

## **ROAD SAFETY COMMITTEE**

### **Inquiry into federal-state road funding arrangements**

Melbourne — 12 April 2010

#### Members

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Mr D. Koch

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#### Witnesses

Mr D. Jones, regional manager for Victoria, Tasmania and New Zealand, and,

Dr D. Tsolakis, chief economist congestion, freight and productivity, ARRB Group.

**The CHAIR** — Thank you very much for being here today to assist the Road Safety Committee's inquiry into federal-state road funding arrangements. As you can see, we are recording the evidence taken today, and we will give you a copy of the Hansard transcript as soon as we can, so you can make changes as appropriate. Please start off by introducing yourself and proceeding with your presentation; we will ask questions as we go, if that is okay.

**Mr JONES** — Thank you very much for the opportunity to speak to you all today. I will start off by introducing myself. My name is Dave Jones. I am the regional manager for ARRB, which was created in the 1960s as the Australian Road Research Board. Dimitris, could you please introduce yourself?

**Dr TSOLAKIS** — My name is Dimitris Tsolakis. I am the chief economist of the organisation. I am here to address some of your questions, and hopefully I will be able to give you some useful information.

**Mr JONES** — We welcome being interrupted; that is not a problem. We are certainly pleased to answer questions or get back to you with more information. Road transport is a very diverse issue, and we do not claim to be experts in everything. ARRB was created in the 1960s as Australia's national transport research organisation. We are headquartered in Melbourne, out of Vermont South. We now have regional offices across Australia, ranging from small 1 to 2-person operations to 20 to 30 people per office. There are several hundred staff here in Melbourne.

We are a not-for-profit organisation whose members are Australia's state road authorities, including VicRoads, the Roads and Traffic Authority, Main Roads WA et cetera, the Australian Local Government Association and the New Zealand Transport Agency. We deliver an about \$7 million national research program which covers road safety, pavements, bituminous surfacings, transport economics and transport operations. The funding for the national research program is provided by the state road authorities — or the members — to Austroads which then passes it to us as part of a research agreement rolling program. Besides delivering the Austroads research program, we also directly advise Australian, state and local governments and other private organisations, including toll road operators and heavy vehicle operators, about specific issues relating to their operations or businesses which are not in the national interest as such or do not fit within the national research program.

I think you will probably want to talk more about economics and state and federal funding, so I will hand over to Dimitris to run through our presentation. As I said, I am sure he will be happy to answer your questions as they arise.

**Dr TSOLAKIS** — Thank you, Dave. I am happy to present my thoughts, and I have put together a few summary points, but this does not mean that I know this is exactly what you are looking for, so please interrupt, ask for clarification or ask questions at any time. I have a few slides, but we do not necessarily have to go through them all if you are not getting the right information.

#### **Overheads shown.**

**Dr TSOLAKIS** — The information that we have is in terms of the questions that you have been asking. The most prevalent areas were that you want to know more about the current federal-state funding arrangements, what some of the changes are that could be expected, if we are able to compare to see what the advantages and disadvantages may be, and if there are some changes, what can be done to help in that direction.

We have arrangements that have been there for a long time. These arrangements started with all good intentions. There always are good intentions. There is a commitment to do something to look after the national road network, and these arrangements help to provide certainty to the funding for the different players to be able to do their jobs.

I am pretty sure that you are aware that a large amount of money is collected by the federal government from fuel excise; for example, in 2006–07 this was about \$9.1 billion. It is something that ARRB looked at about five years ago. We looked at the balance between revenues and expenditures. We were forecasting to 2010–15, so I am not surprised to see these numbers. We know the indexation of fuel excise stopped some time ago, and because of the changes this revenue has been diminishing and diminishing.

The other point is that while the federal government raised \$9.1 billion, over the same period — in those two years 2006–07 and 2007–08 — their contribution to land transport funding was under \$3 billion. There is an

issue of the fuel excise being a source of general revenue, and that has been there for a long time. It probably started differently at the very beginning, but it ended up being a source of general revenue for many good reasons. But sometimes that is not clear in the way that industry and other participants or players look into that.

**Mr WELLER** — When it comes to road funding, you just said ‘for many good reasons’. What are they good reasons that we are only getting \$3 billion out of \$9 billion?

**Dr TSOLAKIS** — Because the federal government wants general revenue for many other things as well. Fuel excise has always traditionally been a very good source for that revenue. The federal government has taken responsibility for what we call the national highways and roads of national significance, and then there are expectations that the states are going to raise their own revenue to look after the state roads. Of course then we have got the local government roads, for which both are trying to provide funding in many different convoluted kinds of ways. When I say good reasons it is if this is a good source of revenue and the federal government wants to make it partly for transport and partly as general revenue and it is transparent and clear, I think people will understand that.

At the moment it is not, and a lot of industry, for example, will say, ‘You are going to price roads, but this is going to be well above what we are already paying’ and they point to these numbers. We are already paying \$9 billion, why should we pay more? And there is a lot of confusion about that.

**Mr KOCH** — Did ARRB make a submission to the Henry report, suggesting that we may grow the percentage of revenue back from the fuel excise directly for road purposes, and if not, why not?

**Mr JONES** — We did not make a submission, and I am not sure why not.

**Mr KOCH** — You did not — that was an assumption of mine. It was indicated to us in Western Australia in our recent briefing over there that if the funding through the fuel excise went from 30 per cent to 50 per cent, which is only another 6 cents per litre, in actual fact the funding for our roads would be satisfied for the foreseeable future. I raise that, from your own group’s point of view — and I am sure you are very aware of this stuff — and on those grounds where we see user charges being introduced, I would have thought to administer this one would be far easier to manage if the percentage was raised and offering that opportunity. I would be interested to know what your thoughts are on that versus what we have just heard from Dimitris now.

**Dr TSOLAKIS** — Very quickly, if we look at the numbers, for example, for these years, the latest numbers that we have, all the levels of government raised about \$16.23 billion and we spent, over the same period, about \$13 billion for all the funding needs for roads, so here we are also with a \$3 billion surplus. However, \$6 billion of that revenue, of the excise revenue, is not coming to us, so we really have to adjust for that. If we adjust for that, if we assume that \$13 billion is what we need for all the road needs, we do not have the \$13 billion.

I agree with you: if you have a system that despite all its shortcomings, it is well understood and well known, people can use that system or change it...

**Mr KOCH** — And easily administered.

**Dr TSOLAKIS** — Yes, and that is fine, but the way it is at the moment, it is not really doing exactly what you want it to do.

**Mr KOCH** — I appreciate that. It is about how to get it to a stage where it will provide what we see would be a sensible funding regime Australia-wide, not just Victoria, to meet the challenges in front of us. We have got to find some other funding streams over and above what are there at the moment, and we have got to look at the best opportunities, opportunities that require the least management because that is always a huge cost in distribution of these funds, and this one is sitting there. I am interested that firstly you indicated that you have not made a submission, but secondly if you had, this would not have been a high point.

**Dr TSOLAKIS** — Sure. I have a couple of slides which go more into those points because, as an economist I would like to add to that, if we keep it, we would not be able to change it from being a very blunt policy instrument for meeting these needs, for really doing what we want to do. It would still be a blunt policy instrument, and because of that it would have certain inefficiencies in it as it has now.

Then the question is: is this an opportunity if we decide to do something different? If we decide to do something which is closer to where we are today, are there opportunities to make a better system, a system which has better signals for the user and for the agencies, so we increase the efficiencies and minimise some of the inadequacies in the system?

Very quickly you will see that the big source for the states is vehicle registration fees and stamp duty — \$6 billion in 2006–07 — but it is a blunt policy instrument because I pay my registration once a year and I drive every day. Is car registration giving me a good signal as to how much I drive or how much I control?

The idea of transparency in those mechanisms is what I said earlier — in other words, the mechanisms are a bit convoluted so if we decide to keep it, because it is a good system, then we do need to maybe increase the transparency, and we need better mechanisms because the links that exist between the way we raise the revenue and the way that we spend it are very weak and almost non-existent, so we need to really do something there.

It is also costly because of its complexity so here the question is: do we simplify that to make it more efficient or do we replace it with a system which has smaller costs and is more efficient? The idea of doing that, and that second last point is not because I am a researcher or I am a person using numbers, but there are — and ARRB has done a lot of work — a lot of opportunities to use the data that we have and generate some more and it will help us to have a much clearer view of what we have, what the networks are, what the needs of those networks are and what the demand is and to be able to then not only say that we have enough money to cover all these needs but to be able to distribute the funds that we have so that it is done in an efficient way.

And, as I have already alluded to, the current arrangements do not encourage efficiency both in the supply and the demand side of things because, as we see, they are very blunt instruments.

Economists and engineers for a long time have been looking into those numbers. They have been doing the numbers, and they can see that, because of the signals we give to all of us, we do tend to travel in excess. In other words, the price that we perceive it costs us and the community is lower than it should be in that we tend to overuse the system. We need something there to redress that.

**The CHAIR** — We also need to combat, for example, like in that period when petrol prices went from 90 cents a litre to \$1.60 a litre, we saw droves of people leave their cars and walk to the milk bar instead of driving their cars to the milk bar.

**Mr KOCH** — Ride a bike.

**The CHAIR** — And what happened then was that droves of people inundated the public transport system, which then burst at the seams. In having said that, we need a plan B in terms of once you give the right signals about use or lack of use then you need to accommodate that shift in motor transport.

**Mr JONES** — Sure.

**The CHAIR** — And so allocated funding needs to be taken into consideration.

**Dr TSOLAKIS** — Yes, and I am going to show a little bit of that where some of the alternatives would help us in addressing the balance.

What I mean there by high transaction costs is if you look into the numbers, you will see that sometimes it costs a bit too much to raise each of those dollars. There are other methods which we have not applied here but we saw a number of examples around the world which may allow you to raise these dollars with a smaller cost. It is true that most of these arrangements are driven by political decisions rather than the actual supply-and-demand mechanisms that exist.

**The CHAIR** — That is true again, because at the moment the current arrangement for funding from the federal government to local government is not tied to road safety. It goes into general revenue. The council of the day is obviously just as economically challenged as any other tier of government. They have to make a political decision about where they could that direct money, which is supposed to go directly to road safety, to go. It is a political judgement that local government makes at the moment under the current arrangements.

**Dr TSOLAKIS** — That is what I mean by the mechanism not being very transparent. We need more transparency. That creates inequities in the system: inequities between levels of government, inequities between groups of users and industry. There is also a lack of consistency in vehicle charging mechanisms because the NTC and the ATC have been developing different sorts of schemes but they have all been in lieu of having a proper system which charges vehicles according to how much damage or cost they cause to the community. But it is done in a way that is not a proper pricing or charging mechanism which creates a lot of distortion, a lot of inequities. The current system is moving in that direction but we really have not got to that point yet.

**Mr TILLEY** — Dimitris, are you specifically talking about a performance-based system?

**Dr TSOLAKIS** — Yes, it is what the NTC is trying to do: the incremental pricing, the pay-as-you-go system they use. These are not classical pricing schemes. They are charging mechanisms which are based on data and simplistic sorts of formulas. They can raise a total amount of revenue but they can create distortions between the different users. The NTC has been trying to perfect the system to get the data and get the analysis to the point where they know exactly who is paying what.

**Mr TILLEY** — So effectively some of the outcomes from PBS can be safety over the bottom dollar over performance.

**Dr TSOLAKIS** — And PBS in a sense has a lot of characteristics in there. We talk about productivity, we talk about safety. PBS has to do with a special class of vehicles. It is not really the broader — what we have here — arrangements which really provide the discipline of how much money we have and how much we spend.

**Mr TILLEY** — But that is not to say that those vehicles that are claimed to be innovative cannot be tomorrow's standard vehicle.

**Dr TSOLAKIS** — You are right. And within a proper system we will probably do exactly that.

**The CHAIR** — PBS, just for the record, is performance-based system.

**Dr TSOLAKIS** — Performance-Based Standards.

**The CHAIR** — Standards, sorry. This is what the NTC has been developing for those new B-doubles, B-triples — those bigger vehicles which have a lot of productivity advantages.

**Mr JONES** — And safety advantages.

**Dr TSOLAKIS** — And safety advantages, but they are only a special vehicle within the system.

**Mr TILLEY** — In every case, safety? We have seen some collisions in Queensland; we have seen some PBS vehicles come off the road.

**Mr JONES** — There would be no doubt that there are PBS vehicles involved in incidents but without knowing whether it was driver or road or vehicle-related I could not conclude whether it was the PBS system that contributed. But in general it is an outcome-based system of which safety is a foundation. Like all trucks, there are bound to be some involved in incidents for various reasons.

**Dr TSOLAKIS** — It is true. These are real questions. We really need to understand it. We have not really done a lot of the work that is required in order to understand those interactions between heavy vehicles, light vehicles, conflicts and trucks.

I saw in this inquiry there were questions about road user pricing. In other words, is there room for that? Is there a position in the system for that? Is this a new system? Can this be the new system? In theory it can help, and it has the capacity to improve both efficiency and equity. When it is done properly people realise that there are advantages. It is not really an alternative to take this and replace exactly what you have now. It is something that needs to be better understood to see what its position could be in today's world and today's transport systems and how it can help to do things a bit better.

The devil is in the detail with these systems. We need to understand, we need to have good systems, good data and good research to be able to understand what we are doing, because if we do not understand, we can mess it up and the messing up can be costly. We saw examples like London. It was a political decision to move in quickly. There was a bit of an upheaval at the beginning but we have seen that over the years it has really improved and is moving in the direction of showing that a well-designed system can have advantages and can do things better. But is not something that we can use to say, 'Okay, we will raise all the revenue just by doing that and we will pay for all our needs'. However, this also can help us. As I said in that last point, there are good examples from around the world that these systems can help you to improve quite a bit, and you must improve quite a bit your good alternatives. Another good alternative would be the public transport system. If you do not have a good alternative, this system is not good.

**The CHAIR** — I suppose that is true but the demographics of our nation are very different to Europe where things are a lot closer to each other. We have a more spread out urban sprawl. Cycling can be contained to the city area, but when you look at the border of Victoria or even the nation you cannot cycle from Geelong all the way to Melbourne. There are certain restrictions: we are not similar to London or other places. But you are right; we need to think of alternatives.

**Dr TSOLAKIS** — We are not similar. We need to do our own work here to understand.

**The CHAIR** — Unique.

**Dr TSOLAKIS** — This is a system. Road pricing is not just a revenue-raising exercise or mechanism. It can be used only in special situations. But when I say 'special' we have to understand and we have to have good numbers to understand our networks. We know that 20 per cent of the kilometres that we have out there, 20 per cent of the bitumen we have laid out there, is carrying about 90 per cent of the task. There is an issue here of a relatively well-developed part of the network carrying a lot of the task. That can be amenable to this type of thing — price it when it is appropriate in order to give the right signals so we have the balanced amount of use. However, we have to think, as we said, of alternatives like developing public transport so we give people choices, otherwise it is like you are really penalising people. There are a lot of equity issues if you do not have alternatives. We have a lot of access roads and we have to think of those. We have local roads, we have remote communities, we have regional roads. If we are going to do it, they will always remain. There will be always a public good, and the balance between the two needs to be very good otherwise you will mess it up. That is what I mean by messing it up if you do not have the understanding of the numbers right.

This one is good for special occasions, and we use it for special occasions. For example, road pricing is used in cases like CityLink and EastLink here in Melbourne, and it is clear that we had an objective of raising revenue. In other words, we wanted the private sector to come in and build a very nice road and it has an objective to raise the money that it paid for it. It is not really a pricing scheme; it is not really a price that I pay per kilometre or per trip.

**Mr KOCH** — This is all marvellous if the risk is the right way. I look at your slide there and all it says to me is 'Road pricing in the urban area' and every line has congestion in it. I am a regional Victorian. I can take you for a drive and if I can find you a spot in my patch that is congested, none of that even figures with any of this stuff. If you are going to implement road charges, road pricing, it is not about the metropolitan area, it is about the whole state or the whole of Australia. I do not think it is localised to any state from that point of view. I can hear clearly what you are saying in relation to a specific issue, but if I am talking about road funding, I am looking at something that is far more overall and encompassing as an issue.

**Dr TSOLAKIS** — Absolutely.

**Mr KOCH** — That to me is where I see that the administration of a greater percentage of a fuel tax is going to be far easier to manage and administer than a lot of these across every state which are going to cost us an arm and a leg to administer, and a lot of people will not even understand it anyway.

**Dr TSOLAKIS** — You are right. If you take congestion out of that equation, all the other unmet social costs are real, but we are dealing with some of them. The NTC is trying to deal with the damage that is caused by heavy vehicles. We are dealing with the emissions and the amenity by having government policy which encourages better vehicles, better ways of using fuel and all that. Pricing is for those special areas; it is not for everywhere. If you want to raise money from that in order to have better metropolitan systems and you say,

‘Okay. I am going to do it because it is amenable in that environment. I am going to do it for that environment but I will still need to have another mechanism to raise the money I need for non-congested roads’, then you are probably going to have a dual sort of system. If you use this as a blanket sort of system to raise the money to just replace the current arrangement, I do not think that is going to agree with you.

**Mr KOCH** — I could not agree with you more. Regional Victorians have been underwriting public transport systems forever — they will continue to do it and they are happy to do it; there is no argument about that. To switch this right around the other way, through mechanisms such as what you are proposing here, I am just troubled that you would go down this line because it may be an area of interest professionally whereas there are other alternatives to me which are far more basic and common sense. There are known revenues there, and it is a matter of administering them to a greater degree to give us an opportunity in all states but particularly in Victoria to offer greater safety to our road travellers through road funding. That is a pretty basic philosophy from where I sit. At the end of the day to manage and put it in place, I think, trying to encourage treasurers right across the nation to let go a little bit more of the fuel levy is a passage that should be sought.

**Dr TSOLAKIS** — I agree with you. To summarise, if we go back to the current system and make it a bit more responsive, clearer, more transparent, you have a funding mechanism and we have better links between how we raise the money and how we distribute it; we have a funding mechanism. This one (pricing) is great. It increases efficiency for systems if they suffer from high externalities, as we call them — high external costs like congestion, emissions and all that. When we talk about this we mostly refer to metropolitan networks.

We have situations where in Victoria, for example, Melbourne is becoming a centre very close to a number of other centres, three or four other centres like Geelong, Ballarat and Bendigo and all that, so we are going to have a system that is going to start building and having congestion, not only just in Melbourne but in the Melbourne region and those regional centres — the same with Sydney, for example, with Newcastle and Wollongong — so this issue becomes not just a CBD issue but in the way we have got our cities and we are developing them it covers quite a substantial and significant area of the future, and it is something that we need to think about. But I agree with you it is not a panacea; it is not a solution if you want to raise the money that you need to distribute and the way we distribute them today in order to look after your networks.

We do not need to go into the specific mechanisms, but the mechanisms are there. They are used around the world. There are good examples and there are all sorts of different names like the HOT (High Occupancy Toll) lanes in America, like the link pricing, and the reason they are all developed with these pretty names and different names is because you need different approaches to different problems, to different situations.

Those three points, I suppose, summarise the story that I was putting together, which says that what we have got there today can substantially benefit from something. We need to do something. I think there is a great need to do something. It can be done, and there are moves by different states, by the federal government, even by local government associations in developing better systems and dealing with the little money they have got better and improving efficiencies, but the road pricing or the user charging is also an available mechanism. It is something that we have available in our armoury that can help, especially in metropolitan areas. You can do things in metropolitan areas which will help you to have a more price-responsive system. It will help you to develop your public transport systems and all the other sorts of softer systems like cycling networks and so on, so it is not something to be forgotten. It is not something to be rejected just because it can be outside the broader objective of having a funding system.

I think the future funding system could be a combination. The excise from petrol or something else will give us part of the money, and something else will give us the other part of the money that we need to put together in order to have what is required for looking after the road network.

**Mr WELLER** — So that is how you raise the money. How about the process when it comes to dividing up the funding? We had a presenter earlier today who suggested that the funding model should be length times use will equal the funds they get, so some states have a lot more length than Victoria but because we have higher use we get a better share based on that model. Do you think that is the right model to — —

**Dr TSOLAKIS** — It can be made simple — in other words, be tied to something that we all understand, like distance or population.

**Mr WELLER** — But you said before 20 per cent of the roads have 90 per cent of the — —

**Dr TSOLAKIS** — Even with that we can make correct measurements and we charge according to the kilometres that we use, but my preference with the distribution would be to look into what I would call commercial roads or roads that carry a lot of tasks, and it is like a commodity if we use it.

We have many, many kilometres the other 80 per cent which are more access and public roads. We have to have a system that pays for both of them because we need them both. We cannot separate one from the other. We should improve. We have systems where, when we look at how we spend this money, I think it would be good to understand the benefits and the costs of those particular projects, and we should have some sort of a system that, because all these techniques are the same, I think we should be able to apply them across these different areas in a similar sort of way. At the moment they are not. At the moment we have simple formulas which are based on population, so if you have a lot of people, you get more money. We have simple formulas based on distance. If you have lot of kilometres, you get a lot of money. If you do not, there is a lot of disparity in there. Those mechanisms in the system where we secure the funds, they need to be really done better and we can do it better, but we need the data and the research.

**Mr WELLER** — When you say we need to do it better, what is your view of ‘better’?

**Dr TSOLAKIS** — For example, the philosophy of Infrastructure Australia was in that direction of ‘Let’s have a coordinated approach to how we spend all the scarce dollars that we have’, but we know that is not very easy when you come down to state roads and local roads and remote roads, so that is why I am saying you have always to have good reasons to spend money to maintain and rehabilitate and extend the roads that are the blood life of the network — in other words, they are the life of the network, but when it comes to the rest of the money that has to go to the roads that are not bad, how do you distribute that? We need to find better ways, better formulas of doing that, and formulas that are consistent across states, across jurisdictions and across rural areas.

**Mr LANGDON** — Do you have such a formula?

**Dr TSOLAKIS** — The Grants Commission is using a number of such formulas. I do not, but they are using them, and as I say, the key variables that they have mostly been using because it is easy to find the data is population and distance, and NTC started to look into maps and loads, so these are the three key variables that we have been using in the current system, and they make some sense but they are not very useful systems. That is what I am trying to say, but even if we stay with these variables, the simple variable, there must be a better way of just doing this across the jurisdictions or across the network.

**Mr JONES** — Several years ago ARRB did some research, four to five years ago, where we approached a sample of councils across Australia from metropolitan to remote rurals. It was a full range, and we asked them about the traffic volumes on roads that we picked out of their network as a random selection process, and many could not tell us what was happening on their roads, and it came down to an exercise of their guessing. Resource-constrained rural councils will not necessarily know what is happening 20, 30, 50, several hundred kilometres from the council’s offices, and that sort of data is potentially feeding into funding processes as it trickles up or down, and naturally we would be, or anyone would be, concerned about the distribution of funding based upon in the end perhaps guesses or an incomplete understanding of the travel patterns and use of road networks.

Road user charging is certainly, depending on the method of implementation, a means of in some ways monitoring vehicle use and travel. You would know what heavy vehicles might be carrying and are travelling at what time and where, or it could even be held out to light vehicles in the same way, but it would depend upon a mechanism for implementation to get that level of data and robustness in data.

**Dr TSOLAKIS** — I know that some people — and I am one of them — do not really use new technology for the sake of the technology, but we have a lot of technology that we can properly use to do a lot better in this particular area; in other words, there are issues of privacy, there are a lot of other issues, and we need to think about them and resolve them, but if we wanted tomorrow to know exactly which kilometres every vehicle travels and how it does it and what time it is, we can do that, and this is all the data we need to really have better numbers in order to be able to improve those formulas. Easily said, but we have to go through all the other hoops to carry the communities with us, to be able to resolve some of the privacy issues, to be able to pay for this new technology, but they are there. They are coming. They are getting more popular, and that is why I said



earlier there is something here to help us to do even the big exercise better. You will not do the exercise to move from one straight into the other, but there is something there which can help.

**The CHAIR** — Thank you very much for your time.

**Committee adjourned.**