The recently initiated SAFETEA legislation goes some way towards dealing with the intermodal industry's infrastructure problems in the US. However, it has some flaws, one of which is that it does little to resolve maritime infrastructure shortcomings, as Theodore Prince* finds out.

The US secretary of transportation, Norman Y Mineta, unveiled the Safe, Accountable, Flexible and Efficient Transportation Act of 2003 (SAFETEA) on May 14, a six-year US$247 billion surface transportation plan that is being touted as the largest surface and public transportation investment in US history. For the liner shipping industry, the real issue is whether the legislation will address the industry's infrastructure challenges.

A recent study, 'Trade and Transportation', commissioned by the US Chamber of Commerce, outlined several challenges. The US is the world's largest importer and exporter – accounting for nearly 20% of the world's annual ocean trade; international trade, about half of which is containerised, amounts to $2.0 trillion – 27% of GDP. International freight is predicted to double by 2020, and US ports will need to process 50 million TEU – 30% of the world's container traffic.

Liner shipping has come to rely on an intermodal network that uses rail and truck to connect markets and ports. The impact of the legislation is likely to vary within individual modes – a reflection of the US's modally dysfunctional government policy. At the federal level, the executive and legislative branches primarily determine policy. The former, represented by the US Department of Transportation (USDot) manages modes in a series of disconnected silos. Congress suffers from equally anachronistic oversight of transportation. There, different committees oversee various overlapping segments of the transportation network.

The challenge is even more complicated in related areas, such as oil and energy, environmental protection, and homeland security. For example, six federal cabinet departments and three independent agencies administer at least 65 separate laws impacting highway development. As complicated as the federal role may seem, each of the 50 states also has its own executive and legislative transportation complexities. Finally, some cities and regional organisations are also involved in far-reaching transportation policy-making.

The constant public policy priority has been highway transportation. While the government has been building roads since the Revolutionary War, the 1956 Highway Act represented a major initiative. A highway trust fund was established to provide pay-as-you-go financing for construction and maintenance of the interstate highway system. This legislation provided 35 years of uninterrupted highway construction.

In 1991, the federal government acknowledged that unrestricted highway construction was an insufficient solution to constant congestion. Mineta, then an influential congressman, spearheaded passage of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). This law was significant for its recognition of the importance of the intermodal network.

A National Highway System (NHS), which recognised the role of freight, was designated. States were required to designate NHS intermodal connectors – portions that led to major ports, railyards and airports. ISTEA also greatly enhanced the role of metropolitan planning organisations (MPOs) on local planning for transportation solutions. These groups were given significant influence in directing how states distributed their federal transportation funds.

In 1998, the Transportation Equity Act for the 21st Century (TEA-21) was passed into law. This legislation did not create bold new policy, as much as it addressed financial issues. The law ensured that the trust fund dollars were used for their intended purpose, and not for balancing the general budget. The law also established a formula to ensure that states got back in federal funding close to what they had paid in.

Although the federal government largely funds the highway portion of the intermodal network, the rest of the network is supported by a mixture of agencies – from federal to local. The federal government has traditionally assumed the responsibility of waterside requirements – dredging, navigation, monitoring vessels and operating locks and dams. The landside responsibility for building ports has been assumed by state and local governments working with private interests. Freight railroads are private companies that invest in their own infrastructure.

If enacted as submitted by the USDoT, SAFETEA represents significant progress for the intermodal industries. The legislation offers a quantum leap forward in acknowledging the importance of freight. While ISTEA officially recognised intermodal as part of the national transportation network, it placed the task of assigning funding priorities with MPOs.

Most MPOs have traditionally focused on issues of passenger mobility, not freight – “freight doesn’t vote” – and MPOs, and state DoTs, often lack professional freight planners. SAFETEA directs each state to create a freight transportation co-ordinator position to encourage public

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and private collaboration in developing regional freight transportation solutions.

Since 1956, the federal Highway Trust fund has collected hundreds of billions of dollars. While some sort of highway network was inevitable, it is unlikely that the system could have been built as quickly and robustly without the dedicated funds. Despite rapidly increasing budget deficits, SAFETEA follows the intent of TEA-21 by directing all excise tax receipts into the trust fund. It also dedicates gasoline excise taxes, which were previously excluded. In an environment where the federal government has increasingly authorised assistance, it failed to appropriate necessary monies, a secure funding source avoids the heartbreak of unfunded mandates.

Perhaps the biggest benefit of SAFETEA for the intermodal industry is the provision of specific mandates for intermodal connectors. ISTEA identified these highway segments and TEA-21 directed the USDoT to review their condition. In a June 2000 report to Congress, the Federal Highway Administration found that intermodal connectors are in worse condition—and more congested—than the overall NHS.

SAFETEA mandates that states spend 2% of federal funds on intermodal connectors. However, there is more. Each state is required to ‘match’ federal highway funds with state or local funds—most states, highway expense is 80% federal and 20% state. For intermodal connectors, the federal government would also absorb 90% of the cost of these projects. This is important because many connectors are locally controlled and the traditional 20% match often makes projects unattainable. SAFETEA also seeks to boost spending in excess of receipts by $1 billion annually through a new Infrastructure Performance and Maintenance Program. This would fund projects that preserve existing highway facilities or alleviate traffic hot spots. The focus on projects that result in immediate benefits make intermodal connectors that serve ports more likely recipients.

SAFETEA proposes significant opportunities for funding intermodal infrastructure through federal, state, local, and private sector partnerships. The Freight Gateways Program is intended to provide direct investment to improve intermodal freight movement through major trade gateways and freight hubs. Legislative definitions seem to be suitably broad, so that potential projects are not limited. The Transportation Infrastructure Finance and Innovation Act (TIFIA) programme continues with its threshold lowered from $100 million to $50 million. This programme provides federal financial assistance in the form of secured loans, loan guarantees and lines of credit for major transportation investments. These ‘projects of national significance’ have often had difficulty being funded because of their size and difficulty in understanding the cost/benefit trade-off. The benefits for intermodal terminals, border crossing infrastructure and multi-state transportation corridors are often widespread. The law also expands the eligibility for rail projects, so public funding of intermodal terminals—and necessary intermodal access to such facilities—for ports should increase.

The Alameda Corridor, in southern California, which serves the ports of Los Angeles and Long Beach, is a success story of TIFIA funding for a major intermodal project. Although the TIFIA loan amount was small, it was the catalyst for the rest of the public and private funding coming together. Similar projects are being considered in the Pacific Northwest (FAST Corridor), Northeast (Portway) and Chicago. Based on the rail volume transiting Chicago, it could be considered the third largest port in the world—in excess of 12 million TEU annually.

In addition, the law supports other innovative intermodal financing methods. Tax-exempt private activity bonds would be authorised to finance highway projects and intermodal terminals—tax-exempt financing lowers the cost of capital and makes project completion more likely. The TEA-21 experiment with state infrastructure banks are continued—a small number of states are allowed to capitalise infrastructure funds, which could then be leveraged with other funding sources.

Most legislation is a compromise and SAFETEA is no exception. While the response from the freight community has been generally positive, some questions still exist. Although the proposed bill contains more funding than has ever been set forth, some feel it is not enough, given the envisioned increase in traffic. Ironically, the increase in fuel economy—more traffic using less fuel—means excise tax revenue/vehicle mile. In March, Representative Don Young, chairman of the House Transportation and Infrastructure Committee, proposed a $375 billion package that would be funded by additional payments to the trust fund.

Young’s proposal ran into stiff political opposition from an administration adamantly opposed to any tax increase. The $274 billion envisions no increase to fuel tax, or any other trust fund component. Indexing to inflation was also ruled out. While many in the industry
appreciate the funding, there is concern that it is not enough to support long-term requirements, and that when the need is finally recognised, it may be too late to effectively respond – given the long-term nature of infrastructure expansion projects.

The intermodal network is complex, and reliable statistics and accurate measurement of intermodal flows have still not been developed. Although ISTEA created the Bureau of Transportation Statistics to conduct a commodity-flow survey every five years – the last survey was in 1998 – it does not have an intermodal focus and the measurement of intermodal volume is effectively precluded by modal focus, carrier hand-offs and product intermediation. Figure 1 (p57) shows rail ramp-to-ramp movement for 1998. Figure 2 shows intact truck movement from the two largest ports for the same period. All were released last year.

Existing transportation network analysis is more art than science, and may contribute to inaccurate traffic statistics. This is a problem for liner shipping. Individual carriers can report their volumes, but there is no assurance that a single through shipment is not reported more than once. Disaggregation and reconsolidation of import traffic cannot be followed as a single flow.

As international traffic flows through the US, it is critical that the network be understood, so as to optimise infrastructure investment. This lack of knowledge also has grave implications for homeland security. In 1999, the government recognised the complexities of marine transportation and created the Marine Transportation System (MTS). MTS was modelled on the NHS, and encompasses waterways, ports and their intermodal connections. Unfortunately, funding has been lacking and a clear source of revenue has not been forthcoming. The 1999 budget surplus has given way to record deficits – and most projects are still financed primarily out of general revenue.

SAFETEA does nothing to resolve these critical maritime infrastructure problems. This issue of shared responsibility will remain outstanding as the industry awaits its own legislative solution. There have been proposals for any number of funding sources, but no legislation has been passed to resolve this. Because of constitutional problems with the harbour maintenance tax, a replacement user fee has not been forthcoming. A proposed harbour services fund was opposed by the maritime industry because it placed the entire financial burden on commercial traffic providers, and exempted all the beneficiaries of the system.

There were proposals to use a small portion of customs’ duties that are collected as a by-product of international trade. However, since duties flow to the general treasury – and offset deficits – this suggestion is not a real option. There have also been proposals to establish a container facility fee, which would be collected at ports and used to fund necessary infrastructure. Although this is modeled after a similar fee imposed on airline passengers, the local and system benefits may be difficult to reconcile.

All of these funding difficulties were a problem before September 11. Since then, port security has become a very politically charged subject. While the government has clearly identified the need to do something, it has not funded port security to the level needed by the industry. A wide range of requirements, estimated to be greater than $2 billion, quickly absorbed the initial funding of $93 million. The port industry has significant concerns that unfunded security mandates will consume investment that would otherwise go to developing infrastructure.

The freight transportation of the US is a model for the rest of the world. SAFETEA is a step in the right direction, but the requirements for mobility and security threaten to overwhelm the system in the next 20 years. Hopefully, a receptive government can work with the private sector to find the right solutions.

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