

## CONGESTION PRICING

Traffic Solution or Tax Scheme?

## What is Congestion Pricing?

Definition - A financial means of influencing when people drive in certain areas

Primary Goal - To reduce traffic congestion during periods of peak demand

Secondary Goal – To generate revenue

□ **A.K.A.** - "Congestion Tax"

## **Roadmap for Congestion Pricing**



### Forms of Implementation

#### Main Method:

- Charge for driving within high congestion zone during peak hours, either a flat charge or on a sliding scale
- Similar Systems or Variations:
  - Road Space Rationing
  - Increased meter fees in certain zones
  - Sliding scale payments for commercial loading/unloading
  - Credit systems
  - HOT or ETL Lanes

## **Economic Theory**

- Suppresses demand instead of focusing on supply
- Forces drivers to pay for some of the negative externalities of driving:
  - Environmental Impact
  - Road Maintenance
  - Health Problems
  - Decreased Efficiency for Fellow Drivers

# Economic Theory (Cont.)



# **Criticisms of Congestion Pricing**

- Political suicide
- Bad for business
- Harder on the poor than the rich
- No accurate way to set pricing
- Will create "parking lots" outside of the pricing zone
- Only works if there are valid alternatives
- Civil liberty concerns

### Implementation: London

- First came into effect in 2003, and then expanded to West London in 2007
- Flat rate pricing during peak hours
- Can buy day/week/month/year passes
- Discount for residents
- Exemptions for certain vehicles
- Tracked by camera and has a fee/penalty system

## Implementation: London (Map)



## Implementation: London (Photo)



### Effect: London

- \$170 million in net revenue for 2005 largely spent on improved public transportation
- Over 30% reduction in total number of vehicles subject to the charge between 2002 and 2004
- □ 37% average increase in traffic speed
- 12% drop in particulate matter and nitrogen oxides
- 20% decrease in fossil fuel consumption and CO<sub>2</sub> emissions
- Only a 2% decline in the number or people ending trips within the pricing zone

## Effect: London (PBS Video Clip)



## Implementation: Singapore

- In 1975, Singapore became the first major city to institute a congestion pricing system
- In 1998, the city started its Electronic Road Pricing (ERP) system that is based around transponders in each car.
- Prices increase and decrease gradually throughout the day
- Extreme Flexibility: data is reviewed each month and pricing and coverage can both be easily changed to account for changing traffic patterns

# **Effect: Singapore**

10 mphincrease inaverage speed

20% increase in use of public transportation

176,400 fewerlbs ofCO<sub>2</sub> emitted



## Political Failure: NYC

- In 2007, Mayor Bloomberg pushed for a congestion pricing system in NYC
- The system would have charged \$8 to enter Southern Manhattan during peak hours throughout the week
- The federal government was willing to provide a \$350 million dollar grant to support the project, and it was backed by many civil and environmental groups
- The state legislature shot down the initiative, NYC lost the grant, and it is currently a stalled issue



# Other Congestion Pricing Systems



#### Lessons Learned

- Emphasize the immediate social benefits
- Put the revenue immediately back into public transportation
- Have feasible options for pass-through drivers
- Make the system simple to use and simple to change
- Educate drivers and businesses about the system and its estimated effects

# Additional Reading & Viewing

#### Most Recommended:

- http://watch.thirteen.org/video/1145396186/ (A PBS video from the e2 series about traffic in London)
- <u>http://www.transalt.org/</u> (Transportation Alternatives an advocacy group for bicycling, walking, and public transit)
- <u>http://www.edf.org/home.cfm</u> (Environmental Defense Fund)

#### Other:

- http://en.wikipedia.org/wiki/Congestion pricing
- http://en.wikipedia.org/wiki/Road pricing
- http://www.nytimes.com/2007/08/15/opinion/15wed2.html?pagewanted=print
- http://www.usatoday.com/news/topstories/2007-08-14-1196686448 x.htm
- http://www2.prnewswire.com/cgi-bin/stories.pl?ACCT=AZSAZPOL.story&STORY=/www/story/06-02-2009/0005037023&EDATE=TUE+Jun+02+2009,+12:01+PM
- http://www.grist.org/article/machiavelli-meets-the-big-apple/
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- http://www.wheelsunplugged.com/ViewNews.aspx?newsid=4877