National Perspective on Revenue Options for Transportation

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Outline

- Background and context
- What others have tried
- What seems to be working
- Public reaction
- What holds promise for the future
National Funding Gap

Average Gap to Maintain (2010-2017) = $58 billion

Average Gap to Improve (2007-2017) = $119 billion

Source: NCHRP Finance Study.

Estimated Highway and Transit Program Levels and HTF Account Balances Through 2015*

* Based on AASHTO Modeling of FY 2009 Budget Proposal from Treasury, including scenario with Program Cuts required for solvency.
On Average, States Rely on Fuel and Vehicle Taxes for Their Highway Programs

Source: Highway Statistics, Table HF-10.

Highway and Transit Revenue Shares by Level of Government

In 2006 Dollars (Billions)

<table>
<thead>
<tr>
<th>Revenue Type</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway</td>
<td>$34.2</td>
<td>$71.7</td>
<td>$41.7</td>
<td>$147.6</td>
</tr>
<tr>
<td>Transit</td>
<td>$8.1</td>
<td>$8.6</td>
<td>$25.4</td>
<td>$42.1</td>
</tr>
<tr>
<td>Total</td>
<td>$42.3</td>
<td>$80.3</td>
<td>$67.1</td>
<td>$190 Billion</td>
</tr>
</tbody>
</table>

Percent: 23% Highway, 42% Transit, 35% Other, 100% Total
On-Road Fuel Economy for New Light-Duty Vehicles
1975-2006 Model Years Sales-Weighted Horsepower and MPG


The Current U.S. Fleet Fuel Economy (Miles per Gallon) is about One-Half EU and Japan levels

Source: UC Berkeley.
Summary of Findings from Recent Policy Studies

- Large national funding gap
- HTF in deficit before end of SAFETEA-LU and shortfall accelerates in following years
- National studies and Commission suggest multiple funding solutions to narrow gap at all levels of government
  - Federal
    - HTF – Fuel and vehicle taxes, exemptions
    - Other Federal – Customs duties, container fees, tax credits
  - State and local
    - Fuel and vehicle fees
    - Sales, local option, beneficiary, transit fees, freight fees, etc.
    - Tolling and pricing
    - Innovative Finance and PPPs help advance major projects
- Longer term transition away from fuel taxes as primary source (e.g., VMT fees)

Longer Term Transportation Policy Issues

- Transition to a new revenue model for funding transportation
- Manage congestion on road system
- Meet energy and climate goals
Surface transportation finance today

Gas taxes, transit fares, and vehicle fees

- Public policy explicitly undervalues roads
  - European fuel taxation policy values urban form and travel costs differently

- Market failure at current equilibrium
  - Demand > supply = congestion
  - Does not capture market value of travel capacity

- Ignores the cost of negative externalities
  - Congestion cost imposed on others
  - Environmental and safety costs

- Existing financing systems tend to be regressive

### Gasoline Prices Reflect Policy

<table>
<thead>
<tr>
<th>Country</th>
<th>Price (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>9.85</td>
</tr>
<tr>
<td>France</td>
<td>9.43</td>
</tr>
<tr>
<td>Denmark</td>
<td>9.24</td>
</tr>
<tr>
<td>Italy</td>
<td>9.03</td>
</tr>
<tr>
<td>England</td>
<td>8.96</td>
</tr>
<tr>
<td>United States</td>
<td>4.57</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.12</td>
</tr>
</tbody>
</table>


21st Century Revenue/Pricing Model?

<table>
<thead>
<tr>
<th>Type of Charge</th>
<th>Use of Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Pricing</td>
<td>Environmental Fee</td>
</tr>
<tr>
<td></td>
<td>Transportation Mitigation Programs</td>
</tr>
<tr>
<td>Peak Hours</td>
<td>Congestion Fee</td>
</tr>
<tr>
<td></td>
<td>- Address congestion</td>
</tr>
<tr>
<td></td>
<td>- Subsidize Transit</td>
</tr>
<tr>
<td>All of the Time</td>
<td>Base VMT Fee</td>
</tr>
<tr>
<td></td>
<td>Replace Gas Tax</td>
</tr>
</tbody>
</table>
**Typology for Transportation Revenue**

**Portfolio of Funding**

<table>
<thead>
<tr>
<th>Direct User Fees</th>
<th>Indirect User Fees</th>
<th>Specialized Taxes</th>
<th>General Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collected from transportation users, Price directly associated with a trip</td>
<td>Collected from transportation users, but price not associated with an actual trip</td>
<td>Collected from non-transportation activities, but revenues are dedicated to transportation.</td>
<td>Collected from non-transportation activities, revenues are budgeted for transportation based on legislative discretion</td>
</tr>
</tbody>
</table>

- **Time-of-day tolls**
  - Flat tolls
  - Transit fares
  - Ferry fares

- **Motor fuel taxes**
  - Vehicle registration fees
  - Excise taxes
  - Value capture techniques

- **State & local option sales taxes**

- **Income taxes**
  - Property taxes
  - General sales taxes
  - Other ad valorem taxes

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**Evaluation of Revenue Sources**

**Evaluation Criteria**

- **Yield and Reliability:** Revenue generation and reliability
- **Economic Efficiency:** Promotion of economically wise behavior
- **Regressivity:** Does strategy put an unfair burden on low-income households?
- **Administrative Effectiveness:** Ease and cost of collection and enforcement
- **Public Acceptance:** Possible or probable, and in what timeframe?

*Analysts like these…but what resonates in the real world?*

What’s going on nationally…

- Background and context
- What others have tried
- What seems to be working
- Public reaction
- What holds promise for the future

Direct User Fees
AKA - Tolls

- Traditional toll financed projects needing to retrench
  - Driving is down
  - Financing is tighter
    - Bond insurance has disappeared
  - Projects delayed/rethought in
    - NC – Triangle Exway (delayed, sale this week)
    - Virginia HOT lanes needed more public money
  - MD Inter County Connector moving forward
- PPP greenfield opportunities slowing down
  - Similar reasons, some exceptions
- PPP asset leases almost a thing of the past
  - Alligator Alley (FL) got no bids
- Existing toll operators looking for toll increases
  - Some successful, some not
## Direct User Fees

### “Congestion Pricing”

- **New York City**
  - Congestion pricing and revenue
- **Washington State**
  - SR 520 Bridge, pre-construction tolling and congestion pricing
  - Alaskan Way Viaduct
  - PSRC long range plan – extensive treatment of road pricing and revenue
- **Oregon**
  - Legislatively mandated demonstrations
- **San Francisco**
  - Doyle Drive reconstruction with parking pricing
  - MAPS – 4 different cordon scenarios
  - 9-county HOT lane network

## Direct User Fees

### Mileage Based User and VMT Fees

- **University of Iowa study**
- **Oregon**
  - VMT demo
  - New legislative initiatives
- **Minnesota**
- **Discussions in many states and at the national level**
  - North Carolina
  - Rhode Island
  - Massachusetts
  - ...
Direct User Fees
Transit and ferry fares

- Pressure to raise fares in lots of places

Indirect User Fees
Motor Fuel Taxes

- By any logical test – the easiest and fairest solution
  - Some relationship to use
  - Regressive, but so are virtually all revenue measures
  - We know how to do it
  - Per household, usually not a lot
    - 10 cents per gallon = $60/year/car (roughly!)
  - Inflation erodes value
    - Indexing to inflation ideal
    - Percent of price hard to predict

- But....
  - Hard to get through legislatures
    - Massachusetts: “Reform before Revenue”
  - Oregon passed 6 cents, but with earmarking (plus registration fees)
  - Many other proposals, some still active, some died
    - Ohio (13), Idaho (10 over five yrs), Iowa (8 over 2 yrs), NH (15 over 3 years), IL (8), MI (percent of gas price), TX (indexing), SD (3, killed quickly), CT (5)
Indirect User Fees
Registration fees and excise taxes

- Also proposed in many places
  - Iowa (passed last year)
- Flat fees quite regressive
- Usually have low yields

Specialized taxes
Typically state and local option sales and vehicle taxes

- Sales tax most used, particularly for transit
  - Popular in California, several passed and were extended last year
  - Local control the big selling point
    - Usually with project lists
  - Recent proposals in North Carolina, Georgia, Massachusetts
- Local option gas taxes
  - Popular in Florida
- Local option vehicle taxes
  - Ohio
General taxes
Typically income, property

- Property taxes most frequently used for local roads
- Transit agencies most frequently rely on these
- Income taxes = general fund
- Rational nexus is better than you might think

Massachusetts

- Big-dig induced funding shortfalls
  - $15-$19B funding gap over 20 years
- Proposals:
  - Gas tax increase, ranging: 11 to 25 cent
  - 50% toll hikes
  - Border tolling
  - Transit fare increases
  - Sales tax increase by 1.25 points from 5% to 6.25% (not all dedicated to transportation)
  - “Reform before revenue”
- Outcome – stay tuned!
New Hampshire

- Motor fuel tax increase from 18 to 23, 28, 33, 38 cents year by year
- Border tolling
- Transferring state highways to toll authority

Oregon

- Governor appointed “vision committee” at end of last session:
  - Implement least cost planning
  - Expand user fee per mile concept
  - Reduce GHG emissions
  - Create a transportation utility commission
  - Increase fuel tax by 2 cents
  - Increase vehicle registration fee
- Legislature passed:
  - 6 cent fuel tax increase (but no increases by locals)
    - Virtually all earmarked
  - Vehicle fee increases (much lower rate)
  - Congestion pricing pilot (implement by 2012)
European experience

- Traditionally higher motor fuel taxes
- Area and cordon pricing
- Truck tolling on motorways
- Nationwide VMT fees