# WHITHER AUSTRALIAN SHIPBUILDING?

Notes for discussion at Royal Institution of Naval Architects, Australian Branch llth August 1976

### A. POST-WAR DEVELOPMENT OF INDUSTRY TO DECEMBER 1975

Production of over 300 ships with Commonwealth Government support,

Maximum subsidy/bounty ranges 20% - 33% - 45% - 35%,

Industry examined in four Tariff Board Enquiries,

"Recognised Yard" system in use for major part of period,

Emergence of need for small number of larger ships,

Overcapacity problems,

Shipbuilding wages follow rising trend set in other industries with greater productivity,

Heavy capitalisation and improving producting technology in larger yards overseas,

Continuing low proportion of professional engineers/1000 men employed in Australian shipyards,

Some small Australian shipyards manage without subsidy and win occasional export order,

Government policy statements 1972/73,

Shipbuilding slump and distress pricing overseas,

Withdrawal of Adelaide Ship Construction, Evans Deakin, Walker's as Australia's involuntary contribution to rationalisation,

Industry efforts at self-help becoming more visible:

Joint Working Party, Australian Shipbuilder's Association and ACTU, 1971,

Management and labour contributions to Australian Shipbuilding Industry Study Mission, September/October 1974, Shipbuilding Industry Forum, Canberra, September 1975

ACTU Congress Resolutions, September 1975,

ACTU affiliated unions in shipbuilding and repair form Interim National Shipbuilding Committee, October 1975,

A.S.A. sponsorship of Unisearch position paper, December 1975.

### B. UNISEARCH POSITION PAPER, 4th March 1976

### B-l The Paper

188 page analysis prepared by Unisearch Team in January/February 1976: contents were - Why continue with Australian Shipbuilding, Evolution of policy to the present, Present Structure of the industry, Cost disadvantages of the industry, Operating environment of the industry, Need for immediate action, Action for the long term, Appendices.

See below for copies of

pp.ii-viii	Summaries of all chapters
pp. 5-10	Ch.II: Why Continue with Australian Shipbuilding
p.13	Graph of maximum subsidy/bounty v. time
p.18	Comparative chart of government help in 15 countries
p.31	Example to show why increased bounty is unlikely to
	promote capitalisation of shipyards
p.48	Membership of 21 Trade Unions in 3 shipyards, 1975
p.87	Measures of assistance in 14 OECD countries in 1972

### B-2 Reactions

Paper used as basic discussion document by many groups, good reception by Minister Cotton. However, criticism emerged over the months:

Officials unpersuaded by arguments of Ch.II in favour of retaining shipbuilding skills within uneconomic framework, pre-election policy statements not relevant, defence argument not considered of over-riding importance, shipbuilding - ship repair nexus questionable, belated criticism of market estimates, inadequate credit given for government assistance, some doubt that target productivity improvement of 75% could ever be achieved, Trade Unions feel that they can only contribute 5% to productivity improvement, Dollar support/employee phurphy.

### C. DEVELOPMENTS MARCH - AUGUST 1976

March 1976 Appointment of "Backbench" M.P. sub-committee to investigate the industry,

April 1976 Trade Union moratorium on disputes at Cairncross Dock, Sydney waterfront agreement etc,

May 1976 Formation of National Shipbuilding Council comprising representatives of Australian Shipbuilders' Association and interim Shipbuilding Committee of ACTU

Discussions Fraser/Hawke

June 1976 'Backbench' sub-committee report

Discussions Fraser/Wran

Interdepartmental Committee meets shipbuilders and

### E. SOME POSSIBLE ALTERNATIVES

Many courses of action or combinations are now possible both in respect of larger-ship building and of the smaller. Members of the industry, its customers and taxpayers must be ready to face direct and indirect consequences of all of these. Their actions are bound to influence the next round of events!

The following range of options is likely to encompass what will take place

- 1. Government unable to proceed outside earlier policies This would lead to cessation of shipbuilding at Whyalla
  and Newcastle and would be prejudicial to many smaller
  yards.
- 2. Government unable to formulate detailed policy at this stage but willing to provide funds for limited number of ship constructions in order not to aggravate unemployment during remainder of current depressed period -

This course of action would provide the greatest challenge to management and labour: the former would find itself looking for more orders within a short period, the latter would not be motivated to alter demarcation, overmanning and disruptive practices; as there would be no incentive to invest, ship operators would not wish their vessels to be the 'last to be built' etc. Nevertheless such orders could serve to demonstrate the industry's potential if management and labour co-operate to confound the Cassandras - let us hope not a super-human goal to achieve!

3. Government declares agreement in principle that shipbuilding skills should be maintained, refers industry to I.A.C. and provides funds to maintain minimum of shipbuilding in the mean time -

Despite helpful declaration of government intention, this course of action will be little better than 2. above in its effect. Will still present major challenge of motivation to management and union officials. Since climate for investment in shipyards would still be unpromising, only source of productivity improvement lies in management/labour co-operation:

4. Commonwealth Government decides quantum of shipbuilding skill to be maintained for national purposes, allocates funds appropriately and to ensure import parity for ship operators, collaborates with State governments to provide guarantees to assist commercial financing of new ship purchases by Australian owners from Australian yards; helps small ship industry by raising the \$200,000 limit on Commonwealth Development Bank loans and strengthening EFIC (Export Finance and Insurance Corporation) facilities to ensure interest rates charged to foreign owners are internationally competitive; flexible depreciation scales for new vessels and for new shipyard equipment; ....; refers industry to I.A.C. for evolution of mechanisms to control input of public funds; creates a widely based Ship-Industry Council to secure all necessary communication links -

This course of action would unfreeze builder/owner relations, thus improving market prospects. Investment in the industry would become promising and productivity could rise to ensure Australian cost-disadvantage falls to estimated minimum of 25 per cent. Since this will be critically dependant on good management/labour accord, both sides must continue to dismantle their prejudices and each must provide the other with incentives in this The "Jackson Report" complete with the recently published Appendices must become compulsory reading for both sides and for public servants during the creation of a new industry strategy. (Nevertheless, our nature is human and appropriate mechanisms must be evolved to "keep the industry (all sectors!) honest".)

Clearly the above range of options is not exhaustive; e.g. tariffs and other forms of import regulation have not been mentioned.

### F. EXPECTATIONS

In the profession, we all know what we expect the other fellow to do: the Commonwealth must adopt favourable policies and give us taxpayers' funds to play with, the States must help out where the Constitution prevents the Federal Government from acting directly, the shipowner must conjure up a market at all times and he should satisfy it here, the workforce should do our bidding without complaint or contradiction, management should provide us with authority and a secure future, life should go on without fuss or challenge .... Members of the Australian Branch of the Royal Institution of Naval Architects know that "it was never thus" - yet we behave too often as if it were. The Position Paper and this introduction have focused on problems totally different from those of ship stability or strength. To say that we ignore these problems at our peril would be a vast understatement! I look forward to your discussion.

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11/8: Meeting opened 620pm 1. E.S. Clarks. Suppeling athe Indulin. 2 Job Ost Tame and Sought Dachy Mene May Plenne And John James John Plenne And John James John Plenne And John James John John Med Let Some Holland State Hill Land State Hill A consequence of the control of the O " quality on food 5 As Rouke Orm GIDO - Cost fines as much as 3 - Modent M.P. den ecoment dit PT-Foracur. Mike Betty, State Desergand - anderday of university within Mu ford mentinis schemes ~ Dudyand No hald up an dementation . Theidant comment on Bril Rowship Touch of muterials Jeoga Complete Shipinger - 65% -I Trace umin ACTO. Rational Mephenter Committee Comman Seward for the Induly Compete 8 Rubert Hallet 75% impourter 40% prini cutting-I to Andrews. State Ruchynd, - Wonhmanshin. In Prepar dal of Mars. muling Closect

# SUMMARY

### INTRODUCTION

· Terms of reference were to

define national significance of shipbuilding industry;
examine development in recent years;
study demand for ships and effect on industry;
study overseas methods of assistance and relevance to Australian conditions;
report by March 1st.

 Procedure was to supply approximately 150 man-days of professional time to

consult with shipbuilders, ship operators, officials of trade unions and government departments and instrumentalities; study all available documentation; formulate drafts and test ideas with representative parties.

Outline of contents of report.

### WHY CONTINUE WITH AUSTRALIAN SHIPBUILDING

· Liberal and National Country Party Policy statements 1975; viz.

"We recognise industry, in particular our shipbuilding ..., as a fourth arm of defence ..." "... Of equal importance is our shipbuilding industry which has been allowed to fall into disuse by the Labor Government ..." "... Our high priority for these areas will lead us to: ensure the continuing viability of our shipbuilding and ship repair industries; ...".

- 'Fourth arm' concept supported by defence officials.
- Australian design/development/construction abilities acknowledged to be high by ship operators. Bad image due to lack of real import parity which increases local operators' cash-flow problems.

- Ship repair/shipbuilding nexus acknowledged by experts. Trading patterns, location of terminal ports in Australia suggest wider use of Australian docking facilities subject to improved industrial climate. Good progress by A.C.T.U. interim national shipbuilding committee in "cooling hot spots".
- Degree of commercial independence is of significance in this real world.
- Other factors include:

Social and regional, capability for development, training for skills, supporter of other industries, possible future significance of balance of payments factor.

- At last complete survey by U.S. Department of Commerce, 30 free world nations supported their shipbuilding industries, i.e. need to maintain a shipbuilding capacity even when not economic is well understood elsewhere.
- Industry too complex to rebuild quickly in time of emergency 'from scratch' if allowed to die.

# EVOLUTION OF POLICY TO THE PRESENT

Major events in the development of Australian shipbuilding in the last decade are illustrated in Table 3.1 (p.13). Principal factors affecting this development were:

- Long periods of uncertainty due to delay in policy decision-making. This prevented proper investment in more advanced shipbuilding facilities during period when overseas builders were making major improvements which greatly increased productivity.
- Policies as finally adopted were inappropriate and inadequate: they did not enable Australian shipbuilders to offer terms of payment in any way comparable to those which overseas government support enabled their yards to offer. Example given to show owners' disability due to financing costs alone ranges from 16% to 26% of cost of a large ship. No recognition of ship operators' serious cash-flow problems. Resulting lack of true import parity caused shipowners to further delay new ordering. This denied the yards assurance of continuity of work necessary for improvement of productivity, cost and delivery times.

- Decisions on form and level of assistance now recognised to have been based on deficient understanding of the industry. Thus the available aid was not useful for meeting the industry's basic problems of increasing productivity through investment and did not alleviate ship operators' cash-flow problems. Example given to show how raising subsidy only leads to cash for investment if there is no competition.
- Shipbuilding, especially for larger ships differs profoundly from other bountied manufacturing. Size and cost of projects reduces annual production to very small number of 'items', so cannot exploit volume production or build significant inventories. Hence stop-go market conditions are disastrous rather than merely inconvenient.
- Industry now exposed to direct import competition without the facilities provided by overseas governments to be competitive on that market. Additionally, the current crisis in overseas shipbuilding has produced artificially low prices; viz. examples of overseas prices less than material costs of some Australian tenders.

# PRESENT STRUCTURE OF THE INDUSTRY

- Following on the cessation of shipbuilding at three of the formerly 'recognised' yards, construction capacity for larger merchant ships remains at State Dockyard and Whyalla Shipbuilding and Engineering Works.
- Smaller merchant ships are catered for by Carrington Slipways and special vessels by Vickers Cockatoo Ltd.
- A further 24 companies are eligible for bounty to build small tugs, fishing vessels and other small craft.
- Facilities are very limited by world standards due to poor investment climate.
- Correspondingly the operations are more heavily labour intensive, particularly in the larger shipyards.
- Yard output ranges from under 2 ships per year for larger yards to about 12 ships per year in a small yard.
- Design and R.&D. support for industry need attention.

### COST DISADVANTAGES OF THE INDUSTRY

- Detailed analysis of present Australian shipbuilding cost disadvantage shows that larger ships need 40 per cent bounty to match European and higher Japanese prices and rather more during present world shipping crisis.
- Above figure of 40% includes approximately 25% bounty to offset those
   added costs which are outside control of local builders.
- Overall material cost disadvantage relative to Japan is of order 30%.
- Australian direct labour costs are 14% below Swedish but 18% above Japanese and 64% above U.K.
- Effect of absenteeism and disputes at present adds up to 5% to ship costs in the larger shipyards.
- Overmanning due to demarcation is thought to add a further 2-5% to ship costs.
- Local overhead costs are increased due to low throughput.
- To achieve 25% bounty level, shippard productivity must be increased by factor of 1.75.
- If immediate productivity improvement of 75% were possible, this would satisfy 85% of the larger ship demand predicted for the next 12 years in Section 6.1. Actual production will be less.
- Given proper climate for investment, agreement to eliminate restrictive industrial practices and internationally competitive financing arrangements for ship operators, above productivity improvement should be possible.

# OPERATING ENVIRONMENT OF THE INDUSTRY

- Long-term prospects are clear enough to justify survival of the remaining developed shippards including now only two for larger construction.
- Replacement of current coastal bulk-ship tonnage by more appropriate ships after 15-18 years, modest development of these trades (tanker cargo 3% p.a., dry bulk cargo 6% p.a.) and an overall requirement for two new general cargo or other specialised vessels per year, gives following coastal ship requirements.

Three-Year Period	3,000 dwt 30,000 dwt.	30,000 dwt 90,000 dwt.	<u>Over</u> 90,000 dwt.	Total
1975-1977	18	2	2	22
1978-1980	7	2	4	13
1981-1983	14	0	6	20
1984-1986	17	1	6	24
	56	<u> </u>	18	79
	************	-	·	-

- The orders below 90,000 dwt. will support an industry of the present size, even allowing for some importation. Development of the Whyalla yard to build the larger ships would further improve the situation.
- Significant requirements exist for small ships and prospects for well equipped small-ship builders are good, given protection against very low overseas prices and some aid in financing new construction.
- Intermodal studies of long-haul general cargo trading urgently needed to establish relative community cost of government assistance to road, rail and ship operators. Systems approach will indicate best prospects for investment.
- Construction of ships for Australian flag overseas shipping is not seen as a prospect for the short term but there will be exceptions if the industry is allowed to improve its efficiency.
- Ship operators, skeptical of previous government policies for shipbuilders and seeing no encouragement for local purchase v. overseas are tending to make a farce of import permit system.
- Australian coastal fleet of 107 trading vessels as at December 31st, 1975
  now includes 28 import permit ships which are within capacity of Australian
  shipbuilding industry to build. Average length of time on the coast of
  this 26% of the fleet was 6.1 years. Imported tonnage was 961077 dwt. in
  2156885 dwt. or 44%.
- Detail of government assistance to shipbuilding in 30 maritime countries outside Soviet bloc, etc. indicates that the interface problems of supporting a less than economic industry of national interest within a mixed economy are being tackled with greater vision in those countries than in Australia.
- Details given in U.S. Department of Commerce study (1974) of aid in seven countries include useful discussions of how different forms of aid should be evaluated to ensure emergence of answers which are relevant in Australian context.

• Discussion of present difficulties in world market show that difficulties facing local shipbuilding industry, despite its particular cost disadvantages are not unique.

# NEED FOR IMMEDIATE ACTION

- Situation is now so critical, especially for the two largest yards, that to avoid run-down and closure both must receive orders imma liately for vessels already beyond preliminary design stage.
- Both Whyalla and State Dockyard have tendered for
  - three or four 15,000 dwt. Bulk Carriers for ANL
  - two 13,500 dwt. General Purpose Ships for BMP.
- To enable owners to proceed with these orders, it would no doubt be necessary to provide a more realistic import parity than available hitherto.
- Assistance would also need to be provided for ANL to pay for some or all
  of its 15,000 dwt. bulk carrier requirement. It is evident from reading
  of all recent reports from abroad that the very lowest overseas tenders
  received should be regarded as dumped prices, injurious to our home
  industry.
- These are emergency measures. We believe they should be adopted to allow time for sound planning of action for the longer term.
- Present difficulties faced by small shippards call for financial assistance to small ship operators, application of investment allowances to Australian constructions only and some form of import limitation for ships below about 2000t.

# ACTION FOR THE LONGER TERM

- Government objectives in respect of shipbuilding to be clearly specified.
  - Policy objectives to include

maintenance of basic shipbuilding capacity;

maintain low freight rates;

some access to world markets for operators and builders; provision of better communication within industry.

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- In view of lack of understanding by earlier Inter-departmental Committees, form more broadly based industry committee or council to provide policy options for government.
- Productivity agreements with trade unions to be sought.
- · Efficiency of labour and management to be monitored.
- Alternative methods of bounty determination to be at choice of ship operators.
- Size of shipbuilding industry to be limited to base demand peaks to be covered by imports.
- Government loans, etc. likely to be required to enable shippards to modernise.
- Detailed analysis of alternative methods of assistance given in Section 6.5 to serve as basis for development of long-term policy.
- · Long-term policy to be evolved with minimum delay.

# 2. WHY CONTINUE WITH AUSTRALIAN SHIPBUILDING

# 2.1. Liberal and National Country Parties' Policy Statements, October 1975

Although it is difficult to assign a dollar value to it, the national need to maintain shipbuilding and ship repair capability for this island continent is widely acknowledged. Recent pre-election policy statements of the government parties give good expression to the conviction.

# 2.1.1 Defence Policy - Defence and Industry

"We recognise industry, in particular our ship-building, aircraft, vehicle manufacturing, ....., as a fourth arm of defence. Urgent action is required to minimise our dependence on other nations for the supply of defence equipment.

.... Of equal importance is our shipbuilding industry which has been allowed to fall into disuse by the Labor Government. We will examine methods of regenerating the industry, having particular regard to the need to maintain and develop dockyards having naval capacities. ...."

# 2.1.2 Transport Policy

"The vast island continent of Australia provides a unique challenge in providing complete and satisfactory transport services.

Shipping

Shipping provides a vital life line to Australia's overseas trade. The national economy and the welfare of the Australian people is totally dependent upon maintaining successful trading links through shipping.

We recognise also the Australian coastal shipping and the Australian shippuilding and repair industries are important to Australia. Our high priority for these areas will lead us to:

- ensure the continuing viability of our shipbuilding and ship repair industries;
- \* expedite the work of the Nimmo Commission ....;
- inquire into the efficiency of cargo handling, ship turn-round times and other problems of coastal shipping;

- .... improve selected ports and port facilities, docking and maintenance facilities ...;
- examine industrial relations in the maritime industry ..."

### 2.2 Shipbuilding: Fourth Arm of Defence

The specialised needs of warship construction are such that the merchant shipbuilding industry is excluded from most of this market; in peace time the facilities at the Navy yard at Williamstown, Victoria and at Vickers Cockatoo Bockyard Ltd., Sydney would be adequate for construction of all but very small military craft. In war time, these yards would cater for specialised construction and repair work on the larger naval vessels, while the construction and repair of landing craft, minesweepers and other small vessels would be supplemented by merchant yards.

In times of emergency, suitably modified merchant ships may be used to deploy and resupply land-based military forces, and to provide support for fleet elements as well as for the carriage of coastal cargo in support of the entire economy.

The Tariff Board Report on Australian Shipbuilding 1971 contains the statement that

"in a future national emergency which threatened to be of limited duration, the main activity of the Australian shipbuilding industry would be the repair and refitting of Australian and allied naval and merchant ships and the production of small ships such as minesweepers, patrol vessels and landing barges. Although some production of major vessels might be commenced in such an emergency, the nature and scale of any construction undertaken would depend significantly on an assessment of the conflict becoming protracted.

The evidence from the Department of Defence indicated that the Government's essential defence requirements are for efficient and strategically placed dry-docking and other repair facilities, and for yards capable of the fast production of a number of relatively small ships.

The Department stated that while capacity to build major ships rould not be effectively used in an energency of limited deration, this capacity would become important in an extended conflict. Also in a shorter conflict, the techniques of such an industry would be readily adaptable to major ship repair work.

The maintenance of a viable commercial shipbuilding industry was thus an important factor in Australian defence preparedness."

This evidence was prepared six years ago and should be checked with Department of Defence. We suggest that enquity be made of what are now considered to be the long-term effects on defence of the possible disappearance of local merchant shipbuilding capacity and technology. Our own discussion with senior defence officials assured us that this eventuality would be viewed as a loss which could not be contemplated without serious misgivings. We therefore presume that no action to disband the industry would be contemplated without detailed reference to Department of Defence.

# 2.3 Shipbuilding: Industrial and Commercial Significance

Shipbuilding should not be considered in isolation but rather in relation to shipping, ship repair and other Australian industry. From an owners point of view, the larger shipbuilding industry has a poor image because local ship operators have had to make ship purchases based on the simplistic policy of equating local and overseas prices, a procedure which has moved more and more out of step with owners' real ship costs as worked out on a discounted cash flow basis. Longer delivery periods associated with low investment in shipyard facilities - arising from uncertainty as described later - and from administrative problems, have also served to discourage the local ship owner. However the quality of local construction is high. Furthermore, there are a number of examples of Australian design/development/construction which have provided outstanding solutions to Australian shipping problems. These can be traced back to owner-builder contacts which presume a common knowledge of terminal and other unique local carditions and serve as evidence that Australian shipbuilding can rise to intense technical challenge when given the opportunity.

### 2.3.1 Ship Repair

The importance of ship repair in Australia is readily understood although in recent years Australian ship repair has attracted some criticism in respect of pricing and delays resulting from industrial unrest. It should be added however that trade union interest in the matter has led to some very encouraging industrial improvements in recent months. Because of the volume of coastal shipping, especially in south eastern Australia, there is a strong case for conducting maintenance and repair, of vessels engaged in these operations, locally. Australian ships in overseas trades and many other overseas vessels have their terminal ports in this country so that Australian docking facilities could be significantly more convenient than overseas docks. We believe that because of these trading patterns, and given improved industrial relations and some improved facilities, a productive ship repair industry could and will flourish in Australia.

Experience overseas shows that there is a significant relationship between ship repair and ship building. One ship operator with international experience put it to us that in his experience all the best repair organisations were associated with ship building yards. This clearly helps the peak load and overhead problems of ship repair. Such association also strengthens the capacity of the repair organisation to perform major damage repair, conversion, modernisation and the numerous smaller design modification tasks which have to be executed for owners throughout the life of a ship. We conclude that the existence of both ship repair and shipbuilding within a maritime country add significantly to its commercial independence and therefore also to the long-term security of its industrial base.

### 2.3.2 Other Factors

Shipbuilding must also be considered in relation to a number of other factors, viz.

### Social and Regional

One third of the workforce in Whyalla, S.A. depends on employment in the shippard of the Whyalla Shipbuilding and Engineering Works.

State Dockyard is the third largest employer of labour in the manufacturing industries in Newcastle, N.S.W.

and employment which is directly and indirectly dependent on the Dockyard is estimated to be nearly 8,000.

Merchant shipbuilding in Australia provides direct employment for approximately 4,500 men and indirect employment for perhaps twice that number.

# Capability for Development

Ship technology is changing at an appreciable rate. This is likely to continue at least until the in-port performance of ships (i.e. in respect of loading and discharging) is greatly improved. The record of Australian enterprise in ship development in response to such challenges has been very good. To obtain better ships in the future this should be encouraged.

We are currently at the start of a predictably long period of development of 'hardware' for the exploitation of ocean resources. An indigenous shipbuilding industry provides an excellent background for such work, from the point of view of detailed design, construction and materiel supply.

# • Training for Skills

The manufacture and assembly of the components of a ship is a highly complex task and young men trained in the necessary skills have found these very useful in other industries as well as in shipbuilding. Australian shippards have an enviable record in the field of apprentice training and a number of industries benefit from this.

# • Supporter of Other Industries

It will be appreciated that shipbuilding is a customer of many other industries such as hydraulics, control equipment, pumping, marine machinery, accessories and other high quality materials. Maintenance of a thriving shipbuilding industry helps to ensure that the market in these items does not fall to uneconomic levels.

# Balance of Payments

At present the contribution of the shipbuilding industry to savings in foreign exchange is not required but this factor may become significant in some future period.

### 2.4 National Importance: Judgement of Other Governments

The most complete survey of aid given by overseas governments to their maritime industries, though not the most up-to-date, is to be found in the U.S. Department of Commerce publication "Maritime Subsidies", published in 1971 (Ref.7). This considered 53 free world maritime countries including 31 countries with shipbuilding industries. Governments of the following 30 countries provided shipbuilding aid, the exception being Hong Kong:

Argentina, Australia, Belgium, Brazil, Canada, China (Taiwan), Denmark, Finland, France, Germany (F.R.), Greece, India, Ireland, Israel, Italy, Japan, Korea (R.o.K.), Netherlands, Norway, Pakistan, Peru, Philippines, Portugal, Singapore, South Africa, Spain, Sweden, Turkey, U.K., U.S.A.

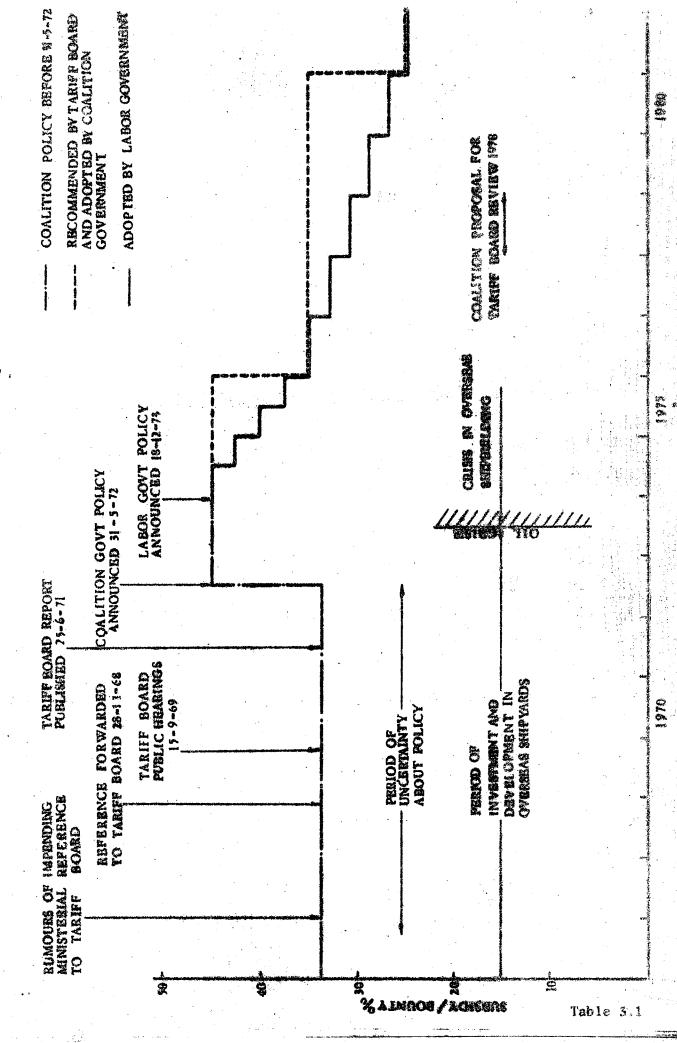
shipbuilding in Australia lacks comparative advantage relative to other nations. Thus no one of the factors listed in this section could justify the industry on purely economic grounds. However, the totality of the weights associated with each is such as to make one understand why governments of maritime countries throughout the world - including many with lesser advantages than ours - are taking extraordinary steps to prevent the extinction of their shipbuilding. The costs and the response time to regenerate shipbuilding from zero in response to some future need would be too great. Indeed, a governmental decision to let the industry die now would sign away our shipping independence for a very long time.

SEE PAGE 11 FOR SUMMARY OF SECTION 2

Assistance from Public Sources	Belgium	Canada	Denmark	Finland	France	Germany	inly.	lapan	Nechertands	Nervay	Spora	Sericks	C.R.	USA
A. Protection of the national market 1. Customs duties on ships 2. Import restrictions 3. Government purchasing		2			•	•	•	•			8			8
. Direct subsidies	•	•		!	•		•							0
Fiecal assistance     Customs duty exemption or rebates for imported materials and parts     Tax exemption or rebates	•	•	8	•	•	•	•	•	•	•	8	•	•	
D. Finance for Investments and research I. Facilities for the equipment of yards Loans or grants for the reorganisation and conversion of yards Contributions to research Assistance for the development of shipbuilding capacity abroad	•	•	•		•	8	•	•	•	•			0000	•
General facilities for financing the activities of yards     Provision or guarantee of finance on favourable terms     Public ownership or participation	:	 	•			•	•		•	8	•	8	8	•
Export credit facilities  I. Provision of credits on favourable terms  2. Export credit insurance	8	8	8	2	8	8	8	8	:	8	8	8	8	8
Assistance to customers (shipping, fishing, etc.) I. Home credit schemes Demolition and/or modernisation subsidies J. Operating subsidies	•	•	•		8	•	•	•	•	•	•		•	9

Table 3.2

# MAXIMUM SHIPBUILDING SUBSIDY/BOUNTY



# EXAMPLE OF EFFECTS OF VARYING BOUNTY LEVEL

Final Fixed Australian Price = \$20,000,000

Built Overseas = \$13,000,000 (say)

	Built	Built in Australia				
	Overseas	(a)	(b <sub>.</sub> )	(c)	(d)	
Builder's Cost	?	20	20	20	20	
Builder's Price	13	20	20	20	23.65	
(For Yard Investment)		-	-	*7	(3.65)	
Bounty Rate	-	25%	35%	45%	45%	
Bounty	•	5	7	9	10.65	
Price to Owner	13	15	13	11	13	

(All figures in \$M)

### Notes

- (a) Bounty level is too low it does not give the owner a comparable price to that obtainable overseas.
- (b) Bounty level just offsets local construction cost disadvantages.

  Owner still faced with serious financing problems.
- (c) Bounty more than offsets local cost disadvantages, but due to the need for local builders to compete, there is no margin for shipyard development obtainable. The owner gets his ships cheaper (but may still have financing costs which offset this benefit). The Government pays more than is needed to give "initial cost" parity. The builder obtains no significant advantage.
- (d) In this hypothetical case the price to the owner is the same as that obtainable overseas. There is no competition and the builder has been able to raise his price to make full use of the 45% bounty. He has \$3.65 M for shipyard development. This is what the original high bounty level was supposed to achieve but case (c) was the usual result because of the element of competition among builders.

The following table gives details of the membership of the respective employee groups in each yard.

Employee Organization	State	Whyalla	Cockatoo		
Employee Organisation	Number of Members				
Amalgamated Metal Workers Union	651	<b>50</b> 0	340		
Federated Ironworkers Association	378	130	140		
Ships Painters & Dockers Union	200	150	96		
Shipwrights & Ship Constructors Association	61	60	-		
Building Workers Industrial Union	48	<b>-</b>	21		
Electrical Trades Union	68	40	60		
Plumbers & Gasfitters Union	35	76	18		
Transport Workers Union	17	5	_		
Federated Engine Drivers & Firemen's Association	44	30	28		
Storemen & Packers Union	22	20	19		
Timber Workers Union	9	4	2		
Firemen & Deckhands Union	2	-	14		
Furnishing Trades Union	2	<b>-</b>	1		
Painters & Decorators Union	3	-	12		
Association of Architects, Engineers, Surveyors & Draftsmen of Australia		40	80		
Australian Society of Engineers	_	60	100		
Amalgamated Society of Carpenters & Joiners	_	45	-		
Fire Brigades Employees Union	_	_	14		
Liquor Trades Union	_	-	10		
Miscellaneous Workers Union	_	_	10		
Other (Staff)	325	15	102		

The small yards naturally have fewer organisations under employment and are hence shown individually.

# MEASURES OF ASSISTANCE TO THE SHIPBUILDING INDUSTRY IN 14 OECD COUNTRIES 1972

	ASSISTANCE FROM PUBLIC SOURCES	NUMBER OF COUNTRIES
ct.	Protection of the national market	
	<ol> <li>Customs duties on ships</li> <li>Import restrictions</li> <li>Government purchasing</li> </ol>	<b>4</b> 4 6
b.	Direct subsidies	5
c.	Fiscal assistance	
	<ol> <li>Customs duty exemption or rebates for imported materials and parts</li> <li>Tax exemption or rebates</li> </ol>	12 11
d.	Finance for investments and research	
	<ol> <li>Facilities for the equipment of yards</li> <li>Loans or grants for the reorganisation</li> </ol>	3
	and conversation of yards  3. Contributions to research  4. Assistance for the development of	6 12
	shipbuilding capacity abroad	2
e.	General facilities for financing the activities of yards	
	<ol> <li>Provision or guarantees of finance on favourable terms</li> <li>Public ownership or participation</li> </ol>	6 6
f.	Export credit facilities	
	<ol> <li>Provision of credits on favourable terms</li> <li>Export credit insurance</li> </ol>	13 13
g.	Assistance to customers (shipping, fishing, etc.)	
	<ol> <li>Home credit schemes</li> <li>Demolition and/or modernisation subsidies</li> <li>Operating subsidies</li> </ol>	12 5 5
	REMEDIAL POLICIES	7
	ASSISTANCE FROM NON-PUBLIC SOURCES	7
a.	Integration with groups or firms in other sectors	13
Ъ.	Development of new shipbuilding capacity abroad	5
c.	Inter-yard co-operation to meet market conditions	10