

US roads: the hidden cost due to increased gas taxes

The continuing scarcity of cheap energy in the world, due mainly to an unexpected strong economic growth now going for almost 10 years, has not only ignited the search for new and more reliable sources, but also put again into the fore increasing gasoline taxes, particularly in the US. Have not you heard yet about the US\$ 1 per gallon tax, whereas today it averages 42 cents per gallon, to contribute, among other things, with global warming imminent disasters?

Reasons abound: negative externalities related to congestion and contamination would be corrected through Pigovian taxes primarily focused on those that cause them; as proxies for user fees, gasoline taxes would make sure that those who use roads the most, would pay the most; as a foreign policy issue, given that tax incidence is shared by supply and demand, part of the tax would be explained out of higher domestic demand prices, but another part would be indirectly paid, through lower selling prices, by foreign suppliers, usually not too friendly to the US. At first sight, all reasonable explanations.

But there are some caveats to it.

What is scarce is cheap, reliable energy. If no misallocation of resources is looked for, then the theoretical neutral tax should be on energy use, whatever its origin, including oil and its derivatives, but not exclusively on this later ones.

But the main doubt in raising this tax, even if non discriminatory on energy sources, is borne out of general equilibrium conditions, as Nobel prize Ronald Coase would have lucidly explained in the past. In short, there is an economic unit – US – creating wealth under present “subsidized” transportation conditions, which could be more than negatively affected by transportation taxes that make it work on the whole on poorer terms, via partially losing its connectivity condition. In this case, the “corrective” tax could turn out to be a wealth decreasing factor, not exactly the kind of policy to be willingly supported.

Some facts could make this wider picture clearer:

1. With high probability, easiness to collect taxes from gasoline use has transformed them into effective income tools that tend to go far beyond congestion, contamination and user fees explanations, being the US an exceptional case. For example, in 2001, based on GasPriceWatch.com, the gasoline tax as a percentage of total price was 76% in Great Britain, 74% in France, 73% in Germany, 57% in Japan, 45% in Canada and 29% in the US, to name a few cases.
2. According to the Bureau of Economic Analysis, of the US Department of Commerce, 2005 Federal and State gasoline taxes amounted to US\$ 61 billion, and motor vehicle licenses to US\$ 8 billion, approximately. In other words, US\$ 69 billion collected directly from users of the Federal and State highway transportation system. On the other hand, Federal and State current expenditures on this infrastructure amounted to US\$ 95 billion, while gross investment added

up to US\$ 71 billion, totalling US\$ 166 billion. In other words, a cash flow deficit of approximately US\$ 97 billion was to be financed from other Federal and State sources, in annual terms.

3. Given the above financial condition, the intuitive response would be to increase gasoline taxes and tolls until you get a budgetary equilibrium in the transportation sector. That would be the partial answer.

4. However, what is interesting to note is that the combination of cheaper gasoline prices and a comprehensive road infrastructure makes American motorists the most traveling people. In 2002, based on the US Census and Great Britain transport statistics, US km per person by car were more than **double** those of EU countries: 22.752 and 9.483 annual figures for the US and average EU country, respectively. Alas, it is this connectivity wealth creation factor the one that could be deteriorated under a partial equilibrium analysis policy – ie. increased gasoline tax – with no commensurate compensation in congestion and contamination improvements.

What is happening is that the simple partial response does not take into account the positive externality being created via facilitating the “big market”, which if true, should be subsidized. There is certainly an economic benefit for the aggregate when via reducing “transaction costs” the system gets an amplified market for goods and services, as cities are able to do inside them. In our case, the whole country operates as a diluted city with its connecting arms, creating a bigger market than the one that would exist with higher direct operational costs for this infrastructure. The product as a whole could then be higher.

How investment and maintenance costs are financed is a secondary question. First create wealth, then decide how to distribute it.

As cities exist to capture externalities, delivering a higher aggregate value out of its components, the road system does it at the national level. If this were the case, a higher gasoline tax would not be the solution. It would seem better to explore toll ways in urban centers, which are relatively more expensive and where tariffs can effectively be hourly changed for congestion purposes, while loosened connectivity among cities could remain undisturbed. Anyone who has traveled by car in the US can only witness the massiveness of transport flows, and one keeps wondering how many services, goods, ideas and creativity keep flowing out of this system. A short sighted gasoline tax could damage this invisible connectivity externality.

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