

**—ROAD SAFETY COMMITTEE**

**Inquiry into vehicle safety**

Melbourne—29 October 2007

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**Witnesses**

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Mr P. Griffin, Corporate Manager, External Affairs, Toyota Motor Corporation Australia

Mr D. Soden, Manager, Product Planning, Toyota Motor Corporation Australia

**The CHAIR**—Good morning.

**Mr McGREGOR**—My name is Peter McGregor. I am the divisional manager of product management for Toyota Australia. Doug Soden is my product planning manager, and Peter Griffin—

**Mr GRIFFIN**—Corporate manager, external affairs of Toyota here in Melbourne.

**The CHAIR**—Welcome to the public hearings of the Road Safety Committee's inquiry into vehicle safety. I need to let you know that all evidence taken at this hearing is protected by parliamentary privilege as provided by the Constitution Act 1975 and also the Parliamentary Committees Act 2003, the Defamation Act 2005, and any comments you make outside the hearing may not be afforded such privilege. I will just introduce you to the members. We have Ian Tresize, Paul Weller, David Koch and Craig Langdon, and executive officer Alex Douglas and our research officer David Baker. Having said that I would invite you to make your submissions and if it is okay we will ask questions as we go along.

**Mr GRIFFIN**—What we thought we would do is open with a very brief introduction about Toyota here in Australia and then I will hand it over to Peter and Doug to get into the specifics in regards to the terms of reference and really open it up from that point. First up, Toyota's location's headquarters is based here in Melbourne, also components manufacture, and out at Altona is the manufacturing plant, our engine, panel and foundry plant out there—well, Aurion and Camry manufacturing plant—and also export, a national regional parts distribution run from here. We had a Camry and V6 Aurion introduced in 2006, a model cycle around five years.

Slides shown.

**Mr GRIFFIN**—In Sydney, where Peter and Doug are located, is our sales and marketing operation, industrial equipment, national regional parts distribution, service and technical training and regional sales operation for New South Wales and ACT. We also have regional offices, sales based operations and parts warehouse operations around the country in those locations you see there. From a global point of view, Toyota operates in 27 countries, 53 plants and eight plants make Camry, and in a sense it is those plants that are our chief competition in our quest to attract capital to Australia. Camry manufacturers in the red locations there, Japan, Australia, China, Thailand, Taiwan, Vietnam, two plants in the USA and a new plant being opened in Russia this year.

Toyota Australia performance, you can see a steady increase really in all areas there. Total market, the expectation of the industry is that we will exceed one million units for the first time ever this year. Toyota sales this year are in the vicinity of 230,000 but that excludes Lexus which is part of the Toyota family. If you add Lexus it will probably be in excess of 240,000. Toyota is still the only car company in Australia to exceed 200,000 sales. Locally manufactured domestic sales, our Camry and Aurion, this year are around 53,000 which is quite a significant increase on previous years, although there is still great pressure on the local manufacturing industry. The share of locally made cars in Australia is probably just under 20 per cent now which has been in a steady decline. We have one of the most open and competitive markets in the world and I guess that will probably come up in the discussions later as well.

Toyota is the biggest exporter of manufactured goods, so 95,000 units expectation this year. The main markets are the Gulf Cooperation Council countries in the Middle East. Production this year, a significant increase on 2006. We expect to do around 148,000 vehicles in 2007. New investment which really came to fruition last year with new models is around \$450 million in 2006.

**Mr TRESIZE**—How do you compare in size to your sister companies?

**Mr GRIFFIN**—Well, in the United States, for example, with Camry production they would be making around 500,000 units a year. We do about 147,000 units Camry and Aurion in Australia. They are a reasonable size—in comparison with other countries, for example, from a market point of view, Australia would currently be about number 4 in terms of Toyota markets—USA, Japan, Thailand, Australia. China, of course, is very rapidly filling that gap in that top 5 position. Australia was also one of the first manufacturing locations for Japan, outside Japan. We have been making cars here since 1963.

**Mr LANGDON**—Workforce is stabilised or still growing?

**Mr GRIFFIN**—Pretty much stabilised at around 4½ thousand employees. We have been able to increase production because of efficiencies in the plant, new technology, robotics and so on. The workforce can remain fairly stable but the efficiencies are there with the technology.

**The CHAIR**—Is it possible if we could get a copy of your presentation?

**Mr GRIFFIN**—Absolutely.

**The CHAIR**—Thank you.

**Mr GRIFFIN**—We make Camry and Aurion in Australia, as I said. If we could go forward there, Doug, if we could. In terms of production volumes here in Australia, the yellow is the domestic supply, the red is the export. For 2007 we are looking at 148 but 95,000 export and 53,000 domestically. The challenge we have is to grow the yellow part of that chart, increase our domestic share in Australia.

**Mr LANGDON**—In 98 why was there such a big domestic market then? A new model came out or something?

**Mr GRIFFIN**—That was the Toyota Camry, the wide-bodied Camry.

**Mr McGREGOR**—We have never sold 70,000 domestic sales. That is a typographical error. Our apologies. I can never recall selling 70,000.

**Mr GRIFFIN**—Finally, last slide, export destination, as I mentioned primarily to the Middle East of 95 per cent, the other five per cent going through the Asia Pacific area and the islands, a total export value of about \$1.5 million a year. I wanted to use that by way of context setting for Toyota in Australia. We can now turn to the matter at hand.

**Mr McGREGOR**—The specific issues of the Road Safety Committee. We have put together a presentation that we trust addresses some of the matters raised in the terms of reference. Doug is going to take us through the presentation but, as we have said, if you have any questions as we go through or any discussion on it, we are happy to take them on board.

**Mr SODEN**—If you move along with me page by page you are welcome to. I will follow it up on the screen. A guiding principle for Toyota and Lexus in Australia is to have the highest levels of safety consistent with and aligned to the specifications in key developed global markets and that being Japan, Europe and USA. That is the principle that guides us in what direction we need to take, but there are other considerations. We will run through those as we move through the presentation. I am aware that some of you guys have visited our head office in Japan and spoken with our colleagues. My understanding was that they outlined Toyota's overall goal towards zero casualties and then ran through a number of other key technologies, for example, [VDIM] and outlined the [THUMS] project and things like that—the Toyota Human Model for Safety—and also maybe looked a little bit more into the future and talked about vehicle infrastructure communication and vehicles communicating with themselves as well.

What I would like to do in this presentation is maybe zoom down a little bit more into what Australia are doing, talk a little bit about vehicle safety technologies—that is the existing and leading technologies—as well as how we need to develop those technologies, the timing that it takes to develop those technologies. We will also run through stability control adoption trends. I might say right now, Toyota call electronic stability control, vehicle stability control [VSC] and I will call it VSC all the way through this presentation. We will also go through a Toyota and Lexus matrix which outlines our adoption of key safety technologies, what models, basically almost a scorecard of where we are at, and then I will talk a little bit about the level of demand for safety equipment, what the marketplace asks for and show you that via our take ratios of safety products on our vehicles. Also, finally, we will make some recommendations.

Just to brush up on our technology, vehicle safety technologies that we have currently in the market that are quite widespread: anti-lock braking; stability control; electronic brake force distribution and brake assist—two components of a good anti-lock braking system—and also a reversing camera. These are active safety measures that prevent an accident. That is what we are going to hopefully discuss in this meeting. First of all we have vehicle safety technologies existing—pre-collision safety and active cruise control. These are things that are also around in the marketplace. Pre-collision safety or pre-crash safety is a method whereby the vehicle identifies that a crash is imminent. One of the ways that we can do this is actively, we use a milliwave radar and that is looking out the front of the vehicle identifying things that if the vehicle continues on the current path it could collide with. When a collision is imminent it pre-tensions the seat belt so it positions the driver and passenger in the best possible place for an accident, and also primes a number of components on the vehicle ready to accommodate that, like making the brakes ready to activate very quickly, puts maximum pressure in the braking system.

There is another type of pre-collision which we have on our Tarago at the moment, recently introduced, whereby it senses a quick removal of the foot of the accelerator pedal and onto the brake. In doing that it says, 'This is an emergency braking situation,' it pre-tensions the seat belt and the brake goes into an immediate brake assist mode, very ready to pull the vehicle up as fast as possible. Also a side benefit of a milliwave radar is active cruise control where you are able to set your cruise control to, for example, 100 kilometres an hour—of course in a 100 kilometres an hour zone—and if another vehicle that is in front of you is going slower it can read the speed of that vehicle and it slows your speed to match that speed at a safe distance behind, and then if that vehicle moves out of the way it will accelerate back up to 100 kilometres an hour. We think that is a good way of maintaining safe distances. It helps people keep aware of what is happening on the road in front of them as well. It is a benefit that comes along with pre-collision safety.

Moving into leading technologies—and these are technologies that we are just starting to introduce or planning to introduce in the shorter-term future of one to two years—pre-collision safety is a system whereby it has a sensor that detects that a rear collision is imminent—someone running into the rear of your vehicle—and it readies the head rest basically, pushes the head rest out to meet the head to minimise whiplash, and it also pulls the seat belt in, so pre-tensions the seat belt so that you are in the right position, as right as possible for an accident. The second item there, driver monitor, monitors the actions of a driver's facial structure, it looks at the eyes and it can tell whether the driver is getting drowsy. It can tell whether the driver is looking out the front or to the side. If the front collision sees that there is something about to happen and the driver is looking out the window to the side, it will sound an alarm or try to wake the driver up through vibrating the steering wheel, things like that—preventing accidents in that way.

Talking about the safety technologies, the amount of time it takes us to develop that—and this is to give you an idea of how long it takes us to get to where we get when we launch a vehicle. You can see in the timing line there N equals the time of launch, so N equals production timing. If we work backwards to N minus 36 where we generally start putting a lot of our requests into the chief engineer's office for a vehicle, basically by N minus 36 we have a fairly good idea of what type of vehicle they are suggesting that we introduce into our marketplace. We usually have approval to introduce it. At that point we start building the types of car models that we like to see. We want to see a number of grades, we want, for example, two-wheel drive and all-wheel drive, those types of things. It is at that timing we need to start saying, 'We need to have pre-crash safety, the market will need it by then, customers will be prepared to pay for it,' or, 'We need stability control, the market will be prepared to pay for it in three years time,' for example. We have to plan that for the full model life of the vehicle, of course. Modifying a vehicle mid-cycle is quite difficult, but I will talk to that a little later.

**Mr KOCH**—Doug, what are the triggers to give you those opportunities? How do you arrive at that?

**Mr SODEN**—There are a number of things that we take in to gain an understanding of where the market would be. We look at research, we do quite a lot research in the marketplace. That essentially identifies what people are happy with now but people find it difficult to project forward to next vehicle purchase, but you can gain some idea of where things are going. We look overseas, we look at what is happening in Europe and the US predominantly.

**Mr KOCH**—Can your trends drive or slow the market?

**Mr SODEN**—From adoption of technology perspective?

**Mr McGREGOR**—I think we try and meet the market or lead the market by a little bit.

**Mr KOCH**—Can you accelerate is where I was coming from.

**Mr McGREGOR**—It is difficult to accelerate a market past what the customer is prepared to accept but our job is to forecast—

**Mr KOCH**—Can you forecast your trends that far forward? Obviously there are some triggers there that would indicate to me that you can drive the market if you so desire.

**Mr McGREGOR**—No, I think what we are trying to say is the market is quite large and responds to some stimuli but what we basically do is make a competitive offering into the marketplace and our job at N minus 36 to N minus 24 is to actually determine what that competitive offering looks like. Sometimes we get it right and in fact at the moment, most times we seem to get it right, but sometimes we miss a little bit. We will go on and explain that. One of the other things we look at, quite frankly, many of the vehicles we sell in Australia are not at the high-end of Lexus, but sometimes you start to see technologies introduced on the high-end vehicles, and Doug will go on to explain in a moment that what we do know in the marketplace is how quickly those will trickle down.

**Mr KOCH**—I am interested to see that.

**Mr McGREGOR**—Okay.

**Mr SODEN**—Another thing that we do use is, we will make something as an option and as an option the customer has the choice as to whether they want to take it if they are willing to pay for that item. We will show you a couple of those indicators in a few slides later but basically that is another indicator of what is happening. We might say at N minus 36 we do not think the customer is going to be prepared to pay for it as standard. We essentially also have to second-guess the direction that we are going. We need to make sure that we are competitive. If we come out and offer, for example, stability control as standard equipment it makes our vehicle \$750 more expensive than the competition. In the entry level of the marketplace the customer will basically choose the competitor vehicle on price.

**Mr WELLER**—Is it necessarily \$750 more expensive? If you were putting it on as standard, is that the real cost?

**Mr SODEN**—Yes, at the moment that is the real cost.

**Mr WELLER**—Well, that is not some of the information that we get from the industry, that if electronic stability control was standard on all vehicles it would only be about \$US 110.

**Mr McGREGOR**—I cannot say that I have ever seen, within the Toyota world, a figure like that.

**Mr WELLER**—Well, at the ESV conference in Lyon this year it was an accepted figure. If it was standard on all cars it would be \$US 110.

**Mr SODEN**—I know the cost to Toyota of stability control and it comes out at \$750 at retail.

**Mr LANGDON**—Is that US or Australia?

**Mr SODEN**—Australian dollars. At the moment that what it costs us. Maybe for a next generation of stability control—and, as you say, when you do it 100 per cent it does give you some production efficiencies, but we are 100 per cent in a number of our models and the number is still around that sort of number, and that is a Bosch system.

**Mr TRESIZE**—Just on reading your time on there, actual stability control will be introduced in

December 2008.

**Mr McGREGOR**—We have shown at the bottom of the slide there an example for Corolla, because as we go through in a little bit of time you will see that many of our models already have this technology, and we thought one of the questions from the committee would be, 'Why doesn't Corolla,' for example.

**Mr KOCH**—It was going to be a question.

**Mr McGREGOR**—Good. So we wanted to take you through the time line for Corolla so you understood where we were on that.

**Mr TRESIZE**—Is that date for Australia or is that worldwide—

**Mr McGREGOR**—No, that is for Australia. VSC exists on the Corolla equivalent model in Europe already.

**Mr SODEN**—If you look at the time line there you can see the example for Corolla. March 2004 was when we put in our requests for what this specification on this vehicle needed to have. At that time stability control was not a strong request from the marketplace. From our private buyers, from our customers who are personal purchase, it still is not a strong request from that marketplace. I will demonstrate what sort of things we use to get an understanding of that. The strong requests are coming from the motoring organisations and the government. That is where the strong requests about technology are. In March 2004 we did not have stability control as something we needed to have on that car at launch timing. In March 2005 it was starting to become something that we thought, 'Okay, it's picking up a lot faster than we expected, the desire for stability control.' Keep in mind this is a price point vehicle. If Corolla's price fluctuates, if we go up too far we will lose our share of the market. It is a very easy line to draw. We have seen it happen a number of times. We have to have this balance of offering a safe vehicle to customers or offering a safer vehicle to customers, something with stability control.

N minus 24 was about the timing that we started to say, 'Maybe we need to put stability control into this vehicle,' and we started to make requests to Toyota Japan at that time. As you can see it has taken us to the equivalent amount of time, the N plus 18 timing to get stability control into that vehicle. Around the 24-month development time is normally what we see. We have to keep in mind—I know one of your questions was, 'Why don't we just switch it on? We've got in Europe on Corolla, we could just turn it on in Australia.' That is not how our engineering works. We need to make sure that vehicles are appropriate for each country. Australia is quite different to Europe. A lot of the roads that we drive on are quite different. Even though I know a lot of our competitors do do it, we do not just adopt a European setting, especially a safety setting for safety technology, and put it onto our vehicles in Australia. It took quite a while to get anti-lock braking to work in Australian conditions on corrugated roads, on dirt roads. These are conditions that you do not generally drive passenger vehicles in in other countries, but in Australia it is something that we do experience. Stability control is very similar. Stability control can be quite unsafe on a dirt road if it does not have the appropriate settings. It can cut in too fast and pull the car around a little bit too quickly. There are concerns if you introduce a technology just because it is in another country. We basically have to do local testing on the vehicle, make sure the stability control settings are appropriate. Usually we change the algorithm on the computer so it is actually different country to country, and that is one of the things that need to be addressed in introducing stability control.

**The CHAIR**—On that basis why has the Camry got them?

**Mr SODEN**—Why has Camry got stability control? We have done evaluations in Australia and engineered it for Australian conditions.

**The CHAIR**—Well, clearly it is all in the marketing, I suppose. For example, we have found as a committee the electronic stability control is widely accepted as a technology feature that will save many lives. Road safety experts in Australia are telling us that if all vehicles that we currently drive have ESC in them it would save a hundred lives per year in Victoria. In terms of acceptability in the marketplace, if you do not advertise it so that the wider community out there knows about this safety feature then obviously the uptake

will be far less. Having a look at this list of both the Corolla and the Yaris, particularly the Yaris, the curtain airbags are optional, ESC not available and the whiplash injury lessening not available. Obviously the current marketplace with the petrol prices and so forth, people are moving to a smaller engine, smaller vehicle, more environmentally friendly vehicles. I would assume the Corolla and the Yaris are very popular models which would be the bulk of your sales. In that respect it is good to have the Camry with this very important feature but the Corolla and the Yaris obviously being a very popular model, predominantly out there on the roads, don't you think you might want to speed up the process of getting this technology in them?

**Mr McGREGOR**—Can I take the question? I might go back to Aurion to start with, when we introduced the Aurion. I know you did not mention that. When we introduced the Aurion we took the initiative of making VSC standard in that vehicle. At that time, maybe two or three months earlier than that, we had just launched Camry as well, and Camry came with VSC available in the Grande, the highest series car, but was not available in any other grade, but we had already engineered and tuned VSC for that vehicle. As a result of that, maybe a little over 12 months later, rather than 18 to 24 months, we were able to roll out VSC as standard in Camry. Around about N minus 24 to N minus 18, we became aware that the demand for VSC was going to grow a little faster than we originally thought, particularly in the Corolla situation we accelerated our efforts at that stage and we were able to agree with TMC to introduce it onto the vehicle in 2008, basically the end of 2008 production.

I would have to say at this stage we have not decided yet whether it will be optional or standard on the entry level car, but I think it is fair to say we are monitoring very closely the competitive situation and I know that Mitsubishi Lancer have just standardised a similar system on their entire new model range. With regard to Yaris—and Yaris sells around about 24,000 to 30,000 vehicles a year.

**Mr SODEN**—Yes.

**Mr McGREGOR**—Corolla is closer to 50—we are in negotiations with TMC at this stage, but I would have to say, based on the current outlook, we may not be able to secure it (Yaris VSC) until major change, which could be three to four years.

**Mr KOCH**—Peter, what we are hearing then is that safety, from your point of view, is competitively driven. It is not about passenger safety, or purchaser safety is not a priority. It is purely commercially driven, the decision-making process.

**Mr McGREGOR**—We take a slightly different view than that.

**Mr KOCH**—I am just picking up what you said in relation to the Lancer versus the Corolla. They have accelerated what they propose to do and they have that in the marketplace now. What I have picked up from your comments is that it probably dragged Toyota further to the frontline in their decision-making processes, what they may or may not do with Corolla.

**Mr McGREGOR**—I have given the wrong impression if I have said that. What I tried to say is that, first of all, we had already accepted that there is an increasing demand for VSC, and even before the Lancer launched or before we knew what its specification was we had already confirmed the TMC production introduction in December 2008. What we are now in the process of doing is trying to determine whether we will make that technology standard or optional. In order to do that we are monitoring competitor situation, amongst other things, and one of the things clearly influencing that decision is something like the Mitsubishi Lancer coming out with it as standard.

**Mr KOCH**—The competitive position, that decision will be made in the marketplace by competitors, not necessarily a trigger point within Toyota to do it onto that, with their own bat?

**Mr McGREGOR**—The provision of technology was not triggered by Mitsubishi Lancer.

**Mr KOCH**—No, but putting it into the marketplace may well be.

**Mr McGREGOR**—It will go into the marketplace either as optional or standard. How we do that,

one of the considerations will be the competitive set, one of the considerations.

**Mr KOCH**—What would be a reason Toyota would use for not introducing it as a standard?

**Mr McGREGOR**—It would depend on the competitive set, probably, in terms of their price point. If the competitor, for example, did not have that available, had an entry-level car that was at a cheaper price point, then we may make it optional and not standard.

**Mr KOCH**—You are saying that Toyota in this case would be happy to follow, not to lead.

**Mr McGREGOR**—We may determine that.

**Mr GRIFFIN**—To pick up on Doug's as well, it will not necessarily be a unilateral decision to bring their technology in until the testing has been done to suit the Australian conditions. There could be that lag as well in terms of the engineering capability to bring it in that suits Australia rather than taking a system that has been achieved for another market.

**Mr KOCH**—In saying that, Peter, I assume most of that work has been completed.

**Mr SODEN**—No.

**Mr KOCH**—Not at all?

**Mr SODEN**—For Corolla, not yet. They will probably complete it January, February, probably more like—

**Mr KOCH**—I only raise it from the point of view that Corolla is your market leader, your market sales leader, and if there is going to be an entry point from a standard position, that would be the one you would use. I believe that would be the one Toyota would give serious consideration to. That is why I just try and draw what the resistance or what the mechanics of that standard introduction is across that model line that you produce where your production far exceeds that of Mitsubishi, especially the Lancer, as model to model Lancer versus Corolla. That is why I was just interested to know where you were in relation to market leadership, safety leadership and that type of thing.

**Mr McGREGOR**—I appreciate your questions about Corolla, but we have introduced Aurion as standard with VSC, we have introduced Camry as standard with VSC, Tarago V6 we have just introduced at the beginning of this year standard with VSC, RAV4 V6 we have just introduced standard with VSC, Kluger we have just introduced standard with VSC, and LandCruiser 200 will be released this weekend and will be standard with VSC.

**Mr KOCH**—It is all going in the right direction.

**Mr McGREGOR**—Going in the right direction.

**Mr KOCH**—I still refer to Corolla.

**Mr McGREGOR**—I understand you refer to Corolla but from my point of view the feature will not be available until the end of 2008. This committee hearing is on the public record and I need to keep that in mind as I respond in terms of the information I give my competitors.

**Mr KOCH**—I appreciate that.

**The CHAIR**—We appreciate that. You do realise that both in America and in Europe it will be mandatory by a certain date. America 2011, and Europe 2012. Obviously 80 per cent of vehicles that we drive here are imported; 20 per cent manufactured locally. It would be a sad situation if we had 80 per cent of our vehicles, which will be mandatory at some stage, having VSC and the local market not following.

**Mr McGREGOR**—I understand your point.

**Mr LANGDON**—You raised before about a lot of this was market driven. You said the private individuals were not really seeking this new technology. I am not sure what expression you used; you did not say fleet but you said something about leased car—

**Mr SODEN**—Could I answer your question in two slides. I will just quickly do this one and I will show you another slide that will help you understand what I was saying. This shows the uptake of technologies, and we use ABS as a guide for the normal pace of uptake of technologies in the marketplace. You start with stage 1 on your luxury brands and then slowly technology gets picked up on the lower price range of vehicles. Stability control has had a much more abbreviated introduction occur. You can see there that we are at the top part of the curve now in stage 3. I am moving from stage 2 into stage 3 where it is starting to become something that needs to be fitted to all the vehicles or the market is demanding that it gets fitted to all vehicles. That is why VSC has caught a number of manufacturers off-guard. For example, the Mitsubishi 380 does not have stability control yet. You can get caught off-guard sometimes with marketplaces with such a long development cycle required, a three-year development cycle. That is what this is explaining.

This is just showing the matrix of where we are at from an adoption perspective. You can see with stability control, VSC and traction control [TRC], we usually link them. They are one and the same technology. You can see on most of our imported vehicles we have stability control available. I will skip over to the right-hand side to Avensis there. You can see that stability control is not available. That vehicle is going to cease production in the nearer future. That technology will not be developed for that vehicle.

**Mr McGREGOR**—It is going to cease production for Australia.

**Mr SODEN**—For Australia. You can see then basically everything else in our SUV and passenger vehicle range is on track, except for Yaris and Corolla, and Corolla is on-track. As we said, that will be last month of production next year. Yaris we have spoken about as well. You can see from a Lexus perspective we have stability control. We have the next generation after stability control as standard in most of our Lexus models, called VDIM, which also integrates input into the steering column as well.

This is what I wanted to use to show you an indicator of the take-up of safety, and this is one of the drivers that we use to predict how much customers value safety, what is important to them. What we generally find, for example, with Yaris, for \$750 they can pick up seven airbags: curtain airbags, side airbags and the knee airbag as well as the standard equipment driver and passenger front airbags. These customers are taking that up. In our government purchase they are taking it up at six per cent. That means six per cent of our government purchases of Yaris put that much credibility into the safety side of the vehicle. I will show you the private demand in a moment. It is quite different in a number of areas. As we move up into the higher grade vehicles you can see the take-up is higher. For Corolla, the safety pack available on Corolla is anti-lock braking. This is for previous model Corolla; we do not have as much data for current generation, but ABS is standard now. Thirty-three per cent of our government buyers took up that option.

You can see from Camry, previous to Camry current, Camry previous general we had anti-lock braking and side airbags as an option. That was taken up 52 per cent, but once we moved into current model we made those items standard and we had curtain and side airbags as an option and the take-up is only seven per cent on that. Generally this is driven on price. If we were to put the price up another \$750, my estimation would be that that take ratio would go down, if we put stability control in, because of the value on the safety items. As we go into the higher grades there you can see the items with asterisks on them—the Defence Department take their vehicles with every safety option available. That is their policy. That skews those numbers up a little, but basically we are doing fairly well.

**Mr McGREGOR**—Could I just say on that slide, that covers all three levels of government—federal, state and local sales that we make as an organisation around Australia. We have aggregated that data just to show—

**Mr LANGDON**—It would be fair to say that state and local government do not have a defence department, though.

**Mr McGREGOR**—That is why I said it is all three levels.

**Mr SODEN**—It is all three levels.

**Mr McGREGOR**—It is all three levels aggregated.

**Mr SODEN**—We are talking about base model. Safety options are standard, generally, on everything above entry level. I cannot think of a model where we do not have safety available as standard on anything other than entry level. These are all the base models. As we move on to the private basically, you see the numbers change quite significantly there. Yaris, we have a higher take ratio. The government was six per cent on Yaris and private buyers take it at eight per cent. However, Corolla is a little bit of a different story. Corolla is less than government take-up. The government was 52 and now it is 25 for private buyers, but current model are more than government in the take-up of the curtain and side airbags. Also Tarago is less than, as is HiLux.

Another indicator that we use is resale value of options at used vehicle auctions. If we see cars coming into auctions where the value of a vehicle is much higher because it has curtain airbags, stability control, things like that, you can see that there is a strong demand for those safety items in the marketplace. For curtain airbags we are seeing that now. That is a strong demand in the used-car market. People are recognising that curtain airbags are quite important.

**The CHAIR**—ABS is a technology that has been around for a long time. Why would that be an option?

**Mr SODEN**—On a HiLux, we call these vehicles 'workhorse vehicles', LandCruiser 70 series.

**The CHAIR**—For Corolla, though, it says ABS.

**Mr SODEN**—It is standard now. This is previous generation. We are just using a historical—

**Mr KOCH**—How old are these numbers?

**Mr GRIFFIN**—2006.

**Mr SODEN**—We only introduced current model Corolla this year.

**Mr GRIFFIN**—Only about two months ago.

**Mr SODEN**—We wanted to give you a good snapshot of the take ratios. ABS is standard on Corolla now. One of the reasons why Camry is higher than others for ABS and side airbags was because for the last 12 months of the vehicle we made that on most of our vehicles not optional; we made it part of the run-out package as standard equipment. On vehicles like HiLux and LandCruiser 70 series anti-lock braking can be a problem when you are driving in dirt roads. If you want to stop quickly on a loose gravel road, the best way is to have the wheels not moving, locked up, because the wheels then dig down to a firmer surface rather than a smooth surface. It will dig down to the base of the road. For some of our customers they would have issue with that, having ABS there. That is something that we—

**The CHAIR**—That would be minuscule compared to what the rest of the roads are around Australia. How many people would be worried about dirt roads? I know they are a small percentage but not to the extent that you should stop that progress for the majority.

**Mr SODEN**—If I put a HiLux into a mine with ABS, the vehicle would be unusable. You would not be able to stop in a slurry. You need to dig down to that base. In some circumstances ABS can be a problem. There are technologies there and there are ways that we can change our ABS. For example, with the ABS in Prado, it has different algorithms for different surfaces and it recognises when it is on sand, et cetera, but in a very slippery situation it is not the best way to stop the vehicle.

**Mr KOCH**—What is the percentage of sales of HiLux in the mining industry versus sealed surface usage?

**Mr SODEN**—I will answer that with a couple of responses. On our high grades, ABS is standard with HiLux. The vehicles that we generally find in the city areas, it is much higher. In mines—I do not have the numbers.

**Mr McGREGOR**—We can get that for you.

**Mr KOCH**—If it is seen as being so unsafe, it would give you the opportunity through your sales program to in actual fact despecify on safety grounds in that situation, versus using that as the vehicle to say, 'That is why we do not standardise it.'

**Mr SODEN**—We are giving the customer the option to take the specification if they want to pay for it.

**Mr KOCH**—I personally would like to know what the unit sales in the mining industry versus vehicles that are going to be used on sealed surfaces.

**Mr SODEN**—It is not just mining industries; it is where they drive on loose gravel roads consistently for long periods of time. We can give you those numbers. We will break it down. That is all we have on that part of it. I am wrapping up my presentation now, basically saying the challenge for us is to lift our safety demand in all segments of the market. We can understand that there is a responsibility on our part from that perspective. There is a responsibility on car manufacturers but there is also responsibility on the government and the media and the automotive body such as the FCAI as well. There is also ADR harmonisation. We are at a fairly good point with ADR harmonisation at the moment. We are around 85 per cent and our understanding is we will be at around 98 per cent of harmonisation with the ECE regulations in the not too distant future.

Then finally the promotion of safety standards and technology, for our part this is one of the directions that we are taking in our advertising. We have some print media that is available advertising stability control. I am aware of a TVC that we are just under development of. I work a lot with our marketing division to approve the technical side of any claims that marketing make, and one of the difficulties that they experience in trying to demonstrate stability control is not stepping outside of the FCAI code which says you cannot depict a vehicle driving dangerously. Unfortunately, stability control needs you to drive dangerously to get the vehicle out of control to demonstrate it. We have to be a little bit careful about how we demonstrate our stability control, and I know that has been a thorn in our creative area's side for quite a number of months in trying to get that together. I would welcome any further comment.

**The CHAIR**—Just in relation to advertising safety features, in terms of the dealerships, is there any communication from manufacturer to the dealers in terms of possible incentives if they promote a certain safety feature?

**Mr McGREGOR**—I cannot recall any particular communication regarding incentives. We have extensive communication, especially at the time of any new model launch where we take all of our dealers and the sales people through a training program of the features of the new vehicle. There is always—I will be safe in saying always—a significant part of that is devoted to the safety features that the vehicle has, either as standard or optional. In terms of an incentive payment, I cannot recall one of those.

**Mr KOCH**—Would consideration be given for an incentive scheme to get more safety into your sales? At the end of the day it is about the sales, the unit prices and what have you and getting them into the marketplace. Bearing in mind that 60 per cent of our motor vehicles in Australia are in the fleet sales, it is a golden opportunity in many ways—and not many countries internationally share a similar situation as we do, from our investigations. I wonder whether or not more effort should be put into the sales teams and the training of sales teams, both on fleet and private sales, of safety mechanisms. Incentives may be one of the pathways to make this happen more readily.

**Mr McGREGOR**—There are a number of ways we can help drive this, but clearly we have to drive both the demand and the supply. The demand is sometimes driven by policy as well. Some of, shall we say, the awareness of OH&S, especially in the fleets—and in the fleets I have included government, business and rental fleets—the requirement—

**Mr KOCH**—That has been reflected in the statistics you—#(tape malfunction)

**Mr McGREGOR**—some of the pressure the purchasing officers are under in terms of the budgets they have allocated.

**Mr KOCH**—That is understandable.

**Mr McGREGOR**—They struggle sometimes to purchase the safety features. The struggle we are facing here is the need to find both how to improve the supply and lift the level of demand across the entire marketplace. I take your point about the private market picking up on the fleet vehicles when they are cycled three or four years.

**Mr KOCH**—Even under that.

**Mr McGREGOR**—In some cases, yes. Some of the rental cars will be cycled within 12 months, and the government vehicles are two years.

**Mr KOCH**—Yes.

**Mr McGREGOR**—I understand that point. Awareness has a huge role to play in terms of the benefits of technologies like VSC. Doug has made a very good point; one of the issues we have in terms of lifting that awareness is to show a vehicle out of control coming back into control because of VSC. Maybe that is something that we could look at, a way forward on that.

**Mr KOCH**—It is used in Europe.

**Mr McGREGOR**—Yes.

**Mr KOCH**—Quite extensively.

**Mr WELLER**—I have two questions. The first one, if we go back to the \$US110 for the VSC, Bob just clarified that that was if the vehicle already had ABS.

**Mr SODEN**—We are talking about an additional for the—

**Mr WELLER**—You are talking about, that is the cost on top. If you already have ABS it is an additional \$750.

**Mr SODEN**—That is the current cost, yes.

**Mr McGREGOR**—No, that is the build-up from the cost to the recommended retail price, including—

**Mr WELLER**—It would not cost you that build-up to recommended retail—

**Mr McGREGOR**—In that there is GST, there is company margin, there is dealer margin. If eventually we take all that out, you get back to cost.

**Mr SODEN**—That does not take you back to \$110, though.

**Mr McGREGOR**—In our experience, but maybe—

**Mr WELLER**—If it was on all cars, though, if it was just standard on all right across your range—

**Mr KOCH**—US is not all that attractive at the moment.

**Mr SODEN**—When was that number from?

**Mr WELLER**—That was back in June. The second one, you have explained why you do not have it on your HiLuxes, but I would have thought gravel roads was an area where vehicles would be prone to get out and slide. I drive a lot on gravel roads; I am from the country. If it is as simple as changing the algorithms, as you have suggested, for vehicles that travel on different surfaces, why would you not do that?

**Mr McGREGOR**—We have prioritised passenger and SUV at this stage in our deliberations with our parent company, but I can see the need to roll this technology out progressively over all our vehicles. I would not sit here and say we should not do it. We should do it. It is just a question of how quickly we can do it.

**Mr WELLER**—Likewise the HiAce vans. I would have thought stability control in those vans would be a good thing.

**Mr McGREGOR**—Frankly, it is the type of technology we have to look at ways of getting across the range. It is just a question of the speed of adoption.

**Mr SODEN**—It is certainly something we are looking at across the range completely. We are certainly not sitting here saying we are not going to do anything about HiLux or HiAce. We are planning to introduce—

**Mr WELLER**—I had a HiLux.

**Mr McGREGOR**—It will take a little bit longer, that's all.

**The CHAIR**—In terms of bundling safety features as opposed to bundling safety features that are very important with luxury, which obviously makes it then very unaffordable, is Toyota planning on having a safety pack, for example, that would probably, if it is marketed right—I would be sure that if it is marketed right that it would be a very good sale. Obviously, being around recently to major manufacturers around the world, safety is going to be of importance when people are making a decision to buy a vehicle, whether it be for themselves or for their children or whatever. Is Toyota thinking about, rather than bundling in VSC with a sunroof and 10-CD stacker and all that, having a bundle of safety features which you can market properly that would pick up—

**Mr McGREGOR**—I understand the point and the question. It was a number of years ago that I can recall that we did have situations where safety was in fact bundled with certain luxury features, but if you went to our range today you would find that we tend to off—in fact, I do not think there is an exception. If there is a safety feature offered, sometimes it is bundled with other safety features. For example, on the Yaris we bundle all the airbags together. You get side, curtain, shield and knee airbag in the Yaris hatch, for example, but we do not bundle that with any luxury features. I cannot point to a stated policy where that is written down somewhere in the corporation that we will not do that, but I have no intention of doing it.

**Mr SODEN**—All of those safety options you saw on those vehicles are purely that. They do not have sunroof or leather seats or anything attached to them. They are purely available as standard.

**Mr McGREGOR**—And they are available in the production menu to our dealers as stand-alone options.

**The CHAIR**—You have RAV4 CV and \$750 adds to the price of having the options of the curtain airbags, whereas to the Cruiser model with the same sort of curtain airbags, they do not have them standard but it is a \$5,500 difference.

**Mr McGREGOR**—Yes. We had three grades within the RAV4 model. The entry level has the safety pack optionally available. That is not linked to any other feature in that grade, whereas the next two grades, I think the Cruiser and the Cruiser L have all the safety features as standard. Again, of course, it is not linked with anything else.

**Mr SODEN**—As you go up a grade structure, you will always find more and more luxury items in your grades. The customer has the choice. If they want to buy luxury items, they can. On those high grades the safety is standard equipment but on the entry level there is an option for the customer to take the safety or not. It is not tied to anything else; it is just safety.

**Mr KOCH**—Are your sales people encouraged to sell safety, and is all their training in-house or is there some independence from a safety point of view across your sales team?

**Mr McGREGOR**—Our sales people are basically given general training on the product, which includes a significant component on safety.

**Mr KOCH**—In-house?

**Mr McGREGOR**—By our trainers and by—it is fair to say our dealers run their own training programs as well to make sure that product knowledge is maintained. I could not speak specifically.

**Mr KOCH**—Drawing their support from where, Peter? The company?

**Mr McGREGOR**—No. Sometimes internally. They will have somebody on board who has a more experienced product understanding than the other salesmen, so they will do it. Sometimes they will use material provided by the company, and sometimes it is possible that they could draw someone from outside but I could not point you to any specific example from a dealer training point of view. Do you have some?

**Mr SODEN**—For example, for Camry we have a training program that is developed by our training area. It is quite a significant division within Toyota Australia. They get at least one person in from each dealership and they are trained internally. Our training area is an area that works hand-in-hand with government-run training areas, TAFE colleges, et cetera, but basically they develop their own syllabus and that information goes out to the dealership with a pack of information. For example, to demonstrate safety on Camry we have a stability control demonstration to show the benefits of stability control, showing a vehicle—and we are not advertising it, so we can show it doing dangerous things on a dirt road. We can show how that technology works. That then goes back to the dealership, and all the dealership staff participate in an internal training operation where they review the DVD, understand how the technologies work and then they can speak with authority to the customer.

**Mr KOCH**—How heavily does Toyota invest in the training of fleet managers?

**Mr McGREGOR**—Customer fleet managers?

**Mr SODEN**—At dealership level?

**Mr KOCH**—From the point of view of government agency purchases being up to 60 per cent of all sales, how much time do you spend with those fleet managers encouraging safety in their purchase programs?

**Mr McGREGOR**—Timing is probably difficult to quantify, but when we launch a new vehicle that has particular appeal to our government clients, we would normally invite those government clients to come and preview the vehicle and to receive a presentation on that vehicle, and that presentation would normally include the safety components of that vehicle. Any of the material we hand out at those presentations would normally include safety material as well. If it is a particularly, shall we say, large selling vehicle, we would normally include a drive program as well with some opportunity to experience the product in a controlled situation. I would find it difficult to say how many hours, days to quantify that for you.

**Mr SODEN**—I have participated in a drive program for Camry. In particular there is one I can

remember where we had a significant number. It ran over two days and we had a number of large fleet customers as well as government purchasers as invitees, and there was a stability control demonstration held on a racetrack.

**Mr KOCH**—Could a sample of those programs be made available to the committee so we can get a little bit of an indication of the—

**Mr McGREGOR**—Some of the material?

**Mr KOCH**—Yes. It is really important if we are going to move safety forward. A lot of this is in relation to the training of those who will be recipients of your product.

**Mr SODEN**—Do you want to see the training material, like the training presentations? I know on that particular day there was a DVD made to demonstrate the types of things. That sort of stuff?

**Mr KOCH**—We would be very happy to see those.

**Mr WELLER**—You spoke before about the whiplash injury lessening. The Insurance Institute of Highway Safety in the US disagrees with you. What evidence does Toyota have that it reduces the neck injuries?

**Mr SODEN**—In particular a whiplash injury lessening seat or on rear radar?

**Mr WELLER**—Not specific on that. The United States Insurance Institute of Highway Safety believes that they did not reduce the neck injuries.

**Mr SODEN**—We have only just introduced it, to my understanding. We introduced whiplash injury lessening seats on Camry and definitely just recently on Kluger. Camry is not an active type but Kluger basically as the body gets pushed into the back of the seat it pushes on an arm that moves the headrest forward. That is an active type of wheel device.

**Mr WELLER**—What is the research that you did to establish that this will actually work?

**Mr SODEN**—I cannot specifically say how much we spent developing that seat. We certainly spent a lot of money developing it. Toyota spent in 2006 \$6 billion on research and development but I do not know what the specific proportion of that on seat development is. I know Toyota's key focuses are on safety and emissions reduction.

**Mr McGREGOR**—That particular model was developed and the research done for it in Japan. The information you are asking for probably has not been shared with us at the level you may think it has.

**Mr GRIFFIN**—Doug, do you want to talk about [GOA]?

**Mr SODEN**—Something that you do not see basically, we advertise but it is another thing we find difficult to give the marketplace an understanding of is GOA, which is global outstanding assessment, which is Toyota's safety standard that we build into all of our vehicles. That includes crumple zones et cetera. You would have seen from tests that are done outside of Toyota, like NCAP-type tests, that generally we are always at quite a high standard of safety, in the actual vehicle collision safety compared to some of our competitors. That safety is built into the chassis of the vehicle and there is a lot of work done on that, and into the body deformation methods. There is quite a lot of research. I think we do over a thousand actual crash tests a year which is quite high as well, considering a crash test that you can do on computer. There is a very strong focus on safety in Toyota. I feel very confident in saying that.

**Mr McGREGOR**—The specifics of your question, I am sorry, I cannot answer that.

**Mr WELLER**—I take your word you have done the research but the Insurance Institute in USA say that it does not work. I just wanted to give you the opportunity to establish why it does.

**Mr SODEN**—I know we have done a significant amount of impact tests. I do not want to start an argument with them but I would say we have done a significantly larger amount of impact tests than they have done. We have a lot of equipment and a lot of specific measurement devices that have basically taken us in that direction. If it was a cynical marketing exercise we would not have spent so much money developing it.

**Mr GRIFFIN**—I think we need to take that question on board because we do not know under what circumstances they did their testing as well.

**Mr SODEN**—Yes, we need to check it. What parameters they use.

**Mr GRIFFIN**—We want to make sure we are comparing apples with apples.

**Mr WELLER**—Well, we do not what they use but they are making that statement.

**Mr SODEN**—We will have a look at it.

**The CHAIR**—In relation to NCAP, you are probably aware that they have launched a Stars on Cars program whereby they weight the cars and they make that public in terms of whether it is a four or five star. How will Toyota participate in that safety program?

**Mr McGREGOR**—With NCAP? Do you wish to respond?

**Mr GRIFFIN**—We have just received notification of the program so I would like to know more about it and exactly how it is going to work. I have to say that I am not fully up to speed with all the detail of how that program will work.

**The CHAIR**—Well, in America I think they are going down the path where all the vehicles will be rated, that consumers would be well aware of what they are buying in terms of the safety features on the vehicle, just as now when you go to buy a washing machine or a dryer or anything like that, they have an energy rating on it. When you go to purchase a vehicle you do not want to buy a lemon that is a one star, you want to make sure that you buy a safe car. They have gone down the path of making it compulsory, mandatory. NCAP in Australia are making it voluntary. I suppose to a certain extent those manufacturers that do not want to participate in it, it will look a bit suss as to why. In that respect how do you propose as Toyota to participate in that program?

**Mr GRIFFIN**—In terms of ANCAP generally I think the way we have to view it is that—Doug referred to GOA in a number of crashes that are done with each model over a period of time. The industry as a whole has had some concerns historically with ANCAP testing, given that the rating is based on one particular test which can be open to variations on how the test is done and the particular conditions at that time, whereas the manufacturers—I will speak on behalf of Toyota—will conduct many crash tests of a particular vehicle under different conditions to come up with its safety, technology and application. Traditionally we have had some concerns about attaching a rating to any particular vehicle when it is based on one specific test. Having said that, we do acknowledge ANCAP as a test and as a way that a customer can obtain some information. Our view would be that customers should take other advice as well when they are coming to some assessment on a vehicle. We do participate with ANCAP and provide technical background and so on, but we see it as a test but we think the programs that Toyota run provide a perhaps more thorough test of the safety capability of vehicles.

**Mr WELLER**—Wouldn't the customer see ANCAP more as an independent—you would always be a little bit sceptical of—

**Mr SODEN**—Trust us.

**Mr WELLER**—Yes, that is right.

**Mr SODEN**—Trust the car salesman.

**Mr WELLER**—Yes, the car salesman saying—he is trying to sell you a Toyota and he is saying, 'Here's our test and we come up as a five star,' but ANCAP are saying, 'We come up with a three star.' Wouldn't the customer see ANCAP as being more independent?

**Mr GRIFFIN**—They may view it in that light but from our perspective we still see that there may be limitations in the way that the tests are conducted. We would stop short of coming out and giving outright endorsement to a test conducted by ANCAP to say it is the definitive safety test for a vehicle given the range of other tests that are conducted by Toyota.

**Mr LANGDON**—When you refer to 'tests', do they just do one test or do they do several tests?

**Mr GRIFFIN**—It depends on the type of test, whether it is a frontal impact or a side impact test. If it is a side impact test it is just one test.

**The CHAIR**—Right. We have gone way out of time. Thank you very much for your presentation today.

**Witnesses withdrew.**

**Hearing suspended.**