

Complex Solutions to Simple Problems

The radical revision of the annual vehicle license (now known as the circulation tax) in the last Budget was promoted by government as an eco-measure that attempts to apply the “polluter pays principle” and one that “takes into consideration smoke emissions and traffic congestion” (3 December). Earlier on, Minister Tonio Fenech said that “the new circulation tax was based on CO2 emissions and on the actual size of the vehicles” (18 November). The age of the vehicle was also one of the factors that was taken into consideration in the calculation of the tax, but it seems that this is now being revised.

From the above statements it is not clear whether the circulation tax seeks to address CO2 emissions or smoke (read as toxic) emissions, or both. One should point out that there is absolutely no relation between CO2 emissions and smoke (or toxic emissions) and I expect the authorities concerned to appreciate this basic fact and take it into consideration when preparing national policies.

A car engine can emit huge amounts of one type of emission and none of the other. A brand new, high-powered car will inevitably emit lots of CO2 but will emit very small amounts of toxic gases. Measures used to address one type of pollution therefore cannot unconditionally be used to address a completely different type of pollution. Unfortunately, while attempting to kill two birds with one stone, the circulation tax fails miserably in addressing either.

In an effort to calculate CO2 emissions from vehicles, the Ministry’s officials appear to have used an overly complicated formula that takes into account the age of the vehicle and the engine capacity. There is a fundamental flaw in this reasoning and it is amazing how after months of deliberations such blatant mistakes pass unnoticed by all and sundry.

Any car, irrespective of how old it is or how large its engine, will only emit CO2 if it is in use – that is, if its engine is running. Therefore, given that it is impossible for government to predetermine whether a car will be used frequently or not, it is futile and indeed unfair to tax a vehicle on the incorrect assumption that the car is being used 7 days a week, 365 days a year.

Indeed, the circulation tax as proposed fails to discriminate between those users that use their cars extravagantly (the bigger polluters) and those that use their car sparingly (like pensioners and environmentally-conscious individuals), and therefore it will be counterproductive in curtailing the use of the private car and the emissions emitted thereof.

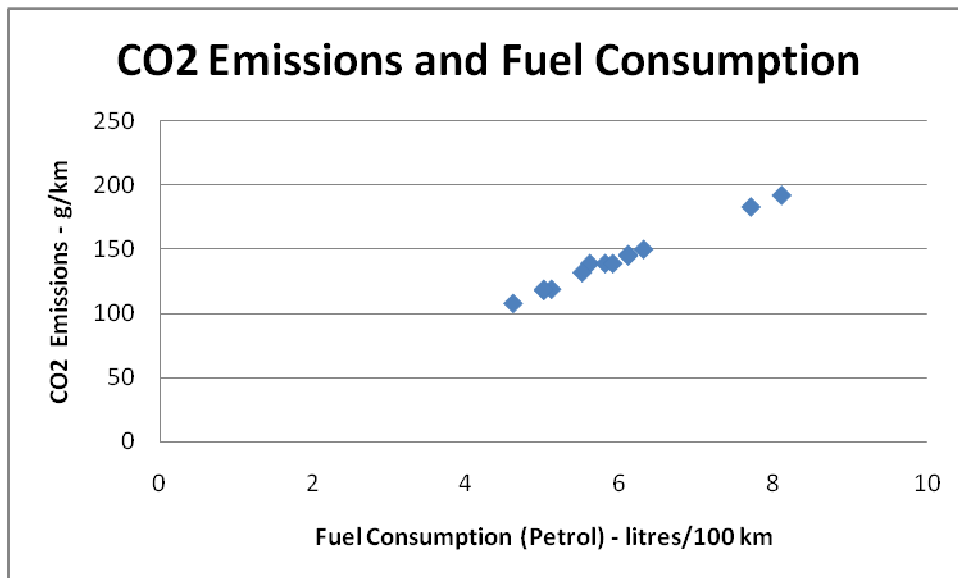
Out of interest, I used car manufacturers’ data from a motoring supplement distributed with one of the Sunday’s papers, and plotted a few graphs. Interestingly, for all vehicle types (diesel and petrol) and all models with varying engine sizes, CO2 emissions are directly proportional to fuel consumption (Graph 1). This implies that fuel consumption can be used to provide an accurate basis for computing CO2 emissions and any eco-tax devised to penalise same.

On plotting emissions against engine capacity (which the Ministry used as the basis for computing emissions) the graph goes haywire (Graph 2), clearly showing that there is no correlation between the two. This was to be expected, because the efficiency of cars does not depend on their engine size. But this fact seems to have gone unnoticed by the Ministry and its consultants.

In summary, if government wanted to tax CO2 emissions (and applied the polluter pays principle in a fair and equitable manner) it should have taxed fuel, no more and no less. If government wanted to control toxic emissions it should improve the VRT process, and increased roadside emission tests. Unfortunately, what we have in place is a tax, which (as its predecessor, the infamous eco-contribution scheme of 2005) does nothing to reward eco-friendly behaviour and to control emissions, of one type or another. When complemented with the measure that decreased car registration costs for all cars up to a massive 2499cc (which will result in an increase in the importation and use of the private car), we have but a recipe for disaster.

One has yet to see what formula will be used in computing the circulation tax for commercial and heavy vehicles which is still being devised and which the Minister has admitted to being much more complex than for private vehicles. If the Ministry made such a hash of what was supposedly a straight-forward situation, I shudder to think what they will come up with this time round.

Graph 1



Graph 2

