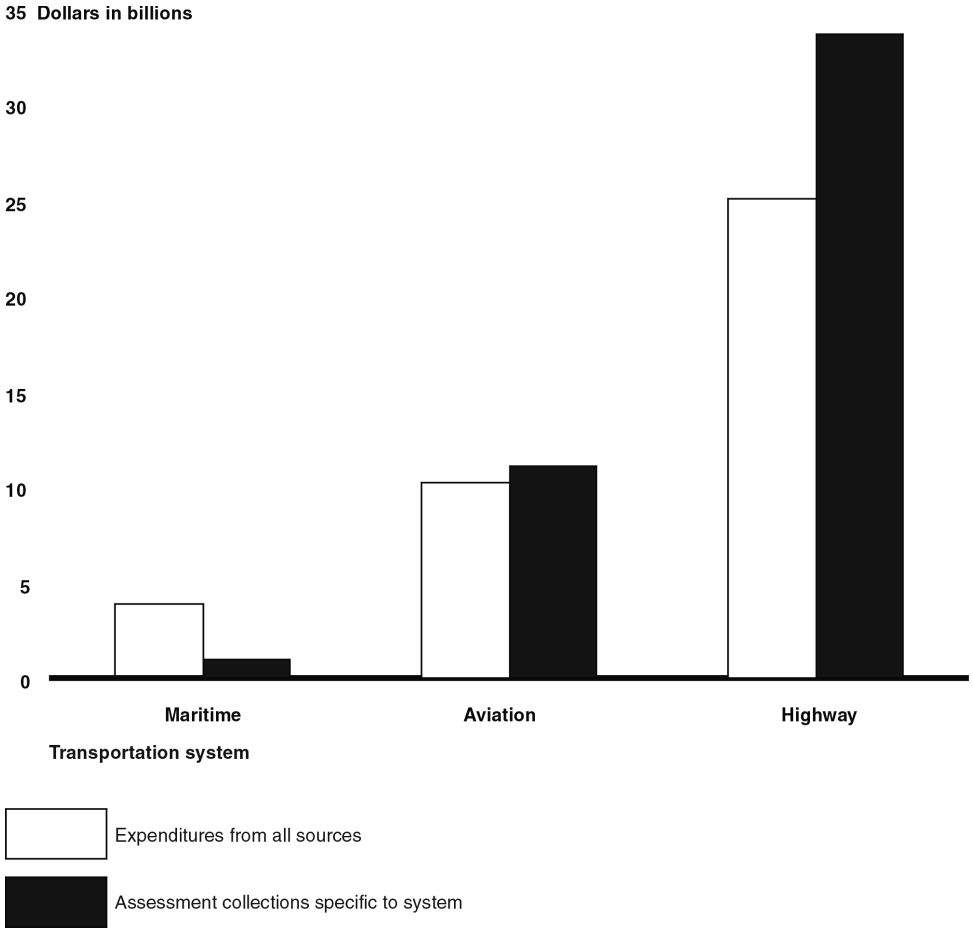
[9]U.S. General Accounting office, *Port Security: Nation Faces Formidable Challenges in Making New Initiatives Successful*, GAO-02-993T (Washington, D.C.: Aug. 5, 2002).

additional security is needed, the federal government should provide or pay for it.

Federal Approach to Financing the Marine Transportation System as Compared with the Aviation and Highway Systems

Unlike the funding approach used for the aviation and highway transportation systems, which are primarily funded by collections from users of the systems, the commercial marine transportation system relies heavily on general tax revenue. For all three transportation systems, most of the revenue collected from users of the systems was deposited into trust fund accounts. Figure 1 summarizes the expenditure and assessment comparisons across the three transportation systems.

Figure 1: Comparison of Federal Expenditures and Assessments on Users Specific to Each Transportation System (Average for Fiscal Years 1999–2001)



Source: GAO analysis of data provided by the agencies that expended and/or collected funds.

During fiscal years 1999 through 2001, federal agencies expended an average of $3.9 billion each year on the marine transportation system with about 80 percent of the funding coming from the general revenues. During the same period, federal agencies expended an average of $10 billion each year on the aviation system and $25 billion each year on the highway system. The vast majority of the funding for these expenditures came from trust fund accounts. (See app. II.)

Federal agencies collected revenue from assessments on users of all three transportation systems during fiscal years 1999 through 2001.[10] Collections from assessments on system users during this period amounted to an average of $1 billion each year from marine transportation system users, $11 billion each year from aviation system users, and $34 billion each year from highway system users. Most of the collections for the three systems were deposited into trust funds that support the marine, aviation, and highway transportation systems. [11] (See app. III.) Trust funds that support the marine transportation system include the Harbor Maintenance Trust Fund and the Inland Waterways Trust Fund. Trust funds that support the aviation and highway transportation systems include the Airport and Airway Trust Fund and the Highway Trust Fund.

Comparison by Transportation Modes of the Amount of Customs Duties Collected

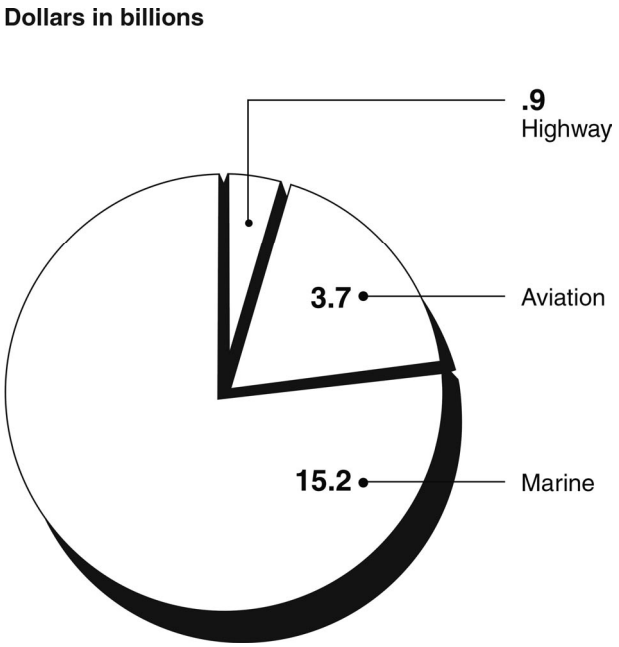
The federal government assesses customs duties on goods imported into the United States and the majority of these collections are deposited into the U.S. Treasury's general fund to be used for the support of federal activities. As can be seen in figure 2, the amounts from customs duties levied on imported goods carried through the marine transportation system are more than triple the combined amounts collected from customs duties levied on the goods carried through the aviation and

[10]Such assessments include both user fees and excise taxes. User fees are charged to users for goods or services provided by, or activities regulated by, the federal government. User fees generally apply to activities that provide benefits to identifiable recipients and are normally related to the cost of the goods or services provided. They may be paid into the general fund or, under specific statutory authority, may be made available to an agency carrying out the activity. User fees may also be collected through a tax such as an excise tax. Since these collections result from the government's sovereign powers, the proceeds are generally recorded as budget receipts, not as offsetting collections. Excise taxes can also be dedicated to specific programs and agencies.

[11]Collections are deposited into the U.S. Treasury and can be used for the general support of federal activities or may be earmarked by law for specific purposes and credited to a trust fund. A federal trust fund is an accounting mechanism used to link earmarked receipts with the expenditures of those receipts. It is designated in law as a "trust" fund.

highway systems. During fiscal years 1999 through 2001, customs duties on imported goods shipped through the transportation systems averaged $15.2 billion each year for the marine transportation system, $3.7 billion for the aviation system, and $928 million for the highway system. (See app. IV for details on customs duty collections by year.)

Figure 2: Comparison of Customs Duty Amounts Collected for Commodities Transported on the Marine, Aviation, and Highway Transportation Systems (Average for Fiscal Years 1999 through 2001)



Source: GAO computations based on data provided by the U.S. Customs Service.

Some maritime stakeholders, particularly port owners and operators, have proposed using a portion of the customs duties for infrastructure improvements to the marine transportation system. They point out that the marine transportation system is generating billions of dollars in revenue, and some of these funds should be returned to maintain and enhance the system. However, unlike transportation excise taxes, customs duties are taxes on the value of imported goods paid by importers and ultimately their consumers—not on the users of the system—and have traditionally been viewed as revenues to be used for the support of the general activities of the federal government.

Notwithstanding the general trend, a portion of revenues from customs duties are currently earmarked for agriculture and food programs,

migratory bird conservation, aquatic resources, and reforestation.[12] It should be noted, however, that in these cases, some relationship exists between the goods being taxed and the uses for which the taxes are earmarked. Designating a portion of the remaining customs fees for maritime uses would not represent a new source of capital for the federal government, but rather it would be a draw on the general fund of the U.S. Treasury. This could lead to additional deficit financing, unless other spending were cut or taxes were increased.

Systematic Framework Could Help Guide Decisions When Making Investment Choices for the Marine Transportation System

Some maritime industry stakeholders have suggested that substantial new investments in the maritime infrastructure by federal, state, and local governments and by the private sector may be required because of an aging infrastructure, changes in the shipping industry, and increased concerns about security.[13] These growing and varied demands for increased investments in the maritime transportation system heighten the need for a clear understanding about the federal government's purpose and role in providing funding for the system and for a sound investment approach to guide federal participation. In examining federal investment approaches across many national activities, we have found that issues such as these are best addressed through a systematic framework. As shown in figure 2, this framework has the following four components that potentially could be applied to all transportation systems:

- Set national goals for the system. These goals, which would establish what federal participation in the system is designed to accomplish, should be specific and measurable.

- Define clearly what the federal role should be relative to other stakeholders. This step is important to help ensure that federal

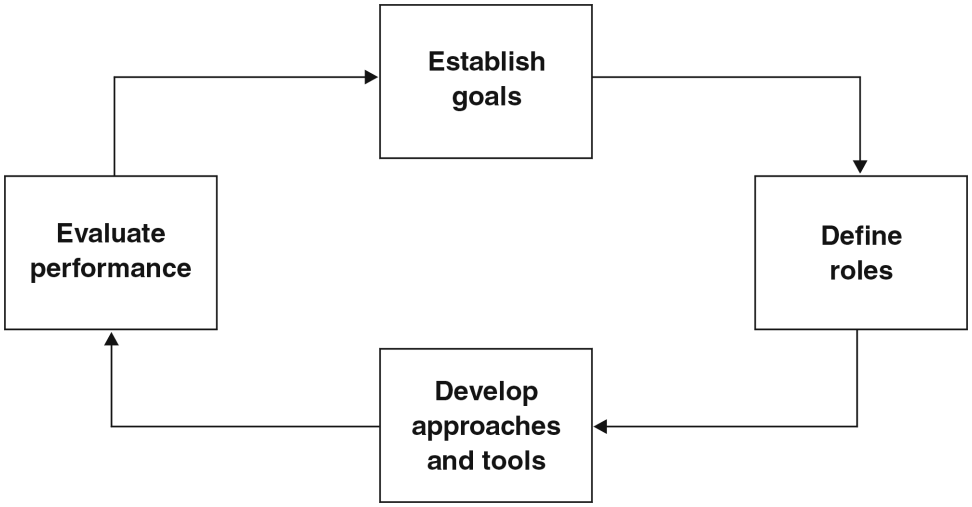
[12]Under Section 612c of Title 7, 30 percent of the gross receipts from customs duties are designated for agricultural and food programs. Pursuant to 16 U.S.C. 3912, all duties on guns and ammunitions are credited to the Migratory Bird Conservation Fund and pursuant to 26 U.S.C. 9504, duties on fishing tackle and yachts and pleasure craft are credited to the Sports Fish Restoration Account of the Aquatic Resources Trust Fund. In addition, tariffs from wood and certain wood products are credited to the Reforestation Trust Fund up to a total of $30 million (16 U.S.C. 1606(a)).

[13]We did not systematically evaluate these claims regarding new infrastructure investments. Recent work has recognized the as yet undefined financial requirements for enhancing the security of ports. See U.S. General Accounting Office, *Port Security: Nation Faces Formidable Challenges in Making New Initiatives Successful*, GAO-02-993T (Washington, D.C.: Aug. 5, 2002).

participation supplements and enhances participation by others, rather than simply replacing their participation.

- Determine which funding tools and other approaches, such as alternatives to investment in new infrastructure, will maximize the impact of any federal investment. This step can help expand the capacity to leverage funding resources and promote shared responsibilities.
- Ensure that a process is in place for evaluating performance periodically so that defined goals, roles, and approaches can be reexamined and modified, as necessary.

Figure 3: Framework for Developing an Effective Federal Investment Strategy



Source: GAO.

Establish National Goals to Guide Federal Participation

An initial decision for Congress when evaluating federal investments concerns the goals of the marine transportation system. Clearly defined national goals can serve as a basis for guiding federal participation by charting a clear direction, establishing priorities among competing issues, specifying the desired results, and laying the foundation for such other decisions as determining how assistance will be provided. At the federal level, measuring results for federal programs has been a longstanding objective of the Congress. The Government Performance and Results Act

of 1993[14] has become the primary legislative framework through which agencies are required to set strategic and annual goals that are based on national goals, measure performance, and report on the degree to which goals are met and on what actions are needed to achieve or modify goals that have not been met. Establishing clear goals and performance measures for the marine transportation system is critical to ensuring both a successful and a fiscally responsible effort.

Before national goals for the system can be established, however, an in-depth understanding of the relationship of the system to other transportation modes is required. Transportation experts highlight the need to view the system in the context of the entire transportation system in addressing congestion, mobility, and other challenges and, ultimately, investment decisions. For example, congestion challenges often occur where modes connect or should connect, such as ports where freight is transferred from one mode to another. The connections require coordination of more than one mode of transportation and cooperation among multiple transportation providers and planners. A systemwide approach to transportation planning and funding, as opposed to focus on a single mode or type of travel, could improve the focus on outcomes related to customer or community needs.

Meaningful goal setting also requires a comprehensive understanding of the scope and extent of issues and priorities facing the marine transportation system. However, there are clear signs that certain key issues and priorities are not yet understood well enough to establish meaningful goals for the system. For example, a comprehensive analysis of the issues and problems facing the marine transportation system has not yet been completed.[15] In setting goals for investment decisions, leading

[14]Pub. L. No. 103-62.

[15]The 1999 marine transportation system report identified a number of issues and problems facing the marine transportation system. These included increased dredging requirements to accommodate larger container ships, aging and limited capacity of lock and dam systems on inland waterways, and congestion due to ineffective intermodal connections. In January 2000, the Secretary of Transportation chartered the Marine Transportation System National Advisory Council to help implement the recommendations contained in a report issued by the Department of Transportation entitled *An Assessment of the U.S. Marine Transportation System: A Report to Congress.* An interagency committee was also established to facilitate implementation of the recommendations in the report. Recognizing the need to thoroughly analyze the issues and problems facing the marine transportation system, the interagency committee is in the process of seeking contract support for a comprehensive analysis assessing the future needs and funding of the marine transportation system.

organizations usually perform comprehensive needs assessments to obtain a clear understanding of the extent and scope of their issues, problems, and needs and, ultimately, to identify resources needed. These assessments should be results-oriented in that they determine what is needed to obtain specific outcomes rather than what is needed to maintain or expand existing capital stock.[16] Developing such information is important for ensuring that goals are framed in an adequate context. The call by many ports for federal assistance in dredging channels or harbors to 50 feet is an example. Dredging to 50 feet allows a port to accommodate the largest of the container ships currently being constructed and placed in service. However, developing the capacity to serve such ships is no guarantee that companies with such ships will actually choose to use a port. Every port's desire to be competitive by having a 50-foot channel could thus lead to a situation in which the nation as a whole has an overcapacity for accommodating larger ships. The result, at least for the excess capacity, would signal an inefficient use of federal resources that might have been put to better use in other ways.

Define the Federal Role Relative to Other Stakeholders

Establishing the roles of the federal, state, and local governments and private entities will help to ensure that goals can be achieved. The federal government is only one of many stakeholders in the marine transportation system. While these various stakeholders may all be able to share a general vision of the system, they are likely to diverge in the priorities and emphasis they place on specific goals. For example, the federal government, with its national point of view, is in a much different position than a local port intensely involved in head-to-head competition with other ports for the business of shipping companies or other businesses. For a port, its own infrastructure is paramount, while the federal government's perspective is focused on the national and broader public interest.

Since there are so many stakeholders involved with the marine transportation system, achieving national goals for the system hinges on the ability of the federal government to forge effective partnerships with nonfederal entities. Decision makers have to balance national goals with the unique needs and interests of all nonfederal stakeholders in order to leverage the resources and capabilities that reside within state and local governments and the private sector. Future partnering among key

[16]U.S. General Accounting Office, *U.S. Infrastructure: Funding Trends and Federal Agencies' Investment Estimates*, GAO-01-986T (Washington, D.C.: July 23, 2001).

maritime stakeholders may take on a different form as transportation planners begin focusing across transportation modes in making investment decisions instead of making investment decisions for each mode separately. The Alameda Corridor Program in the Los Angeles area provides an example of how effective partnering allowed the capabilities of the various stakeholders to be more fully utilized. Called the Alameda Corridor because of the street it parallels, the program created a 20-mile, $2.4 billion railroad express line connecting the ports of Los Angeles and Long Beach to the transcontinental rail network east of downtown Los Angeles. The express line eliminates approximately 200 street-level railroad crossings, relieving congestion and improving freight mobility for cargo. This project made substantial use of local stakeholders' ability to raise funds. While the federal government participated in the cost, its share was only about 20 percent of the total cost, most of which was in the form of a loan rather than a grant.

Just as partnerships offer opportunities, they also pose risks based upon the different interests reflected by each stakeholder. While gaining the opportunity to leverage the resources and capabilities of partners, each of these nonfederal entities has goals and priorities that are independent of the federal government. For the federal government, there is concern that state and local governments may not share the same priorities for use of the federal funds. This may result in nonfederal entities replacing or "supplanting" their previous levels of commitment in areas with new federal resources. For example, in the area of port security, there is a significant funding need at the local level for overtime pay for police and security guards. Given the degree of need, if more federal funding was made available, local interests might push to apply federal funding in this way, thereby transferring a previously local function to the federal arena. In moving toward federal coverage of basic public services, the Congress and federal officials would be substantially expanding the federal role.

Develop Funding Tools and Other Approaches That Maximize the Federal Return

When evaluating federal investments, a careful choice of the approaches and funding tools that would best leverage federal funds in meeting identified goals should be made. A well-designed funding approach can help encourage investment by other stakeholders and maximize the application of limited federal dollars. An important step in selecting the appropriate approach is to effectively harness the financial capabilities of local, state, and private stakeholders. The Alameda Corridor Program is a good example. In this program, state and local stakeholders had both a financial incentive to relieve congestion and the commitment and ability to bring financial resources to bear. Some other ports may not have the same

level of financial incentives or capabilities to undertake projects largely on their own. For example, in studying the extent to which Florida ports were able to implement a set of security requirements imposed by the state, we found that some ports were able to draw on more financial resources than others, based on such factors as size, economic climate, and funding base.[17] While such information would be valuable in crafting federal assistance, it currently is largely unavailable. Relatively little is known about the extent of state, local, and private-sector funding resources across the country.

The federal government has a variety of funding tools potentially available for use such as grants, direct loans, loan guarantees, tax expenditures, and user fees. Through cost sharing and other arrangements, the federal government can use these approaches to help ensure that federal funds supplement—and not supplant—funds from other stakeholders. For example, an effective use of funding tools, with appropriate nonfederal matches and incentives, can be valuable in implementing a national strategy to support federal port investments, without putting the government in the position of choosing winners or losers.

Federal approaches can take other forms besides those that relate specifically to making funding available. These following approaches allow increased output without making major capital investments:

- **Demand management**. Demand management is designed to reduce travel at the most congested times and on the most congested routes. One demand management strategy involves requiring users to pay more to use congested parts of the system during such periods, with the idea that the charge will provide an incentive for some users to shift their use to a less congested time or to less congested routes or transportation modes. On inland waterways, for example, congestion pricing for locks—that is, charging a toll during congested periods to reflect the additional cost of delay that a vessel imposes on other vessels—might be a way to space out demand on the system. Many economists generally believe that such surcharges or tolls enhance economic efficiency by making operators take into account the external costs they impose on others in deciding when, where, and how to travel.

[17]U.S. General Accounting Office, *Port Security: Nation Faces Formidable Challenges in Making New Initiatives Successful*, GAO-02-993T (Washington, D.C.: Aug. 5, 2002).

- **Technology improvements**. Instead of making extensive modifications to infrastructure such as locks and dams, it may be possible to apply federal investments to technology that makes the existing system more efficient. For example, technological improvements may be able to help barges on the inland waterways navigate locks in inclement weather, thereby reducing delays on the inland waterway system.

- **Maintenance and rehabilitation**. Enhancing capacity of existing infrastructure through increased maintenance and rehabilitation is an important supplement to, and sometimes a substitute for, building new infrastructure. Maintenance and rehabilitation can improve the speed and reliability of passenger and freight travel, thereby optimizing capital investments.

  Management and operation improvements. Better management and operation of existing infrastructure may allow the existing transportation system to accommodate additional travel without having to add new infrastructure. For example, the U.S. Army Corps of Engineers is investigating the possibility of automating the operation of locks and dams on the inland waterways to reduce congestion at bottlenecks.

Examining Outcomes to Determine the Effectiveness of Investments

Regardless of the tools selected, results should be evaluated and lessons learned should be incorporated into the decision-making process. Evaluating the effectiveness of existing or proposed federal investment programs could provide decision makers with valuable information for determining whether intended benefits have been achieved and whether goals, responsibilities, and approaches should be modified. Such evaluations are also useful for better ensuring accountability and providing incentives for achieving results.

Leading organizations that we have studied have stressed the importance of developing performance measures and linking investment decisions and their expected outcomes to overall strategic goals and objectives.[18] Hypothetically, for example, one goal for the marine transportation system might be to increase throughput (that is, the volume of cargo) that can be transported through a particular lock and dam system on the nation's inland waterways. A performance measure to gauge the results of an

[18]U.S. General Accounting Office, *Executive Guide: Leading Practices in Capital Decision-Making*, GAO/AIMD-99-32 (Washington, D.C.: Dec. 1998).

investment for this goal might be the increased use (such as number of barges passing through per hour) that results from this investment and the economic benefits associated with that increase.

In summary, Mr. Chairmen, the projected increases in freight tonnage will likely place pressures on the nation's surface transportation systems. Maintaining these systems is critical to sustaining America's economic growth. Therefore, there is a need to view various transportation modes from an integrated standpoint, particularly for the purposes of developing and implementing a federal investment strategy and alternative funding approaches. In such an effort, the framework of goals, roles, tools, and evaluation can be particularly helpful—not only for marine transportation funding, but for other modes as well.

Mr. Chairmen, this concludes my testimony. I will be happy to respond to any questions you or other Members may have.

Appendix I: Scope and Methodology

To determine the amount of federal expenditures to support the commercial marine,[1] aviation, and highway transportation systems and the amount of collections from federal assessments on the users of these systems for fiscal years 1999, 2000, and 2001, we reviewed prior GAO reports and other relevant documents, and interviewed officials from the Office of Management and Budget and various industry representatives. On the basis of this determination, we contacted 15 federal agencies and asked them to provide information on the expenditures[2] and collections[3] that were specific to the transportation systems, relying on each agency to identify expenditures and collections related to activities that support the transportation systems. In addition, we also received data from the U.S. Customs Service on the amount of duty collected on commodities imported by the transportation modes. The U.S. Customs Service provided estimates, developed by the U.S. Census Bureau, on the percent of collections that were attributable to water, sea, and land transportation modes. We applied these percentages to the total customs duties collected for fiscal years 1999, 2000, and 2001 provided by the U.S. Customs Service to compute the amount of total customs duties collected by the marine, aviation, and highway transportation systems each year.

We performed limited reasonableness tests on the data by comparing the data with the actual trust fund outlays contained in the budget of the U.S. government for fiscal years 2001, 2002, and 2003. Although we had each agency validate the data provided, we did not verify agency expenditures and collections.

To identify initial considerations that could help the Congress in addressing whether to change the scope or nature of federal investments in the marine transportation system, we conducted a review of prior GAO reports and other relevant studies to identify managerial best practices in establishing strategic plans and federal investment approaches. We also interviewed U.S. Army Corps of Engineers and Department of

[1]Noncommercial activities, to include Coast Guard missions such as search and rescue and drug and migrant interdiction, as well as recreational activities, were excluded from our review as our focus was on the commercial marine transportation system.

[2]For the purposes of this report, expenditures are outlays to pay federal obligations identified by the agency for each fiscal year to support these systems, but may include payments for obligations incurred in previous fiscal years.

[3]Assessment collections are fees and taxes paid by users of a system that were identified by the agencies and may include revenues credited to federal funds, offsetting collections, and offsetting revenue.

Transportation officials to obtain information on the current state of the commercial marine transportation system, the ability of the system to keep pace with growing demand, and activities that are under way to assess the condition and capacity of the infrastructure. Our work was carried out from January 2002 to September 2002 in accordance with generally accepted government auditing standards.

Appendix II: Expenditures for the Marine, Aviation, and Highway Transportation Systems by Source of Funds (Fiscal Years 1999-2001)

Federal agencies spent an average of $3.9 billion annually on the marine transportation system, $10 billion annually on the aviation system, and $25 billion annually on the highway system. Whereas the primary source of funding for the marine transportation system is general tax revenues, the vast majority of federal funding invested in both the aviation and highway systems came from assessments on users of the systems. During the three-year period, general revenues were the funding source for 80 percent of the expenditures for the marine transportation system. In contrast, assessments on system users were the funding source for 88 percent of the amount spent on the aviation system and nearly 100 percent of the amount spent on the highway system.

Table 1: Total Expenditures for the Marine, Aviation, and Highway Transportation Systems Summarized by the Source of Funds (Fiscal Years 1999 – 2001)

Dollars in millions				
Source of funds	**1999**	**2000**	**2001**	**Average**
Marine transportation system				
General revenues	$3,250	$2,994	$3,117	$3,120
Revenue from system users[a]	467	902	876	748
Total marine transportation system	**$3,717**	**$3,896**	**$3,993**	**$3,868**
Aviation transportation system				
General revenues	$969	$1,007	$1,070	$1,015
Revenue from system users[a]	8,410	9,438	9,963	9,270
Total aviation transportation system	**$9,379**	**$10,445**	**$11,033**	**$10,285**
Highway transportation system				
General revenues	$90	$68	$116	$91
Revenue from system users[a]	22,730	25,031	27,231	24,997
Total highway transportation system	**$22,820**	**$25,099**	**$27,347**	**$25,088**

Note: Figures are nominal and have not been adjusted for inflation.

[a]Includes trust fund and reimbursable agency accounts.

Source: GAO analysis of data provided by agencies that expended funds.

Appendix III: Distribution of Amounts Collected from Users of the Transportation Systems (Fiscal Years 1999-2001)

Federal agencies collected an average of $1 billion annually from users of the marine transportation system, $11.1 billion annually from users of the aviation system, and $33.7 billion annually from users of the highway system. For all three transportation systems, most of the collections were deposited into trust fund accounts. During the three-year period, 85 percent of the amounts collected from marine transportation system users, 94 percent of the amounts collected from aviation system users, and nearly 100 percent of the amounts collected from highway system users were deposited into trust fund accounts.

Table 2: Amounts Collected from Marine, Aviation, and Highway Transportation System Users and Accounts Receiving the Collection (Fiscal Years 1999 – 2001)

Dollars in millions				
Source of funds	**1999**	**2000**	**2001**	**Average**
Marine transportation system				
General fund	$93	$97	$99	$96
Trust fund accounts	741	857	891	830
Reimbursable agency accounts	41	51	54	49
Total marine transportation system	**$875**	**$1,005**	**$1,044**	**$975**
Aviation transportation system				
General fund	$421	$437	$466	$441
Trust fund accounts	11,663	9,860	9,581	10,368
Reimbursable agency accounts	236	255	265	252
Total aviation transportation system	**$12,320**	**$10,552**	**$10,312**	**$11,061**
Highway transportation system				
General fund	$1	$2	$2	$2
Trust fund accounts	32,255	35,134	33,683	33,691
Reimbursable agency accounts	24	24	22	23
Total highway transportation system	**$32,280**	**$35,160**	**$33,707**	**$33,716**

Note: Figures are nominal and have not been adjusted for inflation.

Source: GAO analysis of data provided by agencies that expended funds.

Appendix IV: Amount Collected From Customs Duties on Commodities Transported on the Transportation Systems (Fiscal Years 1999-2001)

Unlike the fees and taxes on users that are earmarked to support the transportation systems, customs duties are not an assessment on the system; rather, duties are assessed on imported goods transported by the systems. The majority of customs duties collected are deposited in the U.S. Treasury's general fund for the general support of federal activities.[1] On average, the Customs Service reported $19.8 billion collected annually for commodities imported by the transportation modes, with nearly 80 percent collected from the marine system.

Table 3: Amount of Customs Duties Collected for Commodities Transported on the Marine, Aviation, and Highway Transportation Systems, Fiscal Years 1999 through 2001

Dollars in millions

	1999		2000		2001		
Transportation system	**Amount**	**Percent**	**Amount**	**Percent**	**Amount**	**Percent**	**Average amount**
Marine	$14,310	75	$15,624	76	$15,637	79	$15,190
Aviation	3,577	19	4,053	20	3,371	17	3,667
Highway[a]	1,168	6	880	4	735	4	928
Total custom duties collected	**$19,055**		**$20,557**		**$19,743**		**$19,785**

Note: Figures are nominal and have not been adjusted for inflation.

[a]Includes amounts collected by rail.

Source: GAO computations based on data provided by the U.S. Customs Service.

[1]Under Section 612 of Title 7, about 30 percent of the gross receipts from customs duties are designated for agricultural and food programs. In addition, pursuant to 16 U.S.C. 3912, all duties on guns and ammunitions go to the Migratory Bird Conservation Fund and pursuant to 26 U.S.C. 9504, duties on fishing tackle and yachts and pleasure craft go to the Sports Fish Restoration account of the Aquatic Resources Trust Fund. Also, tariffs from wood and certain wood products are transferred to the Reforestation Trust Fund up to a total of $30 million (16 U.S.C. 1606(a)).