

Non-Traditional Transportation Funding

An in-house study by Organizational Results in cooperation with the Resource Management Unit

MoDOT Summary Statement

Based on the analysis of recent literature addressing funding mechanisms to finance transportation infrastructure, we conclude that:

- *A majority of the articles and books reviewed indicated the three main mechanisms of financing beyond the current fuel and vehicle tax systems are: 1) Pay by the Mile (Mileage Tax), 2) Public-Private Partnerships (P3) and 3) Tolls (Road Pricing).*
- *At current funding levels, there is an average annual gap between the dollars needed to “maintain” the nation’s highway and transit systems of over \$50 billion and an average annual gap to “improve” of over \$100 billion. Without new and innovative ways of financing, economists have predicted that China will replace the U.S. as the world’s most powerful economy by 2010.*
- *General trends suggest road pricing (tolling) will become more common in the future, due primarily to these key trends: transaction cost reduction through automated toll collection; decentralized decision-making as roads are given back to local jurisdictions; privatization of roads resulting in profit-seeking activities and potential implementation of new federal rules allowing more options for tolling.*
- *Regardless of the mechanism, transportation funding options are dependent on public acceptance, political acceptance and the correct policy framework.*

MoDOT Project Overview

MoDOT’s conducted a review of recent literature addressing non-traditional transportation funding options implemented worldwide. Articles describing the financing mechanisms used to fund major projects in China, India, France, Australia and across the U.S. were among those reviewed. Besides the three main funding mechanisms listed above, less viable ways to expand financing options include localizing cost through devolution and more local participation via SIB loans.

Mileage Tax

The most controversial financing option discussed in the literature was taxing vehicles based on the number of miles driven within a jurisdiction. And the controversy is not about the user-fee tax itself, but the perceived intrusion via vehicle tracking. Systems can be designed to know which state you’re driving in and whether or not you’re driving during the weekday rush hour. Oregon has been piloting a program to collect mileage taxes from voluntary test groups. The program is still in the pilot stage; however, transitioning to this type of tax collection would be seamless as cars that are not equipped with the device that calculates the miles traveled pay normal gas taxes.



Mileage Tax (cont'd.)

Minnesota was considering a similar program and the state's legislative assembly passed a finance bill to support it. However, upon this report's publication, Minnesota is still exploring alternative ways of funding their pilot. Iowa is planning to pilot a mileage tax program later this year.

The argument for this approach is that it is considered a true user fee versus a tax, and vehicles would only be taxed for their use of state roads. This is also proposed as a necessary step to fix the problem of declining tax revenues related to a fuel tax that decreases with fuel-efficient vehicles and alternative fuels. GPS Technology makes it possible to collect road-specific information without retaining information about individuals. The system can also be modified to charge more for heavier vehicles or vehicles with more harmful emissions. Experts argue that if records from a car with mile-tracking technology were subpoenaed, they wouldn't reveal anything beyond the tax owed to each state, and it wouldn't keep lifelong records of where the car has been.

The argument against this approach is that some believe a flat tax for all vehicles exasperates our nation's petroleum dependency because it doesn't provide any incentive to buy fuel-efficient or hybrid fuel cars. In a statement by the MN Public radio, "Even though Minnesotans are driving more vehicles more miles, a growing number of them are beating the state gasoline tax in two ways, 1) they're driving vehicles that get better mileage, and 2) more of them burn fuels that aren't taxed or are taxed at lower rates."

Others have argued that it would be expensive to retrofit cars with tracking devices and wondered how the state would tax boats, snowmobiles and lawn mowers. However, gasoline for those items would be taxed as they are now. Many have raised concerns over privacy issues of allowing continuous tracking of vehicle location - and despite what anyone says to promote mileage tax, there will be some that will have concerns regarding vehicle tracking.

Public-Private Partnerships (P3)

Public-Private Partnerships are an increasing practice worldwide. Although the method is not new, the pace of privatization is quickening and has expanded in recent years. Recent growth of transportation infrastructure in China, India and France is being accomplished through public-private partnerships.

There are numerous examples of P3 successes outside the U.S. In Australia private investors built a dozen inner-urban expressways, about half of them in tunnels, with minimal government support beyond initial environmental clearances and permitting.

In 2003, P3 helped Britain open its only new motorway in several decades, the M6 Toll. Even in China the country's new national highway network's funding is based mainly on investor/provincial government partnerships. China has recently embarked on an aggressive plan of building their equivalent of the United States' Interstate system in a period of five years.

As MoDOT has been using P3 in any and all areas the department legally and feasibly can, MoDOT's options to use P3 are limited until an additional legislative fix is found.

Tolling and Road Pricing

Public-Private Partnerships in part fueled the increase in toll roads in the U.S. and abroad. As Mary Peters stated in her introduction for the book *Street Smart*, "market forces do not work without some form of pricing and with roadways this often takes the form of tolling." Tolling allows for many different types of options in pricing based on decreasing congestion at peak times, lessening emissions and improving safety. Congestion Pricing provides a variable toll rate to drivers. Charging higher tolls at peak travel times and lower tolls during non-traditional commuting hours encourages those traveling on a more flexible schedule to adjust itineraries. Nationally, there is a trend where

Tolling and Road Pricing (cont'd.)

HOV (High Occupancy Vehicle) lanes are being replaced with HOT (High Occupancy or Toll) lanes to provide incentive for commuters to car-pool. Some areas allow hybrid vehicles to fit the toll exclusion in HOT lanes. TOT (Truck Only Toll) lanes provide improved safety and freight efficiency by separating larger heavier vehicles from smaller cars on freeways.

Some of the major public arguments against toll roads are that people already paid taxes at the pump, the inconvenience of tollbooths and added expense to local users. Options to alleviate that would be shadow tolling and distance tolls within a corridor. In shadow tolling, a P3 provides funding similar to a loan and the public partner repays the loan by paying the tolls the company would normally get from travelers. Local travelers entering and exiting within the tolling corridor would not be taxed, but taxes take effect if they take longer trips outside of the corridor and return on the toll road.

Tolling provides some challenges. Since tolling is an option that requires moneys collected from non-local travelers to be successful, it is often infeasible in rural or sparsely populated locations, due to limited visitor traffic volume. Current legislation in Missouri does not allow MoDOT to build or implement toll roads, therefore this is not a viable option until the legal situation changes.

Devolution or "Turnback"

There have been discussions regarding decentralization or "turnback" of some or the entire federal highway program to the states, referred to as devolution. This initiative (or a possible 10-year pilot) is not widely supported and generally considered to further degrade an already failing funding system. A similar concept would be the establishment of a National Commission to establish Federal funding levels for transportation (like BRAC or the Postal Commission).

State Infrastructure Banks

The study also reviewed various practices for SIBs nationwide to possibly highlight best practices and new ways to increase options for financing transportation. For further information on each state's program and an FHWA SIB review, please refer to the final portion of the Works Cited section.

The Missouri Transportation Finance Corporation (MTFC) currently has the seventh largest amount of disbursed loans and the sixth largest amount of approved funding out of the 33 federally funded SIBs nationwide. Based on the size and needs of the various SIBs a variety of loan terms and rate structures are used to increase the funding utilization. While some states (Texas, Oregon, and Minnesota) use a thirty-year loan maximum, others (California, Arizona, and Missouri) maintain a maximum term of less than ten years. When Oregon DOT closes a loan of more than one year, they charge the borrower an additional 1 percent fee. Some states limit the amount of funds available for an individual project, such as Michigan's \$2 million per project cap and California \$1 million per project cap. This creates a loan portfolio that holds a smaller size of the total project costs and limits the amount of debt each project can incur. Other states, such as Florida, Arizona and Texas, use the SIB to fund larger transportation projects. SIBs also use various means to calculate their project specific interest rates, from the flat 3 percent that Michigan uses and the one half of prime that Pennsylvania uses, to what most states (including Missouri) use in tying the interest rate to that of a similar maturity bond or treasury issuance.

Nebraska, North Dakota, South Dakota and Wyoming cooperatively formed a multi-state SIB in order to increase their ability to fund regionally significant transportation projects.

Some SIBs look for additional monies through state funding. Arizona appropriated \$20 million from the State Highway Fund and \$20 million

State Infrastructure Banks (cont'd.)

from the State General Fund to further capitalize their SIB. Some SIBs have issued debt other than bonds. The Oregon DOT setup an inter-fund MOU for a \$30 million line of credit with the State Highway Fund. South Carolina received a TIFIA loan in the amount of up to \$215 million to help finance a specific project. To recapitalize the Arizona SIB, authority was given to issue up to \$340 million in Board Funding Obligations, which are short-term obligations to be purchased by the State Treasurer and paid back from ADOT program funds. However, the most successful means of recapitalizing SIBs has been the issuance

of bonds. Five states have increased their funding portfolio by issuing debt to fund projects. Kansas and Florida leveraged all future direct loan payments for a lump-sum bond issuance. Ohio issues bonds on an as needed project-by-project basis. This bond program allows for the borrowers repayment stream to be pledged for the specific bond issuance, allowing the SIB to use their current loan repayments as bond reserves. The SIB also has the ability to use the bond reserves as funds available for loan. South Carolina's SIB used their share of a one-cent per gallon gas tax and truck registration fees to issue up to \$2 billion in revenue bonds for financing large transportation projects.

Works Cited

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Works Cited (cont'd.)

State SIB Literature:

1. FHWA All State SIB review <http://www.fhwa.dot.gov/innovativeFinance/sibreview/lessons.htm>
(Discusses Arizona, Florida, Missouri, Ohio, South Carolina, and Texas)
 2. Arizona: http://www.dot.state.az.us/Inside_ADOT/Help/index.asp
 3. California's program is available on the following two websites:
 - http://www.ibank.ca.gov/state/ibank/ibank_homepage.jsp
 - http://www.dot.ca.gov/hq/innovfinance/t_f.htm
 4. Florida: <http://www.dot.state.fl.us/financialplanning/finance/sib.htm>
 5. Kansas: <http://www.ksdot.org/burfiscal/TRF/default.asp>
 6. Texas: http://www.dot.state.tx.us/services/finance/sib_overview.htm
 7. Minnesota: <http://www.oim.dot.state.mn.us/TRLF/>
 8. Michigan: http://www.michigan.gov/mdot/0,1607,7-151-9621_17216_18232---,00.html
 9. Missouri: <http://www.modot.missouri.gov/pdf/about/programguide.pdf>
 10. Ohio: <http://www.dot.state.oh.us/sib1/>
 11. Oregon: <http://egov.oregon.gov/ODOT/CS/FS/otib.shtml>
 12. Pennsylvania: <http://www.dot.state.pa.us/pennidot/bureaus/PIB.nsf/HomePagePIB?OpenForm>
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