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Crisis & Response: Lessons from a Century of Struggle to Find A Stable System of Transportation Finance

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The National Transportation Program is in Fiscal Crisis

Unable to fund standard maintenance much less system expansion or environmental improvements

For first time since 1930 less than half of state funding is from user fees

States are borrowing to pay for maintenance and operations

Federal Highway Trust Fund and many state transportation funds are in deficit

Legislators oppose increases in user fees

There are Lessons to be Learned From History

- **Financing transportation in the US differs from financing most other infrastructure systems and from financing transportation in most other countries**
- **How and why we chose user-based financing is important for understanding the present and for shaping the future**

Local Streets & County Roads

- **Financed largely by property taxes on residential and commercial land . . . and ought to be . . .**
- **Most benefits come from “access” to property: postal delivery, ambulance, fire, police, water, sewer, telephone service**
- **Access gives value to property & value should be “recouped”**
- **Local streets & county roads carry tiny % of all traffic**

Local Public Transit

- **Was mostly privately provided**
- **Gradually failed over decades**
- **Public acquisition and operation**
- **Financed largely by local general funds with some help much later from states and feds**

History of Highway Finance

- **Local streets and county roads: transportation finance: 90%++ of system**
- **State highways bankrupting states in 1915-25 period; fastest growth of autos and roads ever . . . led to innovation of “user fees”**
- **Tolls most desirable user fee, in principle**
- **Motor fuel taxes and various “car taxes” were adopted as “second best” but practical**

Gasoline Taxes were Invented Before 1920 But Have Always been "Second Best'

- **State highways were bankrupting states in 1915-25 period; fastest growth of autos and roads ever . . . led to innovation of "user fees"**
- **Tolls - direct user fees – were most desirable in principle**
- **Motor fuel taxes and various "car taxes" adopted as "second best" but practical**

Motor Fuel Taxes Have Worked Well for a Century

- **Motor fuel taxes were enormously popular in early years**
- **Supported by wide variety of constituencies**
- **Adopted in every state by 1940**
- **Federal motor fuel tax in 1930s**
- **Fundamental finance mechanism for interstate system in 1950s**

Benefits & Shortcomings of Gasoline Taxes

Benefits	Shortcomings
• Low collection costs	• Tax per gallon makes them vulnerable to fuel economy increases
• Little fraud and evasion	
• Grew for decades as car ownership & driving expanded	• Don’t automatically rise with inflation; require legislation for each increase
• Placed burden on system users	• Creates a basic contradiction for government between environmental and revenue goals

User Fee Finance is Unique to Transportation & America

- **User fees in USA became associated with "trust funds" and non-diversion constitutional provisions in many states**
- **Elastic definition of user fees allowed expansion to transit and to environmental mitigation in many states**
- **"Hypothecation" not common worldwide**

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Motor Fuel Taxes

- **Usually expressed as “cents per gallon”**
- **Must be raised by act of legislature**
- **Revenue does not rise automatically with inflation as does income tax or sales tax**
- **Improving fuel economy lowers revenue per mile of driving**
- **Revenue declining precipitously in relation to VMT**

There is a Crisis in Commitment to Upholding This System

- **Congress and state legislatures reluctant to raise user fees [US and CA gas taxes steady since early nineties]**
- **Increasingly reluctant to directly raise fees or taxes at all**
- **Putting measures on ballot for voters to enact instead of taking action in legislatures**
- **Shift to borrowing rather than pay as you go**
- **Devolving responsibility to local governments**

While Tax Revenues Fall Behind

- **Vehicle fuel economy is improving**
- **Inflation is reducing the value of revenue**
- **Construction & maintenance costs have risen**
- **Vehicle ownership has grown faster than population growth**
- **VMT is growing faster than population and economic growth**
- **Alternative fuels are being developed for climate control reasons**

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Lessons From History

- **Crises can be an opportunity – adoption of motor fuel taxes in twenties . . . BUT**
- **Adoption on a large scale took decades, even when there was a high level of public support**
- **There has not ever been a major "transformation at one moment," but rather a set of marginal changes over many years**
- **Adoption of a major change – even over decades – was based on a broad consensus among many interests**
  - **All accepted some pain because of commitment to getting the gains**

Interpretations for the Present

- There is NOT a broad consensus on what to do next
  - Rural vs Urban
  - Donor vs “Donee”
  - Highways vs transit and environmentalists
- There is a high level of public and media distrust (NOT indifference) of those who must make the choices
- All recent changes have been incremental – Congress and states have avoided basic transformation
- Policy community has much higher priorities in other areas: health care, stimulus, cap and trade

What is Possible?

- **We are not ready for deep, lasting, major changes**
- **We must steer a careful course, adopting incremental steps that move in the right direction and gradually build consensus**
  - **Public and media support**
  - **Stakeholder support (truckers, states, AAA, environmentalists)**
- **Options open for choice are VERY few and all are reasonably controversial**

History Suggests One Path is Most Logical

What to Do?

- **Raise the fuel taxes while fuel prices are high?**

  Not politically feasible

- **General fund financing? Sales tax measures in many states?**

  Not equitable

- **Increase borrowing in the short term?**

  Not really new revenue & raises total cost

- **Lessen Federal role in finance and devolve to states and localities?**

  Federal interest and role are greater than ever

- **Rejuvenate user financing using new technology and more direct charges?**

  Electronic tolls and VMT fees?

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Many Transportation Experts Agree that Direct VMT Charges Are the Most Promising Direction

- **Will continue to produce revenue when vehicles are no longer powered by petroleum fuels**
- **Come closer to the goals for road user fees that existed even in 1920 – more direct than fuel taxes**
- **Technology is coming on line and is in use in several countries overseas; five major tests already done in US – e.g. “pay at pump” in Oregon**
- **Provide policy flexibility – can vary fees by type of vehicle, type of road, hour of day**

Several VMT Metering Options Are Possible but Risky for Short-Term Deployment

- **Odometer in vehicle linked through On-Board Diagnostics (OBD) system with cell phone technology to fuel pump or perhaps to a central billing system**
- **GPS System with central billing or billing at time of fueling**
- **DSRC-based tolling (gantries) – but on only part of system**

Political/Public Acceptance: The Privacy Issue

- **Fear about privacy**
  - **With all this on-board technology, is Big Brother watching?**

- **Fueled by press misrepresentations:**
  - **LA Times quote: “tracking devices send a signal to a GPS satellite following the car”**

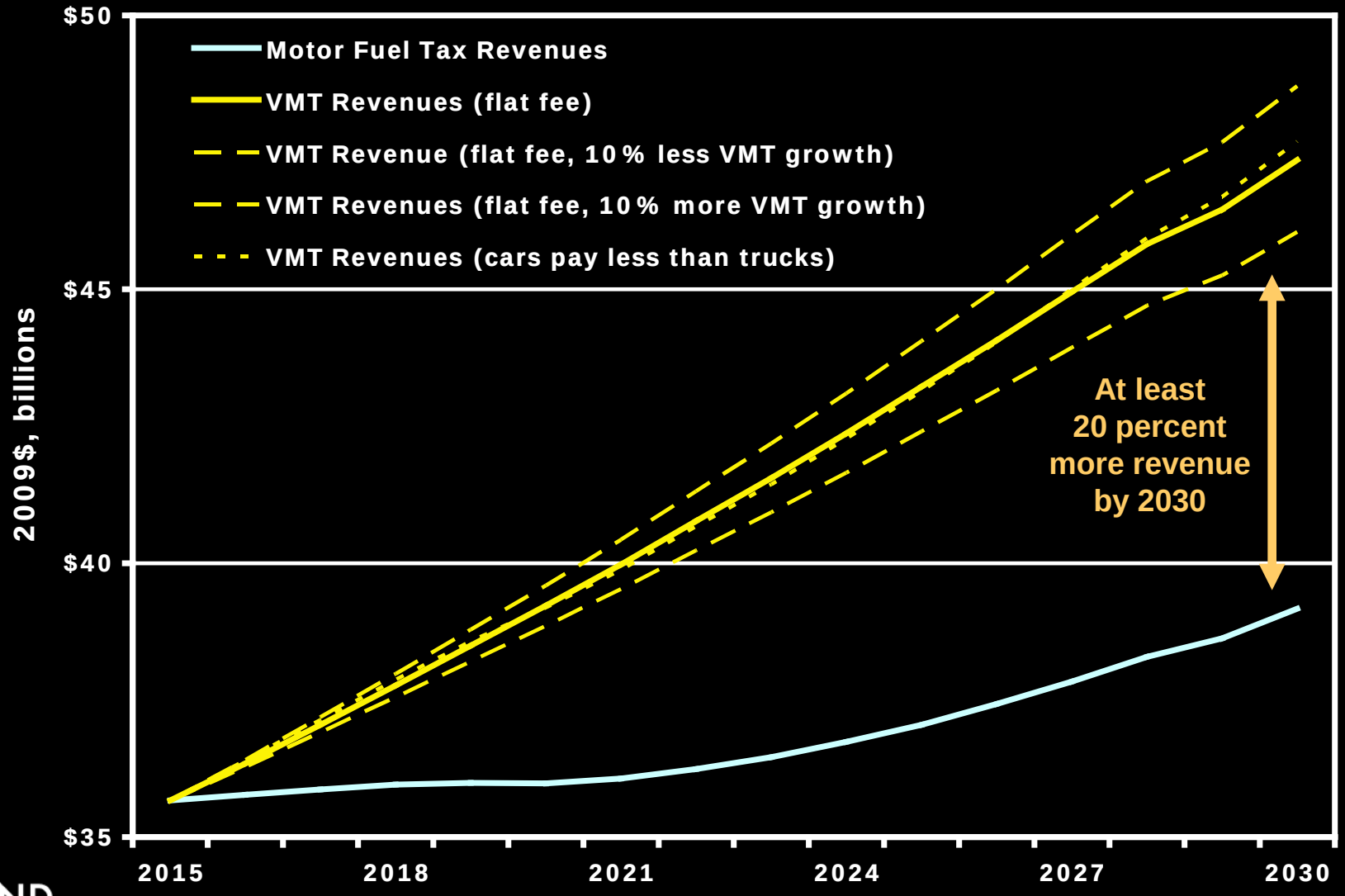
Transition Is a Critical Question

- **Direct charging may need to be phased into new vehicles over time**
- **We may need time for political & public acceptance to grow**
- **Privacy concerns versus ability to audit**
- **Gas tax ok in short run if Congress agrees to raise it – even if a transition to new system is planned**

The Transition is Well Underway

- **Fuel tax still valid for decades in USA**
- **GPSS truck use charges in Europe**
- **Oregon experiment demonstrates transition mechanism**
- **University of Iowa Project at many sites**

A Revenue-Neutral Switch to VMT Fees in 2015 Should Produce Much Higher Revenue by 2030



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Based Upon History: Best Approach is Incremental

- **Adopt large-scale testing and further research in current reauthorization, aiming at full implementation in next cycle around 2015**
- **Do not adopt a national system hastily**
  - **Failure could end the entire program**
  - **Risky to adopt unperfected technology**
  - **Not yet public trust or confidence**

During Next Six-Year Bill

- **Test pay-at-the-pump collection system on a much larger scale than in Oregon – hundreds of thousands of vehicles**
- **Develop central billing agency for alternative-fuel vehicles (market share will increase over time)**
- **Pursue targeted research to resolve uncertainties regarding the cost and capabilities of alternate in-vehicle equipment options**
- **Develop in detail a transition plan (assign responsibility) in current six-year bill in expectation of full implementation in next bill**

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Truck toll collection in Germany

Automatic log-on