



THE JOURNAL FOR THE NEW EUROPE

AN INTERDISCIPLINARY JOURNAL

ARTICLES

Alexander Greenberg and Walter Block

Pricing drivers' behavior to relieve traffic congestion

FORUM

Charles B. Blankart and Erik R. Fasten

Federalism in Atlantis

Volume 5, Number 1, 2008

The Journal for the New Europe
An Interdisciplinary Journal

Edited by

Hardy Bouillon, CNE, Brussels, Belgium
Enrico Colombatto, University of Turin, Italy
Pierre Garello, Université Paul Cézanne, Aix-Marseille,
France

in association with

Norman Barry †, University of Buckingham, England
Victoria Curzon-Price, University of Geneva, Switzerland
Steve Davies, University of Manchester, England
Detmar Doering, Liberal Institute, FNF, Berlin, Germany
Frank van Dun, University of Maastricht, Netherlands
Gerd Habermann, Enterprisers Institute, Berlin, Germany
Guido Hülsmann, University of Angers, France
Jesús Huerta de Soto, University Rey Juan Carlos, Madrid,
Spain
Hartmut Kliemt, University of Duisburg, Germany
Carlo Lottieri, Istituto Bruno Leoni, Turin, Italy
Robert Nef, Liberal Institute, Zurich, Switzerland
Ralph Raico, State University College, Buffalo, USA
Josef Šíma, University of Economics, Prague, Czechia
Michael Zöllner, University of Bayreuth, Germany

ISSN 1781-4855

Copy editor: Robert Grözinger, Bath, England

Published by The Centre for the New Europe, Brussels

The Journal for the New Europe
An Interdisciplinary Journal

Articles

Alexander Greenberg and Walter Block

Pricing drivers' behavior to relieve traffic congestion..... 5

Forum

Charles Blankart and Erik Fasten

Federalism in Atlantis 29

Volume 5, Number 1, 2008

THE JOURNAL FOR THE NEW EUROPE is a biannual interdisciplinary online-journal, published by *The Centre for the New Europe* in Brussels. Issues can be downloaded for free at www.cne.org.

Information for Authors: the journal includes scholarly articles on economics, history, philosophy, politics, sociology and related disciplines, a forum with essay-type papers on changing topics, and book reviews. Contributions should preferably have a focus on Europe and/or European policy issues.

Papers should be written in Word format and submitted electronically to: hardy.bouillon@cne.org

Authors should include biographical information (titles, professional affiliations, mailing address, telephone number, email address, etc.)

THE JOURNAL FOR THE NEW EUROPE edits for clarity, brevity, and in accordance with the Chicago Manual of Style.

Copyright 2008, The Centre for the New Europe

PRICING DRIVERS' BEHAVIOR TO RELIEVE TRAFFIC CONGESTION

Alexander Greenberg and Walter Block^{*}

Abstract

As traffic congestion became unbearable, the failure of the mechanistic traffic management systems became more and more obvious. The present authors argue that even the approach which limits by market prices access to a scarce resource which is road usage may not alone be sufficient. The existing driving culture has to change also, and this can be accomplished by the same pricing-incentives approach.

I. Introduction

This article is intended to be a follow-up on Block's "Congestion and Road Pricing" (2006), as well as "Combating Gridlock" by Deloitte (2003). It is an attempt to systemize

^{*} Alexander Greenberg is President of Sagrion Inc.. E-mail address: greenberg_a@yahoo.com

Walter Block, Harold E. Wirth Eminent Scholar Endowed Chair, is Professor of Economics at Loyola University New Orleans. E-mail address: wblock@loyno.edu

economic approaches described in those works with regard to relieving traffic congestion. There are two ways to accomplish this task; first, through more rational pricing policies; second, looking at the road as a system, by impacting the behavior of the road patrons within (factors internal to the system) and outside (factors external to the system). We shall demonstrate that a sound economic approach will give the desired results when applied to those internal, as well as external system factors.

The private¹ owners² of toll roads³ will inevitably have to deal with and reduce congestion. However, any attempts to utilize the existing traffic management systems and approaches, even in conjunction with access pricing towards that purpose, will not fully succeed as they do not account for the human factor (drivers' behavior) as it affects road traffic. We shall demonstrate that for

¹ We address ourselves to private road owners since their public counterparts have dismally failed to control traffic congestion. Nor is this an accident. There are good and sufficient reasons why this should be the case. See on this: Beito, 1993; Beito and Beito, 1998; Block, 2006; Carnis, 2001, 2003; Cobin, 1999; De Palma and Lindsey, 2000; Foldvary, 1994; Klein, Majewski, and Baer, 1993; Klein and Fielding, 1992; Lemennicier, 1996; Semmens, 1987.

² A process of quasi road privatization in the USA has begun. Full road privatization would result in private firms owning traffic arteries outright, with control over their property akin to that exercised by owners of hotels, steel mills, amusement parks, etc. In sharp contrast, the various highway "privatizations" in the U.S. give their ostensible "owners" far less control than that. And, typically, even these limited rights are to be enjoyed only for a limited amount of years, after which ownership is again vested in public authorities. The "private road owners" we address in the text are thus theoretical constructions, that will only eventuate when and if a sea change in political economic philosophy occurs.

³ This topic has attracted a vast amount of serious theoretical and applied analysis. Under this rubric we would include Pigou (1932), Vickrey (1959, 1963, 1969), Grieson (1976), Mohring (1964, 1970, 1975, 1983, 1985, 1997, 1999, 2006), Roth (1966, 1967, 1987), and Poole (1988, 1996). However, our perspective is distinct from theirs as we focus solely on private road owners, and this literature takes state highway management, or public private cooperation as its basic premise.

private roads to succeed in dealing with congestion, entirely new economic and managerial approaches have to be taken. Not only the access to a road must be priced so as to relieve overcrowding, the road patrons' driving behavior must also be priced with this purpose in mind. The present work is not a comprehensive study on the subject but a brief summation on what steps can be undertaken immediately to realize these new, economic approaches, without major capital investment. In section II we discuss the major factors contributing to traffic congestion. Section III is given over to an examination of the prevailing approach to traffic management and its problems. Sections IV and V offer some pricing and cultural innovations; we conclude in section VI.

II. Major factors contributing to traffic congestion

What are the major factors contributing to traffic congestion? We believe they include the following:

- A) Overcrowding (demand in excess of the road capacity)
- B) Drivers' behavior (as it affects the road capacity)
- C) Physical road conditions (road surface, weather, incident blockages, etc.)

We will examine the first two to see how they depend on each other and can be controlled by the same economic mechanisms, which require drivers to make certain economic choices. We will leave the third factor out this discussion with the full acknowledgement that it is also a subject to a similar economic analysis.

If we look at a road as a system which receives and processes vehicles, the (A) represents the *input* to the system while the (B) and (C) are factors affecting the *throughput* (capacity) of the system. Obviously, the input to the system cannot be greater than the throughput. On the other hand, the higher throughput that can be achieved, the more input into the system can be allowed.

Now let us look briefly at how the current traffic managements system approaches the congestion problem from the system analysis and economic point of view.

III. The prevailing approach to traffic management and its problems

So far the existing Traffic Management Systems (TMS) seek to solve congestion in two ways – by putting a price on the entry and/or by generating various signals to the motorists with the purpose of increasing the throughput of the system. They can never be successful on this route. There are two major reasons for that.

First, they cannot balance the throughput of the road system with its input as they are dealing with an *unlimited access* system (they are called “limited access” roads only in the sense that the physical entry into the road is possible only at certain points) – meaning the input to the system is not restricted even if it has to be paid for. Anyone with a mechanized vehicle and a few dollars can enter onto the roadway system.⁴ Any progress in increasing the capacity under this condition leads to more demand which quickly negates any additional capacity. The point is, whenever a gain is made in reducing traffic congestion on any one road, drivers utilizing other thoroughfares, or staying at home, will tend to take advantage of the suddenly clearer route. This is a phenomenon which is extensively discussed from various angles⁵ elsewhere. Suffice to say that without recognizing that a road (and its capacity) is a *scarce* resource and should be priced as such no advance in throughput management will solve the congestion problem.

⁴ As the movie “Breaking Away” shows, even mechanization is not always required (<http://www.imdb.com/title/tt0078902/>). Bicycles, too, can utilize highways.

⁵ See on this Duany, 2000. See also www.worldbank.org/transport/roads/rpl_docs/apbinduc.pdf

It should be noted the systems based on pricing alone such as the highly acclaimed Central London Congestion Charging system, as well as the similar systems in Stockholm and elsewhere (see <http://www.roadtraffic-technology.com/projects/congestion/>), are area access charge systems, not a highway traffic management systems (as they are billed). They work much as an admission fee to a formerly free access public space (similar to a museum, stadium, park, etc.) and are traffic specific only insofar as they have to identify vehicles. In fact, there is nothing essentially new in those systems – New York City has had a similar (if not by the name) system in place for many decades – a commuter has to pay numerous highway and bridge or tunnel tolls to get into the city, on certain routes they come to a significant price - and it has done nothing to alleviate congestions.

The fundamental economic problem with today's pricing systems is that the fee is either fixed or it changes based on the time of the day or day of the week *but NOT in response to the current balance of the supply (available road capacity) and demand (number of vehicle attempting to enter the system)*, with notable exceptions being the 91 Express Lanes, and I-15 in California.^{6, 7}

⁶ For the former, see www.91expresslanes.com, go to “General Information”, then “toll policies”; for the latter see www.sandag.org, under “Services” go to “FasTrak.” One of the difficulties with this system is that when there is congestion, drivers occupy these lanes, as a way of passing cars waiting, properly, in those lanes designated for coins; when they get to the front of the queue, they try to sneak in ahead of where they would have been had they occupied the lanes assigned for them. With very heavy traffic, it has proven virtually impossible for government police to stop this practice.

⁷ There is a further problem, as well. Many of these schemes constitute, would you believe it, anti peak load pricing. That is, congestion is exacerbated, not relieved, in this manner. How does this work? Typically, you must purchase a month's pass in order to avail yourself of the express lanes. The only consumers who can profitably utilize such an arrangement are commuters, not those who cross the bridge or enter the central business district once a month. However, these month passes offer a cheaper per trip price. Thus, they encourage business people to travel

Secondly, there is a limit to what the pricing of the input to the road can do if it gets choked up by extant patrons.

The existing TMS, in the attempts to increase the throughput, utilize an incorrect fundamental approach towards that goal. They are indeed based on the understanding that factors such as drivers' behavior and reactions to traffic conditions play the major role. *However, they are erroneous in their approach that they can influence those factors by simple advisory signals.*

The so called "intelligent" TMS (<http://www.roadtraffic-technology.com/projects/m42/>, <http://www.roadtraffic-technology.com/projects/hong-kong/>, <http://www.roadtraffic-technology.com/projects/real-time/>), are information collecting and generating (open end) systems – much like weather forecast.⁸ Events are assumed to happen as a result of forces outside of the control of the system (just like hurricanes).⁹ Messages of these events (similar to weather forecasts) are transmitted to drivers by various means and then certain response action from the drivers is expected will have taken place as a result. *These systems work as if under an unrealistic assumption that road patrons are a homogeneous collection of ideal drivers always acting in the most efficient, most*

more, and, relatively speaking, intermittent travelers to avail themselves of limited roadway resources less. But who is it that clogs the lanes during the morning and evening rush hours? Yes, precisely, the daily commuter, who is encouraged by lower prices to demand these scarce resources. Anti peak load prices thus exacerbate congestion. This, of course, could only be done on the part of the government. Imagine a ski resort charging more for summer hiking than winter skiing? Or a Florida resort raising prices in the summer, and lowering them in their peak load summer season. Bankruptcy would be the next step, following by a more rational peak load pricing system. Not so, of course, in the case of government mismanagement.

⁸ For example, messages of this sort: "Rainy conditions, go slow," "Warning: this bridge ices in winter," "Traffic accident in right lane, three miles ahead."

⁹ However, for an argument that even hurricanes, etc., are not fully exogenous, see Block (2004, 2005a, 2005b, forthcoming); Block and Rockwell, unpublished).

adequate manner, always responding to the system messages in a correct and predictable way. But this approach is problematic. Drivers greatly differ on the basis of various criteria (skills, temperament, attentiveness, physical and psychological condition, etc.). Moreover, in an open end system some drivers may completely ignore the signals from TMS or act contrary to their exhortations – there is no mechanism in place that will entice or enforce them to respond adequately to the system messages. Any situation arising from random and incorrect drivers' action will then be interpreted by the TMS as yet another event and new messages will be generated – with the same counterproductive and at best unpredictable result.

Since for many years and even decades *individual* drivers' actions have been treated as events outside of any control and influence other than advisory messages,¹⁰ certain motorist's mentality and culture have formed that has significant degrading effect on road capacity – even holding constant the number of vehicles on the road.

Some examples of this phenomenon can empirically be observed as so-called “rolling road block,” “left lane huggers,” etc. Drivers feel free¹¹ to proceed at any speed they like, in any lane

¹⁰ What about law enforcement of some rules? This is an exception. If police activity is stringent, and not counter productive, it can indeed have an ameliorative effect on traffic arteriosclerosis. The problem is, at least on US roads, that policing is arbitrary and capricious. No one is ever ticketed for proceeding in the left lane at exactly the speed limit, or even at a few miles per hour below that level. And yet this behavior reduces the highways capacity to move traffic. And, which of us has not had the experience of traveling at exactly the speed maximum, and being passed by practically every single other traveler, some as if we were standing still?

¹¹ One possible objection is that this statement may appear too U.S. – centric. A critic might say that “these practices are illegal in many countries and these laws are respected by the citizens. For example, in the UK on motorways it is a criminal (not just a traffic) offence to pass on the left (remember the side of the road that country drives on). However, the fact is that in many countries, including the U.S., it is *not* illegal to drive at the maximum speed in the fast lane. Since, typically, the overwhelming

they wish, in any patterns regardless of the effect on other motorists – they experience *no negative economic consequences at all* from such behavior – provided only that they are comfortable themselves driving in this manner. Certainly, they are not penalized by law for engaging in such counter productive behavior.¹² As a result there form chaotic (and often impenetrable) vehicle formations and gaps in the traffic flow, thus slowing the flow and reducing the road capacity compared to what it otherwise would have been had there been no slow drivers in the left or fast lane. Traffic backs up behind these relatively slowly moving formations and may come to a complete stop while down the road there are hundreds of yards (sometimes more than a mile), until the tail of the next formation, of unoccupied (“unused”) road space – thus appears a moving road block/gap combination.¹³ Drivers who feel they can safely drive faster jockey between the lanes, trying to advance through the formation, and all these maneuvers further

majority of motorists travel at speeds 10 miles per hour greater than that without attracting police attention, this sort of fast “lane hogging” can still legally occur.

¹² Perhaps another solution to this problem is to maintain differential speed limits for each of the three lanes, instead of the present system of one speed fits all lanes. For example, the speed limits, minimum and maximum, for the left or fast lane might be 80-89, for the middle lane, 70-79, and for the right or slow lane 60-69. If this were strictly enforced, it might not entirely solve the problem, but would go a long way in that direction. Yet, the incentives faced by public managers of roads to inaugurate this more reasonable system are virtually zero, and indicated by the fact that not a one of them has even experimented with such a solution. Needless to say, under a regime of private roads, experiments of this sort would undoubtedly take place, to the eventual improvement of the system.

¹³ Scrooge McDuck drove a “Road-Hog V 16.” He “hogged up” the road with the sheer enormity of his vehicle. Modern road hogs can attain this same end with much more modestly sized automobiles.

slow down traffic.¹⁴ Traffic congestion appears in these situations – sometimes way before the theoretical road capacity is reached.¹⁵

In system terms what all this means is that due to the internal chaos the practical throughput falls below the optimal. Even if the input is balanced by the economic means with the optimal (expected) throughput, that optimal throughput cannot be achieved – and congestion is worsened.

Now let us show how the economic mechanisms should be put in place to balance the input with the throughput, and to keep the practical throughput as close to the optimal as possible.

IV. Innovation – Adaptive real-time pricing of access (input) to the road system

Block (2006) and Deloitte (2003) show the economic solution to balancing the input with the throughput – charging market clearing prices for admission to the road. It is easy to see that this market price mechanism will not only relieve the pressure of the immediate demand on the road, but also the pent up demand. The market price mechanism introduces predictability and direct cost calculations, and therefore, the ability of the present and future patrons of the road to make decisions whether to drive or not to drive, ahead of time. If a “slot” for access to the road, especially for the rush hours, can be sold on reservation (and assuming for a moment that the number of available ‘slots’ to capacity can be determined) and for a premium, ad hoc, at some point there will tend to be an equilibrium price for each moment of the day – and predictable travel time will result. Not only will it be predictable, it will also be minimized, and traffic flow maximized. Based on this information – market price and reduced, predictable travel time –

¹⁴ They are also dangerous, and contribute to traffic fatalities.

¹⁵ Often, the right or slowest lane, too, is relatively empty. This is because very slow drivers prefer the middle to the right lane, where they would not have to contend with new entering drivers. This, too, turns what would otherwise be a three lane highway into one of two lanes.

each patron can make plans and decision in the same manner he would make a decision to take a plane, or a train, or forgo the trip altogether, between New Orleans and Houston.

In practical terms, let us imagine a major commuter route where access is sold by a private firm¹⁶ at a market price determined by the current real-time demand/supply balance – just like the 91 Express Lanes, only superimposed on the entire road. Since a commute constitutes a repeated traffic of more or less constant volume and schedule, a road company determines that the highway can accommodate 100,000 commuting vehicles with average speed 60 mph between 7 am and 9 am, and opens reservation for this time of the day for 95,000 “slots” (assuming 5% reserve capacity for ad hoc access). If there are more than 95,000 bidders for these slots the company raises the price until there are no more than 95,000 takers. Then every day the road company displays on approaches to the entrance ramps, and broadcasts on its radio channel, the number of “slots” left available and the price for each “leg” (between each entry point and the next exit). As the ad hoc travelers enter and “consume” the diminishing reserve capacity, the price is progressively raised. The last vehicle in may have to pay a very high price, but all the commuters can be sure that the input into the system will never overwhelm its throughput and traffic will still move at some reasonable speed. When 100% capacity is used the road company can simply raise prices even more and/or at least temporarily close entries until some new capacity materializes. Modern monitoring (highway patrols, TV and infra-red cameras, radars, license number image decoders, E-Z Pass readers, etc.) and information processing

¹⁶ We favor private roads, but given political reality, a government agency could possibly do the same, in the absence of a private operator. However, *even if* the bureaucrats were to adopt our proposals, which they have *no real world* incentives to do, this paper is still morally justified for it would be immoral to aid or abet governmental road socialism (Block, 1996), so we do not pursue this point.

technology makes the task of maintaining such real time self-balancing adaptive system exceedingly feasible.¹⁷

What advantages might private road entrepreneurs have over their civil servant and bureaucratic counterparts? For one thing, the former would necessarily attract capital on a voluntary basis, the latter coercively, through taxes. Surely, people can exert more control over their resources when they can invest where they think their returns will be maximized, then when are forced to do so, by the state apparatus. If the investor thought a private road a good harbor for his funds, he would allocate them there, were he free to do so. No such option is afforded him with public ownership. Then, too, there is the cleansing and economic efficient phenomenon of bankruptcy that “concentrates the mind” in the private sector. This “clears the decks” of inefficient entrepreneurs, making way for those who are more able to satisfy consumer wants. No such thing takes place with regard to government operation, otherwise FEMA, the Army Corps. of Engineers (Stringham and Snow, 2008; D’Amico, 2008; Vuk, 2008; Dirmeyer, 2008) and the Post Office (Adie, 1990; Alston, 2007; Bresiger, 2004; Butler, 1986; Moore, T., 1990; Moore, S., 1987; Priest, 1975; Robbins, 2000; Roberts, 2005; Rockwell, 2002) would have long ago ended.

But as this pricing mechanism balances the input to the road system with its potential throughput, let us turn our attention to how the same mechanism can be used to affect the throughput itself.

As was discussed above, the drivers’ behavior is a major factor affecting road capacity. Even if the demand (input) can be

¹⁷ However, let it never be thought that economic rationality must be held hostage to any given level of technology. Market prices for roads were feasible a decade ago, and a century ago, too, for that matter. All that needed to have been done, in those long ago epochs, was to adopt the Singapore system of selling different colored dashboard placards for different areas. The more costly one for the more heavily traveled areas, times of day, days of the week, etc.

balanced by the market price mechanism with the potential capacity (throughput), the potential throughput may not be realized and congestion will appear again as input outweighs the diminishing throughput. To combat this, we suggest that the price mechanism also should be applied to the capacity utilization by motorists.

V. Innovation - Pricing capacity utilization (throughput) of the road system and creating a new driver's culture

How does drivers' behavior affect the throughput? Without going into the gruesome complexities of the driving dynamics and traffic models¹⁸ we can speculate that the most efficient driving patterns can be broken down into certain simple rules¹⁹ that any driver can understand. These rules may include:

- “speed-lane discipline” – only fast moving vehicles in the left lane, moderate speed vehicles in the middle lane, slow vehicles in the right lane
- “proper/safe spacing” – maintaining a 2-4 sec distance at medium to high speed and at least two cars length distance at low speed
- exiting from the right lane only with decelerating only in the exit lane
- “zipping-in” on the merge with accelerating on the entrance ramp/lane; that is, merging smoothly in between the vehicles in the right lane. Requires accelerating up to the traffic's speed while on the

¹⁸ On this see, section III, *supra*.

¹⁹ For an interesting comparison between such rules of the road and those that prevail in sports, see Wittman, 1982.

entrance ramp/lane, and maintaining proper distance (spacing) in the right lane

The important matter here is that these simple rules, unlike all the complex traffic models known only to traffic engineers, can be understood by, taught and enticed into, an individual driver.

But let us take our speculation a step further. Not only can such simple rules be taught, they can also be recognized by a traffic monitoring system on an individual vehicle level – all the technology necessary for this task already exists, and gets progressively less expensive. Then if it can be recognized, it can be assessed, for compliance or non-compliance. This will introduce economic consequences for drivers – economic incentives will more heavily impact their behavior and driving patterns.

It can be argued here that the existing traffic law enforcement already maintains driving rules compliance. However, at least three objections can be made about it. First, the existing rules were created generally with the traffic “safety” in mind (whether all of them really contribute to safety is another question), not the traffic efficiency. Second, the existing traffic enforcement is entirely dependent on human effort, thus it is subjective (except for speed check by devices), arbitrary, random, costly (it requires frequent replacement of worn-out, ever more expensive vehicles, and paying pensions and medical benefits to the officers long after they stopped working), and it still cannot be omnipresent. Third, the process of enforcement itself is disruptive to traffic and may contribute to congestions and accidents.²⁰

²⁰ An analogy comes to mind. In track running, if one participant leaves the starting blocks before the pistol is sounded, the entire group is brought back, and the race must be begun anew. In swimming, a more rational system is utilized. Any competitor in this sport who jumps the gun is automatically disqualified at the end of the one race. No swimmers ever need be brought back to start the race anew. Needless to say, there are much fewer disqualifications in swimming than in running. The present rules of the road system are akin to track running; our suggestions are along the lines of aquatic races.

Contrary to the existing arbitrary and randomly applied “law” enforcement of some rules that itself causes traffic to slow down, the proposed traffic monitoring system will not cause any disruption, and will be constant and consistent. A small fine can be assessed to the account associated with the vehicle every time it violates one of the rules (it seems quite feasible to have eventually 100% coverage of the road by the monitoring system, especially as the technology component continues to fall in price).

What this means that drivers will experience real, economic consequences of their behavior on the road, good or bad. Imagine that a driver receives a monthly statement from the road company with a \$400 monthly charge for commute access plus \$1000 worth of penalties. Imagine if the statement provides details such as, among other things, 12 instances of failure to maintain speed in the chosen lane – \$15 each, 10 instances of slowing traffic on merge – \$10 each, and 5 instances of cutting to the exit across lanes – \$25 each. Of course there would be an economic incentive for this driver to re-assess his behavior, much the same way that an individual assesses the water/electricity usage from the bills and adjusts behavior accordingly. And if not, the penalties can always be doubled, and then doubled again. On the other hand, what if the road company advertises that an exemplary driver for 11 months of violation free commute earns one month free of charge access? This, too, will surely lead to people sitting up and taking notice.

Or suppose an inconsiderate (or unskilled) driver sits in the left lane at 55 mph backing up “fast” traffic behind him. The traffic in front of him rolls away, forming a gap, a stretch of unused “slots” – the road capacity is wasted.²¹ All those wasted “slots” can be assessed to this driver’s account. From the economic stand point the driver consumes more of the road capacity, his demand for it is higher, and so is the price he pays – until he learns to drive so as to reduce his demand for road capacity. We see, therefore, that the law of supply and demand can be applied to the road not only

²¹ Such a driver can be characterized as a “parade leader.”

externally – in setting the price for access, but also internally – by setting the price for the capacity consumption/utilization.

An “intelligent” enough monitoring system will be able to recognize in any situation who is responsible for the traffic obstruction – or who consumes more of the road capacity – and charge the drivers accordingly. (A discussion of various possible algorithms for such determination based on the driving rules mentioned above will take us too far afield at present.)

While it may take somebody a few billing cycles to realize the error of his ways and adjust behavior, a private road system may also prohibit repeated violators from entering the highway. Either that or charge them a price that even a Bill Gates would have to take note of.²²

We then can expect with a certain degree of likelihood that after a while this monitoring and assessment system will cause shifts in driving patterns and behavior. Presumably, a new driver's culture, that of attentiveness and mutual consideration, will be setting in.

It should be noted that in countries such as Germany or Great Britain, a more “intelligent” driver's culture has existed for a long time – for some data to support this see <http://www.cemt.org/irtad/IRTADPUBLIC/we2.html>. German autobahns are famous for their high speed and “intolerance” of slow drivers in the left lanes – yet they have relatively low accident and fatality rate as demonstrated by the statistics. However, the recent development and implementation of various complex TMS in Germany, Great Britain, and Sweden is an admission of the fact that the existing driver's culture alone is not enough to maintain efficient traffic flows. For other major regions where highway infrastructure is growing - Eastern Europe, China, India – the lack of “positive” driver's culture is, and will remain, a problem.

As this new culture emerges, the drivers should reflectively become much more receptive (and responsive) to the control signals from TMS. And then TMS can truly manage traffic by

²² We exaggerate here. Poetic license.

these signals – the drivers will be conditioned, by an incentive/disincentive approach, to follow the rules.

Now we can revisit the idea of a “slot” that we introduced above when discussing selling access to a road. If we look at the first two driving rules mentioned above, that of the “speed-lane discipline” and “proper/safe spacing,” they together describe a “speed/lane slot” that a vehicle occupies safely while facilitating a smooth flow of traffic. For instance, let us assume that a mile of highway can accommodate 20 vehicles driving at 75-85 mph in the left lane, 25 vehicles at 65-75 mph in the middle lane, and 30 vehicles at 50-65 mph in the right lane under normal conditions (roughly, at 2 sec intervals), and 20-25% more vehicles at rush hour with 20% reduction in speed in the left lane.²³ This kind of calculation will give us the optimal number of slots that can be sold for any given stretch of a highway for any given road condition, providing the basis for setting the price for the entry (access) to this road.

It will take some time for these new driving patterns and culture to set in but after a while we should expect that practical utilization of a highway can be brought close to the optimal value.

It is easy to follow from all of the above that, as the capacity consumption by an individual motorist decreases, under pressure from the incentives and disincentives, the overall capacity utilization increases. This, in turn, should lead to an increase in the value of the road.

6. Conclusion

Only private property rights, free enterprise and economic incentive based systems can resolve the traffic congestion problem. The state is congenitally incapable of any such thing. However, a long overdue realization that pricing mechanisms can have

²³ These speeds are of course subject to weather conditions. TMS will post the adequate and safe speed limits accordingly.

beneficial effects, even when run by government, is finally setting in. Some such systems have been recently implemented.

However, their economic measures are not covering such important congestion factors as driving patterns and on-road behavior, and therefore they are limited to what they can achieve by holding off the demand. More important, as government necessarily is based on compulsion, not voluntary cooperation,²⁴ it cannot engage in rational economic planning,²⁵ nor avail itself of the “weeding out process” whereby failing entrepreneurs are forced into bankruptcy (Hazlitt, 1979). Thus, there is no expectation that this institution will ever be able to “get it right.”²⁶

The present authors claim that to reduce congestion not only the access to a road must be priced (as an external factor to the road as a system), but the same applies to the “usage” of it (the internal factor to the road). The “usage” (or the “capacity utilization”) by each motorist determines the throughput of the road. By the economic mechanism of prices that individual capacity utilization can be minimized thus increasing the possible throughput. That, in turn, opens the road for additional, but still limited by prices, traffic input. The better the pricing mechanism

²⁴ Benson, 1990; Friedman, 1989; Hoppe, 2001; Long, 2004; Molinari, 1977; Rothbard, 1973, 1982; Spooner, 1870; Tinsley, 1998-1999

²⁵ Boettke, 1991; Ebeling, 1993; Gordon, 1990; Hoff, 1981; Hoppe, 1989; Klein, 1996; Mises, 1975, 1981; Osterfeld, 1992; Pasour, 1983; Reynolds, 1998; Rothbard

²⁶ Are we not “selling out” by writing this article? After all, if government implements the policies we suggest would be adopted by private road owners, they will improve their running of these facilities. There is very little chance of this. Advocates of government operation in this realm are wedded to the idea that private roads constitute a “market failure” and that only the public sector can operate in this realm. But suppose, just suppose, that highway authorities were to read these words and incorporate them into their decision-making. Would this prove we should not have published the present article? Not a bit of it. For, if it were true, free market economists would immediately be required to stop writing in favor of markets in used body parts, and free trade, and against policies such as the minimum wage law, rent control, unions, etc.

rids the system of its internal chaos (as today's driving culture creates), the better chances that congestion will not appear even as the input increases.

All the necessary hardware and most of the software, to monitor the road and approaches, already exist, and are in many cases already installed (for example, see again <http://www.roadtraffic-technology.com/projects/m42/m428.html>). Very few new components may be needed. The major missing element is a full regime of private property, the incentive/disincentive based TMS and the algorithms that can determine if a vehicle driving pattern confirms, or conflicts with, the "road rules" and if a vehicle causes a traffic delay.

References

Adie, Douglas K. 1990. "Why Marginal Reform of the U.S. Postal Service Won't Succeed," in *Free the Mail: Ending the Postal Monopoly*, Peter J. Ferrara, ed., Washington, D.C.: The Cato Institute.

Alston, Wilton D. 2007. "What Would Happen If the Post Office Had Competition?" June 6. <http://www.lewrockwell.com/alston/alston21.html>

Beito, David T. 1993. "From Privies to Boulevards: The Private Supply of Infrastructure in the United States during the Nineteenth Century," in Jerry Jenkins and David E. Sisk, eds., *Development by Consent: The Voluntary Supply of Public Goods and Services*. San Francisco, pp. 23-48.

Beito, David T. and Linda Royster Beito. 1998. "Rival Road Builders: Private Toll Roads in Nevada, 1852-1880," *Nevada Historical Society Quarterly* 41 (Summer), pp. 71-91

Benson, Bruce L. 1990. *The Enterprise of Law: Justice Without the State*, San Francisco: Pacific Research Institute for Public Policy.

Block, Walter. 1980. "Congestion and Road Pricing," *The Journal of Libertarian Studies: An Interdisciplinary Review*, Vol. IV, No. 3, Summer, pp. 299-330; reprinted as chapter 2 of Block, Walter.

2006. *The Privatization of Roads and Highways: Human and Economic Factors*. Lewiston, N.Y.: Edwin Mellen Press.

Block, Walter. 1996. "Road Socialism," *International Journal of Value-Based Management*, Vol. 9, pp. 195-207; http://walterblock.com/publications/road_socialism.pdf.

Block, Walter. 2004. "Me and hurricane Ivan." September 20. <http://www.lewrockwell.com/block/block44.html>

Block, Walter. 2005A. "Then Katrina Came." September 3. <http://www.lewrockwell.com/block/block51.html>

Block, Walter. 2005B. "The Answer to Katrina." September 11. <http://www.lewrockwell.com/block/block53.html>

Block, Walter. Forthcoming. "Katrina: Private Enterprise, the Dead Hand of the Past, and Weather Socialism; An Analysis in Economic Geography." *Ethics, Place and Environment: A Journal of Philosophy & Geography*.

Block, Walter and Llewellyn H. Rockwell, Jr. Unpublished. "Katrina and the Future of New Orleans."

Boettke, Peter J. 1991. "The Austrian Critique and the Demise of Socialism: The Soviet Case," *Austrian Economics: Perspectives on the Past and Prospects for the Future*. Vol. 17, Richard M. Ebeling, ed., Hillsdale, MI: Hillsdale College Press, pp. 181-232.

Bresiger, Gregory. 2004. "Post Office Hell." December, 22. <http://www.mises.org/fullstory.aspx?Id=1696>.

Butler, Stuart M. 1986. "Privatizing Bulk Mail," *Management*, 6, No. 1.

Carnis, Laurent. 2001. "Management versus Ownership: The Road-Privatization Debate." *The Quarterly Journal of Austrian Economics* vol. 4, no. 2: pp. 51-59, http://www.mises.org/journals/qjae/pdf/qjae4_2_4.pdf.

Carnis, Laurent. 2003. "The Case for Road Privatization: A Defense by Restitution." *Journal des Economistes et des Etudes Humaines*. Vol. 13, No. 1, pp. 95-116.

- Cobin, John, M. 1999. Market Provisions of Highways: Lessons from Costanera Norte. *Planning and Markets*, Volume 2, Number 1.
- D'Amico, Daniel J. 2008. "Who's to blame for all the heartache?: A response to anti-capitalistic mentalities after Katrina." *The International Journal of Social Economics*. Vol. 35, No. 8, pp. 590-602.
- Deloitte Research. 2003. "Combating Gridlock" www.deloitte.com/dtt/cda/doc/content/Combating-Gridlock.pdf.
- De Palma, Andre and Robin Lindsey. 2000. "Private toll roads: Competition under various ownership regimes," *The Annals of Regional Science*, Vol. 34, pp. 13-35.
- Dirmeyer, Jennifer. 2008. "The futile fight against (human) nature: A public choice analysis of the US Army Corps of Engineers – special focus on Hurricane Katrina." *The International Journal of Social Economics*. Vol. 35, No. 8, pp. 627-638.
- Duany Andres, Elizabeth Plater-Zyberk, and Jeff Speck. 2000. *Suburban Nation – The Rise of Sprawl and the Decline of the American Dream*, North Point Press, New York.
- Ebeling, Richard M. 1993. "Economic Calculation Under Socialism: Ludwig von Mises and His Predecessors," in Jeffrey Herbener, ed., *The Meaning of Ludwig von Mises*, Norwell, MA: Kluwer Academic Press. pp. 56-101.
- Foldvary, Fred. 1994. *Public Goods and Private Communities: The Market Provision of Social Services*. Edward Elgar.
- Friedman, David. 1989. *The Machinery of Freedom: Guide to a Radical Capitalism*, La Salle, IL: Open Court, 2nd ed.
- Gordon, David. 1990. *Resurrecting Marx: The Analytical Marxists on Freedom, Exploitation, and Justice*, New Brunswick, NJ: Transaction.
- Grieson, Ronald E., editor. 1976. *Essays in Urban Economics and Public Finance in Honor of William S. Vickrey*, Lexington, MA: D. C. Heath.

- Hazlitt, Henry. 1979. *Economics in One Lesson*, New York: Arlington House Publishers.
- Hoff, Trygve J.B. 1981. *Economic Calculation in a Socialist Society*, Indianapolis: Liberty Press.
- Hoppe, Hans-Hermann. 1989. *A Theory of Socialism and Capitalism*, Boston, MA: Kluwer Academic Publishers.
- Hoppe, Hans-Hermann. 2001. *Democracy - The God That Failed: The Economics and Politics of Monarchy, Democracy, and Natural Order*, Rutgers University, N.J.: Transaction Publishers.
- Klein, Dan, Majewski, J., and Baer, C. 1993. "From Trunk to Branch: Toll Roads in New York, 1800-1860," *Essays in Economic and Business History*, pp. 191-209.
- Klein, Dan and Fielding, G.J. 1992. "Private Toll Roads: Learning from the Nineteenth Century," *Transportation Quarterly*, July, pp. 321-341.
- Klein, Peter G. 1996. "Economic Calculation and the Limits of Organization" *Review of Austrian Economics*, 9(2), pp 3- 28.
- Lemennicier, Bertrand. 1996. "La Privatisation des rues," *Journal Des Economistes Et Des Etudes Humaines*, Vol. VII, No. 2/3, June-September, pp 363-376.
- Long, Roderick. 2004. "Libertarian Anarchism: Responses to Ten Objections" <http://www.lewrockwell.com/long/long11.html>
- Mises, Ludwig von. 1975[1933]. "Economic Calculation in the Socialist Commonwealth," in Hayek, F.A., ed., *Collectivist Economic Planning*, Clifton, N.J.: Kelley.
- Mises, Ludwig von. 1981 [1969]. *Socialism*, Indianapolis: LibertyPress/LibertyClassics.
- Mohring, Herbert. 1964. "The Relationship between Optimum Congestion Tolls and Present Highway User Charges," *Highway Research Record*, 47, pp. 1-14.
- Mohring, Herbert. 1970. "The Peak Load Problem with Increasing Returns and Pricing Constraints," *The American Economic Review*, 60(4), September, pp. 693-705.

- Mohring, Herbert. 1975. "Pricing and Transportation Capacity," in *Better Use of Existing Transportation Capacity*, Special Report 153 (Washington: Transportation Research Board, 1975), pp. 183-195.
- Mohring, Herbert. 1983. "The Singapore MRT: What Price a Large Central-Area Work Force?" *Suara Ekonomi*, 20, pp. 9-16.
- Mohring, Herbert. 1985. "Profit Maximization, Cost Minimization, and Pricing for Congestion-Prone Facilities," *The Logistics and Transportation Review*, 21(1), March, pp. 27-36.
- Mohring, Herbert. 1997. "Congestion Costs and Congestion Pricing," (with David Anderson), in David L. Greene, Donald W. Jones, and Mark A. Delucchi, editors, *The Full Costs and Benefits of Transportation*, Heidelberg: Springer Verlag, 1997), pp. 315-336.
- Mohring, Herbert. 1999. "Congestion," in Jose Gomez Ibanez, William B. Tye, and Clifford Winston, Editors, *Essays in Transportation Economics and Policy: A Handbook in Honor of John R. Meyer*, (Washington: Brookings Institution), pp. 181-222.
- Mohring, Herbert. 2006. "Congested Roads: An Economic Analysis with Twin Cities' Illustrations" in *Street Smart: Competition, Entrepreneurship and the Future of Roads*. Gabriel Roth, ed. Rutgers, N.J.: Transactions Publishers; pp. 141-170.
- de Molinari, Gustave. 1977. *The Production of Security*, New York: Center for Libertarian Studies.
- Moore, Stephen. 1987. "Privatizing the U.S. Postal Service," in Stephen Moore and Stuart Butler, eds., *Privatization*, Washington: Heritage Foundation.
- Moore, Thomas G. 1990. "The Federal Postal Monopoly: History, Rationale, and Future," *Free The Mail: Ending the Postal Monopoly* ed. Peter J. Ferrara. Washington, D.C.: CATO Institute.
- Osterfeld, David. 1992. *Prosperity versus planning: how government stifles economic growth*, New York : Oxford University Press.

- Pasour, Jr., E. C. 1983. "Land-Use Planning: Implications of the Economic Calculation Debate," *The Journal of Libertarian Studies*, Vol. 7, No. 1, Spring, pp. 127-139.
- Pigou, Arthur, C. 1932 [1920]. *The Economics of Welfare*, 4th ed. London: Macmillan.
- Poole, Robert W, Jr. 1988. "Private Tollways: Resolving Gridlock in Southern California." Policy Study 111, May; Los Angeles: Reason Foundation; <http://www.reason.org/ps111.pdf>.
- Poole, Robert W, Jr. 1996. "Privatizing Wisconsin's Interstate Highways." Policy Study 203, April; Los Angeles: Reason Foundation; <http://www.reason.org/ps203.html>.
- Priest, George. 1975. "The History of the Postal Monopoly in the United States," *Journal of Law and Economics*, Vol. 18, No. 33, pp. 33-80.
- Reynolds, Morgan O. 1998. "The Impossibility of Socialist Economy," *The Quarterly Journal of Austrian Economics*, Summer, 1.2, pp.29-43.
- Robbins, Jay Chris. 2000. "The Post Office and E-Commerce." September 15; <http://www.mises.org/story/506>.
- Roberts, Ted. 2005. "Postal Commissars to Raise Rates. Don't Complain." May 2. <http://www.mises.org/story/1812>.
- Rockwell Jr., Llewellyn H. 2002. "Can the Market Deliver Letters?" December 17. <http://www.mises.org/story/1119>.
- Roth, Gabriel. 1966. *A Self-financing Road System*, London, England, The Institute of Economic Affairs.
- Roth, Gabriel. 1967. *Paying for Roads: The Economics of Traffic Congestion*, Middlesex, England: Penguin.
- Roth, Gabriel. 1987. *The Private Provision of Public Services in Developing Countries*, Oxford: Oxford University Press.
- Rothbard, Murray N. 1973. *For a New Liberty*, Macmillan, New York.
- Rothbard, Murray N. 1982. *The Ethics of Liberty*, Humanities Press, Atlantic Highlands, N.J.

- Rothbard, Murray N. 1991. "The End of Socialism and the Calculation Debate Revisited," *Review of Austrian Economics*, 5(2), pp. 51-70.
- Semmens, John. 1987. "Intraurban Road Privatization," *Transportation Research Record* 1107.
- Stringham Edward P. and Nicholas A. Snow. 2008. The broken trailer fallacy: Seeing the unseen effects of government policies in Post-Katrina New Orleans." *The International Journal of Social Economics*. Vol. 35, No.7; pp. 480-489.
- Spooner, Lysander. (1870) 1966. *No Treason*, Larkspur, Colorado: Ralph Myles, <http://www.lysanderspooner.org/notreason.htm>.
- Tinsley, Patrick. 1998-1999. "With Liberty and Justice for All: A Case for Private Police," *Journal of Libertarian Studies*, Vol. 14, No. 1, Winter, pp. 95-100.
- Vickrey, William S. 1959. Statement on the pricing of urban street use. Hearings: U.S. Congress, Joint Committee on Metropolitan Washington Problems, pp. 466-77.
- Vickrey, William S. 1963. "Pricing in urban and suburban transport." *The American Economic Review*, Vol. 52(2), pp. 452-65.
- Vickrey, William S. 1969. "Congestion theory and transport investment." *The American Economic Review*, Vol. 59, pp. 251-60.
- Vuk, Vedran. 2008. "Taking advantage of disaster: misrepresentation of housing shortage for political gain." *The International Journal of Social Economics*. Vol. 35, No. 8, pp. 603-614.
- Wittman, Donald. 1982. "Efficient Rules in Highway Safety and Sports Activity." *The American Economic Review*, Vol. 72, No. 1, pp. 78-90. March.

FEDERALISM IN ATLANTIS

Charles B. Blankart and Erik R. Fasten^{*}

Abstract

European federal systems are under reform. Italians are deliberating to have a regional chamber on the federal level. Germans try to separate federal and state/local tasks. The British reformed the financing of the sub-central governments. In practice all these reforms imply extended legal effort, which makes it difficult to find a common denominator appropriate to evaluate all of them. In order to give a comprehensive view, we exploit a parable as an intermediate level of abstraction encompassing the different institutional characteristics. We show that many of the institutional complexities disappear and the proposed reforms can be evaluated in a straightforward manner. Moreover we show empirically, that in most OECD countries devolution tendencies are ongoing, which increase the state/local share of government activity. However, this is not always accompanied by the full reallocation of political powers.

^{*} Charles Beat Blankart is Professor of Economics at the Humboldt University of Berlin. E-mail address: blankart@wiwi.hu-berlin.de

Erik R. Fasten is assistant to Professor Blankart. E-mail address: fasten@wiwi.hu-berlin.de

1. Introduction

European federal systems are under reform. Italians are deliberating to have a regional chamber on the federal level. Germans try to separate federal and state/local tasks. The British reformed the financing of the sub-central governments. They all share the view that federal reforms might enhance the political performance.

As the institutional foundations differ substantially within Europe, a common denominator is essential to assess reform requirements and political recommendations. Therefore, we use a parable as an intermediate level of abstraction to shade light on the fundamental shortcomings in many political systems within Europe. Moreover we show empirically, that also in most OECD countries devolution tendencies are ongoing, which increase the local share of state activity. However, this is not always accompanied by the full reallocation of powers. The two parts of the paper are organized as follows: A model of the society in Atlantis describes the evolution of coordination problems and possible loopholes to circumvent sustainable public policies. The second part provides evidence from OECD countries showing an increasing appetite for decentralization, which is not always accompanied by a transfer of responsibilities and transparency.

2. The Model

In a market economy large firms co-exist along with small firms. Both, General Motors and Mr. Grocer around the corner, can survive on their own, the former because it benefits from economies of scale, the latter because he exploits economies of specialization. They practice the law of division of labor on different scales. This simple observation was once made by the inhabitants of Atlantis, a large remote island in the Atlantic Ocean far beyond the Pillars of Hercules.

The islanders thought that their observation about the industrial structure in a market economy can serve as a blueprint for the organization of government in their state. They decided to have three layers of government: a national government

responsible for large scale services which should co-exist along with several medium sized regional or provincial governments and many specialized local governments. These governments should, similarly to firms, be self-responsible for their profits and losses and for their assets and debts. A necessary condition for self-responsibility is that constituents of a jurisdiction are organized according to the principle of institutional congruency, i.e. that the circles of beneficiaries coincide with those of the decision makers and those of the tax payers so that no one can live on the costs of his neighbors. Institutional congruency serves as an important benchmark allowing for an evaluation of the interdependencies of all political actions (Blankart, 2008). As the islanders' state had three such layers, they called it a federal state.

Under institutional congruency citizens of each unit are free to organize themselves and to determine the kind and amount of public goods and services they require. They benefit from the division of labor across the different federal layers since higher level governments may enact legislations that are executed by lower level governments for an appropriate compensation. A national inhabitants' registration system e.g. has not necessarily to be produced by the national government; it can also be administrated by local governments, which are compensated by the federal government. Services whose benefits overlap the political border of a government can be provided by co-operation. Ten governments, e.g., may run a common opera house or a common football stadium. Similarly overlapping environmental problems and other externalities may be handled. Some tasks might also be fully carried out by the federal government, e.g. national defense and foreign policies.

2.1. The Dangers of Megalomania

Under these principles the citizens of Atlantis had a good time for many years. But one day, a political entrepreneur named Mega appeared who promised an ambitious reform in order to bring Atlantis ahead as he said. He offered himself as a tax collector for the lower level governments as this should save costs and promised to redistribute the revenues among the provinces and local

communities in an equitable way so that every jurisdiction shall receive its fair share. Some governments were against, some hesitated, but eventually they all agreed, and Mega was elected in a national election. Mega, however, had its own ideas on how to redistribute public money among sub-central governments. He took parts of the money under his discretion and allocated it to maximize the electoral support of his political party to ensure the re-election for the next legislative period. Accordingly, provinces were receiving funds, whose electorate was just at the edge of voting for or against Mega's party. The rest of the money was left to the provincial and local governments.

But how should they distribute the remaining money? The sum of their budget claims exceeded by far the total means. Why? The islanders missed that they have changed the rules of the game when they departed from budgetary self-responsibility to a system of vertical fiscal imbalance with all tax revenues flowing in a common tax pool. The evaluation of costs and benefits of own means has been replaced by a greyhound race for common means.

2.2. Regulating Regulatory Failures

In order to cancel these demands they agreed to set up a second parliamentary chamber; the house of provinces. All important federal laws had to pass the national parliament and the second chamber. This had two effects. On the one hand it became more difficult for Mega's government to attract means and competences. Double majority worked as a filter. On the other hand the second chamber opened provincial and local governments a channel to feed their interests into federal legislation. An important interest was the universal service legislation aiming at a standardization of public services and service quality all over the country in order to reduce fiscal competition among sub-central governments. Additionally, a consolidation of local jurisdictions should increase cost effectiveness and realize economies of scale. Standardization had moreover the purpose of "rising rivals' costs". As not all provincial and local governments could afford the imposed standards, a system of fiscal equalization had to be established through which the rich governments paid to the poor

governments, which generated disincentives for effective policy to both, payers and receivers.

While fiscal equalization should cushion the harshness of interjurisdictional competition, governments noticed after a while that competition has not become softer but fiercer. Standardization reduced the opportunities of specialization in market niches which traditionally served as shelters for the seed of innovations in government, e.g. in new school systems, new methods of health care, new arrangements for environmental protection, new welfare systems etc. Competition among governments, in contrast, became more unidimensional and therefore more vulnerable for destructive competition.

Another problem was population decline. Standardized services were usually targeted at full costs for a certain level of operation, e.g. for a region with ½ million inhabitants. But when population declined and the decline was concentrated in particular regions of Atlantis, fixed costs remained high and resulted in financial distress of local governments. As the central government was held responsible for costly service standards, which were decided in good times, it was also held responsible for guaranteeing the local government's financial survival now. It had to expand the fiscal equalization scheme burdening even more the prosperous provinces. Additionally it had to borrow from future generations and take on public debt, which was steadily increasing.

2.3. Comparative Federalism and Deregulation

Now it became clear that the departure from institutional congruency and self-responsibility brought a political economic rigidity into the federal state, which was, on the whole, destabilizing. The citizens of Atlantis realized that a fundamental reform was required. They set up a delegation to visit and to consult their neighbor governments in order to observe the differences between political systems. The British in the North tried two opposite roads. On the one hand they gave expenditure autonomy to their provinces Scotland, Wales and Northern Ireland by allocating increments to last year's budgets based on population shares (Gallagher, 2007). Local governments, on the other hand,

were taken away their own financial resources and were put under strict control of the central government under the Thatcher regime (Chisholm, 2002). The French created an intermediate regional level of government encompassing several departments, which did not have its own tax autonomy (Sturm and Zimmermann-Steinhart, 2005, pp. 163). Some taxing sovereignty has only been given to the local governments, which made extensive use of it. The Germans made a reform in two steps. In a first step they disentangled the competences of the federal and the Länder governments. Especially the number of joint responsibilities in higher governments was reduced in order to clarify who has to pay for what. In a second step of the reform the budget discipline of the Länder should be reinforced. They should be restricted by budget ceilings to limit their deficits. Here, the general aim of the still ongoing reform is, however, not to grant more self-responsibility to the Länder, but rather to reduce their autonomy by imposing balanced budget regulations controlled and possibly also sanctioned by the central government (Blankart, 2008).

The delegation returned to Atlantis and reported to their national assembly what they had seen. The islanders were disappointed of all three reforms and irresolute. Then an elder citizen raised his hand and said: When I was young we had a simple system, which we called self-responsibility. National, provincial and local governments decided in autonomy and paid for their own affairs. Federalism was a big laboratory for institutional experimentation and innovation. New ways of public service provision were tested by pioneering governments, and later adopted by other governments in case of success. Thereby organizational progress was generated and we were far ahead of most other countries. The citizens of Atlantis decided to return to these rules. They were included in the Constitution and thereafter people were sure, that politicians such as Mega would no more be able to upset the federal order.

3. OECD Experiences

As the citizens of Atlantis, many scholars and recently also politicians began to appreciate the efficiency borne by

decentralized local government tasks. Especially in Europe, but also in many other industrialized and developing countries, devolution tendencies increased during the last decades. Competencies and tax raising powers have been transferred from the central to the subnational governments. The reallocation is undertaken in order to promote efficiency and transparency in the public sector, as it is suggested in the parable. Remarkably, not merely multi-tier systems are subject to devolution, but also centralized states, e.g. the UK, increased their fiscal autonomy on the sub-central level. On average, the OECD countries increased their local revenues by 8.1 percent from 21.9 to 30.0 percent of consolidated general government revenues between 1970 and 2001 (excluding social security). 17 out of 22 countries have nowadays higher degrees of decentralization (Stegarescu, 2005). In the same time period, local expenditures increased from 24.9 to 31.2 percent. In the EU15 countries fiscal decentralization hiked even more from 18.1 to 26.2 percent on the expenditure and 14.5 to 24.4 percent on the revenue side. The pure expenditure or revenue levels do not necessarily reflect the level of autonomy by local authorities, as the central government might restrict the allocation and hinder an autonomous decision-taking of local jurisdictions. Remarkably, the degree of tax revenue autonomy of sub-central governments did not differ significantly over time in most OECD countries (Stegarescu, 2005). Therefore, it is advisable to review the allocation procedure of local tax revenues to ensure autonomous decision-making. Moreover, a consolidation of local jurisdictions is often discussed to increase cost effectiveness and economies of scale. It is argued that larger jurisdictions deliver public goods for lower per capita or unit costs and improve equity. Empirically, local government size varies widely across countries, with an average population of about 126 thousand inhabitants in the United Kingdom to an average of about 1.500 in France or the Czech Republic. Reforms to establish larger jurisdictions were undertaken e.g. in the Nordic countries, even though Denters (2002) confirms empirically a negative correlation between trust of citizens in local government policies and the size of local jurisdictions, since people in small jurisdictions are more satisfied with their local governments than people in larger jurisdictions. Competition between jurisdictions is annulled, which usually offers

“positive efficiency benefits” (Fox and Gurley, 2006). People in smaller jurisdictions have lower exit costs and might vote “with their feet”, as proposed by Tiebout (1956) and therefore limit the size of the government. Hence a consolidation might increase cost efficiency, but at the same time decrease competition between jurisdictions, which outweighs the positive effects.

To conclude, it is essential for policy-making in Atlantis and other countries in the world to ensure institutional congruency and clear responsibilities of decision makers in order to establish sustainable and efficient public policies. Most countries in the OECD are undertaking reforms aiming at more decentralized government structures, which not necessarily share the desired level of autonomy and transparency.

References

Blankart, Charles B. (2008), *Öffentliche Finanzen in der Demokratie*, 7th Edition, Munich: Vahlen.

Chisholm M. (2002), "The cost of local government structural reorganisation in Great Britain during the 1990s", in: *Environment and Planning C: Government and Policy* 20(2), pp. 251 – 262.

Denters B. (2002), "Size and political trust: evidence from Denmark, the Netherlands, Norway, and the United Kingdom", in: *Environment and Planning C: Government and Policy* 20(6), pp. 793 – 812.

Fox, William F. Fox and Tami Gurley (2006), “Will Consolidation Improve Sub-National Governments?”, *World Bank Policy Research Working Paper* 3913.

Gallagher, Jim (2007), “Financing Sub-National Government in the United Kingdom. A Pragmatic System, Based on Expenditure“, working paper presented at the Conference “Die zweite Stufe der Föderalismusreform” in Cadenabbia on October 21, 2007.

Stegarescu, Dan (2005), “Public Sector Decentralisation: Measurement Concepts and Recent International Trends”, in: *Fiscal Studies* 26 (3), pp. 301–333.

S Sturm, Roland and Petra Zimmermann-Steinhart (2005),
Föderalismus, Baden-Baden: Nomos.

Tiebout, Charles M. 1956, "A Pure Theory of Local Expenditures",
in: *Journal of Political Economy* 64, pp. 416-424.



Centre for the New Europe
23 rue du Luxembourg
1000 Brussels, Belgium
phone: +32 2 506 40 00
www.cne.org