

# CORRECTED VERSION

## STANDING COMMITTEE ON FINANCE AND PUBLIC ADMINISTRATION

### **Inquiry into Port Phillip Bay: channel deepening**

Melbourne — 6 June 2008

#### Members

Mr G. Barber  
Ms C. Broad  
Mr M. Guy  
Mr P. Hall

Mr P. Kavanagh  
Mr G. Rich-Phillips  
Mr M. Viney

Chair: Mr G. Rich-Phillips  
Deputy Chair: Mr M. Viney

#### Substituted members

Mr B. Tee for Ms C. Broad

#### Staff

Secretary: Mr R. Willis  
Research Assistant: Mr A. Walsh

#### Witness

Mr S. Meyrick, chief executive officer, Meyrick and Associates.

**The CHAIR** — I welcome Mr Steve Meyrick, chief executive officer of Meyrick and Associates. All evidence taken at this hearing is protected by parliamentary privilege as provided by the Constitution Act 1975 and further subject to the provisions of the Legislative Council standing orders. Any comments made outside the precincts of the hearing are not protected by parliamentary privilege. All evidence is being recorded by Hansard, and witnesses will be provided with a proof version of the transcript in the next couple of days.

I now invite you to make an opening statement, if you wish, or we can proceed straight to questions.

**Mr MEYRICK** — I am quite happy, Mr Chairman, to proceed straight to questions.

**The CHAIR** — Thank you, Mr Meyrick. Over the course of the last two days the committee has had a lot of testimony with respect to the business case prepared for the project. One of the issues raised has related to some of the assumptions that underpin the business case: reference to the growth rates of the trade forecasts, the exchange rate used in some of the estimates. Can you tell the committee how you determined the growth rates, exchange rates and indeed the discount rate that you used in preparing the business case?

**Mr MEYRICK** — They are three questions, Mr Chairman. I propose to take them separately, if I may.

**The CHAIR** — Certainly.

**Mr MEYRICK** — The methodology by which we made our estimates of the growth rates I think is spelt out in the benefit-cost analysis which we provided to the supplementary environment effects study. Essentially it is a top-down methodology that we use. We start with estimates of future world growth and then estimates of the ratio of trade growth to world economic growth. A third set of ratios that we employ are the ratios of containerised growth to world trade growth, because we have got plenty of historical data to give us some tracking on those. Finally, we map those world trade growths onto the Australian trade growths. That is basically the process we used to come up with the estimates of the future container trade growth in particular, which is the one I have been describing.

The other two pertinent growths are for the grain and oil trades. The oil trade growth is very largely based on discussions with industry. The grain trade was based primarily on a third-party source. The name of the organisation escapes me for the moment, but it is a grain industry organisation who took the estimates of grain production through to, I think, about 2020, and we more or less extended the series beyond then, because the grain contributes only a small part of the total benefits.

The exchange rate assumptions are the most difficult ones to get any sense out of. I think we are all aware that during the time this project has been analysed the Australian dollar has fluctuated between 54 cents when we started, and it is 95 now. Really, the exchange rate level is very much judgemental. We just took it from our at-the-time review — and this was in late 2006 — of what appeared to be the market intelligence on what the long-run equilibrium rate for the exchange rate is, and that was around about 70 cents at the time.

I think people are still talking about the long-run rates, probably in the 70 to 80 cents band, but certainly recent movements in the exchange rate would give you some frights about that, but all I can say about that is it is a particularly volatile series. I do not think anybody really knows what the long-run exchange rates were. At the time about 70 cents seemed to be about central in market estimates. It is probably somewhat north of that now. They are probably not as high as the current level of the exchange rate.

Sorry, Chair, your third question was the discount rate?

**The CHAIR** — The discount rate, yes.

**Mr MEYRICK** — The discount rate, we did not estimate. It was given to us, if you like, as the standard discount rate in Victoria, the real discount rate for this type of project. I am aware that that has been criticised in some quarters as too low. My personal view, for what it is worth — it was not my choice, but my personal view is it is pretty much on the money. It is a reasonable sort of discount rate.

I know that rates for economic evaluation that are used by the World Bank and the Asian Development Bank have been quoted in some of the submissions. I am aware of those rates. We have used them in projects that we undertake for the Asian Development Bank and the World Bank, but context is very important here.

They are development agencies which are looking at projects undertaken in a developing country context. There are a lot of significant differences between the sort of discount rates that you would use for an economic evaluation in a developing country and in a developed country, not the least of which is the very tight capital availability constraints that one encounters in developing countries.

I would personally put very little weight on Asian Development Bank or World Bank numbers and I would look at the kind of mandate or guideline numbers from other jurisdictions. If we do that, you find some to the north of 6 per cent, some to the south for this sort of work.

The Office of Best Practice Regulation, for instance, I think recommends 7 per cent real and that is I think the New South Wales Treasury guidelines, if I am not incorrect. The European Community guidelines in the 2002 benefit cost manual were 5 per cent real. The UK, in the early 2000s, brought down its discount rate for evaluations of projects to 3.5 per cent. Germany uses, I think, 3 per cent. The French revised theirs down also in the early 2000s from 8 to 4 per cent. There is an immense literature on the appropriate discount rate to apply for economic evaluation of projects.

It seems to me on my take that the rate we were mandated for this project is roughly in the middle of the field and that the sensitivity analysis which you undertake in the evaluation of the project pretty much spans the credible field, certainly at the north end, at the 8 per cent end. It does not go quite as low in the range of sensitivities as, say, the British mandated rate now, or the one that is preferred in Germany, I think it is. But this is not a precise science.

We were given the discount rate as a mandated rate. It seems to me — and it is my personal view — it is quite a reasonable one given my understanding of the rates which are generally considered reasonable in other jurisdictions in developed countries.

**The CHAIR** — Some of the evidence the committee has heard suggests that this is a commercial project and should be treated as such and given a discount rate. Yesterday we heard evidence that the discount rate should be up at 17 per cent. Would you like to comment on that?

**Mr MEYRICK** — I think we need to distinguish quite clearly between the sort of discount rates you would use for a social cost benefit analysis, which was our task, and the sort of discount rates that you would use in a financial evaluation for an individual corporation. They are quite different. They are different numbers that you would use. There seems to be some confusion in the material that has been presented to the committee between these two things.

Generally speaking I would expect the financial rate to be somewhat higher but I am not in a position, not having done the requisite homework, to tell you how much difference I would see between the social cost benefit discount rate, which is what we use, and the sort of rate that you would use in a kind of business case or financial evaluation.

Obviously part of the issue there is that the spectrum of risk is quite different, because when you are looking at it from a single corporation perspective you have to worry about not only whether the benefits are generated but also whether your individual entity is going to capture those benefits as an element of risk. That is not relevant to a social cost benefit analysis. It does not matter from a social cost benefit point of view whether the Port of Melbourne Corporation gets the benefits, or the exporters or whatever, so it is not like the private sector. It is a different issue that is involved and you will get a different number for the two contexts. In my view at least it is quite important that we clearly distinguish conceptually between those two contexts.

**The CHAIR** — Thank you. On the issue of the cost estimates, I am just looking for the page where you laid them out. There were two issues I wanted to ask about. The first was the cost of maintenance dredging, which is not picked up in cost estimates. Could you make a comment on that? Why is that not included.

**Mr MEYRICK** — I would like to preface my remarks, Mr Chairman, by saying that it is some considerable time since we undertook this analysis, and I am relying on my memory which, as the colour of my hair shows, has probably become less reliable. On this particular aspect I have not had the opportunity to consult my files. It was not an issue that I anticipated the committee would raise. I will tell you my best recollection of that issue and I am happy to check later on and confirm that that recollection is accurate.

**The CHAIR** — Thank you.

**Mr MEYRICK** — But bear in mind that I am doing this from memory, and I acknowledge that my memory on this particular aspect is not perfect.

The concept though, it seems to me, is quite clear. Maintenance dredging per se is not an attributable cost to the project. What is an attributable cost to the project is the difference in maintenance dredging that would occur with the project and the maintenance dredging that would occur without the project. My recollection of the advice at the time that we got from the engineers is that at that time there was no reliable estimate of any difference. The best guess was that it would have no material effect on the ongoing dredging program.

Yes, there are certainly maintenance dredging costs in order to maintain the deepening channel but there would be for the original channel anyway, and the best information at the time, as far as I recall it, was that there was no material difference between the two. I will check that for you and get back to you to make sure that my recollection is accurate.

**The CHAIR** — There is just one other matter I wanted to ask you about. Again, I cannot find the page. You estimated the impact of the project on the dive industry, which is something this committee received submissions about, and we will take evidence later today. Can you tell the committee how you arrived at that estimate of the impact on the dive industry?

**Mr MEYRICK** — Unfortunately that is one of the elements of the analysis I cannot be terribly much help to you about. The reason for that is because that particular element of the social costing was undertaken by the specialist firm which looked at the recreational and tourism impacts, I think, for their full brief. As far as the cost impact on the diving industry is concerned, we simply asked them for the appropriate number and incorporated that number in our analysis. We did not in fact independently arrive at that particular number.

**The CHAIR** — Who was that firm that provided — —

**Mr MEYRICK** — It was SKM, from memory. Again, I say ‘from memory’. I think it is footnoted in our report, so it should be fairly easy to clear the reference.

**Mr VINEY** — There has been some questioning of the decision point as a result of the cost–benefit ratio — in other words, my understanding is that your latest revised figure is the cost–benefit ratio of 2.57, I think.

**Mr MEYRICK** — I think so.

**Mr VINEY** — We were advised of it half an hour ago, so it probably tells you more about my memory than yours, Mr Meyrick!

Can you advise the committee why the 2.57 — or 2.5 or 3 — what that means in terms of a decision whether or not a project of this sort should proceed? Would you think a 2.57, if that is your final analysis — — Some people have said it should not occur unless it is at least 3, and we have had other advice that anything above 1 is a positive project.

**Mr MEYRICK** — I think 1.0 would be pretty tight, but I know that a number of road sector projects, for instance, have gone with BCRs of 1.2 to 1.6, that sort of thing. I would certainly regard 2 as a robust number, personally.

**Mr BARBER** — Public roads?

**Mr MEYRICK** — Yes. Again, my remarks are all framed in the context of the social cost–benefit analysis, so it is kind of not particularly relevant with a public–private road, because it is not about who gets the money. It is about the generation of the benefits that can be selected.

**Mr BARBER** — Totally.

**Mr VINEY** — So a 2.57 — I cannot remember whether it is 2.57 or 2.51, but anyway, 2.5 — —

**Mr MEYRICK** — Five seven is the latest one I have got, and I cheated!

**Mr VINEY** — Thank you. So 2.57 is a pretty robust number?

**Mr MEYRICK** — I would regard it as such, yes.

**Mr VINEY** — Thanks. The Chair actually asked a range of questions that I had in relation to those forward estimates, and I think you have responded and satisfied some of my questions in that area. It seems to me that, in the questions that have come before this committee of people who do not support the project and the advice that the committee has received to say that the project is viable, that a lot of it rests on your analysis.

I ask this as a genuine question. I know nothing of your background and your experience in doing this work, and I thought it might be useful for the committee to have a bit of that understanding. I am certainly not questioning it; I am just trying to understand the basis upon which your advice is being relied upon.

**Mr MEYRICK** — Perhaps I could give you a potted biography in three sentences or something like that?

**Mr VINEY** — Yes; just very short.

**Mr MEYRICK** — Basically my training is in engineering, economics, mathematics — and English literature, just for fun! I started my career working in government — in state governments in Western Australia and in Tasmania — originally with road agencies, oddly enough, but ultimately with policy advisory units in government, one of the responsibilities of which was capital works evaluation and programs like that.

I moved from my government career to a short academic career in an outfit called the centre for transport policy analysis at the University of Wollongong. For various reasons I left that in 1991 and established my own consulting company, which has specialised in transport and particularly transport economics. That company has grown and has been reasonably successful.

My personal sphere of interest for the last 15 or 16 years has been in the maritime sector, most particularly in container shipping. I have worked for all Australian state governments and the federal government, as well as the Asian Development Bank, the World Bank and the United Nations in that particular area, and with some organisations like the Korea Maritime Institute on long-term forecasting of container trades in particular.

I have provided trade forecasts, I think, for most Australian port authorities, with the regrettable exception of Sydney over the last decade or so. The maritime sector and maritime economics is my game, if you like, so I feel reasonably well qualified to comment on these particular issues. Is that sufficient?

**Mr VINEY** — That is fine.

**Mr HALL** — Mr Meyrick, in your cost–benefit analysis of February 2007 — chapter 3 and chapter 4 — I want to get some idea of what issues or matters that you chose to put in chapter 3 and chapter 4. Chapter 3 is ‘Quantifiable environmental and social costs and benefits’ and gives three or four particular areas in which you said the impact can be quantifiable. Chapter 4 is ‘Effects not included in the quantitative cost–benefit analysis’. Some of those you assess as having zero value in direct effects and others have uncosted risks and effects. How do you make those decisions about what type of issues are put in each of those three categories?

**Mr MEYRICK** — Thank you so much for that question, because I think it is a very pertinent question and an appropriate one — and it has obviously been a contentious one. Let me start by saying it was our endeavour to include as many of the non-market effects of the project as we possibly could but not at the expense of undermining the estimates of those elements of the cost and benefits stream which can with some confidence be estimated. It is possible to interject — and you have all seen, no doubt, some extremely rubbery numbers into cost–benefit analysis on very little basis.

So we have essentially three qualifying criteria for an effect, which is included in the quantitative cost–benefit analysis. The first of those is that there should be a reasonable scientific basis for assuming that the effect will occur, or at least for assigning a defined probability to that event occurring. That is the factual scientific stuff. I know nothing about the science about most of these things so to get that we had to go to the specialist scientists in each sector and say, ‘Do you think there will be a measurable effect?’.

The second criterion which is related to that is that you then need to be able to in some way quantify that impact with some degree of reliability — not exactly, not precisely, nothing is precise — to a reasonable level so that you can put out a number that you could credibly discuss with people on it.

The third element is that you then need to have a reasonably robust process for converting that effect into a dollar value. All of the effects that you see in section 4 fell at one of the first two hurdles. Some of them would have fallen at the third one anyway, but all of them fell at one of the first two hurdles. In almost of all those cases, the scientists said to us, 'Where we have said zero effect, it is not going to happen. There will not be this type of effect when we put into place the EMP'. In some cases they would have without the sophisticated — I do not want to make judgements about that — or elaborated environmental management program that evolved through the course of the project.

In very early drafts, working through these pages, we actually had a few more of these non-market effects with costs attached to them but then the project changed. They internalised some of that cost. They elaborated the environmental management program, and then the judgement of the relevant scientists was that effect will no longer occur. Obviously it cannot be costed if it does not occur. The scientists say, 'It ain't going to happen', basically, and we are taking their word for it. I do not feel competent to challenge on those bases, and I have no reason to believe they ought to have been challenged.

There is another set, which is the ones that are the unvalued but not necessarily on zero, when the scientists basically said something of the sort, 'Yes, I guess it could happen but the probability is very, very low, and if it does happen the effect is likely to be containable'.

We cannot give you a reasonable estimate of probability nor can we specify with any clarity the magnitude of the effect. In those circumstances it is not possible for us to place a credible dollar value on the effect. The information is just not clear enough to do that. However, because we did not want to lose that material altogether, we actually put in those chapters in a cost-benefit analysis, although they did not impact on the numbers, just to alert people to the fact that these had been raised as issues, that the science has been done, and these were the comments we have gotten. That is basically how we distinguished it. Anything that passed the three gates, and there were not very many, as you can see, got included in the quantitative cost-benefit analysis.

**Mr HALL** — Yes. What do you mean by 'internalising' those costs?

**Mr MEYRICK** — Okay, that is econo-speak, isn't it, and I apologise for that. Basically, if I am about to do something — let's say dredge a channel — and I foresee that that might disturb a certain fish species and that would have a cost to the society at large, I can effectively internalise those costs by saying, 'Okay, as well as actually dredging the channel I will do this thing, this thing, this thing and this other thing while I am doing the channel at additional cost, which will reduce or eliminate the risk of that disturbance occurring'. By doing so, I am effectively internalising the cost. That is, I am taking the cost on my shoulders as part of my project which, in the absence of those mitigation measures, would find its way out to the system in a social cost. Is that clear enough?

**Mr HALL** — Yes. Lastly, I just want to ask: in respect to these matters that have been zero-valued or uncosted, did you receive any direction from the Port of Melbourne Authority in respect to what to include and what not to include in your report?

**Mr MEYRICK** — No, we did not, and frankly I would have resisted that. I have not built a company for 20 years trying to do business on that sort of basis.

**Mr HALL** — Thank you.

**Mr BARBER** — Thanks, Chair. I guess you were not really asked to do a business case in some ways, were you?

**Mr MEYRICK** — Regrettably, no.

**Mr BARBER** — Why 'regrettably'?

**Mr MEYRICK** — Because we do that line of work, and we have done it for other clients, and it would have been an interesting exercise to be involved in.

**Mr BARBER** — Basically what you were doing was looking at all sorts of diffuse benefits or at least diffuse beyond the port itself into port users versus the costs which were going to be borne by the port? That mandated Treasury rate — if it was around 6 per cent, that is virtually a government borrowings-type rate. That is effectively saying what? What is 6 per cent saying?

**Mr MEYRICK** — 6 per cent real?

**Mr BARBER** — In non-technical terms.

**Mr MEYRICK** — The social discount rate is what it should be. Let me put it this way: as I say, there is an immense literature on this so whatever I say will essentially oversimplify it.

**Mr BARBER** — Give it a go.

**Mr MEYRICK** — My prejudices in terms of the different schools of thought will be showing. Basically, my view on this and it seems to be the European view is it should reflect a social-type preference rate — that is, the extent to which we, taken collectively as a society, would prefer to have our cake today than tomorrow.

**Mr BARBER** — We are not worrying about our grandkids.

**Mr MEYRICK** — Well, we are, in fact and that is one of the reasons why I must admit I am really concerned about the proposition that we ought to use discount rates which are 12–15 per cent because if you did that, you would count as nothing the benefits to your grandchildren, perhaps even more importantly to my grandchildren. So it is very important that we do not get stuck using excessively high discount rates. That means only what we get today matters, in the short term, and what flows down to our children and our children's children would be valued at virtually nought.

**Mr BARBER** — So if you were doing a business case, you would have definitely gone with the weighted average cost of capital that a business or corporatised government entity does? They drive the equity returns from the market and they do the debt also from the debt market?

**Mr MEYRICK** — I certainly would have been focused on what is the cost of capital to the entity rather than to the society as a whole, yes.

**Mr BARBER** — The Department of Transport just came in here and told us in their witness statement that you have provided a final estimated BCR for the CDP since the lodgement of their submission, so I presume it is in the last couple of weeks. The most recent one I have got from you is the 2007 Meyrick and Associates one where it quotes the results of the revised October 2006 analysis.

Comparing what is in this latest announcement here today and that in October 2006 — PV benefits are still 1936: they have not changed; PV costs are now 754 whereas previously they were 590; NPV then goes to 1.18, down from 1.35: we have lost \$250 million; and that changes the BCR to 2.57 instead of 3.3. Is the only thing that has changed between those analyses an update of the PV costs?

**Mr MEYRICK** — Correct. The numbers that you read out were provided by the department, were they?

**Mr BARBER** — By the Department of Transport, and then I asked the port, and they said, 'He wrote us a letter saying that'.

**Mr MEYRICK** — I did. That is precisely what happened. I received a call from PMC about two weeks ago, I think it was, informing me that the cost estimate for the project had significantly increased since the material we did for it and asked if we could update the analysis purely to reflect the increased cost, which is what we did, and we sent the results of the analysis in a letter to the Port of Melbourne Corporation.

**Mr BARBER** — Are you still getting the invoicing for this, or is this after-sales service?

**Mr MEYRICK** — I do not know.

**Mr BARBER** — Okay. Assuming there is anything more in it than just what is here, which is a couple of lines, can you provide us with the same letter?

**Mr MEYRICK** — That letter is something I have sent to PMC. I will certainly relay your request to PMC.

**Mr BARBER** — They said, 'You will have to ask Mr Meyrick.'

**The CHAIR** — They did, indeed.

**Mr BARBER** — In fact twice over they said, ‘You will have to ask Mr Meyrick’.

**Mr VINEY** — If he has got a commercial arrangement with someone else — —

**Mr MEYRICK** — I just cannot do that.

**The CHAIR** — I think Mr Bradford indicated we would receive that letter.

**Mr MEYRICK** — So do you wish me to convey your request to him, or has he already got the message?

**The CHAIR** — He is aware of the request, thank you.

**Mr BARBER** — Present value costs of 754 — but they are telling us the cost of the project is 969. Given the project is under way, I am gathering it is not the time value or money that is getting us from 969 down to 754. What are you still excluding from that? It is 12 months worth.

**Mr MEYRICK** — Consistent with the approach we took in the SEES, I am excluding any costs which have been expended or irrevocably — actually, not true; I do not know what costs have irrevocably committed, so I did not exclude them. I have excluded any costs that were expended up until the end of 2007. The reason for that is quite simple: I was asked to present an analysis on the same basis as that which went to the SEES. In my view, the entirely appropriate way we presented the analysis in the SEES was in a forward-looking sense. The reasons for that are explained quite clearly there.

**Mr BARBER** — There is some debate about the sunk costs and whether they should have been in, but I am asking you: are there any new sunk costs that you are excluding since October 2006 and yesterday when you wrote that letter?

**Mr MEYRICK** — Yes. There are costs which were expended in 2007.

**Mr BARBER** — What were they?

**Mr MEYRICK** — I honestly could not tell you off the top of my head, but I am happy to — —

**Mr BARBER** — It seems the more they dredge, the more they have got some cost — —

**Mr MEYRICK** — Correct.

**Mr BARBER** — So you continually exclude that from the costs in each analysis they ask you to do?

**Mr MEYRICK** — Absolutely. And that would be entirely correct, because — I mean, let me put a hypothetical to you — —

**Mr BARBER** — Option value, sure, but we are still trying to get to the bottom of the original business case, so it is kind of not helpful in some ways that they keep subtracting some costs off that and present that as the business case.

**Mr MEYRICK** — You will be aware that in the BCA to the SEES we actually did a supplementary analysis, which included all of the sunk costs. So you can make that comparison at least so far as that is concerned.

**Mr BARBER** — It is just mathematics, isn't it?

**Mr MEYRICK** — It is not being swept under the carpet or whatever, it is there. I have maintained strongly that from a decision-making perspective it is the wrong way to look at things, and you know why.

**Mr BARBER** — Yes. The economists' criticisms, at large, I suppose have been back and forward a few times are about the sensitivity analysis. Is there anything wrong with the way they have done a sensitivity analysis? It is also just mathematics, isn't it?

**Mr MEYRICK** — Frankly, I have not had a look at their sensitivity analysis, so I cannot comment on what Economists@Large have done — well, I did for what they did for the SEES, and my comments there are on the public domain already, and I do not wish to repeat them. There are many, many ways of doing a sensitivity analysis. We included quite a lot of sensitivity analysis in the work we did for the SEES, as you are aware.

**Mr BARBER** — You did ones on different discount rates too, didn't you?

**Mr MEYRICK** — We did; 4 and 8 per cent.

**Mr BARBER** — But you never examined — I mean, the port basically admitted this morning that its weighted average cost to capital is about 11. So you never did one to examine what this would have come out as if they had treated it like a commercial project?

**Mr MEYRICK** — No, and I would have resisted any urging from the port to do that, because it would be an entirely inappropriate way to behave for a social cost-benefit analysis.

**Mr BARBER** — Yes, but in some ways — here is a social cost-benefit analysis: the government has already determined that the port will operate at a commercial level. In making that decision the government and the Parliament decided 'We will operate the port on a commercial basis and that is how we achieve the best social outcome for our shippers and all those other people downstream, regardless of who ends up getting the benefits'. So why do a social cost-benefit analysis when the decision has already been made that the best way to do that is to run the port's commercial entity as spin-offs of the spin-offs?

**Mr MEYRICK** — With the greatest of respect, you are confusing two conceptual universes there. It would be much better for clear decision-making and public policy if you clearly distinguished between the spheres of the area of interest of the corporation and the way in which the government chooses to manage its corporations and the issue of whether a physical project will yield benefits to society. They are quite different issues. I will maintain until the day I die that they ought to be treated as completely separate issues, and I have the overwhelming weight of authoritative academic opinion on my side.

**Mr BARBER** — I was not conflating them; I was asking you to separate out for me.

**Mr MEYRICK** — I think I have done so.

**Mr BARBER** — But the way I opened it was: why would there be a social benefit analysis — —

**Mr MEYRICK** — I am sorry, it happens to be something that oddly enough I feel quite passionate about.

**Mr BARBER** — Good on you! The port told us earlier this morning that over the last 16 years there has been 17.8 per cent growth in containerised trade. Do you know what it was in the 16 years prior to that?

**Mr MEYRICK** — For the port of Melbourne, offhand, no. I can tell you globally because I do that homework. The global rate of growth has averaged over the last 30 years about 8 per cent.

**Mr BARBER** — They said double GDP is a good rule of thumb.

**Mr MEYRICK** — A little bit crude for my taste, but not bad. It has tended to work out that way. Again, I have to get a little bit technical to try — —

**Mr BARBER** — Talk to me like I have an MBA in corporate finance.

**Mr MEYRICK** — It is not a financing issue.

**Mr BARBER** — That is what I mean, I am not that smart when it comes to economic concepts. They only teach us enough to ask smartarse questions!

**Mr MEYRICK** — The problem that confuses that a little bit — and this is why we do the top-down analysis the way we do — is that we have lived through a period where we have seen a significant liberalisation of global trading systems.

**Mr BARBER** — Growth in China; the internet?

**Mr MEYRICK** — All of those things.

**Mr BARBER** — Nobody saw that coming!

**Mr MEYRICK** — What has happened as a result of that is that you have had quite a bit of volatility in the ratio between trade growth and economic growth over that period. So we have tried to make our assumptions on that very explicit in our analysis. That is where I get a little bit cringey about a very simple thing. In fact, as a long run average, it is not bad.

**Mr BARBER** — Were you feeling cringey when you had to project 7.8 out over the next 30 years?

**Mr MEYRICK** — I did not project 7.8 out over — —

**Mr BARBER** — You got that from somebody else's?

**Mr MEYRICK** — Never did it. We have never done it at any stage of the analysis.

**Mr BARBER** — You bought that data in from somebody else.

**Mr MEYRICK** — We have never bought that data in — we never used those figures.

**Mr BARBER** — What did you use?

**Mr MEYRICK** — I have got them here, as it happens. For the first period we used a figure, I think, of 6.71 per cent for the short run, by which I mean through to — —

**Mr BARBER** — Ten years?

**Mr MEYRICK** — 2010, for our 2011 through to 2020 years, 5.59; for 2021 onwards we used 4.68 per cent.

**Mr BARBER** — Did you do a terminal value, or was it not worth it?

**Mr MEYRICK** — We did not do a terminal value.

**Mr BARBER** — Thanks, that is helpful.

**Mr MEYRICK** — We truncated it at 25, yes.

**Mr BARBER** — Back to the earlier issue you raised about the scientists and the advice they were giving you about environmental effects: you and they would have been hampered somewhat in that you were doing this before, during and after two different SEES's — yes? It would only be at the end of the final SEES that there was a definitive statement on environmental effects?

**Mr MEYRICK** — Correct. To the best of my knowledge and belief, the VCA incorporated the final views of the relevant scientists that went into the SEES. I will not pretend that the process of trying to get that coordination so that we got the final views into our analysis in time was not a terribly fraught process, but to the best of my knowledge and belief, all of the scientific views which are noted in here reflect the final views of the relevant scientific experts at the time of the SEES.

**Mr BARBER** — You said it cannot be costed if it will not occur. That is a little bit cart before the horse. They are telling you that the probability is zero, and you are saying that you cannot cost it. You can cost it in the way that it is zero.

**Mr MEYRICK** — Okay.

**Mr BARBER** — Or do a decision tree.

**Mr MEYRICK** — Certainly, but if I weighted the probability as zero — —

**Mr BARBER** — Science and probabilities — —

**Mr MEYRICK** — Yes, zero — —

**Mr BARBER** — And that has a huge effect, very low probability?

**Mr MEYRICK** — You can do that. My objection to doing that, and it is a standing objection; it is not manufactured for this particular project, is that what you are doing then — you can do that, and it has been done. Methodologically I find it exceptionable because you end up with one very low number, which you have really got no idea about, multiplied by one very high number, which you have got really no idea about, and you end up with a number which is sometimes large enough to swamp all of those numbers in the analysis that you do have some idea about.

It seems to me that is methodologically destructive to the intelligent decision-making process, and one is far better to quarantine those effects about which you have to say, reluctantly perhaps, ‘There is no way I can put a reasonably reliable value on this effect’, point them out and deal with them truly qualitatively. There are methodological arguments about that, but I am quite happy to fight my corner on that.

**Mr BARBER** — That is probably why this project is still in huge dispute though, isn’t it?

**Mr MEYRICK** — No, this project is — —

**Mr BARBER** — We have fallen into the gap between those two — —

**Mr MEYRICK** — Perhaps.

**Mr BARBER** — What you are happy to do and what we are all asking about?

**Mr MEYRICK** — The real reason why it is in dispute is, I think, with the greatest respect to some of the submitters, is that people are mistaking assertions for evidence on most of these matters.

**Mr BARBER** — Just a final question: there has also been a bit of discussion about the ship size estimates that you used in your report. One of the things is that you were basically having zero ships before a certain size. You had a probability distribution curve, which I have looked at, assuming obviously the average increasing but the tails on either end pretty much conking out. Where did you get the data from to do that?

**Mr MEYRICK** — Let me make one clarification: there is a subset of ships which is not included in the analysis anywhere because they are irrelevant. They are the ships that serve the rats-and-mice trades: the New Zealand trade, the Pacific trade and so forth. They are not included anywhere in the analysis because in our view they are never going to grow to the size where they are going to be impacted by the current depth of the channel. So we deal in our analysis only with those ships which we expect to operate in the major trades, of which there are four: the north and east-Asian trade, the south-east Asian trade, the North American trade and the European trade.

We are not asserting that there will not be any little odds and bobs floating around in Melbourne, we are simply asserting that they are irrelevant to this analysis because there is no economic benefit to them from the channel deepening project. There is, if you like, an invisible tail at the low end of ships deployed in the rats-and-mice trades, for the want of a polite term.

**Mr BARBER** — But as far as the raw numbers or the distribution of those other ships, you are quite happy to warranty that they are all reasonable assumptions?

**Mr MEYRICK** — They are all reasonable assumptions. I think they are well-founded assumptions.

**Mr BARBER** — You are not a shipping expert. Where did you get the data from?

**Mr MEYRICK** — Pardon?

**Mr BARBER** — Where did you get the data from to predict what that will be looking like in 30 years time?

**Mr MEYRICK** — There are a number of sources we can rely on. Basically I would point you to three. There is no precise way of doing that; I am perfectly happy to admit that.

There are three leads of evidence that can help us to get a set of reasonable assumptions. The first is to look at what has happened in the Australian trades historically and look at the rate of growth of ship size, both the maximum ship size and the average ship size in these major trades. We did that, and the analysis is presented in our report for you to see. Basically, it turns out that historically we have witnessed an increase in the maximum ship size of around 4 per cent per annum over a very long period of 20 years or thereabouts. That is one element. Put that aside for a moment.

The other thing we can look at is the evolution of ship sizes in other trades which are in a sense more advanced than ours, because they are heavier volume trades, or whatever. You may or may not be aware that the largest ship now is well over 10 000 TEU in size. Ships of the sort of size we are talking about arriving in Australian trades in 20-odd years time have been deployed on the Europe–Asia services and the trans-Pacific services since, let's say, at least the early to mid-1990s, for 13 to 14 years.

If you look at the historical lags in Australian ship size between global, typically we are talking in the order of 20 years. So there is a little bit of a linkage there. We can look at what happens elsewhere, where things are more along the track, if you like, as an indicator. If that is broadly consistent with a continuation of past trends, then you have some sort of a feeling for what is likely to happen in the future.

As it happens, we got a bit cowardly about it, and we thought that the leading indicator stuff tended to point a bit south of the historical trend line in Australia, so we adopted the more conservative of the two points of view in that regard.

The other area where you can get a lead of what is likely to happen is to just look at the ship order book, look at the position — —

**Mr BARBER** — That is what I would have thought, but the representatives of the port sat here and said, 'That's all trade secret. You can never get into that'. It would be kind of hard to build a ship with no ship doing that.

**Mr MEYRICK** — I think, again with respect, there may be a slightly crossed wire here. I think they were talking about the individual plans of particular shipping lines in the short term, which it tends to be. The state of the order book, the overall composition of the global container fleet, you are quite right saying, 'You can't hide that'. Everybody who is prepared to pay the right amount of money for a subscription database can hook it down from the database and build up the profiles, which is exactly what we did.

**Mr BARBER** — When an individual line connects, it will probably show up in their accounts, too, would it not?

**Mr MEYRICK** — That is true as well. One complexity is that it does not really tell you when they are going to come here.

**Mr BARBER** — That is why I say 'the individual'.

**Mr MEYRICK** — They swap the ships in and out of the trades with monotonous regularity, if you like. So that is why we try to rely more on the two long-run trends, which is the historical Australian and then the forward looking, and say: what sort of ship size?

Of course, the fourth element is you go out and have a yak to people in the industry. I do that with some caution because you have to be a little bit sceptical about what shipowners tell you about what is going on, because sometimes they have a vested interest in pushing a particular value.

**Mr BARBER** — They will give you good goss on the opposition, though.

**Mr MEYRICK** — That is exactly right. You are quite right: it is better to ask them about somebody else's behaviour than their own.

**Mr BARBER** — But that was not a major component of what you did in this instance?

**Mr MEYRICK** — It was a cross-check. We found that what we worked out from the databases was broadly consistent with the industry gossip.

**Mr BARBER** — Did you call the actual lines that are currently operate in Australia? There is a list of them.

**Mr MEYRICK** — We called on them. We went to visit them and chatted to them about what they saw the future being. Everyone has a slightly different perspective, but it was broadly consistent with what we saw happening.

**The CHAIR** — Thank you, Mr Meyrick. The committee appreciates your attendance this afternoon and for clarifying some of the matters in the cost benefit study. We will have a draft transcript to you in the next couple of days for any corrections you wish to make.

**Witness withdrew.**