

Sustainable Transportation Financing

University of Rhode Island

College of Business Administration

URI Transportation Center



Selected Criteria for Evaluating Funding Options

- Revenue Yield
- Cost-Efficiency
- Equity (Fairness)
- Organizational Capability
- Risk
- Externalities
- Political and Legal
- Technology
- Asset Management

Selected Criteria for Evaluating Funding Options

- Revenue Yield

- Magnitude of revenue stream
- Sustainability
 - e.g. Level of exploitation/duplication opportunities by neighbors
- External vs. Internal revenue sources
- Probability of revenue substitution
- Value capture mechanism in place
- Value index mechanism in place
- Issues of adaptability
 - e.g. Probability of impact from state or federal policy changes

Selected Criteria for Evaluating Funding Options

- Cost-Efficiency
 - Administrative costs to agencies
 - Monitoring and enforcement mechanisms
 - Evasion or avoidance costs
 - User compliance costs
- Equity (Fairness)
 - Geographical (Urban vs. Suburban)
 - Socio-economic (Income Level)
 - Vehicle Classification

Selected Criteria for Evaluating Funding Options

- **Organizational Capability**
 - Management & maintenance mechanism in place
 - Level of private resource dependency/replacement
- **Risk**
 - Project Risk – e.g. Historical experience in revenue source
 - Vulnerability to “Acts of God”
 - Revenue
 - Costs
 - Environmental
 - Default

Selected Criteria for Evaluating Funding Options

- Externalities
 - Negative competitive re-positioning by businesses
 - Safety Impacts
 - Congestion
- Political & Legal
 - Non-Judicial conflict resolution mechanism in place
 - Legislation in place (Federal & State)
 - Legal/Statutory issues resolved (i.e. Environmental)
 - Public and political support

Selected Criteria for Evaluating Funding Options

- Technology (e.g. Tolling, smart card, EZ pass, GPS (VMT))
 - In place
 - Compatible
 - Reliable
- Asset Management – Capital Costs
 - Revenue-generating assets in place
 - Revenue-generating assets in good condition
 - Repurchase of assets required on termination

Selected Profile States

- Illinois, Indiana, Texas, New Jersey, Florida, Georgia, Virginia, California
 - All have economies of scale
 - All have increasing populations for new income sources
 - All have increasing new business to drive interstate commerce
 - All have demand for new premium infrastructure in transportation channels

Rhode Island Profile

- Equivalent to a metropolitan area rather than a state – NIMBY is the state
- Narrow vehicle corridor for the whole state
- Tourism is important to economy
- Heavily Leverage Debt/Revenue ratio
- North East Corridor – Interstate Commerce driven by Boston area
 - e.g. google/yahoo maps

Identified Funding Options

Reduce Federal Investment in Infrastructure

- Motor fuel taxes (RI/RIDOT)
- Vehicle registration fees (RI)
- Vehicle sales taxes (RI – non DOT)
- Transportation sales taxes
- Tolls and Congestion Pricing (RIBTA)
- Vehicle miles traveled (VMT) taxes
- Beneficiary charges (Impact fees, special assessments, tax incremental finance) (Local Gov't)
- Debt finance (Section 129, TIFIA, GARVEE, PABS, SIB) (RI/RIDOT)
- Public-Private Partnerships (PPP)
- Public-Public Partnerships

Possible Revenue Sources

- **Reallocation within Rhode Island**
 - Trade-offs between individual tax/fees revenues
 - Trade-offs between State allocations
 - Move between State and Municipalities
- **New income sources from outside RI**
 - Tourism (Tolling & Services)
 - Interstate Transport (Tolling & Premium Services)
 - Asset Rental (Premium Property)
 - Federal Grants (Research)
- **Retain income currently leaving RI**
 - RIDOT Credit Card - \$10,000,000
 - Vehicle taxes and tags
 - RIDOT Lottery

Enhancement Programs

- Gas Tax
 - International Fuel Tax Agreement (RI)
 - Fixed Rate Fuel Tax (RI)
 - Variable Rate Fuel Tax
 - Sales Tax on Fuel
- Tolling
 - Public Management (RITBA)
 - Concessionaires
 - Private Management
- Tag, Title, and License Fees (suggested payment to RIDOT) (RI)
- Vehicle Inspection Fees (RI)
- Property Tax on Vehicles (Local Gov't)
- Sales Tax on Vehicles (RI)
- Memorial Assets (naming opportunities)

Future Opportunities

- Construction companies share indexed normal maintenance (unexpected wear & tear) costs for ten + years – bonded projects
- Construction & Maintenance (DBO) Contracts
- Public utilities do not pay for right-of-way access
- Premium travel services; Value-capture through IFTA
- I-95 tolling; Route 4 tolling; I-95 to Premium Beaches (i.e. 138); Jamestown Bridge; Newport Bridge; World Bank PPP Toolkit
- In the case of PPP's, local investors are given priority so that gain is realized locally (taxes, purchases)
- Long term - Bridge to Long Island, Trans-Atlantic Tunnel

Sources

- Transportation Research Board (Research Growth in this Area)
 - Session 430 – January 15, 2008, Executive Issues in Transportation PPP's, Francine Shaw-Whitson, [FHWA](#), & Willard G. Puffer, [Harris County Public Infrastructure Dept.](#), Presiding
 - George Cherian, FitchRatings, Inc.
 - Josh Schaff, Moody's Investor's Service
 - Charles Nicholas, Halcrow Grp. Ltd, [United Kingdom](#)
 - JayEtta Hecker, [Gov't. Accountability Office](#)
 - Robert Eckels, Fulbright & Javorski
 - Stephen C. Lockwood, [PB Consult, Inc.](#)

Sources

- Transportation Research Board
 - Session 623 – January 16, 2008, Advances in the Design of Alternative Road Pricing, Value Capture, and Related Finance Schemes in the United States and Abroad, Therese W. McMillan, Metropolitan Transportation Commission, Presiding
 - Self-Financing Highway Pricing Scheme Using State Highway Cost Allocation Study
 - New Road Financing System for US Metropolitan Areas
 - Overview of Road User Charges in Central and Eastern Europe
 - Evaluation of Value Capture Mechanisms from Linkage Capture to Special Assessment Districts
 - Jung Eun Oh & KC Sinha, [Purdue University](#)
 - Patrick T. DeCorla-Souza, [FHWA](#)
 - [Barbara Rdzanowska](#), [Poland Ministry of Transport](#)
 - Michael Audige, [World Bank](#)
 - Abigail Rolon, [Cambridge Systematics Inc.](#)

Sources

- Chadbourne & Parke, LLP, Attorneys at Law, New York, NY.
Toll Road Update, June 2007
 - Texas moratorium on new PPP's
 - Pennsylvania Turnpike Lease
 - New Jersey Toll Roads
 - Colorado PPP Moving Forward
 - Delaware PPP Being Considered
 - Virginia Considers PPP's
 - Georgia Board Votes Against Unsolicited Bids
 - US House Addresses PPP's (Letter of Concern)
 - DeFazio & Anderson Letter Against PPP's
 - <http://www.defazio.house.gov/index.php?option=content&task=view&id=363>
- TollRoadNews.com

Sources

- Transportation Research Board
 - Session 397 & 400 – Public Management, Private Management, & PPP's: Striking a Balance, Monday January 14, 2008, John Kevin Neels, The Brattle Group, Presiding
 - Empirical Evidence of Toll Road Traffic Diversion & Implications for Highway Infrastructure Privatization
 - Managing Privatized Toll Roads: Lessons from Current Experience
 - Toll Road Economics: Markets, Regulation, Investment, Pricing, and the Public Interest
- [World Bank PPP Toolkit, 2007](#)

Sources

- Transportation Research Board
 - Session 166 – Financing Transportation Infrastructure: Tools to Evaluate the Trade-offs Between Public & Private Approaches, Suzanne H. Sale, FHWA, Presiding, January 13, 2008
 - Key Elements for Public Sector Decision-Making in PPP's: Report on the new NCHRP study
 - Financial Model of PPP Tools for Departments of Transportation
 - Helping the Public Sector Analyze the Valuation of Concessions from Multiple Perspectives
 - Public Sector Perspectives on Decision-Making: Applying Decision Tools
 - Jennifer R. Mayer, FHWA
 - James Bass, Texas DOT
 - Lowell R. Clary, Clary Consulting
 - Deborah Brown, Virginia DOT

Sources

- Transportation Research Board
 - Session 599 – Institutional Arrangements to Advance PPP's, Part 2 – Protecting the Public Interest in PPP's, Dennis Houlihan, American Federation of State, County, and Municipal Employees, Presiding
 - Techniques to Protect the Public Interest in Long-term Concession Agreements
 - Infrastructure Needs and the Public Interest
 - Transit's Perspective on PPP's
 - Addressing Public Interest Questions
 - Jeff Busbaum, Cambridge Systematics Inc.
 - Steven Cohen, US Gov't. Accountability Office
 - Arthur Guzzetti, American Public Transportation Assoc.
 - William Ankner, Transportation Solutions Inc.

Beneficiary Charges

- Local or Regional Impact Fees

One-time charges placed on new residential and/or commercial development to finance the cost of new or improved public transportation infrastructure.

- Special Assessments

Special assessments are charges placed on property because the property benefits from certain public improvements such as streets, sidewalks, sewer and water lines and traffic signals.

- Tax Increment Finance

Bonds are issued to finance public infrastructure improvements and repaid with dedicated revenues from the increment in property taxes as a result of such improvements.