



COMMONWEALTH OF AUSTRALIA

Proof Committee Hansard

HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON ECONOMICS, FINANCE AND
PUBLIC ADMINISTRATION

**Reference: The state of Australia's manufactured export and import competing
base**

TUESDAY, 29 AUGUST 2006

SYDNEY

CONDITIONS OF DISTRIBUTION

This is an uncorrected proof of evidence taken before the committee. It is made available under the condition that it is recognised as such.

BY AUTHORITY OF THE HOUSE OF REPRESENTATIVES

[PROOF COPY]

INTERNET

The Proof and Official Hansard transcripts of Senate committee hearings, some House of Representatives committee hearings and some joint committee hearings are available on the Internet. Some House of Representatives committees and some joint committees make available only Official Hansard transcripts.

The Internet address is: **<http://www.aph.gov.au/hansard>**

To search the parliamentary database, go to:
<http://parlinfoweb.aph.gov.au>

HOUSE OF REPRESENTATIVES
STANDING COMMITTEE ON ECONOMICS, FINANCE AND PUBLIC ADMINISTRATION

Tuesday, 29 August 2006

Members: Mr Baird (*Chair*), Dr Emerson (*Deputy Chair*), Mr Ciobo, Mr Fitzgibbon, Mr Keenan, Ms Grierson, Mr McArthur, Mr Secker, Mr Somlyay and Mr Tanner

Members in attendance: Mr Baird, Dr Emerson, Ms Grierson and Mr Tanner

Terms of reference for the inquiry:

To inquire into and report on:

The state and future directions of Australia's manufactured export and import competing base, focusing on, but not limited to:

- Australia's dominance in commodities exports and the impacts of this on the economy following the resources boom;
- The state of the country's manufacturing sector (and the goods and associated services) including opportunities and challenges from the expansion in global trade (in particular by China); and
- Policies for realising these opportunities.

WITNESSES

BLAKEMORE, Dr John Stewart, Chief Executive and Principal (Innovation), Blakemore Consulting International; and National President, Manufacturing Society of Australia.....	44
BURN, Dr Peter, Associate Director, Public Policy, Australian Industry Group.....	2
CAIRNS, Mr Ian, National Manager, Manufacturing and Distribution, Australian Steel Institute	22
CAMERON, Mr Doug, National Secretary, Australian Manufacturing Workers Union	67
CONROY, Mr Patrick, National Projects Officer, Australian Manufacturing Workers Union.....	67
GRAHAM, Mr Ian Keith, Consultant, Standards Australia.....	14
HENRY, Mr John William Scott, Director, International and Standardisation Policy, Standards Australia	14
NICOLUSSI, Mr Walter, Marketing Manager, Manufacturing, AUB&MM, BlueScope Steel; and Member, Australian Steel Institute.....	22
ROACH, Mr Ted (Walter Edward), Chief Executive Officer, Sydney Business and Technology Centre.....	56
STRASSER, Mr Tony Dieter, Private capacity	34

Committee met at 9.16 am

CHAIR (Mr Baird)—I declare open this public hearing of the House of Representatives Standing Committee on Economics, Finance and Public Administration inquiry into the state of Australia's manufactured export and import competing base now and beyond the resources boom. The inquiry was referred by the Treasurer, the Hon. Peter Costello MP, on 3 May 2006. The inquiry has authorised 30 submissions to date from various parts of Australia and from a broad cross-section of interested parties. Copies of these submissions are available on the committee's website.

Australia's resources sector is currently experiencing an economic boom, driven mainly by unprecedented global demand for raw materials by China. We have been experiencing economic growth for over 15 years, which defies the historic economic cycle having peaks and troughs within this period. Australia is now operating within a different economic framework to the past, most notably a global one. However, past behaviour is the best predictor of future behaviour. History indicates that high commodity prices cannot be sustained indefinitely. The committee is therefore investigating the robustness and preparedness for the future of our other dominant trade sectors and the impacts of or synergies from the resources boom. This hearing will concentrate on the current and future directions of Australia's manufacturing sector.

Today we will be hearing from representatives from the Australian Industry Group and others. I remind witnesses that although the committee does not require them to give evidence under oath, this hearing is a legal proceeding before the parliament and, as such, it has the same respect as proceedings before the House itself.

BURN, Dr Peter, Associate Director, Public Policy, Australian Industry Group

CHAIR—Welcome. Thank you very much for coming. We have the group's comments and background data from previous presentations, We invite you to make an opening statement and then we will proceed to questions.

Dr Burn—The Australian Industry Group is very honoured to be invited to appear before the committee. The terms of reference for this inquiry, and your committee's parallel inquiry into the services industry, raise very important issues about the development of our economy and about the direction of economic and industry policy in Australia. We believe this committee has the potential to inform the debate and to play an important role in making sure that policy makers are directed into sensible and constructive channels.

The majority of Ai Group's members are manufacturers. We also have members in many other sectors, including construction, ICT, logistics, labour hire and service industries. Our close contact with our members, together with our ongoing research into Australia's industries, including manufacturing, gives us unique insights into the conditions facing the sector. The current state of the manufacturing industry, particularly in the context of the current minerals boom, is something that Ai Group has researched and written about over several years. Our more recent research in this area includes last December's *Balancing the risks: building Australia's economic resilience* and *Manufacturing futures: achieving global fitness*, which we released in April this year. We also published the path-breaking *World class skills for world class industries* in May this year. In addition, our Chief Executive, Mrs Heather Ridout, has given many public addresses on the issues. These include her National Press Club address of 19 April, 'Balancing the risks: ensuring our prosperity survives the boom'. I would be delighted to table those documents for the committee's convenience.

The committee would be aware of our contributions, and I will not take up your time by going over the finer details of analysis on all of our policy recommendations. Rather, if I may, I would like to give a quick overview of Ai Group's approach, with particular reference to the research and principles that lie behind our diagnosis of the state of Australian manufacturing, its prospects and the appropriate policy responses. I would also like to suggest half-a-dozen or so policy areas for your consideration.

There should be no doubt that Australia's manufacturing sector is under considerable pressure. Recently it seems that almost every day there is news of closures, cutbacks and cost downs. It is a very tough period and, for some businesses and their employees, the prospects are far from bright. These developments need to be seen against the general background of an economy that is subject to constant change and in which, even at the best of times, businesses scale back and are shut down. These sorts of movements are part and parcel of the general tide of creative destruction that characterises the modern dynamic economy. Fortunately, in this general process new businesses open up and others expand their operations. At a time when employment is growing strongly and the official unemployment rate is now well below five per cent, some comfort can be taken from the aggregate success of the Australian economy.

Nevertheless, the conditions facing Australian manufacturers in 2006 are particularly challenging. Part of this is the strength of the minerals boom. The surging commodity prices have strengthened the exchange rate, have helped absorb spare capacity and have drawn resources—particularly skilled labour—away from non-booming sectors such as manufacturing. Australian manufacturing is undergoing a bout of ‘Dutch disease’.

CHAIR—Of what?

Dr Burn—Dutch disease. This was a term coined when North Sea oil was discovered. It had a very similar effect on the Dutch economy.

CHAIR—What happened?

Dr Burn—Essentially it was inflation, but it was internal competition for resources and a reduction in competitiveness of non-booming sectors. We also call it the Gregory thesis here. After the 1960s boom, Bob Gregory wrote a version of the Dutch disease for Australia.

CHAIR—I remember hearing about that at university. Can you remind us again what it was?

Dr Burn—It is easiest to think about it as an open exchange or free exchange rate economy. The prices of some commodities rise and that raises the exchange rate in an equilibrating mechanism. The non-booming sectors, however, have to experience the same exchange rate, so their export opportunities are diminished and they are subject to more intense competitive pressures on imports because of the exchange rate effect. In addition, internal resources are allocated away from those sectors to the booming sector so that capital and labour, broadly, go west. The non-booming sectors have to confront this circumstance. So it is a well-established economic pattern when you have a booming sector. It is particularly relevant when the booming sector is, say, five per cent of the economy, such as minerals are, but its exports are disproportionately large. Its effect on domestic employment may not be so profound, but its effects on other sectors, where employment is heavier, can offset some of the beneficial effects of the boom. That is a long-winded explanation.

CHAIR—That is interesting.

Dr Burn—That it is sometimes called Dutch disease. Even more than this, Australian manufacturers are facing the challenges of the manufacturing led emergence of China together with the rapid development of other nations such as India, Brazil and a number of eastern European countries. The competitive pressures stem not only from cheaper labour, although this is a big part of the story, but also from the strong investments these countries are making in training, education and sophisticated products and processes. Unfortunately, the competitive pressures in some cases also stem from what is seen to be the dumping of low-cost product in local and export markets and a lack of success in securing intellectual property rights both in other countries and in the domestic market. These global developments are of course affecting manufacturers and their workforces around the globe. In most countries, however, most manufacturers are not also fighting off Dutch disease.

Our research into the manufacturing sector reveals a very vigorous response by Australian business to these challenges. In *Manufacturing futures* we documented the extent to which

manufacturers themselves were investing in new products and processes, increasing the attention they paid to recruitment and training, looking to develop export markets, innovating, building and linking into global supply chains and investing directly abroad. We also found that manufacturers were renovating their businesses by cutting costs. Perhaps our most disturbing finding was that up to 30 per cent of manufacturers were not actively renovating their businesses in the face of these competitive challenges.

At the other end of the scale, we also found that manufacturers are intent on turning challenges into opportunities. Many are undertaking or eyeing investment opportunities abroad, particularly to take advantage of new sources of demand and new capabilities in emerging economies. These businesses are challenging many of our preconceptions of what it means to be an Australian manufacturer. Many are also leveraging the efficiency gains they have generated to build their businesses. Ai Group is active in policy debates. In this we are guided by several principles. Firstly, we are very wary of policies that would damage the aggregate economy, even if they are intended to help manufacturers. Manufacturing, at about 13 per cent of Australian gross value added, is inextricably linked to the success of the aggregate economy, and policies that slow the aggregate rate of growth are likely to also see fewer opportunities emerge for manufacturers. Second, we are wary of the ability of governments to pick winners. We are very mindful of the argument: if you are so smart, how come you are not rich?

CHAIR—That is true.

Dr Burn—Finally, we are supportive of policies that create conditions for the continuous emergence of new winners. In this area we see strong scope for policy that will facilitate the development of business capabilities and workforce skills. We also support policies that remove impediments to growth. With these principles in mind, in *Manufacturing futures* we put forward for consideration policies in six main areas: improving incentives to invest, developing workforce skills, building Australia's business capabilities, making further improvements to Australia's innovation system, reducing the red tape burden imposed on business and encouraging and removing barriers to global engagement.

I would like to conclude these opening comments with the observation that, despite the considerable challenges facing Australian manufacturers, overwhelmingly they are responding actively and creatively. With appropriate policy, the considerable efforts and energy of Australian manufacturers and their workforces can ensure that they are successful and well equipped to assume a leading role in the economy when and if the minerals boom subsides. Of course, even then global competitive pressures will continue to intensify.

CHAIR—Thank you. You have been around long enough to know what this committee is about: looking at the key elements for success and competitiveness of those manufacturers who survive the global pressures; what we should be doing as a government; impediments that currently exist—and I notice you have provided a list; and the incentives that we should be providing. Perhaps it might be best if we went to your list, for example, of impediments. Could you expand that out a bit? Or you might want to take it from another angle and focus on some other aspect, but that is a starting point.

Dr Burn—The biggest impediment that manufacturers are facing is supply of skilled labour. That comes out as the top thing.

CHAIR—That has been a common theme in our hearings in Brisbane, Newcastle and Melbourne. Give us your views on it.

Dr Burn—Australia has done pretty well in increasing its participation rate at education institutions over a fairly long period, whereas 25 or so years ago we were outstandingly poor relative to other countries. However, the world has not stood still, other countries have also been acting and Australia is still behind in the proportion of the population with educational qualifications. That is a general point. In addition, a range of factors has affected the supply of skilled tradespeople in particular. Whether that be attitudes about the desirability of university education or whether that be a perceived status of trades versus clerical or administrative sorts of jobs or whatever, we have not as a country invested sufficiently in growing that workforce. That, combined with demographic forces, means that the average age of skilled tradespeople is rising. In some sectors these demographic forces are combining with the general tightness of the market to produce particularly acute shortages in these areas. We can also point to a range, if you like, of by-products of our development path in the last little while, and in particular the role that government business enterprises played—

CHAIR—You are off skills now?

Dr Burn—No, I am on skills—the role that government business enterprises played in effectively subsidising the training of skilled tradespeople. It was an implicit subsidy delivered by the taxpayer or the buyer of gas or whatever. AGL, for example, trained a lot of fitters and turners—perhaps not under a strict cost-benefit analysis that would prevail in an open private company. I am not pointing out AGL in particular, but general government businesses enterprises did play a role in providing an ongoing stream of trained labour, which was taken out without sufficient action in other areas to replace that source and without, perhaps, sufficient recognition of the role that these enterprises played. So skills is a big area.

Ms GRIERSON—I hear people talk about the push to go to university, but 70 per cent do not. I wonder why we do not push more of that 70 per cent to take up trade courses and those sorts of opportunities. I also wonder why the Australian Industry Group supported technical colleges so strongly prior to the large last election when the benefits have been very minimal at this stage. I am from the Hunter, so I know the value of industry focused local solutions and local collaborations of TAFE and group training companies, supported by industry, so I am wondering what your view now is of where those colleges are heading.

Before you answer, I will draw attention to your report on manufacturing in the regions. You say that the Hunter always comes out as having high labour costs but that it has the greatest investment in its labour force in terms of skills and training. I guess in a way that has helped us to ride through the skills crisis, even though we would employ more people tomorrow if we could. It has helped. I come from a background where I see that an investment in a labour force means higher labour costs but I see the benefits down the track of having a skilled labour force. I see a college that has not even started to operate yet.

Dr Burn—As to the first part, about why more people are not going into trades, I have put forward a few explanations and no doubt there are a few others. We would certainly like to see more. In fact, increasingly, and interestingly enough, university graduates are considering a trade. That is an interesting avenue as well.

Ms GRIERSON—The pathways are great.

Dr Burn—As to the minimal benefits of the technical colleges and our support for those, I will say that we support all initiatives to improve skills. This was a stated objective of this program. You point to the issue of minimal benefits. I would not dispute that, but I think that these things do take some time to get going. You would not expect immediate benefits from what is, of course, a long-term investment.

Ms GRIERSON—What do you hope the long-term benefits are going to be?

Dr Burn—We hope there will be a larger supply of skilled workers. In addition, to the extent that there are different ways of going about training and different training models introduced as a result of different institutions, we think that would be of benefit across the training system. There may well be innovations that are generated in one sector that can be transferred and lessons learnt and adopted in other sectors as well.

Ms GRIERSON—I suppose I find generic models not as useful as local solutions. When things work well locally, it would be good if government could support those and advance them. We took a trip to Gladstone earlier this year and looked at infrastructure. The problem was raised that kids are leaving school because they can go out to the mines and get good money. When the boom is over, they will be unskilled. They have experiences but they have no accredited skills or training base. Is that something that is happening around the country?

Dr Burn—I do not have direct evidence of it, but it is an entirely predictable outcome. Wages go up, the relative opportunities of education versus work today improve and people choose to do that. Whether or not that forever inhibits their ability to undertake training is a different issue. Indeed, there are arguments to say that a period in the workforce, particularly if it helps them get a bit of money, might not set back their overall development at all and may improve it. There is also the issue of on-the-job training and the importance of that.

Ms GRIERSON—Do you think industry is playing its part in training?

Dr Burn—Industry is playing a part, for sure. We as a country—not isolating industry, individuals or government—probably do not invest enough in education and training. I guess the responsibilities for that should exist across the people who would benefit—that is, the individuals, the businesses and the broader community via the government.

Ms GRIERSON—I know that Australian Industry Group at the moment are trailing a project on improving the links to public research and industry. Is it too early to give us any view on how that is going?

Dr Burn—I am very glad you are interested in the project. That is something that I am working on directly. I am supported by Gillian Gribble, who is from the Hunter.

Ms GRIERSON—That is right.

Dr Burn—It is a very important project and a very exciting one because we are finding that perhaps our perceptions of where the public sector research institutions are—and particularly the

universities—are well behind where they actually are. We have been very impressed with what the universities in particular are doing to try and build linkages with the business community in, broadly, knowledge transfer. We think that there are a lot of exciting developments there, but we would always like to see the pace accelerated and the lessons dispersed more broadly. That is partly what our project is aimed at doing.

Ms GRIERSON—And you will make some policy recommendations to government as a result of that trial?

Dr Burn—We will make recommendations to business, to institutions and to government. But it is a little bit early to say where the emphasis will lie.

Ms GRIERSON—Do you know when that will end?

Dr Burn—It is going to go for a long time. We will have a report by the end of the year. We have had some interest from a number of universities to extend this project for several years, given that that is the length of time that the research cycle lasts.

Ms GRIERSON—I guess when I raised the colleges to you, I was particularly looking at the aerospace industry in my region. It hangs off the Joint Strike Fighter and the Williamtown RAAF Base there. Yet I also have visited the TAFE that invested in state-of-the-art labs for training people in that, and I know the costs that went into that. I wonder about fragmenting costs across different institutions, when it takes big money now to train people in these high-skill industries. I worry that diverting funds from good, existing resources where commitments have been put it is often wasteful. Many people have said to us in submissions or in visits that they want support for capital equipment. They really find it difficult to make that next expenditure to expand or to buy that one piece of very expensive equipment that would move their industry forward. It may not be classed as R&D and it may not generate exports straightaway, and therefore the incentives are not there. Can you give us some advice on that area? Some people have suggested accelerated depreciation. We need to know a little bit more about that.

Dr Burn—I can give you views on that. We are very mindful that there are a range of strategies that businesses need to think about in order to improve their performance and productivity. One of those is capital investment. In addition, they need to invest in training, in other forms of innovation, in developing export markets and so on. The accelerated depreciation model has a number of shortcomings. If you have a certain amount of money to spend, you are only concentrating it in capital equipment to the relative neglect of those other activities. In addition, the nature of accelerated depreciation means that it is an issue of the timing of tax paid. The total quantity of tax paid does not change; it is just the timing of it. You still get to write off the whole amount of the capital equipment. It might take 20 years versus 10 years, but your total deductions are still the same. There is nevertheless a net present value benefit, but one which is often overstated. We would prefer—on the tax front, at any rate—to see a reduction in the company tax rate. That would improve investment incentives across the range of activities that business can undertake to improve their performance, including but not limited to investing in capital equipment.

Ms GRIERSON—Okay. You talk about the need for business skills and world-class business capabilities. Do you think that that is a deficit at the moment?

Dr Burn—We could do better. That is the issue. Particularly we are very concerned about the 30 per cent of manufacturers in our survey that came out as not doing much at all to renovate their business. It was the best part of a year ago that we did that survey. No doubt that proportion has fallen. But particularly for some small and medium sized businesses we think there is quite a good scope to improve their knowledge of how they can improve their businesses. That knowledge is already there. This is not about innovation. It is not about discovering new stuff. It is about getting existing information about how to run business and how to improve your operations into the group of businesses that are not currently doing it. We think that there are probably big benefits to be obtained from that sort of focus on developing business capabilities.

Ms GRIERSON—You also suggest that one of the objectives should be ‘measures to further globalise Australian industry’. I do not quite know what you mean by that. I am also wondering what your view is on how bilateral trade agreements have worked at the moment for manufacturers in Australia.

Dr Burn—We would prefer progress on free trade to take the form of multilateral negotiations and progress.

CHAIR—I think we all would, as long as we can get it, but with the Doha Round collapse it is difficult.

Dr Burn—It is the disappointments there that lead us to regional and bilateral measures. Many of our members have found the Thailand free trade agreement beneficial, for example. There are conceptual questions about whether overall it is trade diverting or trade creating. Probably business is not in a position to make an assessment of that. They can see the benefits of something like the Thai free trade agreement and the US free trade agreement and work on that.

Ms GRIERSON—Has the Australian Industry Group done any research on what the benefits have been so far?

Dr Burn—The lower tariffs in Thailand, for example, have definitely helped. We have done research on that. I can dig it out and bring it in. It is also evident in some of the publications I have tabled today. On the broader question about enhancing global engagement, this relates to exports. We think Austrade does a great job, and there should be more of it. The EMDG Scheme, which unfortunately was cut back a couple of years ago, could well be used to develop further opportunities in export. We also think that we have a tax system which creates a disincentive for firms to pursue a growth avenue which many are very keen to pursue. This was seen by the Board of Taxation in its inquiry into Australia’s international trade arrangements—the RITA inquiry—conducted by Dick Warburton.

One of the board’s recommendations—in fact, probably their most important recommendation—was that we should try to find a way to remove the double taxation of offshore earnings when it is distributed to domestic shareholders. We have a proposal—which is basically to accept the Board of Taxation’s recommendation in this area—that we have put forward in *Manufacturing futures*. We think that this area of Australian investment abroad, although it raises some hackles, is really a source of tremendous opportunity. We have members for whom 80 per cent of their production is conducted offshore. They are going to come to a point in their growth where they will say: ‘What’s the benefit of being an Australian company

when 80 per cent of our business is much closer to Hong Kong than to Melbourne, Sydney or Perth?' So we think that it is an important step that would help keep Australian companies based in Australia and would allow them to invest offshore and to grow those opportunities.

Ms GRIERSON—Some manufacturers are offshoring and others are doing it in very different ways. We visited Ampcontrol in the Hunter, who are setting up in China, in terms of distributing the componentry they already import. Being a local company, there is a currency dividend. They will do some manufacturing there eventually and they hope that that will influence the quality of things that they already bring into the country from China. What is the pattern of offshoring at the moment? Are companies going offshore to beat the costs here and be more competitive or are they perhaps being more adventurous in terms of forming those relationships with countries like China?

Dr Burn—It is both. People are sourcing cheaper inputs from not only China but other lower cost producers, and so we are seeing a rise particularly of intermediate imports. The jargon is: tap into global supply chains. In addition, we are seeing a range of modes of entry into foreign markets, partnerships, long-term contracts of various kinds, joint ventures and direct investment. There is no one pattern that stands out, rather the issues revolve around the sort of thing the company does, its intellectual property protection issues and the nature of the market that it is supplying. We would be very hesitant to isolate one direction as the dominant pattern. There is a multiplicity of things but, under the overall heading of this greater and, we think, quite profound change in Australian manufacturing of global engagement, many Australian manufacturers are becoming global manufacturers.

Ms GRIERSON—Some have suggested Austrade need to modernise their methods; others have praised Austrade, but there have been different stories. What is your view of the current position of Austrade and AusIndustry?

Dr Burn—Both Austrade and AusIndustry do a very commendable job. We actively talk with these people about our ideas for improving their operations, and they often have good responses and answers to those ideas, so there is an ongoing dialogue. I think we make an overall positive contradiction to their development and the development of their programs. I think the Austrade submission to this inquiry was pretty good. It pointed out that they are quite involved across a range of pretty interesting areas.

Ms GRIERSON—During this boom period, are we seeing product diversification? Are we seeing new products coming to market? Do you have any evidence of that as a result of innovation or new trade opportunities?

Dr Burn—We do. The answer is: yes, there are and we have evidence. We find that development of new products is a lead-in strategy in the face of these competitive pressures and that a very large proportion of companies are involved in either modifying their existing products and improving them or developing new products and looking to exploit their capabilities in different ways.

Ms GRIERSON—Do you know which sectors are driving that? Is it more evident in certain sectors?

Dr Burn—The sector is a very broad category. It is probably only at the level of the individual firm, and they are scattered across a range of sectors. Car components, for example, are under a lot of pressure but there is a lot of good stuff happening there and a lot of exciting developments so that even in sectors which are apparently under the gun there are some very innovative and exciting developments.

Ms GRIERSON—Recently we visited a small mining manufacturer of longwall mining equipment in the Hunter, and they said that the government had exempted two companies that were importing the same product. Can you explain that system to us or why those exemptions would happen? They were saying that for them, who manufacture that equipment here, it is a pretty hard call when the government exempts it from the import duty.

Dr Burn—I guess there are competing interests in that because businesses that use those inputs would like cheaper inputs. Presumably this relates to the tariff concession scheme.

Ms GRIERSON—Yes, that is right.

Dr Burn—It is always a tough call, isn't it, to try and figure out how you are going to—

Ms GRIERSON—It is tough when there is a local manufacturer.

Dr Burn—Yes. In this case the user of the equipment is a mining company, but in many cases the user of the equipment will also be a manufacturer, so it is a very difficult one to call.

Ms GRIERSON—Are there guidelines on when you can exempt it and when you can enforce it?

Dr Burn—I am sure there are. I do not know the detail of it.

Ms GRIERSON—You mentioned IP. We had some submissions that said that getting patents was a slow process. Sometimes getting them was fast, but, if there was any challenge to it, it was a very slow process. If it was straightforward it was very easy, but if there was any challenge to a patent it could go on for years. What is the experience of the Australian Industry Group in terms of patents in Australia?

Dr Burn—This raises the general issue about the efficiency of government services. We think that there is always scope to improve—to reduce the regulatory burden, streamline processes and improve them. I would not want to single out the patents office as particularly bad, because that would make the tax office look good.

Ms GRIERSON—It is all right. I am involved in a tax inquiry as well.

Dr Burn—The issue of IP protection is very important for our members. Many of them are saying that, even in the Australian market, imported products are looking very similar to their own products and that it is very tough to keep track of that. Even if they do keep track of it and somehow protect themselves in the Australian market, they are relatively powerless to do so in export markets. So that is an issue that really needs addressing.

Ms GRIERSON—It will not go away. Thank you.

CHAIR—Thank you very much. We are running out of time. I have a few questions that go back to my original question. We talked about some of the impediments. You talked about the supply of skilled labour and so on. Could you briefly run through the other key aspects on your list and give us some of the highlights. We have already covered some of the issues in terms of incentive, but I would like you to address those two factors in particular.

Dr Burn—One of the impediments that we see in the skill area is that there is clearly a need for more retraining and upskilling of existing workers. The entry level training is just not going to generate the quantity of supply that is needed. I mentioned before that the responsibility for this needs to be shared across government, business and individuals. When we look at the tax treatment of an individual's own investment in their retraining we find that the tax deduction is limited to expenditure related to earning their current income—that is, in their present job.

CHAIR—And upskilling. That is a very good point, actually.

Dr Burn—A plumber wanting to become an engineer or a manager does not get any tax relief for the investment they make in their own training.

CHAIR—Isn't that a problem, though, in the sense that too many engineers are skilling with MBAs to become merchant bankers or whatever?

Dr Burn—It is interesting because the case law relates to an engineer upskilling to do an MBA course, so no doubt that is a factor, but we think that there is scope to improve the tax treatment. We think that is an impediment to individuals making investments in their own training.

CHAIR—That is a good point.

Dr Burn—I have talked about incentives to invest and taxation. On red tape, we think that so much progress has been happening on that in the last six months at all levels of government that the potential is strong. The trick is to get the benefits. There have been a lot of fantastic reports and statements, and now the trick is to generate the outcomes.

CHAIR—We have the rhetoric right, I think!

Ms GRIERSON—Yes, it is being spruiked everywhere, in all the right places.

Dr Burn—We are forever hopeful. The Victorian government proposal, for example, to commit to reducing the regulatory burden on business by 15 per cent over three years and 25 per cent over five years, and to publish measures of that, gives some confidence that there might be some tangible way of keeping track of it rather than it just becoming a lot of hot air. I guess the Commonwealth government's instructions to the Productivity Commission to develop ways of measuring regulatory burdens and benchmarking them across jurisdictions and internationally are also a new and potentially beneficial step. I spoke also about the tax barriers to global investment.

CHAIR—Reciprocal trade agreements and double tax, yes.

Dr Burn—The question of innovation raises some important issues as well. It is generally recognised that expenditure on research and development generates external benefits. A company generates more for society than the benefits it accrues for itself, so from a social point of view there is an impediment to the optimal amount of private spending on research and development just by leaving the market to itself. We provide a basic tax concession of 125 per cent for R&D expenditure. We are concerned at the way that works in Australia because we have an imputation system which credits individual shareholders with the amount of company tax paid. When no company tax is paid because of the tax concession given at the company level, shareholders receive unfranked dividends and pay the tax themselves. There is a ‘clawing back’ of the tax concession, so that overall—

CHAIR—That is true; that is a good point.

Dr Burn—investors looking at a company doing R&D have no incentive to provide capital to that company in addition to the incentive that it would have if it were not undertaking the R&D. We think that is an important impediment from a social point of view. I think I have mentioned the other impediments that we raised.

CHAIR—Finally, you could mention some of the other incentives that you would see. You have raised some of them, and some of them were the reverse of what the impediments are—so removing the impediments becomes an incentive. But are there other key things that you want to see reflected in our report? You are a very significant player in all of these areas, so we would want to reflect your views. Obviously, we will do some more work on the reports that you guys have written.

Dr Burn—In the area of workforce skills, and this is probably the most important area, I mentioned the incentive that an individual has to retrain. We think that the training system overall and our approach to it needs to factor in a new dimension, which is the retraining and upskilling of existing workers—not just those at the entry level. We need to keep the entry-level training and improve that, but also we need to complement that with an emphasis on retraining and re-equipping existing workers. This is beneficial both to the economy and to the individual worker, whose opportunities are broadened and whose security is improved.

That is a very important area in which we are further developing a number of policies. We are thinking of a broad direction of opening up this avenue and an emphasis on retraining and reskilling. This goes to matters such as the recognition of prior learning and agreed and recognised qualifications, as well as simply money and places in institutions.

CHAIR—What about attracting people into the trades area? Everyone is complaining about the great shortage there. One of the issues seems to be the options available to young people when they leave school. If they are offered what they would see as a significant amount of money to go into an unskilled job, how would we overcome that to provide incentives for people to go into apprenticeships?

Dr Burn—We can provide various incentives to employers to take on more apprentices, and to assist with their wages while they are undergoing training would be a good idea. There is the

issue of the image of these things and why, even though the money is good in the long term, someone might not be attracted to them. There is also the issue of not writing off someone once they have passed 19 years of age by saying, 'You've lost all opportunity and you can no longer do it,' but to open up a broader range of entry points into those sorts of streams so that the person attracted to a job for a couple of years for what appears to be a great wage might not be closing off opportunities by doing so and may be able to pick up later on. Accelerated training programs are the sorts of things that can help there.

CHAIR—It is not that we do not find what you are saying interesting but our time is short. Our apologies for running late this morning, Dr Burn, for reasons that I have shared with you. Thank you for coming. We appreciate it and we will look at your publications. We may want to come back to you at some stage as we regard you as a primary source on these matters.

Ms GRIERSON—They are very good publications; your research is great.

CHAIR—Yes. Thanks for the introductory instalment. I believe a submission is coming in from you; is that right?

Dr Burn—Yes.

CHAIR—We look forward to receiving that.

Dr Burn—Thank you for the compliments, and I will pass them on to the team.

[10.15 am]

GRAHAM, Mr Ian Keith, Consultant, Standards Australia

HENRY, Mr John William Scott, Director, International and Standardisation Policy, Standards Australia

CHAIR—I welcome the representatives of Standards Australia. We have received a written submission from you. Do you wish to elaborate on that and make an opening statement before we proceed to questions?

Mr Graham—Yes, certainly. I would like to offer a summary and provide you with some background. Firstly, Standards Australia is very pleased and honoured to be able to appear before you today. I would like to start by referring to the report on regulatory reform which the task force has recently published. This report goes to some length to explain the benefits of good regulatory practice in minimising trade barriers and supporting manufacturing. The basis of our submission is to explain the part that international standardisation plays in supporting good regulatory practice in both the local and international environments.

CHAIR—It would be true to say that in our discussions in Queensland and Newcastle in particular—we were down in Melbourne yesterday—the question of harmonisation of regulation has come up very often.

Mr Graham—Yes. I have a background of many years as a state based technical regulator in Victoria. I helped coordinate those activities nationally and I helped advise the government on a number of international negotiations for mutual recognition and, in association with that, support of international standardisation as part of that.

CHAIR—Do you get involved in standardisation of qualifications as well? I suppose that would be to other bodies and groups. That has been coming up quite a lot too.

Mr Henry—Only to a minor extent. The national training framework tends to look at that, but we do get involved in a few specific areas—things like working in hazardous areas and that type of thing.

CHAIR—Sorry?

Mr Henry—Working in hazardous areas—for instance, in mines, which might be very relevant to some of the discussions that you have had—and also things like welding qualifications, as we are involved with those. But we are not involved in the broader sense.

Mr Graham—Of course many of our standards are used as a basis for training, particularly in trade areas. My background of being an electrical regulator is an example of that, given the wiring rules and standards for electrical products et cetera.

Our report explains, firstly, how Standards Australia is a national standards body and is recognised as such by the government. There is an MOU between Standards Australia and the federal government which refers in particular to our role in linking our standards with international standards and our commitment to do that to the maximum extent. At the moment about 80 per cent of Australian standards are aligned with international standards where there is an international standard in place. This supports the WTO agreement which states that specific objective and is also referenced in that MOU I referred to. Standards Australia has government sponsorship for assisting in training and capacity building for standards and infrastructure in countries in our immediate region. Standards Australia's standards harmonisation activities underpin many international agreements for mutual recognition and harmonisation of regulatory regimes, which of course assists to minimise trade barriers.

The report goes to some length to explain how Australian standards play a major part in contributing to good regulatory practice. The report mentions some of the recommendations from this report and explains that link in some detail. The submission goes on to explain all these matters and provides some background. It puts forward six recommendations which we would like to put to the government for consideration to support and maximise the benefits from these activities and links that I have been talking about.

First, we would like to recommend that the government investigates the international use of standards to drive trade, particularly as has been undertaken in the European Union and North America—

CHAIR—Are we doing that in the free trade agreements, for example, or is that part of it?

Mr Graham—Yes. We have provided advice to the government on these issues that I have been talking about: the part that harmonisation of standards plays in that.

Ms GRIERSON—Are our standards seen as non-tariff barriers by some of our trade partners?

Mr Graham—I believe that Australia's reputation in this area is very good, certainly in the area that I have been involved in. We are seen as a leader in adopting recognised international practice—the standards and conformance—therefore providing minimum barriers to trade.

Ms GRIERSON—Things such as quarantine regulations in this country are seen as being so tough that other countries will accuse us of using those sorts of regulations and standards as a barrier to trade. Is the same accusation made about Australian standards?

Mr Henry—I think it is mainly in areas such as food and agriculture where that is raised. We are a relatively open market in manufactured goods. In fact, even with the current negotiations on the FTA with China, the question is: is there even a need to put in a standards chapter, because they have not really been able to identify any standards barriers? There are a number of barriers to exporting goods to China. They have a very unique conformance system, but the Chinese have not raised too many points about barriers from the Australian side.

CHAIR—We agree with recommendation No. 1. To what extent we put in a requirement in terms of our free trade agreements may be something we could look at. Recommendation No. 2.

Mr Graham—The next recommendation is that we would like to encourage the government to continue sponsoring training and capacity building projects, standards and conformance for developing countries. Our experience there is that if you participate and assist these countries in developing the infrastructure, the infrastructure is more likely to be aligned with ours, which, in many areas, are aligned with good international practice; therefore, the result is likely to be a structure which facilitates trade between us.

CHAIR—Page 8, recommendation No. 3.

Mr Graham—Our third recommendation is that Australia continues to take a leadership role in pursuing international agreements that support trade and minimise barriers. In doing so, as I have just indicated, it uses our model of adopting international standardisation and conformity practices as a good example to others. John and I have both had a lot of experience in APEC, for example. My experience there is that Australia is seen as a leader in this field and in using good practice, and that has encouraged other countries in our region to look at our practice and think about adopting similar practices. In my area of involvement, say, in electrical products, which are highly traded internationally, while there has not been a firm international agreement coming out of these APEC activities, the interchange and exchange of information is very valuable in encouraging other countries to adopt similar practice.

Good examples are Singapore and Vietnam. Our activities in Singapore, I believe, precipitated a bilateral agreement that we have in place in this area. The agreement was put in place because a couple of requirements were imposed in Singapore which were over and above what we believed was good regulatory practice. By the time the agreement was finalised they had removed those barriers. So it was a process of information exchange and a sharing of ideas. In this case it did result in a formal agreement but that agreement was not needed.

CHAIR—That sounds good. What about recommendation 4?

Mr Graham—The fourth recommendation is that the government encourages manufacturers to use Australian standards even where there is no mandatory requirement. There are many obvious benefits there. Products have more integrity when they are manufactured to standards. They can be more efficient and of higher quality and this is more easily demonstrated. We see many benefits in encouraging manufacturers to do that.

Our fifth recommendation is that the Australian government continues to pursue initiatives like this regulatory reform by the task group and the activities for the Productivity Commission locally and also that it continues to encourage good regulatory practice internationally in the way I have described.

Finally, our sixth recommendation is that the government, through its regulators, encourages the maximum adoption of Australian standards. We recommend that, rather than writing standards specifically in regulation, regulators be encouraged to adopt standards to maximise the benefits I have been talking about. Also, we recommend that it encourages its regulators to adopt performance based standards. As a regulator of many years, I am firmly convinced of the benefit of that. The result, in my view, is a much more effective regulation which focuses on the important outcomes. It provides a platform which encourages commitment and compliance by industry and offers the opportunity of co-regulation while at the same time minimising the need

for regulation. If there are good standards in place which are fully accepted by industry, obviously there is less likely to be a need for regulation in that area. This approach to regulation also encourages maximum flexibility for industry and minimises the regulatory burden on industry.

CHAIR—Part of your manufacturing submission states that around 80 per cent of Australian standards are aligned with international standards. Which areas of the economy are not yet aligned with international standards?

Mr Henry—It tends to be manufactured goods where there are actually international standards. It makes sense, because they are a tradable good. Areas where there is a lack of international standards include things like occupational health and safety, the construction industry and things that are perhaps less to do with goods and more to do with services in some ways or to do with the environment in which you operate.

I should also add that in the international field there are two major blocs. On one side there is the North American bloc and on the other side there is the European bloc. International standardisation tries to find a middle ground between the two. In that area we are perhaps more facilitators than real players in terms of suggesting that the Australian standard be adopted, but I think we do play an important facilitation role.

CHAIR—Are there countries which use national standards as a trade barrier to prevent problems of exporting Australian manufacturers?

Mr Henry—That is a provocative question. I think there is a general agreement that Europe and North America use standards very effectively to block. To give you an example, we have had an Australian standard for children's toys for many years and so have Europe and North America. We worked with the Chinese internationally to develop an international standard for toys. At the end of that, there was general agreement that this is what should be used. China made a commitment to manufacturing toys to that and is driving that through the toy industry—they are the world's largest supplier. However, North America and Europe have still maintained their own toy standards and they have also got conformity assessment requirements that require retesting. From our perspective, Australia does face those sorts of problems, yes.

Ms GRIERSON—Was it taken into account in the US free trade agreement? Did you see any win for us on that or not?

Mr Henry—The US free trade agreement's standards chapter basically provides mechanisms for resolving disputes rather than actually trying to agree on standards. Where there is a problem, there is a mechanism there to raise it. There has been one example quoted in the paper over the last few months to do with a manufacturer of LP gas cylinders in Australia who wants to sell them in the US. It is probably true to say it is the conformity assessment side that has been his problem. He keeps getting sent from one department to one private organisation and then to another to try to work out exactly what he needs to do to get his cylinders approved.

Ms GRIERSON—It can take a long time then, can't it?

Mr Henry—It can take a long time, yes. But at least now there is a mechanism there and this is being pursued by the Commonwealth department.

CHAIR—With respect to the WTO agreement on trade in services, on pages 2 to 3 of your submission you discuss the General Agreement on Trade in Services. How many countries are signatories to this agreement and what benefit does it offer to Australia?

Mr Henry—Off the top of my head I could not tell you the exact number who have accepted the GATS agreement. It is certainly something we could find out back at the office. It is one of the more widely held agreements; it is one of the fundamental agreements. The problem we see with the GATS agreement—I think we are not the only ones—is that it has been built around things like the banking sector and it does not really address the more technical areas very well. There is a provision in there for addressing where there is a different service level expected in different countries, but that mechanism has hardly been used at all and that is generally because the way it is drafted does not work very well. It makes it very difficult. Of course, with the Doha Round suspended, the opportunity to get those improvements, which generally we were hoping would come out of the Doha Round, is put on hold.

CHAIR—On page 4 of your services submission you note that for skilled trades such as electricians, plumbers and welders there are either no standards or, where standards do exist, they are poorly observed. I also chair the trade committee and we were over in New Zealand a couple of weeks ago. This was also highlighted then, that there should be a much greater complementary nature with respect to qualifications across the Tasman. Individual groups, such as the plumbers, have actually worked out their own standards and qualifications, so there is now easy movement across the Tasman mainly from New Zealand to us, which is good. What is your view? Is there likely improvement? Are we likely to see groups such as the plumbers starting to do work on that themselves? What is the government's role in that?

Ms GRIERSON—When you answer that, could you give us any information you can about the skilled migration visas? People are coming from all over the place now. Is there a standards check on those people in the training they have had to take up those skilled positions?

Mr Henry—We are obviously not a government agency and we are a little at arm's length. As Ian pointed out, what we tend to set is a national standard, which is a technical document; the administration of these types of things tends to be done state by state. One of the benefits of having a common technical understanding is that, even though the legislation in New South Wales and Victoria may be drafted completely differently and have different scopes, at least they can agree on what a plumber should know and what sort of skills they should have.

CHAIR—The first step is getting the states to agree.

Mr Henry—Yes, but there is some light on the horizon. For instance, in gas regulation, which is an important part of the plumbing, I think there is going to be a common set of requirements for how you plumb a house for gas. That was agreed by an intergovernmental group. Water is another area where there has been agreement. In electrical, there has been agreement for many years. Unless you are trying to achieve the same outcomes and wire a house the same way in New Zealand as in Australia, you cannot have free movement without additional training and

examination. So the first thing is to get the regulation common and agreed to between the two and then you have got more scope for free movement.

Mr Graham—In the electrical area, with the Trans-Tasman Mutual Recognition Arrangement, electricians are recognised in Australia who are qualified in New Zealand and vice versa. The committee that prepares the wiring rules that John was talking about is a joint committee that has input from New Zealand and Australia. Even though there might be some differences in the processes used in wiring between the two countries, they are essentially the same and an electrician can easily be skilled in both areas and recognised mutually.

CHAIR—I have a question about the ISO standards: on page 4 of your services submission, you state:

In recent times, ISO has established a number of initiatives to develop service standards in new fields ...

Perhaps you could detail some of these new initiatives.

Mr Henry—It is a relatively new area for the ISO, which was traditionally a very technical type body. The most well-known ISO standard is a rather non-technical standard, ISO 9001, on quality systems. The ISO is seeking to reinvent itself to make itself more relevant. It has recently developed an international standard on financial planning, which was quite controversial. We have regulation in Australia; in the US, they have some regulation but it is probably less effective. It is less about the movement of people and more about having a common understanding of what advice you should provide, given that money flows fairly freely between countries these days. People taking advice are not quite sure where the advice is coming from. This was to get a general agreement, and it seems to work reasonably well. Other things like cleaning service services have recently been proposed as an international standard, but it would be fair to say that this is a newer area for the international standards community. The major blocks like North America and Europe have traditionally said: 'No, we'll look after that ourselves within our own boundaries. We don't want to put that into the international arena.' Because services are now being supplied offshore and that type of thing, the major blocks are saying it is a bit hard to control this by putting a barrier around their own areas.

CHAIR—On page 5 of your services submission, you discuss the APEC initiative to establish the Group on Services which is liberalising trade in services in our region. I am interested in what this group's plans are in terms of services standards and what the potential benefits of Australia's service export industries are.

Mr Henry—I will give you a general run-down on APEC. One of the difficulties APEC faces is that it is a voluntary organisation. It is not based on a treaty. Even if there is an agreement by the bulk of the members, there is no way they can enforce that so that the member economies participate. Next year we are hosting APEC. The Prime Minister has said that we have to either make APEC work better or think about whether we still want to put resources into APEC. One of the areas is the Group on Services. It is very much based on the same premise as the WTO GATS agreement. Each economy makes a voluntary liberalisation, puts that on the table and hopes that that will inspire others to go along. Where the APEC groups have been particularly useful is in finding areas where there are problems, where there is disagreement, and somehow digging down and exposing perhaps barriers to trade that are not immediately apparent. The

Group on Services at the moment has been looking at a range of things. We have a meeting with them in a little over a week's time in Vietnam to look at some of the implementation of food safety measures, which is one of the areas that is also caught up under the Group on Services. Like a lot of APEC initiatives, there is a lot of good intent, but if you ask us to point to concrete measures that they have achieved I would say that it is fairly hard to do so.

Ms GRIERSON—I have a general question. Could you tell me the governance structure of Standards Australia?

Mr Henry—We are a company limited by guarantee. We were formed in the 1920s and have been around since then. We are largely funded from our own investments. Some of that money came from businesses that we previously owned and have sold. We are not part of government, although we have a memorandum of understanding with the government. We have member organisations that come from government, industry and the community. They elect a council of around a hundred people and that council acts as the overall governing body that elects the board of directors.

Ms GRIERSON—So the council elect the board of directors?

Mr Henry—That is right.

Ms GRIERSON—How many directors are there?

Mr Henry—There are eight.

Ms GRIERSON—Who accredits your work? How are you audited or how is it checked that you are doing it properly?

Mr Henry—Within our organisation we have a structure. We have a group called the Standards Accreditation Board that sits aside from the operational side of Standards Australia. It is currently going through a process of—

Ms GRIERSON—Is that a board of experts?

Mr Henry—Yes. We have academics, we—

Ms GRIERSON—So it is independent of the governance board?

Mr Henry—Yes, it is independent. They are elected by the council but they are separate from the governance board. That group sets out what an Australian standard should embody and we undertake benchmarking against those standards. I should say that not all the Australian standards are developed within Standards Australia; we also accredit other bodies that develop Australian standards. It is the same set of criteria and it is basically around transparency and consensus. If there is no national consensus on an issue, there cannot be an Australian standard. However, in a great many technical areas there is a form of consensus that we can agree on and there are some core requirements.

Ms GRIERSON—Is there a requirement that conflict of interest be declared? I know that some of your members are people with vested interest in certain sectors of industry. As a member of parliament, I get lots of grumbles at times about Standards Australia being a group that protects its own interests at times. I am not the arbiter of that, but they come to me quite explicitly at times in terms of Standards Australia holding onto the past or holding onto things that suit the big players that are represented on Standards Australia. They will not say that to you, so I guess I have to say to you.

Mr Henry—That is fair criticism. There is currently a Productivity Commission inquiry looking into standards and accreditation. By being a private organisation we are not the only ones who develop standards in Australia. If our system were completely dysfunctional I think people would stop using Australian standards. It is as simple as that. If government chooses to reference them it is because government has made a decision that this standard is the best solution. You will always get people who are trying to push their own interest. We require that they disclose their interest. For instance, if you have an academic on a committee it is very important that if their research has been commissioned by a particular company they disclose that.

Trying to get a balance between all the different commercial interests on a committee is perhaps the biggest challenge for us. I would like to say that we get it 100 per cent right. I would say that there are times when we do not, but we do have mechanisms so that when people complain we can look at it and try to redress the situation. I am in the middle of one at the moment to do with the insulation industry. We are going out to an independent group to arbitrate on whether or not these people have had a fair hearing and whether or not the committee is properly balanced. We try our very best to do that, but like everything it is difficult when you are trying to strike a compromise in an agreement. Not everybody walks away happy. We often say we would like to think that everyone walked away equally unhappy; in other words, everybody gave a little bit and we found the middle ground. If one group walks out of the meeting saying, 'Boy, that was a great standard,' and the others walk out saying, 'That was terrible,' then we have not done a very good job.

Ms GRIERSON—Thank you for your frank answer.

CHAIR—Thanks very much. Thanks for coming today; I really appreciate that.

Mr Graham—Thank you.

[10.47 am]

CAIRNS, Mr Ian, National Manager, Manufacturing and Distribution, Australian Steel Institute

NICOLUSSI, Mr Walter, Marketing Manager, Manufacturing, AUB&MM, BlueScope Steel; and Member, Australian Steel Institute

CHAIR—Welcome. Would you like to add anything about the capacity in which you appear?

Mr Nicolussi—BlueScope Steel is a sustaining member of the ASI. Hence, we are keen to support their submission.

CHAIR—As you know, although the committee does not require you to give evidence under oath it still has the same standing as proceedings before the parliament. I invite you to make an opening statement, then we will proceed to questions.

Mr Cairns—Firstly, ASI appreciate the opportunity to discuss our submission today. Thank you for that. I will give you a brief background on the Australian Steel Institute. The Australian Steel Institute is the peak industry body for steel and was established some four years ago, via the amalgamation between the Australian Institute of Steel Construction and the Steel Institute of Australia. The previous organisations had been in operation for 44 years. The Australian Institute of Steel Construction, having a technical and engineering focus, represented engineers, steel fabricators and designers. The Steel Institute of Australia, having a sales and marketing focus, represented major steel manufacturers and steel distributors. ASI is funded by its members—approximately 2,000—which are split into a number of categories. The majority of the funding comes from our three sustaining members: BlueScope Steel, OneSteel and Smorgon Steel.

I want to move on to a brief background on the submission. The ASI submission was put together by a working party from our three sustaining members plus Orrcon Operations, which is a steel pipe and tube manufacturer and distributor, plus Southern Steel Group and Coil Steels, which are both steel distributors. The submission is forwarded on behalf of all ASI members and is really meant to cover three distinct areas. The first area is steel manufacturing with products such as sheet, coil, plate and bar structural products and piping tube and this area concerns mainly the three sustaining members and Orrcon Operations, being steel manufacturers.

The second area is heavy manufacturing, such as steel buildings, wind towers, power stations and large steel tanks et cetera, and this again is on behalf of steel manufacturers, steel distributors, and other supply chain members of ASI such as designers, fabricators, erectors, detailers and quoters, such as galvanisers and painters. The third area is light manufacturing and repetitive manufacturing with products such as component parts, shelving, gates, fences and that sort of product. Again, that is on behalf of our manufacturers and our steel distributors, who in turn supply the many tens of thousands of manufacturing end-users who do not historically tend to be members of the Australian Steel Institute. In summary, I would like the committee to review our concerns and areas for consideration within our submission.

CHAIR—Thank you very much. I suppose in many ways your industry exemplifies what we are about. We talked to the wool industry in Melbourne yesterday and we have talked to other industries that are on the cutting edge of this international competition. So we need to understand something about the degree to which you are under pressure from competition, particularly with China, and the factors for success of those companies which have survived—the degree to which they have taken international partners and what degree of restructuring has been involved. But also what more should the government be doing short of putting up tariffs? These are the parameters and maybe you could help us with that. Pages 2 and 3 of your submission highlight that Australian manufacturing is now only 11 per cent of GDP compared to 14 per cent for the US, 17 per cent for Britain and 19 per cent for New Zealand. What is your view for the reduction of the manufacturing sector in this country?

Mr Nicolussi—Certainly over the last 10 years there is no question that, from a manufacturing point of view within the steel environment, we have seen a slow and gradual decline in manufacturing. Some people would argue that is going to occur anyway because there is constant evolution in manufacturing. The dynamics mean that people will leave the industry and the players will come in but overall, taking those things into consideration, we have still seen a significant decline. The steel industry in Australia is probably no different to those trends that are occurring overseas and that we have seen—both an exodus of manufacturers offshore to low-cost countries as well as an influx of increased penetration from steel related products into our country. As well we have seen those successful companies that were exporting into, say, the Asian region being displaced from those markets just through the likes of the Chinese.

CHAIR—What is the principal reason? Is it just low-cost manufacture offshore or have they made some other mistakes as well?

Mr Nicolussi—In my view there would be a number of issues. A lot of people jump straight to the low-cost solution and there is no question that that is a distinct advantage that the Chinese and other low-cost manufacturers would have. But if you overlay the significant investment that is occurring in those countries, and our own organisation is one of the largest Australian investors in China—

CHAIR—The wool scourers, the carbonisers and top manufacturers have also got joint ventures in China.

Mr Nicolussi—That is correct.

CHAIR—So you have followed that pattern.

Mr Nicolussi—Yes, it is certainly seen as a significant opportunity for manufacturers. Having an export focus from Australia, it is difficult to see exporting into China, so a successful strategy would be around taking a stake in those offshore locations.

CHAIR—What products are you producing?

Mr Nicolussi—If you are familiar with Colorbond, which is a painted steel product, we are currently building a plant replicating those facilities in China to meet their boom in building. They have got significant advantages in terms of labour, but they also have very up-to-date

technology and equipment, even surpassing some of our own manufacturing capabilities in a lot of areas.

Ms GRIERSON—Who is doing that?

Mr Nicolussi—The example I was using was the BlueScope. We have a regional footprint, which supports our export focus.

CHAIR—Are you planning to import products for the Australian market from your plant in China?

Mr Nicolussi—No, we do not. We see the opportunities in China. Having said that, the difficulty is we are not able to export our products from Australia competitively to China to support our own mill, so we will be sourcing material in China to fund that mill. There is no question that we are already seeing significant volumes of Chinese steel—raw steel products as opposed to finished steel items—coming into the Australian market. If I can just use an illustration, last year we saw galvanised steel from China increase from a base of about 2,000 tonnes a month to about 25,000 tonnes during a period of about three or four months.

CHAIR—What is the quality of that?

Mr Nicolussi—By and large, it is acceptable. It meets the Australian standards and most customers find it meets their requirements.

Ms GRIERSON—And the price trend?

Mr Nicolussi—Again, pricing in China is distorted compared to the rest of the world. In Australia, we benchmark to the landed imported steel price. We have offshore officers who are measuring prices in the States and in Europe and we have representatives around the Asian region. Clearly China is the lowest and bucks the current trends of steel prices in Europe and in the USA.

CHAIR—Obviously it is a real challenge for our manufacturers. What can we do about this, if anything?

Mr Nicolussi—It is a difficult one. There is certainly a strong suggestion that there is a distorted and unfair view about support provided to the Chinese steel industry.

CHAIR—In terms of what, if you are to be specific? By the way, because of your operations in China, if you want to go in camera so this is not published, we can do so. You may prefer to do that.

Mr Nicolussi—I certainly am not going to be specific in this forum, but I know Ian's submission—

Mr Cairns—There is certainly a series of issues, and they are very well detailed by our American counterparts as a matter of fact. We have been in consultation with them, and they

have recently issued a report called the *China syndrome*. It outlines how the government has supported the growth of the Chinese steel industry through a variety of subsidies and tariffs.

CHAIR—Perhaps we can see if we can get a copy of this.

Mr Cairns—I have actually outlined it in my report. There is a web link there.

CHAIR—We will be interested in looking at that. How should the Australian government respond?

Mr Nicolussi—The difficulty here is that there is a steel manufacturer's perspective, but we need to be cognisant of the steel manufacturer who is making the widgets per se. As Dr Peter Burn mentioned, there is no one solution fits all.

Mr Cairns—We certainly have a broad scope of membership—from the SMEs to the constructors to the major steel manufacturers. We have highlighted some microareas and some major areas. Maybe we could just talk to them.

CHAIR—Yes.

Mr Cairns—One area is enhanced training and skills development to support manufacturing. Again, skills shortages is becoming a major issue. Similar to what AiG have said, there needs to be upskilling and incentives for companies or individuals to train in the right areas; that is, not to become MBAs and merchant bankers but perhaps for plumbers to become engineers. There is a need to highlight particular areas.

CHAIR—That is a good point.

Mr Cairns—We have spoken about tax concessions for capital investment in manufacturing. Accelerated depreciation is another area.

Ms GRIERSON—On tax concessions for capital investment: we have been through an era where we protected industry to our own loss and to the nation's loss. How do you stop that being a: 'You can't afford it anyway,' to a: 'Yes, it is a real investment that takes this business to another level'? Take, for example, the huge piece of equipment that OneSteel put in in Newcastle earlier this year. It creates those massive wire ropes that are used in industry, and we did not have that capacity here in Australia. Would they have got any support for that capital investment?

Mr Cairns—I am not sure.

Ms GRIERSON—I would be interested to use it as a case model to see if they did. It is something that was needed in this country during this boom period, but I do not know whether they got any incentives. If you could provide that information to us, if it is not commercial-in-confidence, it would be interesting to see. It was a huge investment and certainly supports this nation during this boom. I do not know whether it attracted any concessions or depreciation measures.

Mr Cairns—It is certainly a very good example within the industry. I will endeavour to find out and report back.

CHAIR—If you could report back to the secretariat, that would be great.

Mr Cairns—Sure. Export incentives for manufactured goods—

CHAIR—Bear in mind that the problem with export incentives is that they are being targeted by the WTO. There are also moves to eliminate subsidies across the board, and an export incentive is seen as a subsidy.

Mr Cairns—We are just trying to level the playing field.

CHAIR—I understand that.

Mr Cairns—Our Chinese competitors have an eight to 11 per cent export incentive. We can level the playing field two ways: we can apply it here or take it away there. It seems to be more within our control to apply it here than take it away there.

CHAIR—They have applied, as you know, and are now a member of the WTO. So it is going to be interesting to see where that goes as the WTO starts to pursue some of those items. Seeing the failure of the Doha Round, maybe it is academic at this stage—but it is still an issue.

Mr Cairns—One of the other issues we had was parity for Australian standards and quality products. While we have seen that the imported products have certainly increased in quality over the last five years, we still have some examples of inferior products that have been labelled as meeting Australian standards. We have some examples with recent bolt failures.

Ms GRIERSON—If we had a free trade agreement with China, what would you expect to be in it? Would it just be a matter of after the event, when something does fail because it has not met the standard, even though it was stamped with that or said it was, that you have as part of the agreement a mechanism to repeal it or penalise it, or is it best to do something at the beginning of the free trade agreement whereby the agreement says that the standards have to be checked or there has to be some sort of accreditation or process of approval or whatever?

Mr Cairns—I think there has to be some sort of independent process similar to what we have here.

Ms GRIERSON—Have you put in a submission to the government on the free trade agreement with China?

Mr Cairns—Yes, we have, and we have alluded to—

Ms GRIERSON—Could we get a copy of that?

Mr Cairns—Sure.

CHAIR—I think we still have a fair way to go.

Mr Nicolussi—On that free trade comment, it clearly works both ways. As I mentioned earlier, we are seeing import tariffs on steel related products we want to send into China. Conversely, the tariff incentives are there for their own exports. We are disadvantaged in both spheres. Under the trade policy, China was accredited with developing country status. We have recently changed that to a market economy, but that tag allows free trade with no tariff barriers for products coming into Australia.

CHAIR—I noticed that you made that comment in your paper, and that is quite valid when you compare steel production in Australia and China. There are massive differences, and we give them developing country status.

Mr Nicolussi—They would be making five Port Kembla steelworks almost every year. The magnitude is chalk and cheese. They have new mills, efficiency and an ability to capitalise on the latest technology. And we are opening up our shores and becoming a very open economy.

Mr Cairns—Australia makes somewhat less than eight million tonnes of steel and, while the predictions have fluctuated, China is predicted to make anywhere between 425 million tonnes and 450 million tonnes. They are certainly the leader in steel, with about 40 per cent of world capacity.

CHAIR—That is difficult in a macro sense, because they are now the major buyer of our raw materials. We have all benefited from that—for example, BHP Billiton's record profit. It is a difficult balancing act. Your point is nevertheless taken, and is worth noting.

Mr Nicolussi—We would be paying similar iron ore fees to them.

Ms GRIERSON—It drives up the domestic prices for the inputs, too.

Mr Cairns—The Australian steel industry is competitive, so we are driven by a world price. But we do not have the luxuries of the volumes.

CHAIR—What about the 'just in time' program? Doesn't that favour Australian producers, as opposed to lead times in ordering from China and getting them out?

Mr Nicolussi—Service is certainly one area in which Australia has a differential advantage. That can be overcome by traders taking a position to carry stock. It will vary from industry to industry. The automotive industry insists on a 'just in time' arrangement, but we are seeing evidence even now that there is a shift towards offshore supply from China. They are prepared to wait three months for delivery in return for a significant benefit.

CHAIR—Is the car industry a major purchaser offshore? What would be the percentage mix of what they buy onshore?

Mr Nicolussi—In round terms, about 30 per cent of what they purchase is domestic. Having said that, there is an element—another third or more—that would relate to skin panels. I will need to temper that by saying that there is an element that BlueScope would not manufacture.

CHAIR—So about 30 per cent?

Mr Nicolussi—About 30 per cent, but there is also a proportion that we cannot manufacture because of quality expectations. Those items would be supplied by the Japanese.

CHAIR—Of the imported steel, what percentage comes from China?

Mr Nicolussi—It is an increasing volume. China, Taiwan and the North Koreans in particular—as well as Malaysia—are growing in their share. In some products, we would have high market share. In the more commoditised products—if I can put it that way—our share would be as low as 50 per cent or 65 per cent. OneSteel, with their structural products, have a significantly higher proportion of market share.

Mr Cairns—Yes—fewer imports. That is in the structural product range—long products.

Mr Nicolussi—Part of the reason—

Ms GRIERSON—Is enough steel being made here at the moment to meet the domestic demand for products?

Mr Cairns—With the vast industrial and mining boom, it is borderline.

Ms GRIERSON—You cannot comment on mergers or anything like that, can you; they are all members of yours?

Mr Cairns—Apart from what has been in the press I think it is seen as a way of competing, from a world competition point of view.

Mr Nicolussi—I would like to make a point of clarification there. BlueScope exports something like 40 per cent to 50 per cent of its products. So we do have surplus capacity in a range of products to meet more than the Australian demand but we are forced into external markets, where the returns are significantly less than they are in the Australian market. The other point I want to make is about the rationalisation within the industry. That is further evidence of the industry trying to self-rationalise in order to be competitive and build critical mass. We are not sitting back; we are not waiting to seek assistance from the government. It is a case of getting on with it so as to be sustainable.

CHAIR—It is also the mark of what other people are doing too.

Ms GRIERSON—What capacity have you lost? Do we manufacture any stainless steel in Australia now?

Mr Nicolussi—No.

CHAIR—So what capacity would we have lost in steel manufacture?

Mr Nicolussi—It is around efficiency. It is about getting that critical mass to sustain the reinvestment required for a lot of these products. Stainless steel, which we exited probably about 10 years ago, was a very volatile market in terms of prices. The irony is that right now we are seeing a significant volatility in steel prices similar to that which we had with stainless steel. So

we have a number of products about which we made strategic decisions to exit their manufacture. We are not going to be all things to all parties.

Ms GRIERSON—Do we have any specific capacity at the moment which the nation is at risk of losing? We are not losing steel-making capacity. We have already lost stainless steel making capacity.

Mr Cairns—BlueScope recently announced the closure of its tin plate mill in Port Kembla, with the loss of 200 to 300 jobs.

Mr Nicolussi—The number of employees who will be made redundant is 250.

Ms GRIERSON—And we will not have that capacity anymore?

Mr Cairns—No.

Mr Nicolussi—That market was some 400,000 tonnes two years ago. We chose to get out of exports for which returns were low, as I mentioned, and to consolidate around the domestic market.

Ms GRIERSON—Is tin plate done at a high standard all through Asia anyway?

Mr Nicolussi—I would not say that we were tier 1, but we were certainly of a comparable standard. For those who do not know, tin plate is used to make cans for food and grocery items as well as for paints and those sorts of things. We would not say that we were the best, but we were certainly of a comparable and reasonable world standard. As to whether it is readily available around Asia: more so in Europe but also in China and in Japan, but at selected mills.

Ms GRIERSON—At the time I became a member of parliament there were three proposals in the Hunter for steel plants. I guess they missed that window of opportunity completely. One always wonders just what would have happened and whether would they have gone broke anyway.

CHAIR—I would like to go back to how much capacity we have lost since, say, 10 years ago. Are we half the size, or what?

Mr Nicolussi—We have seen a 34 per cent reduction in volume over the last decade. Having said that, we need to be careful. Some of those tonnes have been lost because we have chosen to exit some products because they were loss makers. We have also seen significant inroads by imports. With that in mind, we are still maintaining \$8 million for the industry and so we are looking at having to export more products to the region to fill our capacity.

CHAIR—If our production is \$8 million now, what was it 10 years ago?

Mr Cairns—To be honest, I am not too sure.

Ms GRIERSON—BHP Newcastle was still operating then, too.

CHAIR—It is interesting, just by comparison. Our job is really to look forward rather than to look back. Nevertheless, it is an interesting point. On page 6 of your submission you say that governments could assist manufacturers through a more realistic and supportive attitude to trade matters, particularly unfair trading behaviour. By that, I suppose you are talking about the China syndrome?

Mr Nicolussi—Correct—and disparity.

Mr Cairns—We have certainly seen some dumping of products within the steel industry.

CHAIR—It is not alone. I have a bit to do with the tourism industry, and Qantas would complain that similar things are happening with airlines—subsidies on fuel, landing charges et cetera and government support. Nevertheless, it is of interest to us.

Ms GRIERSON—One of your roles is to increase the awareness of the benefits of steel and to promote Australian-made steel as the material of choice. Are you doing that internationally? Call me old-fashioned, but I still will not buy a cheap imported screwdriver; I just cannot bring myself to do it. I would like to be able to, but I just cannot. Are you succeeding in terms of branding and marketing?

Mr Cairns—The promotion tends to be in Australia. We tend to promote Australian steel for use in Australia and not so much internationally. Where specific companies do export then they promote that product specifically themselves. We are promoting Australian steel within the Australian marketplace.

Mr Nicolussi—So the ASI would do that at a macro level and individual organisations would do their own promotions. Over the years BlueScope have had a ‘strengthening Australia’ campaign, with stickers that used to go on items, and more recently they have superseded that with a ‘steel supplied by’ campaign, which encourages manufacturers to place stickers outside their buildings or on their items for the general public to recognise that they are made from Australian steel.

Ms GRIERSON—You also argue that governments could assist manufacturers by giving parity for Australian standard quality products. What do you mean by that?

Mr Cairns—It is really the issue of products that are coming into Australia labelled as Australian standard when we have examples that they are less than Australian standard.

CHAIR—So tougher monitoring that they meet the Australian standard?

Mr Cairns—Yes. We have had recent bolt failures. The pipe in the RHS industry has been labelled as AS1163, and we have had many examples where the quality has been less than that. We need some way to have a check and a balance that the quality is as it is, because the price is perhaps discounted.

Ms GRIERSON—If Dr Emerson were here, he would make the point that China eventually will overcome all the quality problems. In the last five years its average wage has gone from \$100 per annum to \$1,000 per annum, and that is going to keep escalating. So their costs will

eventually rise. Consumerism is a wonderful thing in China, and it is going to push up the prices eventually.

CHAIR—Hopefully the exchange rate will go up too.

Ms GRIERSON—Yes. His question and our question is always: when China does make those leaps, how do we still compete; how does the Australian steel industry remain competitive?

Mr Cairns—As they make those leaps, we have to continually improve too. What we are really seeing now is that we want apples for apples. If you say that something costs \$1,000 and it is to AS1163, that is how it should be. It is up to the Australian industry to continually improve. If at some stage we are unable to do that then I think we can put our hands in the air and say that we have had a fair go. It is when things are not fair that we see problems. Let us have the same number of people on the field, or the same rules, to compete.

Ms GRIERSON—Has the Australian steel industry identified new markets to be targeted?

Mr Nicolussi—There are new products. When you say ‘new markets’, we are developing new products that would compete with inter-materials. For example, steel replacing timber is an opportunity for us to grow our market in steel frame housing. There are numerous segments in which we are looking to roll out initiatives. The industry is looking for lighter, leaner solutions that will meet those types of applications. Export-wise, BlueScope has made a number of investments throughout the region—in Vietnam; in China, as I mentioned; and in a number of other locations where we would look to underpin our export focus.

Ms GRIERSON—What is the European manufacturing market like for steel and steel products?

Mr Cairns—It is certainly very strong. The European market is vast with strong steel industries throughout the European continent.

CHAIR—Have they had the same problems with competition from China?

Mr Nicolussi—The USA and Europe are seeing a migration of their businesses to either Eastern bloc countries in Europe or to China. It is not uncommon to see businesses in Europe going to China. As you mentioned earlier on, Sharon, China will become the new Japan or the new Korea. We have been through this previously. It is a case of Australian industry finding its manufacturing niche that will enable it to be sustainable going forward. So we will see this gradual decline that was spoken about earlier on. It will probably settle down to a point where just the service elements that underpinned a lot of manufacturers would hold it in good stead but at a much lower level.

Ms GRIERSON—I asked because one submission we had suggested that after China it will not be India, because they are too hard to do business with, but that Russia has huge potential in terms of becoming a new economic driver.

Mr Cairns—I have heard the opposite: that India is probably easier to do business with.

Ms GRIERSON—Could you elaborate on that?

Mr Cairns—From a language point of view, and perhaps from a legal and political point of view, they could be easier to do business with than China. That is what I have heard some colleagues say.

Ms GRIERSON—Some people agree; some do not.

CHAIR—That comes to the end of our questioning. Do you have anything further to add, bearing in mind that the three people here will produce the draft report for us all to agree to or not agree to? We sit around and talk about it as a committee in terms of the issues that we think are important. What would you like to see in the report?

Mr Cairns—I do have one point to make—and, Sharon, you headed towards this before—and that is the need for greater incentive for research and development in the manufacturing sector specifically. I think the government has done a great job in research and development in a lot of different areas—scientific areas, nanotechnology et cetera—but I think that from a steel perspective we need to do more and from a manufacturing perspective we need to do more. There also needs to be a better promotion of incentives for small to medium enterprises in the manufacturing sector to take advantage of some of these grants. Some of the people I speak to regard the system as too onerous and too difficult.

CHAIR—Are you talking just about the paperwork?

Mr Cairns—Yes, the paperwork and the red tape. I have heard quotes that it costs you \$100,000 to get \$95,000. There is a balance between due diligence with government funds and getting it to the right people.

CHAIR—That is an interesting point.

Mr Cairns—There needs to be some way, from our perspective, to make it easier to channel research and development into that steel related manufacturing sector.

Mr Nicolussi—There are probably some shorter term, here and now things that we should be looking at around removing some of the regulatory burden with respect to dumping. I know it is probably a sore point for government—

Ms GRIERSON—We know about dumping.

Mr Nicolussi—The industry is going to need time to adjust—to reskill its employees and to change for the future—but in the interim we are faced with an immediate onslaught of finished imported goods as well as steel items. The time and the cost for organisations like our own—and I shudder to think what it would be like for a small manufacturer without the resources to devote to it—in preparing a submission are onerous and certainly off-putting.

CHAIR—So that is another thing we could do.

Mr Nicolussi—For anyone to realistically obtain the true cost of an item in China, which is an element of proving a dumping case, as well as the local injury, it is going to be very difficult given the economy that they have. So that is a here and now issue, and Ian has certainly spoken about—

Ms GRIERSON—That is a real problem for some of the small manufacturers in my region, who do classic products that have not changed very much and that anybody can make, basically. And the accusations of dumping are very hard to verify.

Mr Nicolussi—That comes back to Ian's submission around being fair—giving Australian industry enough time to respond and to compete. We do not want a leg up, but it is about responding to those situations.

Ms GRIERSON—If you could prepare that OneSteel example we discussed earlier that would be helpful. If they did not get incentives, you might also put forward some scenarios of what could have assisted them.

CHAIR—If you have any further information on the issues we have asked about, please send them to the secretariat. Also, if you have further things you would like to draw to the attention of the committee we would appreciate your sending them through.

Mr Nicolussi—I will just mention that BlueScope will be submitting a separate submission, and that is probably a week away.

CHAIR—That is good. That will be well worth while. Thank you very much for your time today. We really appreciate your coming in.

Mr Nicolussi—Thanks again for the opportunity.

[11.33 am]

STRASSER, Mr Tony Dieter, Private capacity

CHAIR—Welcome. Although the committee does not require you to give evidence on oath, I should advise you that these hearings are legal proceedings before the parliament and therefore have the same standing as proceedings before the respective houses. We have received a written submission to this inquiry from you. We thank you for that and for your interest and involvement in this issue. I now invite you to make an opening statement. Sharon and I will then proceed to discussion with you—we will not say questions; let us talk it through together.

Mr Strasser—Thank you very much for inviting me here. I wrote the submission as a private citizen but it is based on experience in the industry.

CHAIR—We appreciate that.

Mr Strasser—It is just a matter of circumstances at the moment that causes that situation. My submission is essentially about manufacturing using innovation as a key strategy and leveraging its ability to create intellectual property to remain competitive. We have just heard a lot of discussion about China. I think Australian manufacturing continuing to compete on price is a lost cause because the developing nations are much cheaper. We have to find some other way of competing, and continuous innovation is one of those. My background over the last five years has been managing a collaborative international program in manufacturing R&D on behalf of Australia.

CHAIR—Is that with Sinclair Knight Mertz?

Mr Strasser—Yes, but I was managing something called the Intelligent Manufacturing Systems program in Australia, under contract to DITR but with Sinclair Knight Mertz. I am speaking from that experience and having been in the manufacturing industry and engineering for quite some time. Through that experience, I have found that the number of manufacturing companies that are actually coming forward and saying, ‘We want to collaborate internationally in developing advanced manufacturing technology,’ is rather small. I guess that is partially the reason that the IMS program wound up in Australia, even though it continues internationally. I suppose the investment in infrastructure and the returns for the country were not high enough for the government to continue to justify that. It is a real shame because I think that taking something like that away puts yet another obstacle in the way of manufacturing.

CHAIR—Taking what away?

Mr Strasser—Facilitating a program like IMS or other mechanisms. It does not really matter—I am not here to talk about IMS specifically. It puts another obstacle in the way of manufacturers using innovation as a clear strategy, particularly in collaborating across supply chains internationally. The basis of the differentiation in competition is continuous innovation. For example, I was privileged to be at the launch of a study—which the secretariat might like to

get a hold of—by the Australian Business Foundation about Australian innovation in manufacturing. It was a comparative study.

CHAIR—What is it called?

Mr Strasser—It is called *Australian innovation in manufacturing: Results from an international survey*. I would like this copy back, though; it is my only copy.

CHAIR—We will take note of it.

Mr Strasser—It can be obtained from the Australian Business Foundation. I can give you an address so that you can get a copy. For example, European companies are 2½ times more likely than Australian firms to cite innovation as being a key competitive strategy. There is a mindset in Australia. This might be being bit cruel, but Australian businesses are rather risk averse. They want sure results and they want them quickly, which is good from a purely business perspective, but for innovation you need to take a longer term perspective. As I said, there is a short-term focus. A lot of them do not understand innovation—that a lot of it is about process rather than just product. There is also the management of companies. For example, lean manufacturing is a way of working which is purely organisational—that came from Toyota—but it does not rely on technology alone.

CHAIR—Could you repeat the last point that you made about Europeans versus Australians, just to bring Mr Tanner up to speed?

Mr Strasser—I was just mentioning some results from a survey which was released yesterday by the Australian Business Foundation which did some comparative studies, particularly on European and Australian firms. European firms are 2½ times more likely than Australian firms to rate innovation as an important strategy for their competitiveness. It just shows you that there is a bit of a contrast. I will not go into the detail of the figures; I will just pull out some key ones.

One might ask why Australian manufacturers are behaving in that way, and certainly in my experience there is less of a capacity to deal with innovation. There is a sad statistic that less than half of manufacturing managers—for example, in the automobile industry—possess any sort of tertiary qualification. So science and engineering is not something that they are formally trained in, even though they learn it on the job. There is another sad statistic that about half the Australian workforce does not have any formal qualifications, so our capacity to absorb—

CHAIR—How does that compare with Europe?

Mr Strasser—I cannot quote a specific figure because I do not have it with me, but certainly in countries like Germany—

Ms GRIERSON—It is bad, especially with the number of jobs that are available for unskilled people.

Mr Strasser—That is right.

Ms GRIERSON—There are so many that the disparity is massive in this country. The number of unskilled people keeps shrinking but the number of people with no qualifications is not reducing.

Mr TANNER—On your point about the managers and their qualifications: for the roughly half that do not have qualifications, does that mean that they have left school at year—

Mr Strasser—They have come up through the trades.

Mr TANNER—But would that mean some of them have trade qualifications?

Mr Strasser—Yes. I am not saying they have none. At least half of them do not have science and engineering qualifications or management qualifications. The importance of that is that, for them to be receptors of innovation, new technologies and new ways of working, they need an appreciation of that and what importance that has for their business so that they can build a business case around that and actually be good procurers of those things.

The other point I have noticed, which was also made yesterday, is that a lot of manufacturing supply contracts do not demand innovation as a key element of what is being supplied to manufacturers. It is about price, delivery and quality. Quality is a given, with price we lose out to China and speed of service we can do if we are local. But, if companies are being driven on price the whole time, we get results like Ajax just recently, where the margins have been reduced to zero. If they have a cash flow crisis, they are dead and they then have to be supported. Toyota, for example, takes quite a different line. They take a more collaborative approach with their suppliers, and innovation is certainly amongst those things that they are asking their suppliers to do. So, if the customer is not asking for innovation, the manufacturers say: 'We don't need to innovate. What we need to do is be price competitive.' In Australia, that is compared to the BRIC countries: Brazil, Russia, India and China. That is exceedingly difficult.

However, it is not all gloom. Australians have some very strong points. Australians are good problem solvers and we have a lot of inventions. You just need to look at the Powerhouse Museum's list of things that Australians have invented. It does not mean that they made any money out of them, but it means that they invented them. Australians, in my experience in this international program I was involved with, certainly punch above their weight. They are very well respected. Our international competitors do not necessarily see us as competitors, so they are quite happy to work with Australians. So Australia has a lot of neutral status in manufacturing that it can use to gain access with international partners and then become embedded in the supply chain through the respect, the quality of what they do and their ability to do things. I do not want to make a long speech.

CHAIR—That is fine. If innovation is the key, what should we be doing to encourage innovation amongst our manufacturers, from the government's viewpoint? Is it about creating incentives for having a greater number of skilled people involved in manufacturing—more engineers, more metallurgists, more skilled tradesmen?

Mr Strasser—The image of manufacturing is not good as a career choice for young people. It is seen as an industry that is dying, and why would they want to be involved? So we need some public relations, I suppose, in favour of manufacturing as the heart of wealth creation in this or

any economy and how important it is. We have some excellent manufacturing companies. We have medical devices. We have some stellar performers. We have a number of real jewels in Sydney in the semiconductor industry, and they are all manufacturing firms.

CHAIR—This is in the highly transformed, high intellectual context.

Mr Strasser—The highly transformed area—that is right. Our value add, if the figures I read recently are right, is about \$79 billion per annum in terms of manufacture transformations, but our imports of elaborately transformed manufactures last year was \$100 billion. That completely wipes out that value added; in fact, we are in large deficit. So what can government do? It can help to improve the image of manufacturing and of science and technology as a career choice and perhaps target stimulation of demand. Manufacturers respond well to contracts. The USA, for example, has some very targeted programs to develop new technologies in particular areas which it funds as contracts to procure. We do that in the defence area, for example, but in a limited way and that is only one segment. There are many other areas, such as water, energy and transport, that are amenable for the manufacturing industry to respond to with innovation.

In my experience in IMS, we have had programs like ICIP, the Industry Cooperation Innovative Program, which was cited as a replacement for the IMS scheme. We had some partners try to go through that. It is not friendly internationally, although the government is taking submissions in the next month on how that might be improved. My benchmark for that is one little company on the Gold Coast that is in the environmental monitoring area. It is one company, which is a two-person microbusiness, collaborating with the likes of Toshiba, Shimizu—major companies in Japan—and Queens University in Canada. They are not eligible for any assistance from the Australian government at all and they are doing it on their own because the Australian program requires there be an Australian consortium even though there is an international consortium already in place. That is the little benchmark I was using for saying: are we really serious about funding international R&D collaborations? That does not mean that the money goes overseas; it is helping an Australian company.

Ms GRIERSON—There is not enough support for global interactions or for international consortiums in research or in business, and I think that is a real deficit that we should try to get more information about. I really support that.

Mr Strasser—I am certainly going to make a submission to the ICIP about that based on, again, the experience that I have had. Also, the government can enable international facilitation, help Australian companies find international partners. We represent less than two per cent of the world's R&D; there is 98 per cent outside of Australia to be harvested, not only R&D but also innovation in management processes and technologies.

CHAIR—Austrade assists you to find wholesalers, distributors and so on but not partners for R&D.

Mr Strasser—That is right.

Ms GRIERSON—I think there is a business opportunity there. Remember when we were at Baileys and they were saying, 'We are just so stretched, we haven't got time to keep sourcing

everything. Why isn't Austrade providing us with more supplies and support to source work? It is a big part of business.

Mr Strasser—Our academics are very good at finding international university partners and the CSIRO has good linkages overseas, but industry is not in that tent most of the time even though there are collaborations locally between industry and our universities and, in my experience, they are drawn into projects that way. But companies like the small one I was mentioning have needed facilitative help to find partners who are interested and a little bit of funding to visit them and see whether they are comfortable working with them. Right now that mechanism is gone.

Ms GRIERSON—One thing we saw with the Steel Institute was mergers to get that competitive edge, but surely there is a role for government to provide the sorts of services that deliver an eBay approach to supply chains and logistics. It is crazy this notion where logistics and transport are huge costs for people, especially for SMEs—and regional Australia depends on its SMEs—yet there is no way to aggregate all that to make it much more competitive unless the industry do it themselves—and at the moment industry are pretty busy. Why aren't there systems that have come out to develop it, to respond to those needs?

Mr Strasser—There are. Companies have set up industry portals to try to link customers and suppliers, certainly within Australia. Many years ago, there was another NIES, not the National Industry Extension Service but an earlier attempt at e-commerce. There is an industry search, the Industry Capability Network, and there is one that has just been set up in Australia called ManufactureLink, trying to broker these connections. But they are all in the products and services space; they are not in the innovation space. The innovation exchange was trying to do it, but it has mainly been focusing in the medical-pharmaceuticals area, because a lot of R&D goes on in that area so there is a lot of brokerage money to be had.

Ms GRIERSON—Sinclair Knight Mertz is an international company with placements overseas. Where do you see some of those sorts of innovations happening?

Mr Strasser—Again, it is an engineering services consulting company, so it is responding to what the customers want. Generally, they want some engineering consulting to devise some specifications or plans or manage a project. You do not often see a specification that says: 'We want you to innovate in this area. We want something really innovative.' We are generally asked: 'That's very interesting—can you show us one working for somebody else?' That is the antithesis of innovation, because it has already been done. I come back to the desire for certainty in procurement: 'We only want to buy something that's already established.' You come then back to price, quality and service levels, which Australia can compete on. It cannot compete on price internationally—that is the problem currently—even though the wages and costs in China are rising. But, as has been mentioned, we have been through this with Korea and Japan previously.

Ms GRIERSON—You say Australian business is risk averse and so is government, but where can government absorb risk or support risk? Where is it appropriate?

Mr Strasser—I was listening before. There has been some talk about reducing our carbon emissions from power stations, so there is a need for technology. Do we buy this off—

CHAIR—You probably saw that program last night, did you?

Ms GRIERSON—Yes, it was excellent.

Mr Strasser—I was busy working last night. Do we buy technology off the shelf, or do we spend some of the money that might be available for that in innovation, in developing new technology that Australians either integrate or develop up from some basic research?

Ms GRIERSON—If you are talking about time scales of five years or 10 years—only a massive injection of funds or whatever can really accelerate those time frames.

Mr Strasser—Well, patience is required for these, and there also has to be permission for failure. In other words, if we fail we learn a lesson; we do not just punish and get rid of the people.

Ms GRIERSON—They do not get ruined.

Mr Strasser—Yesterday somebody mentioned Henry Ford, I think. One of his managers early on invested in a plant that failed miserably, so he handed his resignation to Henry Ford. Henry Ford said, ‘I’m not letting you work for anybody else and give them the benefit of your experience that you’ve just had.’ That is a different attitude.

Ms GRIERSON—You said that the government has withdrawn its support for Australia’s involvement in the IMS program and has directed industry instead to the Industry Cooperative Innovation Program. What is the difference, and what are the advantages of IMS over that program?

Mr Strasser—IMS was a facilitation scheme which brought the partners together. We were just talking about brokering. It brought international companies and researchers together into projects.

Ms GRIERSON—And it is much more global, rather than just a mess?

Mr Strasser—It is an existing national program, and it continues on, with Europe, Japan, Korea, the United States, Canada and Switzerland involved. Australia has withdrawn. That means our partner companies already involved in projects will continue to be involved, but there is now no mechanism—unless something else is established—to broker the relationships between companies and researchers in new projects. There was a bit of funding for that. The Industry Cooperation Innovation Program is intended to fund projects. Previously, there was no funding for these projects, so we had another hurdle, which was: how do Australian companies afford to do this, particularly if they are SMEs or microbusinesses? The difference was that the IMS facilitated the relationships and had an intellectual property framework that has worked over 12 years. ICIP provides funding, but does not provide any consortium arrangements, brokering services or facilitating services. It expects companies to present with an application, and if they are good enough they will get matching funds for their program.

Ms GRIERSON—So are you saying that the IMS is more holistic and helps across all areas?

Mr Strasser—In my opinion, yes. In Europe, it is backed by framework funding; Japan has domestic funding for projects; Korea has domestic funding for the IMS projects. Australia never did.

Ms GRIERSON—You made some comments about the different drivers for universities' public research funding and the success drivers for industry. Some submissions from CRCs will say that they are doing some of that. How do you rate the CRC program in terms of success or relevance?

Mr Strasser—I would not like to give you an overall opinion. I can tell you about the experience I have had with them vis-a-vis IMS. CRCs had very fixed research agendas, so whether that matched something that was happening in IMS was always a bit of a hit-and-miss affair. If we got in early enough with a CRC, we could influence what they did and build the CRC program to include IMS activities. Another thing that CRCs want is complete control over intellectual property, whereas IMS shares all the intellectual property between all the partners in the project. There was quite often a disconnect there. And they would always come back and say, 'Where's the money to do this research?' They were expecting us to provide the money, which we did not. We were expecting partners to self-fund their activities or to use publicly available funding schemes.

Mr TANNER—I have a couple of questions. To what extent would you say that there are more or less two separate manufacturing sectors in Australia—an older, established, mass production based manufacturing sector, which is inevitably heavily threatened by competition from China; and a newer, smaller, niche focused, globally oriented manufacturing sector that is predominantly producing components for a broader product, much of which is being produced elsewhere? Is that a reasonable statement of reality?

Mr Strasser—That spectrum certainly exists. There are companies in between as well. They have bits of both.

Mr TANNER—How would you describe the ones in between? Can you give me examples of who would be in between?

Mr Strasser—Let me take the niche and intellectual property one first. There are companies like, for example, Bishop Technologies, who licence technologies that are now used in 20 per cent of steering components for cars around the world. They are leveraging their intellectual property. There are companies like Agere Systems, who were part of Bell Labs but who have an Australian presence, designing components within chips for the mobile telecommunications industry. Their technology is being deployed in the US particularly. They are very successful at what they do; they are world recognised. They invest in their intellectual capacity.

At the other end, large parts of the tooling industry are very traditional. They rely on customers down the road, and they are basically craft based. They have not had the capacity to invest as much in the advanced manufacturing technologies as they should have. In between are the ones which are in transition. In the tool-making industry, companies such as Boerm are growing rapidly. They have some good contracts with Holden and they are taking up these advanced technologies and supplying components in a world market—into the GM supply chain, for example.

Others, like production parts companies, are also taking up the challenge. We see all of those but what you have described are the ends of the spectrum. Some companies are taking up the challenge and moving from one to the other. The question is: can we build companies of any scale that sit at that innovative and niche end that also have economies of scale?

Mr TANNER—What do you think the answer to that is?

Mr Strasser—Slowly.

Mr TANNER—It is possible.

Mr Strasser—On the current track, no. It needs stimulation in terms of demand. Things like Australian Technology Showcase are good because they put those manufacturers in front of others. When the international manufacturing community sees some of the capacity in Australia, they get quite interested, but they do not get in front of companies enough.

Mr TANNER—There is a recent report by the National Institute of Economic and Industry Research called *The state of Australian manufacturing*, which advances that the idea that Australia could have a substantial, viable manufacturing sector based on niche operators that are operating globally is wrong because you need a supply chain and a critical mass in order to sustain them. I am going to be putting these questions to the metal workers union this afternoon because they commissioned the report and I have not had a chance to tease out the examples. It seems to me implicit that the kind of thing they have got in mind is the automotive sector, and I sense the argument is: we cannot as a nation expect to be the location of a significant manufacturing sector for specialised auto components that are being exported around the world unless we also have an automotive manufacturing of cars sector as the base from which that kind of activity spins off. What is your view on that thesis?

Mr Strasser—It all comes back to customer demand. Where do you start these companies and how do you build them up? Bishops is the exception that proves the rule, in a way, in that their licensing technology allows parts manufacturers to make parts for cars in whatever locations, so they are inventing the basic machines, the toolmaking, the tools and the technology—variable steering and so forth—that is then licensed out and feeds through the first and second tier suppliers in the car industry. So 25 per cent of their revenue comes from pure royalties. That is exporting IP and exploiting innovation. However, you need a bit of a critical mass in Australia to generate the engineers and the experience that allows them to do that or you need to have a program in which our engineers or people that we employ get the experience internationally that they can bring back.

We are part of the globe. We should be part of the supply chain but we cannot do it totally here. Maybe some form of indenture, scholarship or something like that, in the absence of a critically dimensioned automobile industry, could be an alternative, but I do not know fully the answer to that. The key issue is: where do we get the experience and the know-how to be able to do these things? People talk about the moat around Australia but, by the same token, there are many companies in Australia who do not have any domestic market at all. They export completely. Bishops is one. CapEx is another with supercapacity. They supply the mobile phone market worldwide. Agere is another one. They do not have any customers in Australia but they choose to operate here because they get good quality engineers, the environment is good and

attractive but they also have the engagement with the global community that allows them to build up the expertise.

Mr TANNER—Typically with that kind of company, presumably, some kind of initial Australian connection is necessary. I have not heard of any instances where somebody has started a company of that kind and looked around the world and said, ‘Beauty! Australia is the right place to go and park.’ Presumably some kind of Australian link in the genesis of the company is required. What, in your view, are the kind of Australian origin things? You have already cited at least one, which is the pool of engineers. What do you see as the key factors that will naturally seed those kinds of companies as at least starting here, which means that we have a reasonable chance of retaining some of them as an Australian activity?

Mr Strasser—The ones I have mentioned involved either Australian founders or Australian expatriates who were working for a multinational firm and managed to convince that firm that they ought to have an Australian operation and that they run it. That is essentially what happened. It drew people back and they grew from that seed in Australia. Agere is the one I am thinking of. Chris Nicholls is the managing director. He was working for Bell Labs in the USA and convinced them that Australia was a good place to run a development facility because there was a pool of talented engineers that they could use, the salaries here are internationally competitive for engineers—we are cheaper than Americans—there was a pool of talent, as I said, and a good education system. It was an act of faith, but it is working. In the case of Bishop Technologies, Arthur Bishop was the founder. He built the company here. So in pretty much 100 per cent of cases there is that Australian connection, but a good proportion of that is patriotic, for want of a better word—a belief that Australia should be part of this scene.

CHAIR—On page 2 of your submission you argue:

Universities and public research institutions have fundamentally different success drivers than does industry.

When we were in Queensland and Newcastle we were impressed by what universities were doing in terms of research and some of the commercially minded approaches they had in this area. What is your concern with what their measurement is?

Mr Strasser—I go back to some experience I had when I was with BHP. Our relationship with academia was successful in many ways. Academic tenure is based on publishing and citations. Sometimes that works against the need for secrecy in some elements in order to commercialise intellectual property. So that is always a tension. That can usually be resolved, but I have certainly heard of cases where some IP has been lost because it has been put in the public domain and picked up by the first one to market. In the pharmaceuticals area that is particularly prevalent, where secrets are important in order to exploit the IP—to be able to establish a patent, which then discloses it, but does so in a monopolistic way. What I was getting at in that point was that commercial outcomes are not necessarily the principal focus of a researcher.

CHAIR—I understand.

Ms GRIERSON—You rightly point out the downward trend in research by the big players like BHP. They admit to that—they confess to their expenditure declining on R&D during this boom period. It is worrying. Can you explain for the committee how important the relationship

between manufacturing and the service sector is? We are perhaps part of the old paradigm in looking at two things separately in our terms of reference. I think that until people have a holistic approach to it and understand that then we will not be able to link all the right support in. When we see manufacturing in isolation from all the other things, such as transport services, engineering and design services, entrepreneurial services, marketing services and so on, we will never get it quite as right as we should.

Mr Strasser—The basic tenet is that manufacturing is at the core of generating wealth. It is a value-adding process. We are taking raw materials to produce products or some intermediate stage. The services sector derives most of its income from servicing the companies that participate in that process: transporting goods from one place to the other, providing financial services, servicing the customers—for example, in the housing construction sector. And there are a whole lot of legal and other services that surround that.

I come from an engineering consulting company, so a lot of our customers are manufacturers, building a new assembly line, developing a product, establishing a new factory or doing environmental impact statements. They all are targets of services. But the reason for that service is because there is a manufacturer at the middle of it that wants to do some value-adding activity—build a new facility, make a new product, expand internationally, undertake some transaction or with a problem in their plant.

I am flying out this afternoon to South Australia to help some of the people who were at the table before me from OneSteel with a problem they have in their plant. I am from the services sector. Without manufacturing there would be nothing for us to do. We service each other, I suppose. But, at the core of this, we have to add value to our basic materials on the way through and generate a profit.

CHAIR—Thank you very much for coming today. I appreciate your input and your ideas. There is certainly a lot of valid material in that.

Proceedings suspended from 12.11 pm to 1.35 pm

BLAKEMORE, Dr John Stewart, Chief Executive and Principal (Innovation), Blakemore Consulting International; and National President, Manufacturing Society of Australia

CHAIR—Welcome. Is there anything you would like to add about the capacity in which you appear today?

Dr Blakemore—Yes. On this occasion, I am pleased to say that I can now say I also represent the Institution of Engineers.

CHAIR—Although the committee does not require you to give evidence on oath, I should advise you that these hearings are legal proceedings before the parliament and have the same standing as other proceedings of parliament. We have received a written submission to this inquiry from you. Do you wish to present any additional information?

Dr Blakemore—No.

CHAIR—Then I invite you to make an opening statement and we will follow it with questions.

Dr Blakemore—Australia has a problem—a very serious problem, in my view. Our private liabilities are now running at about 60 per cent of GDP. The trade gap in manufactured goods is about \$100 billion a year. The escalation in the value of commodities prices, due to very favourable terms of trade, has unfortunately almost decimated manufacturing in the last two to three years. In fact, over the last two to three years in particular, the decline has been absolutely enormous. I am sure you are aware of these things. But the real damage is going to come when we try and rescue manufacturing after the commodities boom or when the escalation in prices is over. Our manufacturing sector will then have to re-equip and, at that stage, the Australian dollar will be so weak that it will be even more difficult for them to re-equip. So I see it as a very serious issue.

The crux of this issue is related to a number of major illustrations that I can give, some based on past experience and some of which have been in the press fairly recently. Let me give you a quick example. I used to work for John Lysaght Australia, which became BlueScope, and we developed a product called Colorbond, which was world's best practice. With the increase in price of hot-strip because of the extra demand from China, we have seen that cost being passed on to the downstream customers. And now we have seen the electroplating line fail. So BlueScope have announced that they cannot any longer produce electroplated steel in Australia. I wonder what the next step is going to be. I suspect it will—horribly—be Coated Products, who made a loss last year for the same reason.

On top of that, all I see—and have seen since the beginning of my innovation company when it was set up in 1982, and even before—is the fact that we give away our intellectual property. We give it away continuously, and I have too. I usually get paid for an assignment, usually by an overseas company, and then of course that is quickly transferred overseas and never commercialised here. I see the same thing again on the R&D board. And it upsets me greatly to see how the taxpayer funds R&D projects, and yet the very small percentage that reach the stage

of being successful and commercialised are not commercialised here. The money is not available; the venture capitalists won't invest; and they are invariably taken overseas and commercialised there. And there are numerous examples that I could give of that.

This sort of thing has to be arrested. We have a wonderful set of public institutions, like the CSIRO, that should be able to do reasonable manufacturing R&D. But, when I investigated even that, I found that their manufacturing R&D is in 50 areas of manufacturing, for their meagre total revenue and budget, and, of those 50, more than half are in areas where we do not have a comparative advantage. So where is the point? Why do we squander our meagre funds? Then, when you go even further into this, you find that their business sector does not contribute very much to R&D at all. And I think one of the contributing factors might be that most of those companies that should do that are overseas owned. And these decisions, about our future, are being made by boards that do not even sit in this country.

Some people do not think that is important. I have had said to me on many occasions by economists in particular that what is happening at the moment is not really a worry because it will self-correct. It will self-correct all right. I fear that the correction is going to be extremely painful. There is evidence of this already starting to happen in our community. For example, I went to a presentation yesterday by an academic who was talking about innovation. He told us in the second paragraph of his presentation that 48 per cent of our exports were manufactured goods. I thought to myself, 'That is not so.' It is about 14 per cent. How is it when the so-called experts from universities can get away with such statements and give a false impression of the true state of manufacturing in this country? It is not a very happy sight.

The automotive industry is in even worse condition. The money that has been poured into General Motors Holden and Ford has not flowed on to their component manufacturers. We are seeing Ajax in trouble at the moment, and there will be more. The cars are not what Australian people want. Australian people are already buying Toyota Corollas and the new Honda Civic. In fact, I have seen the sales of the new Honda Civic. It is a brilliant little motor car that is probably made in Thailand or Japan. We are not even making the right products anymore. There is not much point in propping up those auto manufacturers, but our auto suppliers do have to be propped up and do have to join the global supply chain. That is an issue that has to be brought to bear very quickly. You might like to investigate why all that money the government has spent on the auto manufacturers has been wasted. I can give you some thoughts on that as well, but this is probably not the right forum for that.

CHAIR—We have asked them that question. We had Ford yesterday in Melbourne. Their argument is that the small car sector is a very competitive sector and that there is a large range of models available in Australia. They said they were occupying a niche that was not as competitive and that they could also export and find some success with global arrangements.

Dr Blakemore—Could I respond to that?

CHAIR—Yes. That was their statement.

Dr Blakemore—To me, that shows how out of focus those people really are. Let me give an example. I have been privileged enough to visit some of the best manufacturers in the world. In particular, I am going to refer to Honda on this occasion. The last time I was there was,

admittedly, 1991, but I will be back there in about two months time. I am funding my own research in this area. I am not asking for a government grant.

Let me tell you how wrong that answer is. If you go into the Honda factory in Osaka, you will see that they can manufacture cars of different wheel bases, different lengths and different widths on the same robot at the same time. All that Ford have done is not kept up to date with the process innovation that is absolutely necessary to give you the variability and agility to manufacture a wide range of products. They continue to put a smokescreen in front of the government on this. I am sorry, but in my view they gave you the wrong answer. If you want to test that out, have a look at Honda if you can get in there. I have been privileged. I will be going back there in about a month's time and having another look. Their process innovation is second to none. So, I am sorry, I do not agree with that answer.

CHAIR—Fine.

Dr EMERSON—If we look at the history of manufacturing in Australia from the 1970s onwards, there have been periods of crisis. There was a green paper and then a white paper produced during the 1970s about the malaise in Australian manufacturing, yet it is still around. It has come and it has gone, and it has come and it has gone again.

Mr TANNER—It was the Jackson committee report, I think.

Dr EMERSON—It was the Jackson committee report. Is there any reason to believe that it cannot go and come again? I think a lot of this has been associated with commodity booms, and reducing tariffs has been a separate influence.

Dr Blakemore—There were substantial tariffs.

Dr EMERSON—It has almost become a fact of life since the 1970s that our manufacturing sector goes into decline and then comes out of decline. Should we as a committee be trying to prevent that? That is, should we be trying to intervene and say, 'No, we want a strong manufacturing sector and we are going to do something about it'?

Dr Blakemore—I would love to spend hours answering that question, because that is what the answer to that sort of question requires. In the 1970s there was significant tariff protection for Australian manufacturing. That has been gradually removed. Also, remember that in 1973 our dollar was \$US1.14. Despite that high value of the Australian dollar, with the protective tariffs we were in fact able to compete for some length of time. Since 1970 the global manufacturing methodology has changed very significantly and we have not kept pace with that. We do not appear to be able to integrate our supply chains. I will give you a quick example. I think Sharon Grierson is from Newcastle. I am a Novocastrian. I sometimes travel up there.

Ms GRIERSON—Good, we are passionate about our manufacturing.

Dr Blakemore—I am always amazed to see 50 or 60 large tankers anchored off Newcastle because they cannot get in to be loaded with coal.

Ms GRIERSON—You will not see more than 20 at the moment.

Dr Blakemore—The first time I did a productivity assignment in the Hunter Valley it was at Warkworth mine. I lifted their productivity in six months by 15 per cent, and found that we could not ship the coal out through the port so they did not want to go on with the program. Things have changed dramatically since 1970. We have not looked at integrated supply chains. We do not even know what they mean. Our agile manufacturing is very poor. We go down the path of what is called lean manufacturing, which is not the way to go. I will be very careful here because you can argue about what these terms mean. I have travelled quite extensively and I have studied lean manufacturing. I have been to Detroit and all of those places. The point I wish to make is that the American interpretation of the Japanese method is in error. That is one of the reasons why General Motors and Ford in the United States are in so much trouble. They did not understand the Japanese techniques.

If you think the Japanese techniques are not important in integrating supply chains, there are three books that have been written about it recently. Certainly they have their limitations, but I suspect that everybody should read them. If I go along to listen to experts speak on innovation, like I did yesterday, I think they should have at least read these books—and they had not. These sorts of things are a great concern to me as a consultant. But I am lucky—I am 67 years of age now and I can speak out. My little company just yields me dividend and I will survive. It peeves me a little that you go through life and you give away all of your intellectual property because you have been paid for it by an overseas company and then they exploit it in the United States or elsewhere. So at some stage you say, ‘I’ve got to draw the line on this.’

Dr EMERSON—My second question is one that Lindsay Tanner will probably pick up too—that is, we are starting to think that there are two models for the future of Australian manufacturing. We have heard a lot of evidence from a lot of witnesses talking about niche market manufacturing, and we are talking about the international market here. Others talk about a supply chain model—finding a place for yourself as a country in the supply chain for some ultimately sophisticated manufactured good and being integral to that. Of those two models, do you think both have validity?

Dr Blakemore—Yes, they certainly do both have validity. You only have to look at Cochlear and ResMed, which are niche market players. They will always be the result of wonderful ideas generated by clever people, and then capitalising where they have a strategic advantage due to uniqueness and patent protection. They can be made anywhere in the world at a massive profit—as Cochlear and ResMed have done. So that niche part is still okay. But what we have not done is to take advantage of the tremendous resources and potential that we have. I will give you one example that is in my paper—and I am particularly concerned about the aluminium industry. For example, we have the most efficient alumina refinery in the world by a factor of two—just think about that for a moment—and then we have cheap energy available through coal, because we have coal. Aluminium is called ‘solid electricity’ because of the way it is manufactured. We have the smelters. When you look at any supply chain, you find that the profits are made the closer you get to the customer. The further away from the customer you are, the more you are at the minerals end, theoretically, taking most things into account over a long period of time, the less money you make and the less profit you make.

CHAIR—I do not know whether BHP’s profits would necessarily reflect that.

Dr Blakemore—No, Mr Chair, I said, ‘Over a long period of time.’ I was very careful to say that. Because there is a sudden surge of demand—as Craig Emerson, an economist, would know—that is a special case. BHP is making a lot of money, but their downstream processing companies that they hived off under the Anderson plan are not making any money anymore: OneSteel and BlueScope. Have you thought about that? There are a lot of jobs at stake.

CHAIR—We had them speak to us this morning.

Dr EMERSON—But how does that fit with your proposition that the more sophisticated you get the more profit there is?

Dr Blakemore—Let me give you an example—Microsoft.

Dr EMERSON—I was just thinking about BlueScope. They are getting up the value chain.

Dr Blakemore—BlueScope were making a lot of money. In fact, I had BlueScope shares up to about 18 months ago and I was making a fortune; I was doing well, thank you very much. But I hived them off. As soon as the raw material price went up, due to the Chinese boom, I got out—and thank heaven that I did. Now they are finding that the coated steel products division is making a loss and they have shut down their electroplating line. The commodities boom has increased the price of one of the raw materials that they were using, which is hot strip.

Admittedly, you could argue that this is all going to even itself out, but I would like to come back to aluminium because that is the one that I chose as an example. Let me give you a quick example. I did a project with the de Havilland aircraft factory. Clever engineers in Sydney had innovated a new way of making wing sections for Boeing and it was a highly successful development. It was so successful that Boeing flew out their employment consultants and hired the engineers and shot them back to the United States. But when you look at that supply chain, the remarkable thing was that, although the aluminium was made here, we could not even remelt it and put an alloy in, so it had to be shipped back to Hoogovens and then shipped back to Australia. If there was ever a wonderful opportunity for an integrated supply chain in an area where we have a strategic advantage and where something like the CSIRO should be heavily involved, it is the aluminium industry. We have got it all; what we do not have is the downstream processing. Coming back to your earlier comment about profits being made—

CHAIR—As to downstream processing, we have got smelters in the country.

Dr Blakemore—But we have not got the diecast aluminium. The diecast aluminium industry here is practically dead. We do not make some of the things like heads.

CHAIR—John, are you sure of your statement? I believe that the significant part of what was Alcoa but is now Alumina Australia—

Dr Blakemore—QAL?

CHAIR—No, it is the Alcoa version of it—the aluminium plants in Western Australia and the smelter in Victoria. If you have a look at those, I think you will find that the significant part of the profits of the company, which has got both of them, comes from alumina.

Dr Blakemore—Yes, but what does that mean?

CHAIR—The closer you get to the customer the greater the profit.

Dr Blakemore—That is right.

CHAIR—What I am saying is that I do not think you are right as to your basic premise. Firstly, we have got BHP with the largest ever corporate profits. Secondly, I believe that the biggest profit is in alumina, not in the aluminium extrusion part of it—because they did have downstream processing in terms of that. The other thing is this. Look at Esso, who, together with BHP, produce Bass Strait oil and have got rid of downstream processing. They are out of it.

Dr Blakemore—Yes, I know that. Let me take those issues one at a time. I am talking about the QAL refinery in Queensland. I am not talking about anything in Western Australia. The one up in Gladstone is the one that I was talking about. It is the most efficient in the world.

CHAIR—The Queensland one? But it is small compared to the Western Australian operations.

Dr Blakemore—I do not think so. Well, I cannot comment on that. All I can say is that when I investigated QAL it was the biggest in the world. It may not be now. But I do not want to destroy the tenor of the argument. If you come back to what I said before, it is like talking about individuals and averages. My comment should be taken as this: that you look at all industries in total and you look at where the profits usually are made taken over little individual time frames. BHP is on a roll at the moment—there is no question about that—but BlueScope was on a roll too two years ago. In fact, BlueScope's profits were quite significant, but they are not now. So there have always been these lumps and bumps. But, if you take the overall situation, the innovation of the future is at the customer end. You get paid for uniqueness and innovation. Anybody can dig a hole; not everybody can make a Nokia phone. That is what I am trying to say, but whether or not I have used the right words—

CHAIR—Don't assume we are not onsite. This is what this inquiry is all about.

Dr Blakemore—Take Microsoft. Up until recently they were making 35 per cent net profit on sales with a gross margin of 90 per cent. Admittedly, competitors have come along. Let us take Cochlear, although that is probably not a good example now because they are starting to face a bit of competition. But if you can be first in the marketplace with a new product you have a wonderful opportunity of making big profits and churning that back into R&D.

The same argument does not apply at the early end of the supply chain. You make alumina—how many different sorts of alumina are there? You make coal—how many different sorts of coal are there? There is no product development in mining coal. There is no product development in alumina. If you are going to simply sell smelter from a Boyne smelter, it is just aluminium. The real innovation comes at the other end. That is what I am trying to say there.

Ms GRIERSON—I would just like to ask a question, and I have to correct the record about those coal ships. Twenty is about the maximum now; under 12, we are worried; 12 is about right.

Dr Blakemore—It has been up to 40, Sharon.

Ms GRIERSON—It has been up to 50.

Dr Blakemore—Up to 50, yes.

Ms GRIERSON—Yes, but that was not in the last 12 months, fortunately, since the changes made.

Dr Blakemore—It is still a lot.

Ms GRIERSON—No, 12 is optimum, so 20 is not bad—and of course the expansion has been very good. You make a point about a national database of expertise. In my own region I have found that there are no capacity statements that are real and industry focused, so we have got a grant to write a real industry capacity statement. People will do skills audits and they will do all sorts of things, but there are no real capacity statements for industry around the country. You will get economic development corporations and local regional development corporations who will write the number of industries, the number of factories or the number in certain sectors, but there are no real skill capacity or research capacity statements for regions or basically for Australia.

Dr Blakemore—I do not know what you mean. What do you mean by a capacity statement?

Ms GRIERSON—You want to know what capacity is there in an industry, in manufacturing. Just what capacity is there? What sort of capital equipment and what sorts of skills are available? What sorts of processes are there? You want to know what they can do, basically. You do not just want to know that there are 24 manufacturers who do this sort of work; you want a little bit more detail than that, and those sorts of statements do not exist around the country. We are starting to do one for a specific project that the region is putting in for. You will not find a capacity statement for what education provisions are in certain places—what sort of training. You will go to a TAFE document. You will go to this or that document. There is no sort of ‘regional capacity in education’ document. What do you mean by a national database of expertise?

Dr Blakemore—The way I see the future is that if we try to be all things to all men in manufacturing we are not going to do very well at all. Whereas, if we can look at areas where we do have a comparative advantage, capitalise on those advantages and then operate through networks—and part of that network would be the way the Japanese do it, for example, through a cooperative research centre which is run by businesspeople not by academics—then we would be able to do, say, what Sony and Panasonic did when they developed videotape prior to 1985. It always came as a shock to me when I visited Japan about that time and found that here we had two rivals, Sony and Panasonic, working side by side in the one research centre. So the database has to enable people who are in the areas of comparative advantage to tap into that expertise. I tried to do this myself twice through various groups. I think MacKellar was the first guy I tried with. You might remember him.

CHAIR—You are going a long way back, John.

Dr Blakemore—Anyway, that is how long I have been involved with this industry. It was Michael MacKellar, wasn't it—the minister for science?

CHAIR—Yes.

Dr Blakemore—My idea was to use some of the capacity that was available at Lucas Heights, where in fact I had worked, to tap into some of the problems that I saw in Sydney manufacturing. So I approached ANSTO, the Australian Nuclear Science and Technology Organisation, of which I used to be a part—as you know, I am a qualified nuclear engineer—and I said, 'Look, why can't we use this capacity to solve problems?' The people there were not very receptive. I approached Michael MacKellar at the time—it is a long while ago, I know, and I apologise for that, but my memory just does not change—and he said: 'No, that's not a good idea. We can't get CSIRO and ANSTO people on the shop floor in industry; it wouldn't work.' Bronwyn Bishop was in the chair that day and she said: 'Look, the debate's not going to go anywhere, so we'll just forget about it.' So that is what happened. The idea of the database was to give people access to where the experts are in the various disciplines, because the game now is no longer simple. We need that expertise. We need people to be able to work as a network to tackle some of the global manufacturing problems that are presented to us.

Mr TANNER—You mentioned CSIRO having 50 or so different manufacturing research—

Dr Blakemore—Actually it is 46; I made a mistake when I counted them up.

Mr TANNER—I was taking it as an approximation. You were arguing that some were in areas where Australia has no natural comparative advantage. Could you elaborate on that argument?

Dr Blakemore—If you had a projector I could throw the data up on the screen. I have brought my computer with all the data on it, but there is nowhere to project it to.

Mr TANNER—Some illustrations of where it is right and where it is wrong would be helpful.

Dr Blakemore—One example which might illustrate it is: how much work are they doing in aluminium, for example? Very little. They have tried; they are not doing very much. I cannot give you the specifics without putting the information up on the screen but I do know that Rod Hill, when he presented his paper at the manufacturing summit in Victoria last year, presented this data and it came as a tremendous shock to me, knowing what dire straits the manufacturing industry is in, especially over the last two years. I thought: what a waste of resources—why would you work in an area where we are not going to achieve anything anyway? I put that proposition to him and he invited me out to the CSIRO and we had a long chat.

Mr TANNER—Did he agree with your assessment?

Dr Blakemore—Yes, but he has a few problems coming out publicly and saying that. You would have to go and talk to Rod Hill.

Mr TANNER—You talked about the ACIS program of assistance to the automotive manufacturing sector. Given where we are now, what in your view should be done to reform that program?

Dr Blakemore—You will not like the advice I am going to give.

CHAIR—Try us.

Dr Blakemore—First of all, a priority has to be given to the component manufacturers, particularly in those areas where people are manufacturing components with a comparative advantage in the marketplace, for example, aluminium—if there are any left. These people have to be given a special incentive to join a global supply chain into the Northern Hemisphere and supply some of the big and successful automotive manufacturers—not just the ones that are locally manufactured.

CHAIR—Are you talking about a government subsidy?

Dr Blakemore—Toyota were given a massive government subsidy to start them on the way. Toyota are probably now the number one—I do not have the facts in front of me—automotive manufacturer in the world. I can give you the figures: they made \$11.4 billion net profit last year, and even if you try to put a positive capitalisation on General Motors and Ford they could have bought them with one year's profit.

CHAIR—It is still less than BHP.

Mr TANNER—We just handed a big additional subsidy to Ford, so I do not think we need to be totally hung up about the question of whether any of these things involve subsidies.

Dr Blakemore—You have to get these guys into the global supply chain for survival. I am not talking about Ford and General Motors; I am talking about all the auto suppliers who have been, unfortunately, not very well treated by the big manufacturers.

Mr TANNER—In other words, the right approach with ACIS would be to refocus on components manufacturing?

Dr Blakemore—Yes; refocus, definitely.

Mr TANNER—With the aim of identifying particular components where there is a realistic chance that we could be major exporters of those kinds of components.

Dr Blakemore—Yes. Otherwise, you perpetuate a problem. Ford and General Motors at the moment are making the wrong car at the wrong time—it is too big and too thirsty—they have the wrong process innovation and they are not flexible. By pouring money into them you are just going to do more of the same. The answer you gave me earlier, Bruce, when you said you had someone from Ford and what they said about cars shows really how out of touch they are with global manufacturing in the Northern Hemisphere. That is serious.

CHAIR—What about LPG?

Dr Blakemore—There is a big opportunity there—a massive opportunity. I have not looked at all the stats on that, but methane is a good energy source. That might give a little bit more life to Ford in particular, because I think they make ex-factory cars with LPG.

Mr TANNER—I go now to your point about aluminium and the fact that we as a nation do not go very far down the value chain in processing activities. One of the things that stand out to me in this example and countless other equivalent examples is the fact that we are a small market and we are a long way from large markets. Typically the pattern is that the latter end of the value chain tends to occur close to the ultimate consumer markets. My question is: aren't we therefore, to a fair degree, prisoners of both distance and scale? Even though we might have the world's best, cheapest aluminium, given that most of it ends up in products that are purchased by people on the other side of the world, isn't it unrealistic to expect that we are going to become major and powerful world fabricators of aluminium window frames or something like that simply because we have the bauxite to start with?

Dr Blakemore—I think that is a reasonable statement and I understand what your concern is. I was thinking more along these lines: whether people believe this or not, Australians are very clever innovators—they are very good at the ideas end of the transmission process but very bad at the other end, the commercialisation. I was imagining what happened at de Havilland aircraft factory when I was there could be perpetuated in a whole set of new ways. For example, we were making Boeing wing sections and the aluminium had to go through a value chain that involved shipping aluminium from Australia to Europe and back to Australia. It is absolutely crazy, and yet we were still able to do it competitively against world competition, and land the wing sections in Boeing in the United States. I thought we could do that. The shipment and the logistical part of it at the moment cannot be that absolutely damaging if you can put a lot of value in. As you know, the higher the value of the product the less the logistics and time frame become important. But what you say is a real concern; the closer you get to the end market the more you would like to put the value in at that market end. That gets around the working capital in your balance sheet problem. That is true.

Mr TANNER—I am a bit of a sceptic on the commercialisation argument. I do not dispute your description of the facts; what I am sceptical of is to what extent this reflects badly on us as a nation. We overlook the fact that we are about 0.3 per cent of the world's population or some very tiny figure. To put it in more manageable concepts, Australia is to the world as Dubbo is to New South Wales. The reality is that not much of the dominant high-powered economic activity that is state or nationally oriented is based in Dubbo. It is here in Sydney. There is an iron law of economics involved here, I would have thought. We are part of the world's backblocks because of our size. We can push against that a bit because of both a high level of wealth and skill and certain natural attractions, but ultimately that size will always make it very hard for us to commercialise things in Australia.

In areas like the Parkville medical precinct in my electorate there are institutions producing great innovations, like the Walter and Eliza Hall Institute, the Howard Florey Institute and so on, but the companies that actually commercialise those innovations are world-scale pharmaceutical companies that are bigger than BHP and have an economic capacity that enables them to bet billions of dollars on particular processes or innovations, do all the clinical trials and all those kinds of things and take on a magnitude of risk that is simply too big for the Australian economy

to digest. It seems to me that there are some natural limits there that we have to live with whether we like it or not.

Dr Blakemore—Yes, there are, but if you adopt that attitude now you would shut down the whole of automobile manufacturing and their suppliers in Australia right now. You would shut down General Motors Holden, Ford, Mitsubishi and all the automotive components manufacturing, because that argument applies to all those companies.

Mr TANNER—Not necessarily; I was talking about the commercialisation of ideas that occurs in Australia.

Dr Blakemore—Lindsay, we are doing that extremely badly. That is one of our biggest weaknesses. Let me give you some examples: photovoltaics at the University of New South Wales and Memtech at the University of New South Wales. They are two that come to mind immediately. Let us take the photovoltaics. We are world leaders in the efficiency of photovoltaic cells. Talk to Richard Corkish at the University of New South Wales and he will give you the facts and figures. Do you know the story? One of his students has taken the idea to China. He has now floated it on the stock market in the US. He is one of the wealthiest men in China. Why didn't we capitalise on that? That is a high value added component which could have been made here. We could have taken it to the world.

Mr TANNER—My answer is because we are 0.3 per cent of the world's population.

Dr Blakemore—But we can still do it.

Mr TANNER—That is a bit like asking why if somebody works out a brilliant idea in the back blocks of Idaho it is not commercialised in Idaho. The answer is because the action in the US is on the West Coast and the East Coast and centres with large capital, a lot of expertise and large marketing capability. In a sense, we are a slightly larger version of Idaho.

Dr Blakemore—But we can still control the IP from here, and we did not even bother to do that.

Mr TANNER—That is a separate question.

Dr Blakemore—It is the same question, because if you control the IP, you control the company.

Dr EMERSON—But the benefits of IP are presumably more in the licensing arrangements. You get the wealth out of the idea, but we seem to have this obsession in Australia that you are not getting any wealth unless and until you are manufacturing a final product out of the idea. We could be very good producers and exporters of ideas.

Dr Blakemore—That is right. The photovoltaic cell is an example. There is no reason why we could not have capitalised on that.

Dr EMERSON—But we do not necessarily have to produce them.

Dr Blakemore—But we could have controlled the IP. I have six universal global manufacturing models. That is one of them—where the IP that is developed here is controlled from here. The manufacturing may take place at the end of the value chain in the market where you want it. The capital might have been raised in New York or London or elsewhere. But the control of the IP remains here. We have not even been smart enough to do that.

Mr TANNER—In that example, was that simply sold to somebody?

Dr Blakemore—I do not know the full details of that. All I know is that a gentleman in China who used to be a student in Richard Corkish's department has capitalised it. He is now a billionaire. The money was raised on the stock market. The Northern Hemisphere sees it as a way forward in partially solving the greenhouse effect. And we were not even smart enough to do that. If there was ever an opportunity for commercial ready R&D to come in and support it, that was one. I sit on the R&D committee and I see examples of this from time to time.

CHAIR—We have two minutes left. Would you like to give a two-minute summary of what as we move forward you would like to see in government policy towards the manufacturing sector?

Dr Blakemore—I would like to see a recognition that manufacturing is important enough that we must inject capital to assist in the complete re-equipping of areas of manufacture where we do have some sort of strategic advantage. That means also putting together into a network those people who can assist in building a whole base of areas of manufacture and joining that to global supply chains. That requires a change in thinking. It means that we have to start backing winners rather than looking at the whole of the manufacturing base and trying to back every one of them, as we do with commercial ready programs. They are not working and in my view they will never work. We have to start using a more focused approach in the way that we run this country.

CHAIR—Thank you very much. We really appreciate your coming today. It was good to see you again. We will send you a copy of the *Hansard*. If you have further input that you would like to see us use, please send that to the secretariat.

[2.15 pm]

ROACH, Mr Ted (Walter Edward), Chief Executive Officer, Sydney Business and Technology Centre

CHAIR—Welcome. Is there anything you would like to say about the capacity in which you appear today?

Mr Roach—I am also managing director of Roach Industries.

CHAIR—Although the committee does not require you to give evidence on oath, I advise you that these hearings are legal proceedings before the parliament and have the same standing as other proceedings of parliament. We have received a written submission to this inquiry from you. Do you wish to present any additional information or make an opening statement to the committee?

Mr Roach—Yes.

CHAIR—Then I invite you to make an opening statement and then we will proceed to questions.

Mr Roach—I thank the committee for allowing me to present this submission today. The Australian government spends \$6 billion annually on R&D and it is not monitored for manufacturing or export outcomes. Australia has decimated its manufacturing sector because we have failed to encourage the development of large private sector commercial research centres similar to those in Japan, Germany, South Korea and China. These countries all have highly successful manufacturing sectors. Private sector commercial research centres provide for the clustering of research projects and overcome the thousands of learning curves required to develop innovation and downstream that innovation into manufactured goods and exports. I am speaking here today as someone who built Australia's only private sector commercial research centre, which is the Sydney Business and Technology Centre at Lidcombe. It is a 150,000 square metre complex with 53 factories and I have had absolutely no support from state or federal governments over 20 years.

The people who have taken most interest in our complex are the Japanese. A delegation from Japan came to Australia specifically to look at private sector commercial research centres in the mid-1980s and they have used what we showed them to develop their R&D centres in Japan. We have no private sector commercial research centres in Australia; we have government run R&D centres, and that is a similar model to the one the Soviet Union had when they were developing their manufacturing base.

The overseas R&D centres are associated with large technology parks where the innovation from the R&D centres is manufactured. The Japanese private sector commercial research centres have 200- and 400-hectare technology parks associated with the R&D centres and the innovation developed in those centres is manufactured in the technology parks. The R&D is not necessarily R&D from universities; it can be a range of different things and quite often it is upgrading

existing technology. For example, the Japanese took IBM computers and made IBM compatibles and then got into the forefront of making computers. They have done that with a range of technologies. The South Koreans have done that and so have the Germans. We have technologies like microwaves, video recorders, and robots, which we were talking about before. All of these types of things have been taken by the Japanese, re-engineered and taken to the next level of innovation.

Networking occurs between the R&D centres and the firms in the technology park. Networking is very important because you need not only the R&D going on but also the whole process of being able to get things into the marketplace. The private sector in Japan does this and is highly commercial. It invests three times as much in R&D per capita than does Australia because it has an efficient chain of commercial outcomes from incubation to manufacturing and export. We do not have that efficient chain. We have the assumption that government committees and government IR&D boards et cetera will be the ones to pick winners. It should not be at that stage.

The other advantage that the Japanese centres have is that they get their funding based on outcomes, based on the goods that are manufactured and exported. So you have your R&D centre and you have your technology park, and what comes out the front gate to be exported is the basis on which the commercial research centre at the beginning gets funded. So governments are not trying to pick winners in Japan. It is all based on making sure that you have good commercial researchers, engineers and scientists—people who are good at doing that sort of thing—in your commercial research centre, because that is the basis of you getting your funding. If you cannot come up with an innovation that is then manufactured and exported so there is a market at the end of the day, you do not get any funding. It is not based on how many papers people have published or how many PhDs they have; it is based on what goes out the front gate and is exported. So the commercial research centres are outcomes driven, and that also applies in South Korea. Germany is the same, and it also now applies in China.

To give you an idea, in Japan there are about 2,000 of these centres and they have gone all the way down to building multifunction polises, which are technology cities. In China they have 600 commercial research centres, 200 of which have been built in the last 12 months. The Chinese are following the Japanese model. They are about 30 or 40 years behind them, developing what they call simply transformed manufactured goods, and now they are going into elaborately transformed manufactured goods.

You allow the centres themselves to work out what they should be doing. In Australia, if we had private sector commercial research centres they would be identifying the niche markets that we need to be in to overcome these problems of distance et cetera that we have in Australia, and there are a lot of products that we could be developing in Australia where distance is not really a problem. I could give you some examples of that: the seaweed that is washed up on the beaches on King Island in Bass Strait is very high in a range of different nutrients and chemicals. What the farmers do is pull it up, hang it up, dry it out and put it into containers and then it is sold to the Germans, and the Germans make coagulants and other chemicals out of it—but we could be doing that. It is not up to the government to try and work out whether or not we should do it. We should have these large private sector commercial research centres to do it. These large commercial research centres in the private sector are the minimum size you need to develop

commercial research because they overcome all the learning curves. They have networking between technologies.

They have to be private sector driven, very similar to the Australian Institute of Sport. We do not have sports people at the Australian Institute of Sport because they have PhDs in athletics. We have them because they have abilities in that particular area, and if they are coaches they have abilities which have been seen from local sporting athletic groups right through to state level. Then, with the Australian Institute of Sport, we will not be putting money into the Winter Olympics; we will put it into certain events in the Summer Olympics—like swimming, for example, because we know that we have an advantage in that particular area.

What we have in Australia is a structural problem. We have had it for about 50 years as a result of the way the culture in this area has developed over the years. I will go on to that in a few minutes time. Advanced economies need the infrastructure of private sector commercial R&D centres funded on the basis of manufactured exports outcomes in order to compete in world markets. If we had a low living standard, we could just manufacture simply transformed manufactured goods and export them and we would be fine because we have the advantage of labour costs. Where you have high labour costs, you need to get into items that need continuous innovation so that you stay in front of the market. That has to come from a private sector driven structure where people are in there based on their performance.

The policy committees in Australia are dominated by science bureaucrats and their associations, and the mining industry and their associations. Both of these interest groups are looking after their interests, and private sector commercial R&D centres and manufacturing are not part of it. When we built our centre at Lidcombe, we had all sorts of trouble. We could not get the building code changed for us to put more than one research firm in the same factory. We had 53 factories. Firms would come to us who were in the centre telling us that they were told blatantly that while they remained in our complex they would not get any grants.

When Laurie Carmichael, who was the chairman of the then Australian Manufacturing Council, and the Japanese came to the centre—it is fully explained here when the Japanese came down looking; they only wanted to see private sector commercial research centres—Laurie went back to Canberra and was going to get things changed. Laurie was told that the reason they did not like our complex was that we were competition to the CSIRO.

We have mixed up research and development, pure research and basic research—which are done by universities and government-run research organisations—and commercialising research. You have to do commercialising research in these private sector commercial research centres, similar to those in Japan, China, Germany and South Korea. We have mixed it all up and we have not got any private sector commercial research centres, and that is where our problem lies. The view of the mining industry over many years—I know a number of people in the mining industry; I think it came from the fifties, the sixties and the seventies when they had a lot of competition—is that manufacturing and mining do not mix; you cannot have both.

In fact, you can have both. For example, a country like Sweden, which has had mining, has developed companies like Atlas Copco, which produces pneumatic equipment, drills and all sorts of things for the mining industry. It has looked at its mining industry and worked out what equipment it can supply for its mining industry. Sweden has also developed things like furniture

out of its woodchips. So instead of shipping out shiploads of woodchips, it has downstream processed it into Ikea furniture.

That is what we should be doing with our raw materials. We need to find niche markets, and we need to let the private sector do it. Government funding should not be about giving lump sum grants to individual companies by themselves. In my paper I have outlined to you that all of the research shows that public sector research organisations are very poor at commercialising research and individual companies and individuals being given grants is not a very efficient way of doing it. It has to be done in these large, private sector centres. If it was, we would not have this type of thing going on. Dr Shi, who was part of the team that developed solar cells at New South Wales university, is the richest man in China now by using our solar research to make billions of dollars for the Chinese government.

And that goes on even now. I will not mention names, but there are certain people who have small clusters that the government is organising, and they take their innovation over to Germany and sell it to the German private sector cooperative research centres. They have cooperative research centres there, but they are all in the private sector. The Japanese pick up research here all of the time because the guys trying to get funding end up going to venture capital companies here in the city. Over a period of time, they water these guys down so they virtually have nothing, then the venture capital falls over, the projects fall over, and then they are on-sold to the Japanese. In Australia, we have not got the right structure to develop manufacturing in an advanced economy. We need to develop private sector commercial research centres. Apart from some in agriculture—there are a few small ones in agriculture—we have none that develop elaborately transformed manufactured innovation, or ETM innovation.

That is basically what I wanted to tell the committee today. I have done a full study comparing Australia and Japan, and you will see that we are highly inefficient. Our public sector utilities are 1,800 times less efficient than the Japanese centres. All Japanese government R&D and their private sector R&D is spent in these private sector commercial research centres. Our government centres are 1,800-odd times less efficient if you compare the exports that come from the R&D expenditure. In fact, if you then take into account the fact that we sell this R&D off to America—for example, like CSIRO will sell technology to Boeing—and we then import it, or we do this sort of thing where we then import these solar cells for our use, it is highly inefficient to go down the path that we have been going. Overall, for every dollar the Australian government spends, it is getting less than \$1 in exports while in Japan the government gets \$12. So Japan is 12 times more efficient at spending its public money on R&D than the Australian government.

The Prime Minister's science, engineering and innovation committee is made up of people from mining companies, from government run research organisations and from the various organisations that are structured to incorporate various government-run research areas. There are Australian institutes of science and technology and societies et cetera, those sorts of things, and there are a whole lot of those. These sorts of committees then go along and take the majority view. What we should be doing is looking around the world for world's best practice in developing commercial research and saying, 'That's the path we should be taking.' We have socialised our innovation market, but we have not given the latest innovation for our manufacturers to manufacture and export.

Ms GRIERSON—What criteria do you set for manufacturers to become a participant in your centre?

Mr Roach—What happens overseas is the manufacturers move into the technology parks, they then identify what things they think are worthwhile to upgrade their manufacturing and that then moves into your commercial research centre. We do not operate as a commercial research centre any longer.

Ms GRIERSON—The centre that you have?

Mr Roach—Yes, because we have been told by both the federal and the state governments that they are not interested in having such centres in Australia.

Ms GRIERSON—What services would you see such a centre providing to SMEs that might want to hub or have some sort of critical mass?

Mr Roach—They provide venture capital so that they get continuous capital; it is not stop and start. What happens at the moment is that somebody is going very well and then all of a sudden they get their funding chopped and they then end up selling their ideas off. So you provide venture capital. You provide all sorts of different services, like technical equipment, technicians to make prototypes, marketing expertise and patent expertise. There are over 1,000 different learning areas that are involved in these commercial research centres.

There is a thing there that I have drawn up where you also have networking within your commercial research centre, because somebody might be developing a product which needs computer software input, computer hardware input, technical instrument input. They may not necessarily have that expertise in the centre, but if you go to those people in the centre they know where they can get the expertise that you may require. If that happens, then you are getting leading edge innovation coming out of your centre, and that is the only way you can compete with the Japanese and the Germans. You have got to have leading edge innovation, and that has to incorporate all areas.

What the Japanese do, and they have been doing it now for 30 or 40 years, is that every week JETRO, the Japan External Trade Organisation, meet in Sydney. The Chinese do the same. There are supposed to be 1,000 Chinese commercial spies in Australia. They are going around buying products that they can see that they could manufacture in their commercial research centres. As I said, the Chinese have 600 of these centres now, and 200 were built in the last 12 months.

So we as a nation cannot expect our small manufacturers to come up with some idea, put the product on the market and be leading edge when they do not have the depth of expertise to have the leading edge innovation. They put it on the market, it is bought by the Japanese and if they can see that it has good potential they re-engineer it and come up with the next level of innovation. Then, all of a sudden, our guy is wiped out. That is the way it is. It is a war, and we are not giving our manufacturers the wherewithal to cope with it.

Dr EMERSON—In Taiwan there are a couple of technology parks. One is called the Hsinchu Science Park, and they have a system of performance where they have a look at proposals and, based on those proposals, they will invite an enterprise in. If the enterprise is performing then

they stay for some time, but not forever, and others that are not performing are politely asked to leave. That has more recently been integrated into the People's Republic of China for the fabrication, once the idea is encapsulated. They do not try to manufacture so much in Taiwan now, but they do in China. Is that the sort of model that you are talking about?

Mr Roach—That is a model, and the Japanese do use part of that model, but what the Japanese and the South Koreans are endeavouring to do is to do the manufacturing themselves. They have to get into much higher levels of innovation to do that. As to where a product finally ends up coming out, it is obviously better for it to be manufactured somewhere with low-cost labour, so the product goes to that particular place to be manufactured. But you do not find that happening with too many Japanese products. You will find that the Japanese and the Germans are tending to manufacture their own products from their own innovation.

Sometimes they specialise. The Swiss, for example, specialise in dentistry and the types of things used by dentists—the glues and the different things. So they get a niche market. Our niche market would be, for example, in the mining industry. We could specialise in all the various types of equipment used in different areas of the mining industry. Or it could be that we specialise in things like the seaweed from King Island, where we have a unique thing. We have the product here in Australia.

But that should be left up to the private sector, and they rise or fall on that. If we had 20, 30 or 50—we could have up to 200 of these centres in Australia, all in places like Newcastle and other areas where there is high unemployment and in areas where there is normally unemployment and manufacturing, like Western Sydney—you would then have all of these centres competing with each other for government funding based on what exports they produced. That is all the government has to do. It just has to sit back there. It does not need great big government departments down in Canberra.

This is not a political philosophy. This is what the Social Democrats do in Germany. This is what the Social Democrats do in Switzerland and what the Liberal Democrats do in Japan. This is what the Communist Party of China does. We are talking about being pragmatic about how you develop manufacturing. Australia does not have one private sector commercial research centre because the government research guys are opposed to them.

The mining industry is opposed because they see manufacturing as putting upwards pressure on the Australian dollar and their products are sold in US dollars. If you have a look at their strategy, they have been the ones that have taken over. When I was on the New South Wales Chamber of Manufacturers committee, Philip Holt was taking delegations up to China to transfer our manufacturing sectors up there. When we said we had to go down this particular path, they were all dead against it. Then it turned into Australian Business Ltd. When I talk to these people, I find that they are not interested in going down this path. What you have on your various committees down there in Canberra are representatives from all of these other groups.

CHAIR—Not ours.

Mr Roach—No, not yours. I am talking about—

Dr EMERSON—This is quality here.

CHAIR—You are talking about one of the stars of Canberra, Mr Lindsay Tanner.

Mr TANNER—Could you provide us with some greater detail on your organisation: who owns you; what services you provide? I think you mentioned that at Lidcombe you have about 50 companies.

Mr Roach—No, I have not got any companies at Lidcombe. Back in 1988, I put a proposal to federal government. First of all, I put a proposal to Sydney university.

Mr TANNER—I was not asking about proposals.

Mr Roach—We built the centre.

Mr TANNER—Who are you and what do you do?

Mr Roach—We built the complex. I am in the commercial area. I do not muck around with governments. I put proposals to them and if they do not want to take on my ideas they do not have to. The Sydney Business and Technology Centre development was about eight stages. All the time, we went back to the federal and state governments—there are letters and files. Politicians from all over the place know about it—

Mr TANNER—That is not my question.

Mr Roach—We do not participate in it. I am telling you what we need to do. We are no longer involved in developing commercial research because Australia does it incorrectly. The government should be doing what they did in Japan, South Korea and even in China: they provided lump sum grants for private sector centres to be built and the centres are now funded based on outcomes.

Mr TANNER—I will repeat my question: could you tell me more about your organisation, not what battles you have had, what submissions you have made, what you do not like about government committees or what you do like about what is done overseas? Who are you?

Mr Roach—We are in the process of selling our last factory at Lidcombe, so we have no interest in being in this area.

Mr TANNER—What does that factory produce?

Mr Roach—Sydney Business and Technology Centre. The last of the 53 units there is being sold at the moment. I have been fighting this battle for 30 years and I am not interested in being in it. I am here to tell you what we should be doing.

Mr TANNER—I have got some questions about that but I actually like to find out first who you are and I have not—

Mr Roach—I am an engineer by background.

Mr TANNER—No, I do not mean you personally; I mean the organisation.

Mr Roach—Roach Industries. We were the main developers of the Rocks area. We did eight or nine complexes there.

Mr TANNER—No, I am referring to the Sydney Business and Technology Centre. I am asking: who owns that organisation; what does it do; who are its clients; what business is it in; and what does it trade? You mentioned you owned factories—producing what?

Mr Roach—Sydney Business and Technology Centre is owned by one of our Roach Industries companies.

Mr TANNER—These are family companies by the sound of it.

Mr Roach—Yes. I have been involved in commercial research. I have been president of the Inventors Association of Australia. I looked around Sydney for funding and I saw all the problems, so I put together a process for developing innovation. It just so happened that the Japanese thought that this was the right way also, and they have been the ones who have taken the most interest in our centre. I have not been able to get one minister to come to our centre.

Mr TANNER—What does your centre do?

Mr Roach—Initially, it was developing commercial research. We had companies like Corbett Research that made DNA amplifiers and competed with DNA amplifier companies all over the world. We had various types of computer software and hardware companies.

Mr TANNER—Did they pay you a fee to—

Mr Roach—No. They took up space in our complex and developed their technology. We had a centre at the front with consultants who would provide information on how to get venture capital and how to protect patents. We had a theatre in the complex to get the people who were doing research and development up to speed in areas that they needed to know about outside their expertise. We did not want to be delving into their particular innovation. That is up to them. Once they get to a certain stage, they move out and manufacture. It is similar to what the Japanese have been doing since the 1950s.

Mr TANNER—My second question is: presumably there is no law against somebody establishing commercial research centres?

Mr Roach—No, except that the building code in New South Wales will not allow it. The building code in New South Wales does not allow multiple tenancies. We have been trying to get it changed for 20-odd years and we gave up after 20 years. This was with John Hannaford as well. There were complaints made that our centre had more than one research firm in the same factory, which we did have because each factory could take 10 or so research projects. The mayor of Auburn and the chief town planner came down and they said: ‘Look, we agree entirely’—because we had called the centre the Sydney Advanced Technology Centre—‘It is really a state government responsibility to change the building code to allow you to put more than one research firm in the same factory. But we have had a complaint that you are going to be doing this with every one of your 53 factories and, although it is done all over Sydney, where you are doing it in one area and it is concentrated then we cannot allow it.’ We complained to

New South Wales governments for two decades to try and get that changed and we could not get it changed.

That was number one. Then when we put whole companies into our factories they were targeted by the federal bureaucrats and told that while they remained in our centre they would get no government grants. Why should someone stay in our centre and get no grants? Then Laurie Carmichael came along—you should interview him—and said, ‘They are totally opposed to what you are doing because they see you as competition to the CSIRO.’

Therefore, what is the point of trying to be a commercial entity in this particular area? We get the Japanese using our information. They wrote a whole book on the centre that we built. They wrote a book in Japanese—here it is—with a photo of them all on the front page with Laurie Carmichael and I in the front. They then sent it back and that is what they have used for their centres. Here in Australia we could not even get a minister of the federal or the state government to come out to have a look at our centres.

I suppose you are getting the impression that I am very upset by the whole thing. I have actually got to the point where I believe Australia will not change until we have a crisis. Then we will sit back and say, ‘How do you do this thing properly?’ All I am saying is that we have failed to give our manufacturers leading edge innovation that would enable them to be in front of the market so that they could compete in manufacturing.

Mr TANNER—Is the essence of your argument that we should privatise the CSIRO? That sounds like where you are heading.

Mr Roach—That is not quite right. The CSIRO—and there is basic research and research for the public good—has areas where we should not be trying to have it commercialised. For example, medical research, research into the ozone layer, research into fisheries and things like that—these are all things that the public sector research area should be involved in. In fact, the interesting thing is that that is what the scientists in the CSIRO want to be involved in. They do not want to be in the commercial area. This commercial area is a tough area.

Mr TANNER—I understand your point: that the idea would be, in a sense, to pare back that direct government funded research to a more general kind of area and leave the more commercially focused research to the private sector. Presumably you are then advocating that the money currently spent by governments in that public sector research would, in some form, be used as subsidies for private sector technology centres of some description. Is that what you are suggesting? Secondly, in your view what form would that take?

Mr Roach—That is correct to a point. The funding to the private sector commercial research centres should be given to them based on the export outcomes as a result of the innovation that has developed in the commercial research centres. But also, instead of the government providing 175 per cent and 125 per cent tax deductions, which they do at the moment to try and twist the arm of firms to go into cooperative research centres, you do not have that at all.

In Japan they spend three times the level of private sector funding on commercial R&D that we spend in Australia on a per capita basis. That is because the Japanese put government funding up front early in the piece. From there, the commercial research centres identify the commercial

products. They then put those commercial products into a package for a venture capital float. The private sector—the superannuation funds, the banks and others—are breaking their necks to get into these venture capital funds because they have a 30 per cent or 40 per cent return per annum.

Mr TANNER—What would you do with the R&D tax concession?

Mr Roach—You would bring that round and you would put it into the commercial research centres, based on how well they are doing at the end of the day in developing manufactured exports. The way to compare how well these various centres do is to look at what exports they are producing. That is like the Olympic Games and the Australian Institute of Sport. You are not going to fund athletes individually all over the place, because you know that you will not get the right performance from them. You get them all to come to the Australian Institute of Sport. Then, within the Australian Institute of Sport, the funding is based on which areas are getting the gold medals. The ones who are performing on a world-class basis are the ones who get the most funding. So you will find that swimming gets more funding than some other sport like downhill skiing, which we are no good at.

Mr TANNER—We are getting better.

Mr Roach—Yes. All I am saying is that we find our niche markets and then the government does not have to try to pick winners and put up incentives for the private sector to go in. The private sector should not be forced to go into something because the government is giving them tax concessions. The private sector should be going into something, as they do in Japan, because they see that they are going to get a very good return out of it. The venture capital companies that the Japanese have are very popular with all of their super funds, their banks and the like.

Individuals, like the man who is the fourth wealthiest man in Australia but the wealthiest in China, are doing exactly the same thing. That guy has gone through their technology parks and come out the other end, and he is the one who has made money out of it—the person who is involved in the innovation. In Australia quite often it is the merchant bankers who make the money out of it, not the people who have actually come up with the innovation. That is where we have got it all wrong. We have got it all mixed up. We should be rewarding the scientists and the engineers who come up with the innovation so that they are able to make money out of it. That is how you will get young people doing science and engineering. That is how you will get five times more engineers and scientists per capita in Australia, like they have in Japan. Engineers and scientists in Japan are well recognised and well regarded. In Australia if you ask young people what they want to do they say that they want to do law or accounting. What we have to do is change the mould. Engineers, scientists and good researchers in Japan are earning half a million dollars or a million dollars a year, like our guys in the capital markets, because they are good at commercialisation and they are getting shares in the companies that are then going downstream and manufacturing and exporting.

CHAIR—Thanks very much, Mr Roach.

Mr Roach—I am sorry I am so serious about it, but I guess I have been around it for a long time and it has been very difficult to get the message across.

CHAIR—We appreciate your input. Thank you very much for coming today.

Proceedings suspended from 2.53 pm to 3.09 pm

CAMERON, Mr Doug, National Secretary, Australian Manufacturing Workers Union

CONROY, Mr Patrick, National Projects Officer, Australian Manufacturing Workers Union

CHAIR—Welcome. Although the committee does not require you to give evidence under oath, I am sure you know these proceedings have the same standing as proceedings before the parliament. I invite you to make an opening statement and we will follow with questions.

Mr Cameron—We have just given you a copy of a submission that has not been available until now, so I will take you through the key issues in it. It might help in terms of the questions. The terms of reference are quite interesting. I believe we should deal with the future directions in the policies for realising any opportunities for manufacturing towards the end of my verbal submission and deal with points 2, 3 and 4 as I go through.

In terms of the dominance in commodities and the impact on the economy following the resources boom, we would like to make a few points. Mining employs only 1.3 per cent of the Australian workforce, and manufacturing provides a greater contribution to the Australian economy in many ways. A \$1 billion increase in manufacturing exports would produce an extra \$86 million in GDP at basic prices over what you would get from mining exports. If national income were added, the superiority would increase to nearly half a billion dollars—\$552 million. It would create \$114 million in additional wages and would create 4.8 million additional hours of work—or 26,700 full-time equivalent employee positions.

So, when you contextualise the importance of mining in terms of building an economy and you take the importance of manufacturing, manufacturing leaves mining for dead. That is something that I think has been ignored throughout the economy for some period of time. As on page 4, even at the height of the resources boom, with the best terms of trade we have ever had, to import one good quality plasma television we needed to export 6½ thousand tonnes of iron ore. So we are just digging up our backyard and we are bringing in the high value added goods.

CHAIR—What page are you on?

Mr Cameron—Page 5. Regarding the impact on the economy and the dominance of commodities in the resources boom, we are very concerned about the structural imbalance in the economy. Given what I said about the importance of manufacturing to drive an economy and add value, the more we rely on the mining industry, the more that structural imbalance will come back and bite us down the track.

At the moment we are working off debt driven consumption, and household debt is 170 per cent of net household disposable income. Households are getting more and more into debt. New South Wales is at 200 per cent. Because of this debt constraint, the New South Wales economy is growing at one per cent per annum compared to three per cent for the national economy. The problem we have is that other states, on current trends, will reach the New South Wales debt saturation by 2009 and 2010 and households will not find relief in retirement inheritances. We are financing our borrowings from overseas, and that is matching the household debt. So the

inheritance that people rely on to some extent over many years in this country will be sold off to foreigners. We are really getting into more debt and the debt is making foreigners, not the Australian economy, richer. This is because we are relying on two major factors to drive the economy. One is the mining and commodities boom, and the other is this debt driven approach to growth.

We have had work done by Dr Peter Brain of the National Institute of Economic and Industry Research. You have a copy of the work he has done for us in the package that we handed up. He is warning that there could be a currency crisis in the next few years because of the increasing vulnerability of the economy to economic shocks. He points out that the IMF found an exchange rate crisis would cost developed economies between seven and 10 per cent of their output. So, if you get into an exchange rate crisis, seven to 10 per cent of your output will be wiped off the economy.

The World Bank has signalled some currency crisis signposts. It says the signposts are: a sustained growth in debt relative to GDP, sustained increasing credit relative to foreign resources—that is your Reserve Bank assets—a current account deficit in excess of five per cent of GDP, a rising ratio of short-term foreign debt relative to foreign reserves, falling interest rates relative to the benchmark New York or London interest rates, and a falling terms of trade. The only criterion that we do not have at the moment is the falling terms of trade. We have everything else. So we are very concerned that we could have a currency crisis and an exchange rate crisis in this country in the future.

One way we can try to diminish that is to rebalance the economy with a strong manufacturing sector. The problem we have is in the third area of the terms of reference—the state of the manufacturing sector. I am sure you have heard of all the problems we have in the manufacturing sector but, given that we have been asked to deal with them, I will just go through them very briefly. We say that manufacturing is in a long-term decline. It is declining by 0.3 per cent per annum. In 1979 and 1980, manufacturing value-added was 20 per cent as a percentage of GDP. Currently, it is just above 12 per cent. This is not a malaise in one part of the manufacturing sector—it is right across the sector. We have had a very poor trade performance in manufacturing over the past 15 years. Each \$1 million increase in real exports has been matched by a \$4 million increase in imports. So, for every dollar we are exporting, we are importing \$4. It is really in the areas that add value to the economy—the high-value-added manufacturing products.

The manufacturing trade deficit is approaching 15 per cent of GDP. This is a very interesting statistic we have been advised of. The number of manufacturing industries with an export share of production of over 20 per cent is less than the number of industries with an import share in domestic demand of greater than 50 per cent. So our industry is depending on imports more and more, and we do not have those high-growth, exporting manufacturing companies. Manufacturing performance is declining relative to OECD best practice, as we say on page 8. The productivity, the size and the export performance of our manufacturing industry is relatively poor compared to OECD benchmarks. We have one of the smallest manufacturing sectors as a percentage of the total economy. We have the lowest export share and production in the OECD. We have relatively poor research and development and relatively poor investment in value-added. These are all benchmarked against the OECD.

We have come to the conclusion that the lower the level of manufacturing industry assistance the poorer the performance of the industry. It is much tougher to do business in the manufacturing industry than it is to dig up your backyard and export to overseas. It is a much more complex industry than mining. There are many more risks involved. So the risk in manufacturing is greater than in mining. We believe you have to level the playing field internally in terms of the manufacturing industry.

We do not think the industry plans and incentives for the industry provided between 1984 and 1996 were really understood or properly developed, so it was easy to wipe off the whole process as business welfare. I am not an economist, but I am advised that part of the problem is this economic argument about fallacy of composition. If one company can survive just based on the market, then the argument is that every company should be able to do so. The economic argument is described as the fallacy of composition. It means that you cannot generalise this economic argument across the whole industry. We are concerned that this is what has been put in manufacturing for some time.

We have a very small scale and poor productivity performance, but our estimate is that, given the problems in our industry, these productivity levels are as good as they are going to get under the current system. The main chance of improving our productivity growth has to be through demand led expansion. We have to get more demand into the industry, and we will come to some ways we think we can do that.

Manufacturing itself has failed to offset the negative effects of the sustained structural change, and we believe we need to target growth initiatives of at least two per cent per annum. I think the strategic error for our industry and our economy is that we have not designed policies to offset the negative impact of globalisation. The Irish and Singaporean manufacturing sectors have done this. Those countries have smaller economies than ours and are subject to the same negative forces, but they have managed to sustain and grow a manufacturing sector.

On page 10, we argue that the Treasury argument that we should ignore the dangers of the hollowing out of the manufacturing sector and that it can be rebuilt after the resources boom is nonsense. It is a sophisticated argument, but it is a real nonsense argument. You cannot simply leave the industry to operate unimpeded in the market. The lessons of our own history are there on this experience. If Ireland had followed this Treasury line they would still be growing potatoes and producing potato chips; they would not be making computer chips.

CHAIR—Yes, but we know that the reason that Ireland has developed as rapidly as it has is because it has become part of the EU, received subsidies and, in particular, lowered taxation.

Mr Cameron—That is an overstated position. It is a simplistic argument and denies—

CHAIR—I think most people would agree that—

Mr Cameron—I am not so sure.

CHAIR—it is because of the taxation incentives that it offered in terms of corporate tax rates, personal tax rates and so on and because of the subsidies from the EU.

Mr Cameron—We are happy to give you some more information on that.

CHAIR—Let us not bog down on Ireland.

Mr Cameron—Anyway, we do not accept that thesis.

CHAIR—You have not got one from Scotland, though.

Mr Cameron—No; they did not do as well as the Irish.

Mr TANNER—Because they are not independent.

Mr Cameron—Yes, they depend on Tony Blair. We just think that government should be making decisions to involve itself in the industrial structure of the economy.

The next point we have been asked to talk on is the opportunities and challenges, particularly in the context of China. We just want to put the so-called China miracle in context. On page 11, we outline some of the issues that the international trade union movement and the human rights people have with China. China's competitive advantage is driven by exploitation. Human rights and trade union rights are ignored and suppressed in China. It is a major problem, and it is not sufficiently recognised in this country. Environmental safeguards are ignored for competitive advantage. The currency is undervalued by deliberate government design. Their health and safety performance is scandalous. They are coming at us on two levels: low wage and high skill. They have a combination. It is not just simply this low-wage, drudging, mass-production economy; it is an economy that is growing more and more and with high skill. When you combine that with the government intervention in the economy and high investment, you have low skills, low wages, high skills and high investment in China, and their tariff barriers are more than ours—they average about nine per cent. I think in the vehicle industry it is something in the region of 24 per cent.

The other challenges of China—and these are challenges that have been assessed by the AiG—are: huge non-tariff barriers; breaches of intellectual property rights; the absence of transparency of legal and financial systems; import duties are enforced really heavily; interpretation of provincial laws are used to benefit local manufacturers; varying Customs requirements; unique technical standards used to try to stop manufacturing imports into China; and foreign investment restrictions for some investment in China. There are also quarantine controls that are very widespread and there is dumping to a huge extent in China. This has meant that the United States has refused to recognise China as a market economy. We are one of the few countries that have recognised China as a market economy, I think for geopolitical reasons as distinct from real economic reasons. These are issues in terms of China.

I will talk very quickly about the challenges of Europe and the USA. They produce different challenges for our manufacturing industry. They have got very high technology, they are miles ahead of us in technology—about 15 years ahead—and they have been able to bring the technology to bear on production. Their skills are greater than ours. They skill up their workforce on a much more sophisticated and national basis than we do. The quality of their products is excellent. They have significant economies of scale. Government procurement is

used to drive industry. They have industry support in a whole range of areas, both in America and in Europe. They also have a manufacturing culture that we do not have.

You have asked how we can try to deal with this. We say we have to achieve a self-sustaining growth dynamic. I think the technical definition is 'cumulative causation'. You have to cause something to happen to actually feed off and build your manufacturing industry. We say we have to embed transnational corporations into the local supply chain. We do not support or argue the point that by simply taking our existing supply chain, offshoring it and putting it into the supply chain elsewhere, in either Thailand or China, is in the interests of our manufacturing industry or our economy. We think it is really bad and we think we are going to lose a lot because of that.

CHAIR—I think we should focus on future directions, because a lot of it is scene setting. Certainly, the reason for this inquiry is because we recognise the pressure that the manufacturing sector has been under, so we should look to some of the ways that you see to solve it. Are you against any Australian company that is under pressure from low-wage countries, such as China, deciding that one of the ways that it can assist is by undertaking part of its manufacturing offshore in a low-cost environment and then assembling here?

Mr Cameron—We think that is impoverishing the economy. It is diminishing—

CHAIR—But the choice is either doing that or going out of business, as we have seen from the people who have shared with us that that is what they were facing. In the steel area we had examples this morning of people like BlueScope and so on who have set up joint manufacturing operations in China. And in wool scouring, wool tops et cetera, people have found difficulties surviving by doing it here and decided it is easier to do that or else they would go out of business.

Mr Cameron—That is because they are operating in an economy that does not value manufacturing. That is because they are operating in a nation that has simply said, 'Manufacturing will be left to the market.' That does not happen in Germany, it does not happen in Ireland, it does not happen in Singapore and it does not happen in Korea.

CHAIR—Let us talk about Germany, where I spent 3½ years as a trade commissioner. What are you saying happens there in their manufacturing sector that does not happen here?

Mr Cameron—A number of things. First of all, Germany has huge economies of scale.

CHAIR—That is true. That is not our fault.

Mr Cameron—But you cannot just say that is—

CHAIR—No, but I mean it is—

Mr Cameron—You have asked me what the difference is and I am trying to explain it to you.

CHAIR—I would be interested to know what they do in terms of incentives.

Mr Conroy—To give one example, they—the name of the institute escapes me—have a single institute that has a budget of \$1 billion per year whose job it is to scour the world for world's best technology and, if it is not already located in Germany, its job is to import it into Germany and to place it with local manufacturers. That is one example of industry assistance where they use innovation to escape the wage-cost competition.

Mr Cameron—They spend more on research and development and do more with innovation.

CHAIR—We are interested in finding out more about this corporation. They spend more on R&D?

Mr Cameron—Yes, and more on innovation.

CHAIR—On a per capita basis or do you mean overall? With a population of 70 million, that is not surprising.

Mr Cameron—I have not done the figures.

Mr Conroy—As a share of GDP.

Mr Cameron—But the issue in Germany is that they are the only manufacturing economy with a trade surplus with China.

CHAIR—Yes, I am aware of that.

Mr Cameron—I do not think that can be dismissed.

CHAIR—No, I am not dismissing it at all. I am interested in what they do. Obviously, that is an area that this committee has not yet focused on and maybe it should when looking at some of the successful manufacturing models—Germany, Sweden et cetera.

Mr TANNER—I think you should call yourself to order, Mr Chair.

Mr Cameron—I am being patient.

CHAIR—In terms of the future, I think this is interesting.

Mr Cameron—I appreciate your giving me the opportunity to go through this, because our submission is quite a big one. I will try to go through it as quickly as I can. I am happy to engage in any question that you would like to ask. This supply chain argument about simply offshoring it is doomed to failure. In our view, you cannot keep the cream of manufacturing, you cannot do the R&D and the prototyping here and hope that you can keep it here. The union has had two delegations to China recently, and they are building whole new cities. One city has 16 universities. The universities are then linked to the company's R&D sector, it is then linked to the prototyping and the production process. The footprint for manufacturing is really tight, really efficient, and we have to have footprints like that here. The more you offshore, the wider your footprint goes, the more difficult it is to maintain the quality, the more difficult it is for your management systems, and there are economic and productivity problems for us.

We think that if you keep hollowing it out you increase the unit costs, due to the loss of demand internally within Australia; you reduce economies of scale; you will have less scope of effort in your R&D; you reduce the competitiveness of the supply chain and that reduces the capacity to innovate. You have reductions in the capacity of the supply chain to attract and generate unique skills in the supply chain and you increase the risk and uncertainty of operating in the supply chain. If people are saying that that is the easy way, as you described it, Mr Chair, that people just go overseas—and I am not saying that you support that; you quoted companies to say that—

CHAIR—No, I was just thinking whatever—

Mr Cameron—We think that is the easy thing to do, but we do not think it is in the national interest. We think it is a problem that the government must come to grips with because all of these consequences on page 14 come to bear and we will eventually lose any capacity to manufacture in this country.

In terms of future directions for where we go and the policies for realising the opportunities, we say you need to spend money to grow the manufacturing industry and you need to spend the money because there are disadvantages that the manufacturing industry has versus the resources sector. We should be talking about levelling the playing field. To do that, we would argue that we should not have a decade of lost opportunity; we should start moving now and we should put a \$1 billion public policy package on top of the current support for industry to start turning Australia into a modern manufacturing economy.

If you do that, you can focus increasingly on the demand for manufacturing products in Australia. There are a number of segments in the package designed to alleviate the problems that prevent manufacturing from reaching their full potential. On page 16, we outline where we think we should go.

In addition to the existing support for industry, we say that there should be an additional \$300 million investment allowance, an additional \$300 million research and development assistance scheme, a \$225 million increase in the Export Market Development Grants Scheme, a \$75 million technology diffusion scheme, a \$50 million incentive program to attract foreign equity into small and medium sized manufacturing businesses, and a \$50 million strategy to attract and train highly skilled labour for the application of advanced manufacturing technologies.

CHAIR—This is all out of the increased revenue flowing from the mining companies, is it?

Mr Cameron—You could do that, because we are not going to have that terms of trade forever and we should not just let it be frittered away in tax cuts. We should actually invest for the future. That is a clear proposition that we are putting. There is a clear differential between simply giving it back in tax cuts and investing for the future. We are saying: let us have a vision for manufacturing for the future. We are saying: if this billion-dollar program—not ‘problem’, sorry, that is a typo; though it is a problem in the manufacturing industry—were maintained from 2007 to 2020 it would make a significant contribution. NIEIR have modelled that. It would create a minimum of almost 280,000 direct and indirect jobs and it would increase GDP by at least \$54 billion at 2005 prices. On the issue of where the money comes from, first of all there

has to be a national culture to say that manufacturing should be there. We did some marginal seat polling—

CHAIR—That is surprising.

Mr Cameron—We have done some marginal seat polling between 12 and 18 July. Out of those 1,000 residents—

CHAIR—I am sure it would be the same in my seat.

Mr Cameron—You can see what it says there: 92 per cent agree that the industry of manufacturing is as important as farming and mining; 97 per cent agree that it is important to maintain manufacturing industries for Australia's future economic independence; 96 per cent agree that manufacturing is important for providing jobs for our children in the future; 90 per cent agree that our manufacturing industries have unfair competition from countries where workers have no rights, low wages and poor conditions; 75 per cent disagree that Australian companies should be allowed to offshore their work to overseas companies as it reduces their wages costs; 93 per cent agree that it is essential to maintain our manufacturing industries in Australia, even if they need some government support; 64 per cent disagree that the government would be wasting its money by supporting Australian industries which can compete with cheap imports; 85 per cent believe the government has the ability to take action now to stop the flow of jobs and industries overseas; only 12 per cent think there is nothing the federal government can do to stop the loss of jobs and industries overseas and that it is a natural part of globalisation; and only 26 per cent agree that the Howard government has done enough to support our industries and keep jobs in Australia.

On the issue of where you get the money, given a choice between using the budget surplus for more personal tax cuts and for investing in Australian industry, 65 per cent support investing in Australian industry and 26 per cent want more tax cuts. So, if the government actually took this argument up as a key economic driver for the future of this country, you could get even better support for putting the money in. We just need some courage from any—

CHAIR—I would not be sure that my seat would agree with the point on page 22. They might in theory—

Dr EMERSON—They have no manufacturing there.

CHAIR—Anyway, I kind of agree with the general point that a lot of people are concerned about the manufacturing sector, so I do agree with the general point.

Mr Cameron—I will not go through all the other points. We tested each one of the propositions that we have in our report. The least support we got for any issue was 70 per cent, and it ranged up to 96 per cent. So there is a huge basis of public support for the answer that we are saying is needed to have a decent manufacturing industry in this country. We just need some political courage to take these issues up instead of running tax cuts all the time.

CHAIR—I do not know whether my colleagues will agree to no more tax cuts. Will I sign any of the other members of the committee up now? Having the numbers on the committee at the moment, I am interested to hear the questions from my colleagues, led by Dr Emerson.

Dr EMERSON—Thank you very much for the submission and the thought that has gone into it.

CHAIR—We do appreciate the level of effort that you have made with your submission and the amount of research you have done and so on. That is appreciated.

Dr EMERSON—Picking up a couple of points in the submission, we as a country have now had 50 successive trade deficits, yet we are a resource rich country and mineral prices are the best they have been for probably half a century. There is something going wrong when a resource rich country is running such trade deficits. I think it makes us pretty much unique around the world, because other resource rich countries are running surpluses.

CHAIR—Is this a second reading speech or a question?

Dr EMERSON—It is leading to a question, but you had a very vigorous go yourself, Chair.

CHAIR—I would not want to distract you.

Dr EMERSON—No. It leads us to that Treasury argument that you cited on page 12 that effectively we could rebuild our manufacturing sector as and when the resources boom tapers off. How realistic do you think that is in light of what would be a very big loss of manufacturing skills in this country? How easily can you regain those skills by going back into schools, technical colleges and so on, or if the skills base has gone in regions such as the Hunter Valley and the Illawarra is it not likely to return? Can you share a few views on that?

Mr Cameron—I think you can do anything. This country should be able to rebuild the skill base. But the more we neglect the skill base and the more we neglect manufacturing, obviously the more difficult it will be to fix and the longer it will take to do that. The problem we will have is, if there is a downturn in the mining industry and the terms of trade start to collapse even in the mining industry, this will cause huge economic dislocation if we do not have an alternative to balance up the loss of the mining industry and its capacity to generate wealth in this economy. I think everyone does realise it cannot go on forever. There will be capacity constraints in China that will see a levelling off and an eventual decline in the growth in China. We are very worried about it. We just need a balanced economy. We can do it, but it needs the effort now and it needs the financial input.

Mr Conroy—Can I just add to that? We are in danger of—and our report identifies it—reaching a hollowing out and a critical mass of manufacturing. At the moment, we have import penetration into manufacturing of about 43 per cent in terms of import share of total manufacturing demand in the country. Our report predicts that, if current trends continue, by 2020 we will have another 200,000 job losses and import penetration will reach 55 per cent—and in some industries it will be up to 70 or 80 per cent. We give the example all the time of the automotive components sector. If you lose the automotive component sector, you will just be assembling cars, and at some point the Holdens and the Fords will say, ‘What is the cost of

assembling cars here when we can just take three days off the US assembly line, work out the cost of converting them to the other side of the road and send them here if you are losing critical mass?' We remember the lesson we learned when the resources boom ended at the end of the 1970s that it is extremely hard to try and put manufacturing back into place. It took a good 10 years of concerted effort by the newly elected Labor government to really get that process happening again.

Dr EMERSON—It seems to me that what you are talking about is a current account crisis. If there were a sustained and particularly a sharp drop in mineral prices, by which time Australian manufacturing would virtually be decimated, and you have a long lead time to re-establish a viable manufacturing sector, it could give you five, six or 10 years of very bad current account figures and so on—

Mr Cameron—Yes, it certainly would, and you would never regenerate some areas. That is the reality.

Dr EMERSON—Part of what seems to be happening is a real flattening, to say the best, in sophisticated manufactured exports. I do not know whether it is now negative growth, but I think it is pretty much zero growth in volume terms. Do you have any observations to make on that? We get into these debates about going up the value chain and sometimes it is easier said than done and sometimes it is more alluring than it is real. For example, producing computer chips is like producing wheat these days. They are like a commodity and produced in low-wage countries. Do you have any suggestions as to how we can ensure that we are not just producing alumina, say, and simply calling that a transformed manufacture but that we are getting into the elaborately transformed manufacturing growth again?

Mr Cameron—There are a number of drivers that we think can be done. One is the skill base. If you look at Ireland, they are producing computer chips, with very high wages compared to many competitors producing computer chips. The reason Dell have said that they continue to do that mass production work and give jobs to people who are not rocket scientists or computer engineers—and this is an issue for us—is that they have this skill base within Ireland and they are embedded into the community and into the economy. The economy supports a company like Dell, provides the basis for the skill upgrading, provides the people with the degrees and it allows them to also employ at the lower end of engineering and keep jobs in Ireland that would normally be going overseas. So you can do it.

We just need to look more effectively at how we can use government purchasing policy. Arguments were put up about the US free trade agreement and we argued that you would not get a boost in government procurement in the United States. Our submission is there on the public record. We have been proved exactly right on that issue. We are not going to crack the US government procurement program, so we have to muscle up as much as we can in our own government procurement programs. We have to look at downstream processing. We have to get the CSIRO looking at what we can do in terms of more elaborately transformed manufacturing in this country and we have to get the workers and the industry, the state and the federal government talking about these issues. We have put forward a proposal to governments, including the federal government, to have a manufacturing forum. That forum did take place, but it involved the state governments, the industry participants and the ACTU. That has been very good and it has been going for some time now, but the federal government has refused to

participate for some reason. We just think that is a demonstration that the government, for some reason or other, is not serious about this and we welcome the announcement of this inquiry and your chairmanship of it as maybe a sign that there is a change of position by the government on manufacturing. But we would ask you, Mr Chairman, to have a look at whether you can participate even at this late stage in that manufacturing forum to try to give this industry a chance for the future.

Mr Conroy—You are right about the specific issue of ETMs. If you look at the flatlining on page 9 of our submission you will see we have graphed it—and you have seen the graphs before—but there is a massive gulf. The red line is ETM exports, which have flatlined since 1997, while ETM imports have grown at an exceptional level. So that is incredible. I will just take you to page 14 of our document, which deals with innovation. On page 15 we chart manufacturing R&D as a share of GDP. This includes the figures that came out yesterday, which were being triumphed around the place. But if you look at the graph, including yesterday's figures, manufacturing expenditure on research and development as a percentage of GDP, which is the best measure of it, actually fell this year. It is going backwards because the R&D intensity in manufacturing is dropping and this is a direct result of a lack of industry leadership and a lack of government leadership and we need to put in place policies, some of which we talked about in our submission, to try to reverse this process and get that pipeline of ETM exporters coming through again.

Dr EMERSON—Just a final question on policy instruments—and I am glad you have come forward with suggestions there—the work that I did on the R&D tax concession seemed to suggest, at least, that at 125 per cent it was pretty much an afterthought in business decision making that they either were going to or were not going to do R&D and then claim the tax concession if they in fact did something that qualified as R&D. That could be a product of the fact that it is 125 per cent and not higher. But you also talked about a \$300 million investment allowance. Is there any merit in the idea of perhaps cashing out the R&D tax concession and making those funds arguably more available by way of outlays—that is, a grant scheme that is more specifically targeted rather than the R&D tax concession?

Mr Cameron—I just want to put a couple of points on R&D. We believe that the R&D should be raised to 150 per cent and that it should be 175 per cent if a company expends two per cent of their sales on R&D. So we think there is a lot to be done. We would prefer that rather than a grants scheme with this extra boost on top of that scheme. We make no apologies for this. It costs money to have a manufacturing industry. It will cost money to level up the playing field between mining and manufacturing. If people are going to take the risk, if people are going to put venture capital in, they have to see that the government of the day is certainly there with them. These are well-established support positions for government and we should certainly move away from this argument that it is business welfare. It is just a nonsense to be running that argument.

CHAIR—Just on that, I think Ford said yesterday when we were down in Melbourne that they would prefer the straight grant rather than the R&D incentives, as I recall.

Dr EMERSON—It was under ACIS, wasn't it?

CHAIR—It was the ACIS program.

Mr TANNER—I have a few specific questions. Firstly, on the ACIS question, one of our earlier submitters ran the argument that there should be a reconfiguration to put more emphasis on components manufacturers and less on auto companies per se. I would be interested in your comment on that as to what kind of restructuring of ACIS would be appropriate. Secondly, I notice that you talked about reforming Austrade, so I would be interested in your thoughts on what is wrong with Austrade. Thirdly, in your package of initiatives, I think you refer to \$300 million for an investment allowance. I would be interested in a bit more detail and your views on what form it should take, what kinds of investment should qualify and how it should be delivered et cetera. I have several other questions, but I am getting picked up at about 10 past four so we are running out of time now. I will leave you with those.

Mr Cameron—I will let Pat do that because he has been doing that work with NIEIR and he is across that detail.

Mr Conroy—On the ACIS restructuring, we put a submission into the House of Representatives Standing Committee on Employment, Workplace Relations and Workforce Participation inquiry into the automotive component sector which addresses these issues. There are two issues for us. First of all, in terms of the funding that the auto producers receive—and let us be clear, it is quite significant—there is no real commitment for them to integrate local suppliers into either their domestic supply chains or their global supply chains. We see local content for the new Commodore going down to about 55 per cent, compared to the previous model of about 80 per cent. You have to play around with WTO restrictions. So you cannot be completely explicit and say that you must provide 80 per cent local content to receive government funding. Government's attitude should be to be up front with executives and to say, 'If you want this ACIS scheme to continue, you need to support local industry and make a real effort to integrate them into your global supply chains.' So instead of the federal government pressuring Ford—and this has been reported anecdotally—to implement Work Choices if they want to receive ACIS money, they should be pressuring Ford to be using local component producers. That is one issue, and that is where government leadership rather than increasing the money is important.

CHAIR—Even if it is more expensive?

Mr Conroy—It is not expensive in the long run because the long-term future of automotive manufacturing is dependent on having a viable component sector here.

Mr TANNER—The premise of my question is that we continue to put in X dollars of taxpayers' money. The question I am asking is: is there a better way of getting a bang for our buck out of that?

Mr Conroy—The second part is the interaction between ACIS and other schemes. Under ACIS, component producers get access to a fixed pool of money. They get money back for capital investment or for performing R&D. It is capped and they use a modulation rate to make sure that it does not exceed budget. The current modulation rate is, from memory, 49c in the dollar. So, if you are an automotive component producer and you perform R&D, under ACIS you get 45c back, but it is capped at 49 per cent. So you only get half of that. But because they are receiving ASIS money they are unable to access other government programs, such as the R&D tax concession. We are saying that one way of maximising the value to automotive

component producers is allowing them to access the R&D tax concession for the unmodulated part—the part where they do not get government funding. It is things like that that are real issues.

It is our belief that Austrade really has dropped the ball in the last 10 years and that it has really failed in its promotional duties. We would like a review of it. There have been previous reviews that have really brought substantive progress to it. We would view it as having a more East Asian focus—Austrade officers concentrating on big procurement programs in other countries. So they are identifying opportunities for our producers to go into other countries when they have a big resource project or government contract. Victoria is talking about doing this with the industry capability network and producing tiger teams to do this sort of work and cover the market intelligence. Our view is that it is Austrade's job and Austrade should be doing this rather than having to get the industry capability network to do that.

On the investment allowance question, that is the segment of the scheme where we have been deliberately fairly general in what we are talking about. We are at the moment talking to manufacturing companies about what is the best way of positioning a capital investment allowance scheme. The ACTU are talking about an accelerated depreciation allowance for high-technology capital investment. That is one option. There are other options. Part of the Brain study analysed specific manufacturing industries and identified and calculated the spillover effects of those industries, so you could nominate specific manufacturing industries which were considered strategic and target it there. That is something we are doing more work on.

Within the economic modelling, we were very conservative in analysing the impact. All we did was plug into the economic model what would be the impact of adding \$300 million of capital investment into manufacturing. We did not assume anything, even though it would be a reasonable assumption to say, 'Industry will match the \$300 million with their own investment,' yet we still got significant economic benefits for Australia.

Mr TANNER—One of the puzzles of recent times is the pattern of manufacturing exports, which grew very strongly until about 2000 and then sort of petered out. It has bumped along like that ever since. There has been a bit of an upsurge in the last 12 months, but it is hard to know how sustainable that is. The explanations that have been offered have included things like currency. I do not think that stacks up, because the currency was strong in the late 1990s when exports were still growing and, if you look at what happened from about mid-2000 to about mid-2003, if anything, the currency dropped in value a bit. It is certainly a recent factor, but I do not think it stacks up over the entire time of that poor performance in exports. The explanations have also included intensified competition from China. I suspect there is some truth in that, but that is not exactly an overnight phenomenon. That has been gradually growing, so again it does not explain the graph. Changing decisions by multinational companies is another explanation that I have heard floated. There are a couple of other explanations. I am interested in your view as to what has caused what appears to be a relatively sudden kind of change. Australia had been improving at a pretty impressive rate in manufactured exports and then it just stalled. I am interested in that.

Mr Cameron—Part of that would go to the detail. But, if you look at the Howard government's decision to remove significant industry support, that is when we started to trend down.

Mr TANNER—So there is a time lag because of that, and it flows through.

Mr Cameron—Yes.

Mr Conroy—We deal with this issue in paragraph 127 on page 51 of the submission. We make the same point that you make, in that the exchange rate during that period was, in historical terms, favourable to us. So that is not the reason. The reason is the removal of industry assistance policies and, if you can imagine it, innovations. New products were developed in the mid-1990s, in the last few years of the last Labor government, when there was significantly more assistance for them. They would have entered the market around the mid-1990s to the late 1990s. So those products were coming on stream after the coalition had come into power and slashed those policies. Once that pipeline had come through, you reached the wall on those policies.

Mr TANNER—So there is a time lag of two or three years.

Mr Conroy—There is.

Dr EMERSON—What role could Austrade have in that? This is not a leading question, in that I have no idea of the answer, but there does seem to be a belief that Austrade has gone into slumber land. Could it be that Austrade was effectively doing a good job for Australian manufacturing and now perhaps it is not? In thinking of the future role of Austrade, instead of saying, 'Here's an Australian manufactured product that we are trying to sell overseas,' could you integrate Australian manufacturing processes into international supply chains so that the other activities overseas depend on a viable Australian manufacturing sector? Is that a way of looking at the future?

Mr Cameron—We cannot be conclusive about that, but we see the big picture issue was the withdrawal of industry assistance in 1996. That was a big issue. If you then add on, say, an ineffective and less than efficient Austrade and then China, it all accumulates to cause the problems.

Dr EMERSON—In the automotive industry there was the export facilitation. I forget what it was called, but basically it was declared illegal under the WTO rules, so they have come up with ACIS to replace it. However, it is not specifically to encourage exports. Perhaps that is something that has had an effect. You really had to export to get the dough, didn't you?

Mr Cameron—We say that ACIS should be reconfigured to make sure that the supply chain is strengthened. ACIS is a big incentive for GM, Mitsubishi, Toyota and Ford to strengthen the supply chain internally, if that was a focus of ACIS.

Dr EMERSON—In discussion yesterday we were talking about the merits of producing assembled vehicles—and no-one on this committee is stepping back from that. We produce assembled vehicles for the Australian market and then a substantial proportion for the export market, but I think the majority of vehicles produced in Australia are still for the Australian market. Could we be thinking about our component manufacturers producing for the world market? Instead of producing 200,000 units, we could be producing two million units of some components that we are very good at, with high levels of innovation, leading edge technology

and so on. So we could have an associated industry called the component export industry, which is strong and viable but also supports our local car manufacturers.

Mr TANNER—There are some like that now.

Mr Cameron—Not too many. First of all we need to understand that the component sector employs more workers than the assembly sector—the major producers. The component sector is the major employer, but that will change pretty quickly because we are losing so many jobs. We are losing 308 jobs a week in manufacturing. We believe that you could integrate our component sector into the global supply chain. However, one of the main constraints on that is that many of these companies are not Australian owned. They are overseas owned companies. The decisions about where the investment goes and where the economies of scale are being taken by companies in Detroit, Tokyo and elsewhere. So we have an issue about how you deal with that. When the boards sit down in Tokyo and Detroit, they will make decisions based on the government support and investment climate in the country. They do that all the time. We in Australia are not seen as a good investment because the risk in manufacturing is not offset to the same level as it is in other countries. That is a government issue.

Mr Conroy—The other issue is that it is extremely hard to export a single automotive component in the absence of a supply chain here. It is much easier to get into the Toyota supply chain if you are already in the domestic supply chain of Toyota here and you have the aggressive backing of Toyota. That is probably a more realistic way of getting access, and that requires real government leadership. In some instances it does not require new government money, but it requires government leadership and real aggressiveness to get out there and sell the Australian industry. It has to be more than flying off to Detroit once a year with this Team Australia concept. You have to really get into the faces of the corporates and try to push Australian manufacturers.

Mr Cameron—I think one of the big issues facing Australian manufacturing is the actual configuration of the vehicle industry in terms of the product it sells. We are concerned that maintaining the big six approach in an era of petrol prices going through the roof and a more sophisticated approach from consumers about environmental issues is not sustainable in the long term. We really think the car industry in Australia needs to look at diversifying into a whole range of areas. I think it is ridiculous that we only have one car company—Ford—that is capable of putting an LPG tank from a production line into a car.

CHAIR—Yes. We met with them yesterday. Just to recap, what was your reasoning for seeing a sudden decline?

Mr Conroy—We rejected the exchange rate argument. The exchange rates during that period were quite favourable in the general scheme of exchange rates—

CHAIR—Because of the resources sector pushing up exchange rates.

Mr Conroy—It was not at that point, no. The issue was that prior to 1996 you had more aggressive industry support schemes and innovation support schemes. So products had been developed that entered the market in 1997-98, and that sustained it for a while, but once that left you saw the gaps in innovation. The drop in innovation meant that those companies of \$2

million to \$20 million were just not happening and were really failing. There are no more Cochlears or ResMeds coming on to the market at the moment. Treasury will point to the Asian currency crisis as a problem, and that is probably a factor. However, we would certainly say that the withdrawal of industry assistance, and not only the withdrawal of material assistance, and the real change in leadership—to the lack of leadership—meant that the signals for manufacturers were not there any more.

CHAIR—I listen to your rhetoric, but I do not necessarily agree with it. You also put an argument about insisting on greater Australian content of vehicles, probably in terms of protectionism. I am more in favour of protecting Qantas than Mr Tanner is, because I do not believe in giving away routes for the sake of it and in jobs going offshore—and I am quite strong on that. But your argument was that, even if it is more expensive, we should purchase in Australia, and that will lead to more jobs in the long term. Isn't that what you were arguing?

Mr Cameron—No, we are not arguing that.

Mr Conroy—We are not arguing that it is more expensive to buy here. What we are arguing is—

CHAIR—But if it is more expensive to buy here then surely you cannot be asking Australian companies, such as car manufacturers, to not buy in the global market.

Mr Cameron—This is your issue about the triple bottom line. What are the responsibilities of these companies who are receiving hundreds of millions of dollars of public support? Is it simply to continue to try and cut costs at the expense of working people? Is it simply to maximise profit? Is it simply to make executive salaries higher and higher? When do we start factoring in the social obligations of these companies?

CHAIR—I understand those arguments, but the question is that if you insist on the purchase of Australian supplies, where it is more expensive than offshore, then in the long run you will make that manufacturer less competitive in the Australian market and they will lose market share.

Mr Cameron—But you are coming to the conclusion and you are setting the issue out that it will be automatically more expensive.

CHAIR—No. I understand if it is not more expensive that there are reasons for it.

Mr Cameron—But what we are saying is that we need to put the management systems in place, the skills and the innovation so that we can do the same as Germany, and that is compete, even with higher wages, against the low-cost countries. You do that because of all of those factors. You have got to put them in place. I think it is too simple to simply argue: 'if you are going to force higher costs'. What we should be looking at in this investigation is: how we can be internationally competitive by going to that high-end level of innovation and skills?

CHAIR—But Germany and most of the developed countries have been losing a lot of jobs to China as well. We are not alone. When I was over in the US 12 months ago the No. 1 factor that congressmen talked to me about was the loss of jobs to China, so we are not alone. That does not

mean to say that we should not be looking for solutions, and I do not disagree with your thesis. But there is the question that if you are doing things which will not make the product competitive in the world soon then that creates its own problems.

Mr Conroy—Just to go back to the auto components sector—and we cover this more in our earlier submission, which I am happy to provide copies of—there are practices that auto component producers are complaining about where auto assemblers compare factory gate prices as a way of pressuring automotive component producers. They will compare the cost of producing a component in Mexico or Thailand, for example, to their current Australian contract at the factory gate, so they will not include transport costs, and say, ‘We want a 10 per cent cost-down from you, otherwise we will go overseas.’

CHAIR—I understand those arguments.

Mr Conroy—So it is not just about whether they are more expensive, but about their using unrealistic methods to try to cut down the costs of Australian producers. That means that it is not just local content going because Holden, for example, say, ‘I can get it cheaper in China or Thailand.’ It is because automotive component producers are finding it uneconomical to produce here because the constant cost-downs mean they get into a vicious cycle of cumulative causation, where they pass the cost down to their workers, they do not invest in new capital and they do not invest in innovation, and so they are unable to compete at the next contract for that reason as well.

CHAIR—I will just make my last point. We collectively have to address this problem about the manufacturing sector and what we can do to make it viable—we are both on the same side about that. But your arguments sound like the old arguments in the sixties, when I was at university, about tariffs and non-tariffs—you know, you keep up the borders of our tariffs and you have inefficient industries hiding behind that. You have got it to a certain degree by government funding; you are just coming at it from another angle. To keep non-competitive industries viable by major amounts of government assistance, you are back in the old tariff arguments. Shouldn’t we be providing assistance to those industries that are truly internationally competitive? Does that help anybody in the bottom line? I certainly understand the need for assistance to the high-value transformed products so we can increase and develop our market for manufactures. But if we are artificially protecting industries that not, at the bottom line, globally competitive then are we achieving anything? That is my question.

Mr Cameron—That great friend of the Howard government George Bush put in tariffs in the steel industry when he felt he had to. Other countries implement tariffs and quotas. Other countries take action to support their manufacturing industry. I just think the mindset is not wrong on this side of the table; I think the mindset amongst politicians and government is wrong. We do not have a level playing field out there for manufacturing companies. We do not have free trade. Mr Chair, you understand this: we do not have it, so what are we to do? Are we to simply say that we will abandon manufacturing—over one million workers in this country—because we will not provide industry support and we will not do as other successful countries such as Ireland, Singapore and Korea are doing and that we should just leave it to the market, to the economists and to Treasury to say that it is a comparative advantage and dig up more coal, dig up more iron ore, sell more wheat and forget manufacturing?

CHAIR—But, if you go back again to the Ireland example, I would debate with you that, if you went to the companies that have invested in Ireland, one of the big reasons for their doing so is Ireland's low corporate tax rate. You have said in this document that you would rather see our putting assistance into the manufacturing industry but not into tax cuts. If the government were to significantly reduce corporate tax rates, you guys would be the first to scream and yet that is one—

Dr EMERSON—Not necessarily. They are talking about development allowances and perhaps—

CHAIR—Okay. I understand.

Mr Conroy—It reduces the effective rate. We do not want to get bogged down in arguments about—

CHAIR—I used it as an example.

Mr Conroy—But it is a gross simplification to argue that Ireland developed their manufacturing sector among other sectors because of a reliance on low corporate tax rates and massive EU subsidies. It should be clear that they played their role, but one of the key conditions was making education free in the 1970s. That led to a highly skilled workforce that was able to be used. They had very aggressive industry policies to put in place to build up a manufacturing sector and now they are competing against countries in eastern Europe which have just entered the European Union. So they do not get EU grants anymore, their wage rates are significantly higher than their eastern European competitors, yet they are still keeping most of their manufacturing there because the multinationals and the indigenous companies are embedded into the economy and are linked to global supply chains, to clusters, where they have innovative capable Irish companies around them and it is not worth the risk of their leaving.

CHAIR—You are missing the obvious, of course, which is that EU subsidies equate to the types of things that you are talking about.

Mr Conroy—I am not going to address that. I am just saying that those EU subsidies are no longer of benefit.

Mr Cameron—But what is wrong with a subsidy to build a national capability?

CHAIR—Unless you are protecting companies that, according to the bottom line, will not survive in a global environment and using funds that could be more effectively used in assisting more competitive areas—

Mr Cameron—But your argument is a worst-case scenario. You are setting up a straw man here. You are saying that we want to give support to a company that will not survive. We are not arguing that. We are saying that many companies can survive, many companies can prosper, many companies can make a significant contribution to this nation, but they need some support.

CHAIR—How do you decide which ones are going to do it? Making such decisions means that you are into picking winners. Should governments be doing that?

Mr Conroy—We have put forward many examples—and we are happy to provide more—of where other countries have applied strict strategic criteria: you do not pick firms, but you talk about and nominate industries where they want to be—

CHAIR—Which ones did that?

Mr Conroy—Ireland did it, Singapore have done it and Germany have done it to a lesser extent.

Mr Cameron—Korea.

Mr Conroy—A person who is really worth speaking to is Professor Roy Green who is Dean of the Macquarie Graduate School of Management.

CHAIR—We may talk to him. We have not finished this inquiry yet; we still have a way to go.

Mr Conroy—Professor Roy Green has just come back from Ireland, where he had a significant EU grant to study the Irish model, the Celtic tiger, and to look at how it grew and what the lessons are for other countries. So he will have real things to say. They nominated industries where they thought global trade would boom and they set about building them. This is a debate we have been having for decades: do you rely on comparative advantage or do you try to build competitive advantage in industries? We argue that you can build competitive advantage when you apply criteria that are transparent, identify clusters and supply chains that you can develop and identify those and try to build them up. It is not about supporting the shoe factory that is producing just for the local market. It is about identifying areas that we need to be and should be in and recognising that manufacturers face different pressures from mining companies. They have to compete in a global market with a differentiated product that is high in knowledge. We should be assisting them, because that is what other successful countries are doing. We can claim the high theoretical moral ground, but we have been doing that for the last 15 years and where has that led us?

Dr EMERSON—There is quite an old example of capability building, which is Germany. Why would Germany inherently have an industry based on precision engineering? What is it in the German landscape or any other inherent characteristic of Germany that would make it rather than Turkey, Greece or Italy such a location? I think the answer is that they made a decision.

Mr Cameron—Another country we have not mentioned is Japan. Japan actually had a national lottery to build their motorcycle industry. This is governments making a call about where they think their future will be.

Mr Conroy—It is also the issue, for example, on innovation—you would be familiar with the arguments—about how the spillovers to the rest of society are enough to justify providing assistance and the benefits do not accrue to the firm alone. That is basically the premise behind innovation support.

CHAIR—We have to wind this up. I find it interesting. I thought perhaps we might commission the library to do some work on comparisons with what other countries have done in

terms of their manufacturing sector. We could look at Ireland, Germany and Sweden and maybe even Canada, because Canada has both mining and manufacturing. I do not know what your views are on that.

Dr EMERSON—We should do that.

CHAIR—It is something we have not looked at.

Dr EMERSON—We should probably get Roy Green as a witness. We heard evidence yesterday from Ford that the component manufacturers that are in most danger are the relatively low-value, less sophisticated manufacturers. They were, I think, more optimistic about the future of those that had a high innovation content. If that is right, I think we should be thinking about policy instruments that channel the innovation dollars not just everywhere but into those industries or activities that it stands to reason are those that can be competitive in the future. That is one of the reasons I am a bit critical of the R&D tax concession. If you look at the increase in R&D spending in the figures to date, it is nearly all in the mining industry. They have done that. Why? Because mining profits are high—‘might as well stick it into R&D’. When mining profits are low, they will not stick it into R&D. So a lot of the R&D tax concession is going into industries that would have done R&D anyway. That is why I am a little more interested in targeting the innovation dollars into areas of actual or potential strength.

CHAIR—Then you have public servants who are picking winners.

Dr EMERSON—No. Picking up on Pat’s point: you do not say, ‘We’ll give it to this company,’ but ‘We’ll give it to any and all companies that have satisfied these criteria,’ and then you develop the criteria around it and it is perhaps selected on that basis—that is, the bureaucrats do not say, ‘You got it and you didn’t, because you are better lobbyists,’ but because company A fitted the criteria well.

Mr Cameron—Public servants have picked winners, but they mostly do it for themselves, after their Public Service career, in Macquarie Bank and the like. So I would not be too dismissive of their capacity to pick winners. It is just who they should be doing it for; that is the issue.

CHAIR—We appreciate your coming and your input. Perhaps we might have the opportunity to speak to you later in the process. We will be probably finalising our report in February next year, so we will have a chance to think through and test some issues. We appreciate your input. You are the second Scot today making an appearance before the committee.

Mr Cameron—I am an Australian.

CHAIR—Scottish background, though—as I have. Nice to see you.

Dr EMERSON—I move that the committee authorise submissions and exhibits from the Australian Manufacturing Workers Union and exhibits from the Australian Industry Group that were received this morning.

CHAIR—There being no objection, it is so resolved.

Committee adjourned at 4.25 pm