Tasmanian Freight Equalisation Scheme: Recommended Northbound Assistance Rates at 1 January 1978

Report

When the Commonwealth Government introduced the Tasmanian Freight Equalisation Scheme TFES on 1 July 1976 it directed the Bureau of Transport Economics to recalculate the rates of assistance by December 1977. This report presents the recommended new rates of assistance calculated on the basis of the freight rates prevailing at the end of December 1977. The method of recalculation was based on that used by the Nimmo Commission although with some modifications. The new assistance rates were calculated as the difference between the costs of moving a consignment from Tasmania to mainland destinations and the costs of moving a similar consignment on comparable mainland routes.

Subject
Series
Date
A to Z
Search
Results
Print
Exit
GO BACK

BUREAU OF TRANSPORT ECONOMICS

TASMANIAN FREIGHT EQUALISATION SCHEME
RECOMMENDED NORTHBOUND ASSISTANCE RATES
AT 1 JANUARY 1978

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FOREWORD

In July 1976, the Commonwealth Government introduced the Tasmanian Freight Equalisation Scheme under which subsidy payments are made on certain classes of freight moved by ship across Bass Strait. At the same time, the Government directed that the rates of assistance paid under the Scheme should be re-calculated by the Bureau of Transport Economics before December 31, 1977. This Report sets out the new assistance rates calculated by the BTE on the basis of the freight rates prevailing at 1 January 1978.

In accordance with its instructions, the Bureau has only re-calculated the rates of assistance and no other aspects of the Scheme were investigated. The new schedule of assistance rates should not therefore require any significant changes to the existing administrative guidelines of the Scheme. However, in order to facilitate the preparation and payment of claims, the opportunity was taken to make some changes to the format of the schedule of commodities receiving assistance and to the units of measure on which payments are based.

This Report was prepared in the Transport Costs and Information Branch by Dr H. Quinlan and Mr P. McNamara. Mr G. Travia of Sea Transport Policy Division gave valuable assistance with the investigation and data gathering work in Tasmania.

I would like to thank the Tasmanian producers and freight forwarders and the representatives of shipping lines, port authorities and other organisations who have willingly co-operated by providing the data necessary for this study.

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Canberra
March 1978

CONTENTS

SUMMARY

When the Commonwealth Government introduced the Tasmanian Freight Equalisation Scheme on 1 July 1976 it directed the Bureau of Transport Economics to recalculate the rates of assistance by December 1977. This report presents the recommended new rates of assistance calculated on the basis of the freight rates prevailing at the end of December 1977. The method of recalculation was based on that used by the Nimmo Commission although with some modifications. The new assistance rates were calculated as the difference between the costs of moving a consignment from Tasmania to mainland destinations and the costs of moving a similar consignment on comparable mainland routes.

Most of the recommended new rates are higher than those in the old schedule, but some are lower. A precise comparison is not possible because, for many commodities, changes have been made in the unit of measure used in computing TFES payments. If the recommended new assistance rates, which reflect the freight rate changes that have occurred since 1 July 1976, had been applied to the quantity of freight which received TFES assistance in 1976-77, then total assistance payments would have been in the range of $16.7 to $18.6 million. This would represent an increase of somewhere between 2 and 13 per cent of the $16.4 million actually paid.

The report discusses various aspects of interstate freight movements from Tasmania and on the mainland and describes the types of services available to consignors. It is found that the amount of transport disadvantage suffered by any individual commodity group is largely determined by its density. The rate charging practices of sea and land transport operations are such that the disadvantage is lowest for deadweight cargoes and higher for lighter cargoes; the lower the density the higher the disadvantage.

The report lists a number of studies which it is suggested should be carried out to improve the quality of data available for future TFES reviews, to facilitate improvements in the Scheme, and to ensure that TFES assistance does not cause any undesirable developments in the Tasmanian economy.

CHAPTER 1 - INTRODUCTION

When the Commonwealth Government announced the introduction of the Tasmanian Freight Equalisation Scheme it also directed the Bureau of Transport Economics to recalculate the rates of assistance paid under the Scheme by 31 December 1977. This report presents new northbound assistance rates which represent the amounts considered necessary to bring about freight equalisation at 1 January 1978, together with some details of the way in which the study was carried out by the BTE.

TASMANIAN FREIGHT EQUALISATION SCHEME (TFES)

The Tasmanian Freight Equalisation Scheme was introduced following the submission of the Report of the Commission of Inquiry into Transport to and from Tasmania, which is also known as the Nimmo Report.[1]

There are two separate but complementary components of the Scheme, one covering northbound freight from Tasmania and the other southbound freight to Tasmania.

Although both northbound and southbound freight consigned on or after 1 July 1976 was eligible for TFES assistance the administrative systems necessary for actually making payments on southbound consignments were not operational until 28 July 1977. Consequently, this report covers only the northbound component[2] as it was decided that the southbound Scheme had not been operating for a sufficient length of time to give adequate data on the type of goods being consigned to Tasmania and on any administrative difficulties that might exist.

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(1) Report of the Commission of Inquiry into Transport to and from Tasmania, Commissioner J.F. Nimmo, Australian Government Publishing Service, Canberra, 1976.

(2) A recalculation of the southbound assistance rates will be undertaken by the BTE in 1978.

The Nimmo Report put forward three objectives for a Freight Equalisation Scheme[1]:

- First, to give Tasmanian producers some financial compensation for the burden and hardships caused by Tasmania's excess interstate transport charges;

- Second, to stimulate the use and development of Tasmania's resources by removing a potential obstacle to investment and expansion by existing and new industries; and

- Third, to promote the development of a more efficient transport service.

The Scheme operates by making assistance payments towards the cost of moving freight across Bass Strait by ship. The initial northbound freight equalisation rates set out in the Nimmo Report were calculated as the freight disadvantage of goods consigned from Tasmania less the cost advantages enjoyed by industries located in Tasmania. The Government subsequently decided to adjust this formula and the assistance rates introduced on 1 July 1976 represented only the freight disadvantage existing at that date. The removal of any allowance for cost advantages resulted in most of the 1 July 1976 assistance rates being higher than those set out in the Nimmo Report. A similar approach was adopted in calculating the rates of assistance set out in this report. The door-to-door cost of moving goods from Tasmania to the mainland was compared with the cost of moving a similar consignment by land transport along a comparable route on the mainland and the difference recommended as the new rate of assistance.

The actual payments of TFES assistance are made direct to the person or firm actually responsible for paying the interstate freight bill. Consignors of freight are free to choose the

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(1) Nimmo Report, p. 153.

shipping service, freight forwarder, and route on which their cargo is carried. This contrasts with the inequitable situation which existed prior to the introduction of the TFES when a Commonwealth Government subsidy was paid to the Australian National Line (ANL) for providing services to Tasmania but the Union Steamship Company of New Zealand (USS) did not receive similar assistance for its services into Hobart. The ANL was able to offset the subsidy against the rates it charged and since most of its services sailed from Burnie, Devonport and Bell Bay, considerable amounts of cargo consigned to or from Hobart were shipped through the Northern Tasmanian ports. The Tasmanian Government encouraged this movement of freight by offering low rail rates for container traffic between Hobart and the Northern Tasmanian ports.

When the Commonwealth Government introduced the TFES, however, it required both ANL and Tasmanian Railways to begin charging economic rates for moving interstate freight.

At the time of writing this report, all ANL services were sailing to Northern Tasmanian ports and the Union Steam Ship Company was providing services to Hobart. Two other major interstate shipping services, which have been running to Tasmania for some time, are provided by William Holyman and Sons Pty Limited and the Tasmanian Transport Commission. The Holyman's service links Hobart, Burnie and Adelaide and has operated without subsidy. Ships of the Tasmanian Transport Commission which provide a service from Victorian ports to Stanley and King and Flinders Islands were subsidised by the Tasmanian Government prior to the introduction of the TFES. Since 1 July 1976 the Transport Commission services have been required to charge economic freight rates in order for their cargoes to qualify for TFES assistance.

The TFES does not cover all consignments from Tasmania and three major categories of freight do not receive assistance payments: cargoes carried in bulkships were excluded from the Scheme because the Nimmo Commission found that they were not disadvantaged

relative to similar movements on the mainland; air cargo is not eligible because the Commonwealth considered that such assistance would create significant inequities for manufacturers in comparable circumstances on the mainland; and overseas cargoes were not included in the Scheme because in July 1976 it was the practice for many overseas shipping lines which did not call at Tasmanian ports to pay the centralisation cost of moving containers from Tasmania to the mainland. Since centralisation arrangements do not apply to some areas of mainland Australia it was felt that extending TFES assistance to exports might be seen as discriminating in favour of Tasmania. Further it was thought that assisting the movement of export containers to mainland ports might prejudice the possibility of future direct calls by overseas ships to Tasmanian ports. Other items not eligible for assistance include goods found to be not suffering any transport disadvantage, second hand items, and commercial vehicles being re-positioned to the mainland.

The TFES is administered by the Commonwealth Department of Transport Regional Office in Hobart. Details of the manner in which the Scheme is administered as well as the 1 July 1976 Schedule of Assistance Rates are given in Annex A.

NORTHBOUND ASSISTANCE PAYMENTS MADE UNDER TFES

In 1976-77, total payments made under the northbound TFES amounted to $16.4 million. Payments made in the following four months to the end of October 1977 amounted to a further $6.8 million.

Most of the $23.2 million of assistance paid in the first sixteen months of operation of the Scheme was for movements out of Northern Tasmanian ports ($15.7 million), the greater part ($7.9 million) being for freight moved over the route from Northern Tasmania to Melbourne. Freight out of Hobart drew assistance amounting to $7.5 million, most of which ($3.6 million) was on the route from Hobart to Melbourne. Further details of assistance paid on the various routes are set out in Table 1.

TABLE 1 - NORTHBOUND TASMANIAN FREIGHT EQUALISATION SCHEME: ASSISTANCE PAID BY ROUTE TO 31 OCTOBER 1977

($'000)

Route	1976-77	Four Months July - October 1977	Sixteen Months July 1976 - October 1977
Hobart to -			
Victoria	2561	1076	3637
South Australia/ Western Australia	461	292	753
NSW/Queensland	2248	815	3063
Total	5270	2183	7453
Northern Tasmania to -			
Victoria	5635	2301	7936
South Australia/ Western Australia	817	289	1106
NSW/Queensland	4679	2004	6683
Total	11131	4594	15725
ALL ROUTES	16401	6777	23178

Source: Department of Transport.

TABLE 2 - NORTHBOUND TASMANIAN FREIGHT EQUALISATION PAYMENTS BY PRINCIPAL CATEGORIES TO 31 OCTOBER 1977

($'000)

Category		1976-77	July-Oct 1977	Total July 1976 to October 1977
01	Cattle	106	105	211
02	Sheep and pigs	149	97	246
03	Fresh, chilled and frozen meat	65	57	122
06	Fresh and frozen fish	55	10	65
08	Food beverages, malt and malt extracts	64	12	76
10A	Fresh and chilled fruit, refrigerated	100	16	116
10B	Fresh fruit, not refrigerated	142	86	228
11	Fresh vegetables	86	180	266
12	Frozen fruit and vegetables	2530	959	3489
13	Other processed fruit and vegetables	317	209	526
17	Confectionery and chocolate products	551	247	798
19	Beverages	96	29	125
21	Timber	2838	986	3824
22	Baled wood pulp and waste paper	262	233	495
25	Tin concentrate	147	77	224
29	Calcium carbide	121	108	229
30	Titanium dioxide	296	119	415
32	Particle board, hardboard and plywood	693	240	933
33	Newsprint	2857	1053	3910
34	Paper, other than newsprint	2940	1143	4083
41	Aluminium powder, metal and paste	1097	428	1525
42	Zinc metal	545	93	638
	Other categories	344	290	634
TOTAL		16401	6777	23178

Source: Department of Transport.

An analysis of payments by commodity categories shows that a large proportion of total TFES assistance was paid on a small number of categories. In fact, in the first sixteen months sixty six per cent of total assistance was paid on just four categories, namely, frozen fruit and vegetables, timber, newsprint, and paper. Details of all categories receiving more than $50,000 of assistance in the sixteen month period are set out in Table 2.

BTE RECALCULATION

In carrying out this recalculation the BTE has generally followed the methodology used by the Nimmo Inquiry and the administrative guidelines established by the Department of Transport. The following aspects of the existing Scheme were adopted for this recalculation:

- assistance rates were recalculated for all currently eligible commodities;

- the mainland[1] comparison routes used were those adopted by the Nimmo Commission, namely:
  - Melbourne to Adelaide for Northern Tasmania to Melbourne;
  - Sydney to Adelaide for Hobart to Adelaide;
  - Sydney to Brisbane for Northern Tasmania to Sydney, Northern Tasmania to Adelaide, Hobart to Melbourne and Hobart to Sydney;

- the calculations were based on commercial freight rates and not resource costs;

- the calculations were based on the most efficient practices of transporting Tasmanian produce currently in use.

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(1) For a few commodities, figures were derived based on rates charged on other routes over which substantial quantities of the particular commodities were carried.

Details of the actual methodology used in carrying out the recalculation are given in Chapter 4.

In one important aspect, however, the BTE did change from the Nimmo Inquiry methodology. The rates of assistance based on the Nimmo Inquiry seem to have been determined in part by a comparison of the transport costs of each Tasmanian industry with its mainland competition. The BTE did not adopt this approach because it would have given significantly different assistance rates to commodities having similar transport characteristics. For any group of commodities having the same transport characteristics, the highest assistance payments would have been paid to those commodities with the highest transport costs, while the more efficient consignors would have been penalised for their efforts to reduce costs. The BTE approach of giving similar assistance rates to commodities with similar transport characteristics and of basing the level of assistance on the costs of the most efficient freight consignors will encourage efficiency in Tasmania's interstate transport services.

The BTE also adopted the view that, as the Commonwealth Government is only paying freight equalisation on interstate freight movements, a constant pick up and delivery distance should be allowed for in determining both the Tasmanian and mainland interstate freight rates for all commodities. The standard pick-up and delivery distance allowed was in accord with normal commercial practice. Any costs incurred by shippers beyond this standard distance were not taken into account as they were considered to constitute an intra-state disability.

The Government directions to the BTE did not stipulate any maximum level of finance available for freight equalisation, nor was any such request received from the Department of Transport. In carrying out the recalculation, therefore, the level of funding was not regarded as a constraint.

Before the BTE could calculate the new assistance rates it was necessary to gather a considerable amount of data about freight movements out of Tasmania. Details of this aspect of the project are given in Chapter 4. Much of this data had previously been collected by the Nimmo Commission, but the Commission's files are regarded as confidential and were not available to the BTE. For the same reason the BTE was not given access to the Commission's files containing details of the calculations for the 1 July 1976 assistance rates.

Although the new assistance rates will not require any major changes to the administrative procedures of the TFES, the BTE did introduce some small changes in the format of the Schedule of Assistance rates which should facilitate the preparation and payment of claims. In particular, the unit of measure on which assistance payments are based was changed for a large proportion of the commodity classifications. Where possible, the Bureau also broadbanded commodities, grouping together those items with similar transport characteristics. This should facilitate the introduction of new commodity categories into the TFES in the future.

The Bureau also investigated the complaints and suggestions made by claimants concerning the TFES and relevant points were taken into account. It must be noted, however, that some TFES claimants seem to have an incorrect view of what is involved in recalculating the rates of assistance. Some claimants appear to believe that the assistance rates of 1 July 1976 were fixed and that only upward adjustments will be made to compensate for increases in Tasmanian shipping costs and freight forwarders' charges. This is not the case. The recalculation was carried out by determining the door-to-door cost of moving goods from Tasmania to the mainland and for moving a similar consignment over a comparable route on the mainland; the difference between these two costs was recommended as the new rate of assistance.

Using this methodology, the change in assistance rates depends on the relative movement of Tasmanian and mainland transport costs. If over a period of time the mainland cost of moving a particular commodity were to increase by the same amount as the Tasmanian rate, then the TFES assistance would not change. If mainland rates were to increase more than Tasmanian rates then the TFES assistance would decrease.

It is not inconceivable that such a situation could arise in a future re-calculation of TFES assistance rates. In general, shipping charges are the major component in the total cost of moving containers out of Tasmania and, because of the dominant position of the shipping lines, shipping charges are not highly sensitive to the volume of freight being consigned. On the other hand, mainland freight rates are largely determined by the 'going rate' charged by owner-driver sub-contractors. This going rate is so sensitive to supply and demand fluctuations that it can vary on a daily basis. Calculations carried out by the BTE indicate that the rates currently charged by sub-contractors for interstate hauls do not cover the full economic costs of providing services; a situation brought about by overcapacity in the mainland long distance road transport industry. If market conditions changed in such a way as to allow sub-contractors to charge rates which covered all their costs, then it is possible that mainland freight rates would rise relative to Tasmanian rates. This could come about either through an increase in demand for mainland transport services or a fall in supply if owners are not able to replace vehicles currently in service. The level of TFES assistance will also decrease if increases in fuel costs cause land transport rates to rise more than sea rates.

In the remainder of this report, a description of Tasmanian and mainland interstate freight movements in Chapters 2 and 3 is followed by an outline of the methodology used by the BTE in calculating the new assistance rates in Chapter 4. The new assistance rates are given in Chapter 5 followed by recommendations for further studies on the current Freight Equalisation Scheme in

Chapter 6. Chapter 7 contains a discussion on the effects of TFES assistance on Tasmanian industry while Chapter 8 lists areas where research might lead to improvements in Tasmania's interstate transport services, thus reducing the cost of funding the TFES. The report concludes with a discussion in Chapter 9 on which sectors of the economy benefit from the TFES assistance.

CHAPTER 2 - TASMANIAN INTERSTATE FREIGHT MOVEMENTS

This chapter sets out background information of freight movements from Tasmania. Consideration is first given to the way in which freight is transported and the quantities carried, followed by a description of the role of freight forwarders in that operation.

MODES AVAILABLE

Nearly all freight carried from Tasmania goes by sea. Air freight carries only an insignificant proportion of the total weight moved although in terms of rates charged it appears to be competitive for lightweight freight having a stowage factor of more than 5.5 cubic metres per tonne.

The use of sea transport requires a multi-modal operation involving road to carry freight to the wharf, sea on the line haul, and road again from wharf to final destination. For some consignments, a rail movement can be involved either in Tasmania or on the mainland. Additional road movements are required if small consignments have to be consolidated at freight forwarders' depots in Tasmania and deconsolidated at depots on the mainland.

From the freight consignor's point of view there are two major differences between Tasmanian shipping services and mainland rail and road transport. First, the Tasmanian consignor must comply with the schedule of shipping services out of Tasmania. This means that it is not always possible to maintain a continuous flow of small quantities of freight, or to consign freight at short notice, or even to make daily shipments. Under normal timetables there are 17 sailings each week from Tasmanian ports going to three mainland destinations (the ANL service to Sydney continues on to Queensland). To some degree, this problem can be overcome by consigning freight by road or rail to the port from which the next available interstate service is sailing since there are two ANL services leaving the northern ports for Melbourne

on 6 days of the week. The ANL believes that the transit time for a consignment from Tasmania to the mainland is effectively only about one day longer than for a comparable mainland movement.

Second, there is the threat of disruption to shipping services, particularly by industrial action. Tasmanian producers are almost totally dependent on sea transport for their interstate freight movements and any break-down in this mode effectively cuts them off from the mainland. Those Tasmanian industries facing strong competition from mainland producers are particularly vulnerable since an interruption to shipping services can result in lost custom and reduced orders causing financial losses which continue to mount up long after normal services have been resumed. Similar problems face producers in other parts of Australia, but to a much lesser degree since mainland consignors usually have access to alternative services when their normal transport arrangements break down. As an insurance against financial losses, some Tasmanian firms incur extra expenses by maintaining additional inventories on the mainland so that supplies to customers can be maintained in the event of short interruptions to sea transport services. (It should be noted that many mainland producers also maintain warehouses at other mainland locations; the extra cost for Tasmanian industry is only the cost of those inventories above the level that would be required by a mainland producer consigning goods over a comparable mainland route.)

The shipping lines serving Tasmania generally receive only unitised cargo which requires the use of various kinds of containers. Most of Tasmania's interstate freight is currently carried in the following units:

- cargo trays up to 6.1 metres long with 5.08 metres the most common size;

- ISO boxes and other fully enclosed units (both refrigerated and dry);

. trailers and pantechnicons

A large proportion of timber shipments are consigned in bolsters.

The BTE estimates that each month about 300 trailers, 1,000 ISO boxes and between 3,000 and 4,000 trays are carried across Bass Strait each way. The 5.08 metre unit is the most commonly used because of its availability and because it can be folded and stacked in nests of four for empty return.

The 5.08 metre cargo tray can be equipped with either high gates (2.21 metres high) or low gates (1.37 metres high) and it is usually possible to stack one loaded high gate tray on top of a low gate tray to make up a 'staked pair'. Further details of the dimensions of the various cargo units used appear in Annex B.

Although cargo units are secured on the ship, some Tasmanian shippers claim that they face additional expenses not borne by their mainland competitors because their freight requires extra strapping and protection to guard against damage caused by movement within the container during wharf handling and rough sea crossings.

The nature of the containers used in the Tasmanian trade together with the rate charging practices are such that the sea line haul cost per tonne for low density cargoes is generally greater than the cost for high density items. For example, the most common cargo unit used is the 5.08 metre cargo tray which can carry a load of just over 16 tonnes and for which the rate charged depends on the height of the load. The minimum charge is for a load standing up to 1.5 metres high in the container with 0.5 metre increments up to the maximum height allowed. Thus, the sea line haul charge for moving a 5.08 metre container from Tasmania's northern ports to Sydney at the beginning of 1978 was $553 for a load 1.5 metres high, $634 for a 2.0 metre high load, and $714 for 2.5 metres. Since a 5.08 metre container loaded to 1.5 metres high is carrying about 17.7 cubic metres and since the maximum

load allowed is 16.6 tonnes, Tasmanian producers effectively pay a higher rate per tonne for goods of stowage higher than 1.1 cubic metres per tonne.[1] Table 3 shows the relationship between the stowage factor of a cargo and the height of a full load in a 5.08 metre container. Table 4 shows the ANL sea rates for carrying selected cargo units from Tasmania's Northern Ports to Sydney and Melbourne; the figures for 5.08 metre containers show that the sea line-haul charge per tonne increases with the height of the load.

This contrasts with the mainland situation where a 12 metre trailer can carry a load up to 21 tonnes and occupying a volume up to 72 cubic metres. Mainland freight forwarders charge rates on the basis of one tonne of mass or one tonne of 4 cubic metres, whichever gives the greater revenue. This means that lightweight Tasmanian cargo suffers a greater disadvantage relative to mainland movements than does dense cargo. For example, a 16 tonne load of metal with a stowage factor of one cubic metre per tonne could be carried out of Tasmania by one 5.08 metre container or on the mainland by one 12 metre trailer. However, a 16 tonne load of, say cartons of food with a stowage factor of 2.5 cubic metres per tonne, would occupy a volume of 40 cubic metres. A Tasmanian producer would therefore face the cost of hiring at least two 5.08 metre containers to move this load across Bass Strait but on the mainland a similar load could still be moved in one lift by a 12 metre trailer.

QUANTITIES OF FREIGHT CARRIED

In 1975-76[2] total southbound freight moved to Tasmania amounted to 3.3 million cargo tonnes[3] while in the same year northbound cargoes totalled 2.4 million cargo tonnes. Of this total, general

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(1) The heights accepted for charging purposes are 95 percent of the height of the load at its highest point.
(2) The latest year for which figures were available at the time of writing.
(3) The straight addition of cargoes measured in mass ('tonnes') and cargoes measured in volume ('cubic metres').

TABLE 3 - STOWAGE OF FREIGHT IN FULLY-LADEN 5.08 METRE CARGO TRAYS IF BOTH WEIGHT AND VOLUME CAPACITIES ARE FULLY UTILISED

5.08 metre cargo tray loaded to a height of - (metres)[a]	Maximum weight (tonnes)	Maximum volume (cubic metres)	Stowage factor (cubic metres per tonne)
1.5	16.6	17.9	1.1
2.0	16.2	23.8	1.5
2.5	16.2	29.8	1.8
3.5[b]	32.8	41.8	1.3
4.0[b]	32.8	47.7	1.4

(a) In practice, the height used for calculating freight rates is taken as the actual measured height of the load less 5 per cent.

(b) Staked pair comprising one low gate 5.08 metre cargo tray and one high gate with the overall height of cargo above the base of bottom unit as shown.

TABLE 4 - SEA LINE HAUL RATES OUT OF NORTHERN TASMANIAN PORTS

Cargo Unit	Rate ($/m^2) (a)	Total Charge ($)	Maximum Load (b) (tonnes)	Unit Cost ($/tonnes)	Internal Volume (m^3)	Unit Cost ($/$m^3$)
			TO SYDNEY			
5.08m tray loaded to						
- 1.5m	43.57	553.34	16.6	33.33	17.9	30.91
- 2.0m	49.94	634.24	16.6	38.21	23.8	26.65
- 2.5m	56.25	714.38	16.2	44.10	29.8	23.97
Staked pair loaded to						
- 3.0m	63.85	810.90	32.8	24.72	35.8	22.65
- 3.5m	72.10	915.67	32.8	27.92	41.8	21.91
- 4.0m	80.14	1017.78	32.8	31.03	47.7	21.34
6.01m ISO box	54.36	808.88	17.8	45.44	30.4	26.61
6.01m ISO Reefer	54.36	808.88	16.6	48.73	24.6	32.88
11.3m trailer	56.25	1550.93	21.0	73.85	67.2	23.08
			TO MELBOURNE			
5.08m tray loaded to						
- 1.5m	26.83	340.74	16.6	20.52	17.9	19.04
- 2.0m	32.86	417.32	16.6	25.14	23.8	17.53
- 2.5m	38.76	492.25	16.2	30.39	29.8	16.52
Staked pair loaded to						
- 3.0m	44.66	567.18	32.8	17.29	35.8	15.84
- 3.5m	50.66	643.38	32.8	19.62	41.8	15.39
- 4.0m	56.56	718.31	32.8	21.90	47.7	15.06
6.01m ISO box	36.50	543.17	17.8	30.51	30.4	17.86
6.01m ISO Reefer	36.50	543.17	16.6	32.72	24.6	22.08
11.3m trailer	38.76	1068.69	21.0	50.89	67.2	15.90

(a) Sea charges are computed on the basis of area occupied. The figures used in preparing this table are: 12.7m^2 for 5.08m trays and staked pairs; 14.88m^2 for ISO boxes; and 27.57m^2 for an 11.3m trailer.

(b) The load figures shown here are the maximum allowed under safety regulations. Commodities with stowage factors above about 1.1m^3/t would not attain these loadings and therefore the cost per tonne would be higher.

NOTE: The costs shown in this table are for the sea line haul only. In addition there are the costs of pick-up and delivery of cargo units and, for LCL consignments, the costs of consolidating and deconsolidating loads at depots and delivery to and from depots. For calculating the sea rate for open containers and trucks, the height of the load is taken as the actual measurement less 5 per cent.

Source: ANL.

freight[1] comprised about 1.5 million cargo tonnes in each direction. In mass terms, it is estimated that this general cargo would have weighed about 0.5 million tonnes southbound and 0.7 million tonnes northbound. Details of freight moved during 1975-76 through each Tasmanian port, measured in cargo tonnes, are set out in Table 5.

In 1976-77 it is estimated that the total weight of freight on which northbound TFES assistance was paid was 713,000 tonnes mass. Some 59 per cent of this total was shipped from Northern Tasmanian ports and 57 per cent of total freight was destined for Melbourne. Details of consignments over each route are shown in Table 6.

Categories that were shipped under the TFES in 1976-77 in quantities exceeding 10,000 tonnes were:

- 185,000 tonnes newsprint
- 144,000 tonnes* timber
- 105,000 tonnes* other paper
- 60,000 tonnes aluminium metal, powder and paste
- 56,000 tonnes* frozen fruit and vegetables
- 38,000 tonnes zinc metal
- 20,000 tonnes* confectionery
- 19,000 tonnes titanium dioxide
- 18,000 tonnes* particle board, hardboard and plywood
- 12,000 tonnes* other processed fruit and vegetables

Note: Figures marked with an asterisk (*) are BTE estimates.

FREIGHT FORWARDING FROM TASMANIA

A large proportion of the freight moving out of Tasmania is consigned through freight forwarding firms. The freight forwarder offers shippers a package of services which together produce a complete door-to-door service; these include arranging pick-up

(1) Total freight exclusive of bulk freight and tourist vehicles.

TABLE 5 - TASMANIAN INTERSTATE SEA FREIGHT MOVEMENTS, 1975-76

('000 cargo tonnes)[a]

Commodity Group	Hobart	Burnie	Devonport	Launceston	Stanley	King Is	Flinders Is	All Tas. Ports
				INTERSTATE FREIGHT RECEIVED				
General cargo	304	314	329	426	59	14	1	1448
Bulk freight -								
Alumina	-	-	-	-	-	-	-	-
Grain	26	5	21	25	-	-	-	77
Minerals	214	52	9	236	-	-	-	511
Petroleum	368	179	163	236	-	10	-	956
Tourist Vehicles	7	1	168	11	-	-	-	187
TOTAL	919	552	690	1119	59	24	1	3364
				INTERSTATE FREIGHT DESPATCHED				
General cargo	517	386	254	379	21	18	5	1580
Bulk freight -								
Acid	99	187	-	-	-	-	-	286
Cement	-	-	167	-	-	-	-	167
Concentrates	-	34	-	-	-	-	-	34
Wood pulp pellets	129[b]	-	-	-	-	-	-	129
Tourist vehicles	6	11	170	7	-	-	-	194
TOTAL	751	618	591	386	21	18	5	2390

(a) The straight addition of cargoes measured in mass ('tonnes') and cargoes measured in volume ('cubic metres').

(b) Includes a small quantity shipped in containers.

NOTE: Because of their low densities, figures of general cargo shown above are likely to exceed their mass equivalents by a factor of 2 or 3, and figures of tourist vehicles by a factor of 6 or 7.

Source: BTE Information Bulletin, Port Authority Cargo Movements, 1975-76, AGPS, Canberra, 1976. pp. 106-19.

TABLE 6 - ESTIMATE OF MASS OF FREIGHT ASSISTED BY NORTHBOUND EQUALISATION SCHEME, 1976-77

('000 tonnes)

From	To			Total
	Victoria	SA/WA	NSW/Qld	
Southern Tasmania (Hobart)	165	21	107	293
Northern Tasmania	241	33	146	420
TOTAL	406	54	253	713

Source: BTE estimates.

and delivery of the goods to the wharf, preparation of the documents required for sea movement, and delivery by road to the final destination on the mainland. The freight forwarder also operates depot facilities for consolidating and deconsolidating small consignments. Not all consignors take the complete package of services. Large consignors often use freight forwarders for pick-up and delivery operations but make arrangements for the sea line haul direct with the shipping company. In other instances, particularly timber consignments, the consignor might also make independent arrangements for the pick-up and delivery of freight, perhaps using company trucks. For such cases the shipper becomes his own forwarder.

Generally, there are two kinds of forwarders operating into Tasmania: the national forwarders and the Tasmanian forwarders. The main role of the national forwarders is to bring mainland-produced freight to Tasmania as part of a national distribution required by clients. Because southbound freight is composed mainly of low density consumer items many units are required to carry this trade. The national forwarders then have the task of obtaining northbound Tasmanian freight for their trays and containers to cover the costs of the return movement. A national forwarder regards the movement of Tasmanian freight as a backloading operation.

In contrast to the national forwarder, the Tasmanian interstate forwarder has developed a specialist service catering for the needs of one or more Tasmanian producers. These forwarders look upon the southbound movement of freight to Tasmania as being their backloading operation.

It is unusual for any one freight forwarder to be handling equal volumes of northbound and southbound freight. Consequently, there are empty movements of cargo units across Bass Strait in both directions. A nest of 4 stacked 5.08 metre trays incurs a shipping charge of $233 on the route between the northern ports and

Melbourne and $337 between the northern ports and Sydney. Freight forwarders therefore usually include a premium in the rates charged on their forward leg to defray the costs of empty returns.

The rates charged by freight forwarding firms are usually based on the cost of operations plus a mark-up for overhead expenses and profits. Profits on northbound movements are said to be low because the capacity of containers moving out of Tasmania is greater than the volume of freight available. Instances are known where national freight forwarders have quoted rates out of Tasmania which were barely greater than the cost of moving an empty container across Bass Strait.(1)

It should be recognised that each freight forwarding firm operating out of Tasmania has its own unique method of operation, having built up its business over a period of time around a core of major clients. There is thus no'typical' forwarder. Rather, the operational procedures of each firm are determined by the characteristics of the freight it carries and the location of its pick-up and delivery points. It would not be uncommon therefore for two freight forwarders to carry out a specific freight task by quite different procedures, moving the freight over different routes and perhaps using different types of cargo units. For any particular service, however, the rates charged by forwarders tend to be at about the same level due to market forces.

Freight forwarders operating from Tasmania have put forward a number of reasons why Tasmanian operations are not as profitable as those on the mainland; these include:

. the higher costs associated with multi-modal transfers between road/sea/road;

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(1) This situation is not unique to Tasmania; very low back loading rates exist on some mainland routes; e.g. from Perth to East Coast destinations.

- the special investment required for equipment such as trays, etc;

- the dominant position of shipping companies preventing the negotiation of lower sea line haul rates;

- the costs of moving empty containers (mainly refrigerated boxes and livestock units southbound, and trays northbound);

- the costs of damage to units and tarpaulins;

- the low utilisation obtained from units mainly because of delays experienced at modal transfer points;

- the additional costs of providing credit to clients because shipping lines have to be paid on a seven day account while clients have 30 days to pay.

These factors are not all unique to the Tasmanian industry although it is possible that they apply to a greater degree in the Bass Strait trade than on the mainland. Even on the mainland there are transport routes where low profits are made on the backloading leg. In assessing the profitability of any transport service it is necessary to consider the overall operation including all legs of the cargo unit's movements. The BTE has not investigated the profitability of freight forwarders operating into Tasmania, but it seems reasonable to assume that the overall operations must be yielding at least the minimum acceptable profit. Otherwise the freight forwarders would not be operating on this route. No hard data is available, however, on whether freight services to Tasmania are more or less profitable than mainland operations.

CHAPTER 3 - MAINLAND INTERCAPITAL FREIGHT MOVEMENTS

This chapter considers the manner in which general freight[1] is moved between mainland State capitals. In keeping with the previous chapter on the Tasmanian situation, attention is given to the modes available, the quantities moved, and the role of freight forwarders.

MODES AVAILABLE

Mainland consignors have the option of four modes for interstate cargo movements. In 1971-72 their respective market shares on a weight basis were: road 46.2 per cent, rail 39.2 per cent, sea 14.1 per cent, and air 0.5 per cent[2]. The current situation is not believed to have changed significantly since 1971-72 except that rail now carries a large share of the general freight which previously went by sea between the Eastern States and Western Australia.

Most interstate general freight is now carried by road or rail; first, because these modes offer faster and cheaper services than sea and second, because they do not impose a freight penalty on medium density freight as does sea. A 12 metre tri-axle trailer can carry a load of 21 tonnes occupying a volume of up to 72 cubic metres. Hence it can carry freight with a stowage factor as high as 3.4 cubic metres per tonne yet still be able to accommodate a full 21 tonne load. For cargoes lighter than 3.4 cubic metres per tonne it would not be possible to load a full 21 tonnes and therefore the cost per tonne is greater. A similar situation exists for rail. A modern rail box car[3] can carry freight with

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(1) In this report general freight is defined as all freight excluding liquids and solids carried in bulk. This includes steel which is often not regarded as general freight.

(2) See Table 7. The BTE is currently preparing similar figures for 1975-76 but these were not available at the time of writing.

(3) A JXL type wagon has a capacity of 111 cubic metres and 47 tonnes.

a stowage factor up to 2.4 cubic metres per tonne and yet still be able to lift a full weight load. When compared with sea, where the rate charged per tonne increases for cargoes with a stowage factor above one cubic metre per tonne, road and rail are more attractive to consignors, especially since most general freight is in the range one to three cubic metres per tonne.

Of the two land modes, road has the great advantage of being able to provide door-to-door services; a service only available from rail where sidings exist at both origin and destination. On the other hand, rail line haul costs are often lower than those charged by road, but this advantage may be reduced by the extra handling costs of transferring freight between road and rail modes at the origin and destination. However, the increasing use of containers may tend to reduce these transfer costs.

Within the rail and road services operating on the mainland there are a number of options open to freight shippers. For freight moved by road, the consigning firm can:

- own and operate its own vehicles; on interstate routes this is not likely to be an economic proposition unless vehicles can be utilised on the return journey;

- hire a carrier able to give a specialised service;

- hire owner-drivers to carry individual loads;

- engage a freight forwarder and specify that road transport be used for the line haul;
  - freight forwarders offer a number of road services ranging from the lowest cost basic service up to the fast overnight parcel services.

With rail, the consignor's options are to:

- move freight in box cars, using company vehicles or local carriers for the pick-up and delivery operations;

- contract with the railways to move the freight by their RACE[1] service or in other types of containers;

- engage a freight forwarder, specifying that rail be used on the line haul.

Road and rail services also operate a much greater range of specialised vehicles than is available to Tasmanian consignors.

QUANTITIES OF FREIGHT CARRIED

The only available figures indicating the quantities of general freight moved between mainland State capitals by each transport mode are those prepared by the BTE for 1971-72[2]. These figures, which are believed to be representative of the current situation, indicate that 8.2 million tonnes of general freight are consigned interstate annually: 3.8 million tonnes by road; 3.2 million tonnes by rail; and 1.2 million tonnes by sea. The greater part of the sea tonneage is steel. Figures showing the amounts carried between each State capital by each mode of transport in 1971-72 are shown in Table 7.

Estimates prepared by the BTE show that a large proportion of this intercapital trade is consigned through freight forwarders. The estimates were prepared using data from the developmental collection undertaken by the Australian Bureau of Statistics on freight carried by the major freight forwarders and road transport operators They indicate that in 1971-72 freight forwarders carried no less than 67 per cent of total mainland intercapital road freight and at least 47 per cent of intercapital rail movements. It would

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(1) Railways of Australia Container Express (RACE) is a door-to-door container service available in all States except Western Australia. The service includes provision of containers and pick-up and delivery.

(2) BTE, Information Bulletin, Estimates of Australian Inter-regional Freight Movements, 1971-72, AGPS, Canberra, 1977. The category 'non-bulk freight' used in this Information Bulletin is synonymous with the term 'general freight' used in this report.

TABLE 7 - ESTIMATES OF GENERAL FREIGHT CONSIGNED BETWEEN AUSTRALIAN MAINLAND CAPITAL CITIES, 1971-72

('000 tonnes)

Origin	Destination						Total
	Sydney	Melb-ourne	Bris-bane	Adel-aide	Perth	Canberra	
			BY ROAD				
Sydney	-	948	270	203	10	241	1672
Melbourne	836	-	174	236	27	48	1321
Brisbane	135	46	-	48	3	-	232
Adelaide	172	207	77	-	16	-	472
Perth	8	7	-	18	-	-	33
Canberra	45	8	-	-	-	-	53
TOTAL	1196	1216	521	505	56	289	3783
			BY RAIL				
Sydney	-	624	319	38	88	98	1167
Melbourne	530	-	119	353	140	4	1146
Brisbane	227	33	-	15	6	-	281
Adelaide	35	348	37	-	109	-	529
Perth	9	8	1	49	-	-	67
Canberra	17	-	-	-	-	-	17
TOTAL	818	1013	476	455	343	102	3207
			BY SEA				
Sydney	-	20	29	1	153	-	203
Melbourne	41	-	196	-	188	-	425
Brisbane	48	50	-	16	44	-	158
Adelaide	69	68	-	-	11	-	148
Perth	97	87	22	18	-	-	224
TOTAL	255	225	247	35	396	-	1158
			BY AIR				
Sydney	-	9	6	2	1	2	20
Melbourne	7	-	1	3	2	1	14
Brisbane	2	1	-	-	-	-	3
Adelaide	1	1	-	-	1	-	3
Perth	-	1	-	1	-	-	2
Canberra	1	-	-	-	-	-	1
TOTAL	11	12	7	6	4	3	43

Source: BTE Information Bulletin, 'Estimates of Australian Interregional Freight Movements, 1971-72', AGPS, Canberra, 1976 p. 21.

appear that between 1971-72 and 1975-76 the interstate road freight carried by forwarders increased from 2.6 million tonnes to 3.2 million tonnes (up 23 per cent) while their interstate rail freight movements fell from 1.5 million tonnes to 1.2 million tonnes (down 20 percent). BTE estimates of freight forwarders' interstate freight movements by road and rail based on the ABS figures are shown in Tables 8 and 9.

FREIGHT FORWARDING ON THE MAINLAND

The organisation of freight forwarders on the mainland and their general manner of operation is similar to that of the firms operating out of Tasmania. However, a variety of factors could make mainland operations easier to manage and more profitable than similar services out of Tasmania. A mainland forwarder:

- can provide a true door-to-door service for a client by road; many forwarders consider that direct road service is the lowest cost mode for full truck load consignments although those forwarders with considerable investment in road-rail transfer facilities can sometimes offer a slightly lower rail rate;

- does not need to invest in road vehicles if it is company policy to use owner-drivers as sub-contractors for the line haul work;

- does not always require as much investment in special equipment such as containers as does a Tasmanian firm, and thus has lesser problems with regard to the return of empty units;

- has greater flexibility in arranging line haul transport through road sub-contractors, or by hiring railway wagons on an annual basis, or even entire trains on the larger volume routes;

- benefits from the competition between sub-contractors and between road and rail for the provision of line haul services;

TABLE 8 - ESTIMATES OF FREIGHT MOVED BETWEEN MAINLAND CAPITAL CITIES BY MAJOR FREIGHT FORWARDERS, 1971-72

('000 tonnes)

Origin	Destination						Total
	Sydney	Melb-ourne	Bris-bane	Adel-aide	Perth	Canberra	
			BY ROAD				
Sydney	-	532	298	154	21	29	1034
Melbourne	505	-	148	249	25	17	944
Brisbane	176	79	-	19	3	-	277
Adelaide	120	182	37	-	6	2	347
Perth	6	9	1	7	-	-	23
Canberra	4	-	-	-	-	-	4
TOTAL	811	802	484	429	55	48	2629
			BY RAIL				
Sydney	-	259	164	65	68	10	566
Melbourne	389	-	97	83	107	2	678
Brisbane	70	37	-	1	8	-	116
Adelaide	44	18	8	-	65	1	136
Perth	3	7	1	14	-	-	25
Canberra	-	-	-	-	-	-	-
TOTAL	506	321	270	163	248	13	1521

Source: BTE estimates based on data from a developmental collection undertaken by the Australian Bureau of Statistics.

TABLE 9 - ESTIMATES OF FREIGHT MOVED BETWEEN MAINLAND CAPITAL CITIES BY MAJOR FREIGHT FORWARDERS, 1975-76

('000 tonnes)

Origin	Destination						Total
	Sydney	Melb-ourne	Bris-bane	Adel-aide	Perth	Canberra	
			BY ROAD				
Sydney	-	690	306	195	24	39	1254
Melbourne	683	-	181	305	27	28	1224
Brisbane	166	103	-	23	4	-	296
Adelaide	163	207	49	-	4	2	425
Perth	4	6	2	3	-	-	15
Canberra	9	6	-	-	-	-	15
TOTAL	1025	1012	538	526	59	69	3229
			BY RAIL				
Sydney	-	160	134	34	87	1	416
Melbourne	231	-	76	55	142	2	506
Brisbane	54	36	-	1	4	-	95
Adelaide	11	8	5	-	88	1	113
Perth	33	26	4	23	-	-	86
Canberra	-	-	-	-	-	-	-
TOTAL	329	230	219	113	321	4	1216

Source: BTE estimates based on data from a developmental collection undertaken by the Australian Bureau of Statistics.

- benefits from the economies available in handling the greater volume and variety of freight moving on the mainland.

As with the Tasmanian market, there is no 'typical' mainland freight forwarder. Each firm has an operation built up over time around a central set of customers with unique characteristics of location and freight types. In providing services some forwarders use mainly rail for interstate line hauls, some hire sub-contractors, and others have developed efficient and economical operations with their own vehicles. Although the major forwarders will generally accept most transport work, some individual firms specialise in certain types of operation, such as heavy long distance movements or delivery of 'small' parcels. Nevertheless, it is generally the operation of competitive forces in the market for transport services which determines the rate charged for any movement of freight.

CHAPTER 4 - BTE METHODOLOGY AND APPROACH

Before detailed work could be started on this project, it was necessary for the Bureau to specify the methodology that would be used in calculating the new assistance rates. It was eventually decided to adopt a method which in general followed the approach used by the Nimmo Commission in calculating the rates introduced on 1 July 1976, albeit with some modifications. Consideration was given to alternative methods, but either they were not demonstrably superior to the Nimmo approach or they were not feasible due to lack of adequate data on mainland freight movements and freight rates. In the first section of this chapter a summary is given of the basic differences between Tasmanian and mainland interstate transport services to illustrate the factors which must be taken into account in calculating equalisation rates. This is followed by an outline of the type of information obtained by the BTE for this project and the methods by which it was collected. The final section gives details of the way in which the calculations were carried out.

TASMANIA'S FREIGHT DISADVANTAGE

The basic cause of Tasmania's interstate transport disadvantage is its almost total dependence on sea transport. The actual level of disadvantage for any given commodity is largely dependent on its density. For deadweight cargoes the cost per tonne of moving freight from Tasmania to the mainland is greater than the cost of moving a similar consignment over a comparable distance on the mainland. For lighter cargoes the disadvantage is greater; the lower the density (i.e. the higher the stowage factor) the greater the disadvantage. The disadvantage increases for lighter density goods because of the rate charging practices of transport operators. Rail, road and sea transport all effectively charge freight on a weight or volume basis, whichever gives the greater revenue. But whereas mainland consignors can send freight of up to 2.4 cubic metres per tonne by rail at the basic per tonne rate, or up to 3.4 cubic metres per tonne by road,

Tasmanian consignors using sea transport pay a higher rate per tonne for any load with a stowage factor over 1.1 cubic metres per tonne. The nature of this disadvantage is illustrated in Figure I.

In addition to paying higher freight rates there are a number of other areas where Tasmanian producers may be disadvantaged relative to their mainland competitors because of their dependence on sea transport. These include the limited frequency of services, the cost of extra packing required for protection against damage in transit, and the threat of interruptions to services by industrial problems.

DATA COLLECTION

The principle of freight equalisation adopted by the Government is that Tasmanian consignors should be paid a subsidy such that the net cost of moving goods from Tasmania to the mainland approximates the cost of moving a similar consignment over a comparable route on the mainland.(1)

Given the decision to follow the Nimmo methodology, the Bureau then required data on: the nature of Tasmanian interstate freight consignments; the rates charged for door-to-door transport services from Tasmania to the mainland; and the rates charged for door-to-door movements on the equivalent mainland comparison routes.

As the first step towards obtaining these data the BTE established a system for the computer processing of all claims paid for northbound TFES assistance over the period 1 May to 31 October 1977. The monthly output of this system gave a summary of the

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(1) Commonwealth Department of Transport, Document of Instructions on the (Northbound) Tasmanian Freight Equalisation Scheme, issued as an attachment to the Acting Minister for Transport's News Release, Administration of Tasmanian Freight Equalisation Scheme, (76/806), Canberra, 27 June 1976, p. 1.

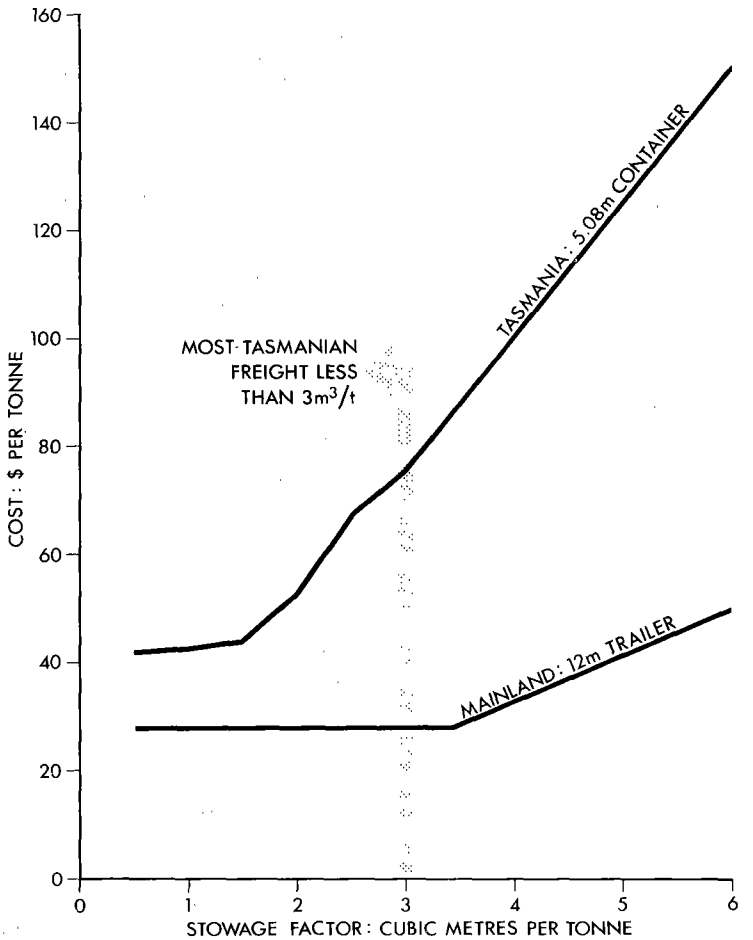

FIGURE 1 – HYPOTHETICAL ILLUSTRATION OF TASMANIA'S FREIGHT DISADVANTAGE

Note: The above graph shows how the transport disadvantage on interstate consignments out of Tasmania increases as a function of the stowage factor. The graphs were plotted using hypothetical cost figures for a 5.08 metre container loaded to various heights according to the stowage factor and a 12 metre trailer. For goods with a stowage factor above about 5 cubic metres per tonne, air transport is usually the lowest cost mode of transport for consignments out of Tasmania.

amount paid analysed by claimant, commodity classification, and route of consignment. Further information was obtained by a detailed examination of a large sample[1] of the claim forms and supporting documents submitted to the Department of Transport's Hobart Office. These two sources on their own were not adequate since in many instances the supporting documents did not show the information required by the Bureau, such as the exact nature of the freight, the rate charged, the type of cargo unit used and the exact nature of the service being provided by the freight forwarder. Further information was therefore obtained by direct contact with a representative number of TFES claimants selected on the basis of the computer system output. At least one claimant was contacted from each commodity classification, although in most cases a greater number were approached. (For some commodities there was only one claimant). Officers of the BTE visited the establishments of firms which were individually receiving large proportions of total TFES payments in order to interview company officials and to inspect the cargo being consigned and the transport operation involved. Similar visits were also made to firms which were representative of commodity groups receiving a large proportion of the total assistance payments. The remaining contacts were made by telephone interviews. For a few commodities, most consignments were found to be consigned through one specialist carrier, even though there were several consignors. In such cases, information was obtained by interviewing the freight forwarder concerned. Further information on Tasmanian consignments was obtained from detailed interviews with freight forwarders' personnel and from representatives of the shipping lines.

Information on both Tasmanian and mainland interstate freight rates was obtained by seeking special quotations from freight forwarders for movements over the relevant routes. The historical data provided by TFES claimants was not suitable because Tasmanian shipping rates were increased at the end of October 1977 and many

(1) In most instances the sample included all claimants who together made up 80 per cent or more of the total assistance paid under each category.

consignors were still negotiating new door-to-door rates with freight forwarders during December. Freight forwarders were therefore the only source of the data required on the rates that would be prevailing on 1 January 1978.

By obtaining freight forwarders' quotations the BTE ensured that the mainland and Tasmanian rates used were for comparable services and that the new assistance rates for all commodities were computed on a fair and equal basis. The use of freight rate data supplied by TFES claimants would have given an advantage to those industries paying above average rates for a specific type of service i.e. industries where the cost of transport services is high due to inefficient operations or industries which pay for extra services from freight forwarders.

Approaches were made to all national freight forwarders and to the smaller operators specialising in Tasmanian services for quotations for the movements of full unit loads. The survey form sent to freight forwarders specified that the quote should be for a service where:

- Only one pick-up and one delivery was required with no consolidation or deconsolidation at the forwarder's depots;
- The pick-up and delivery operations did not exceed a certain specified distance;
- The Freight was not dangerous and did not require any special handling;
- Regular consignments were made at the rate of 2 to 3 cargo units per week;
- Accounts were paid within 7 days;
- No extra staff were provided by the forwarder for loading or unloading operations apart from the driver of the vehicle;

- No demurrage charges were incurred;

- No insurance charges were included in the freight rate;

- The cargo unit did not move without a load on the return leg.

For Tasmanian operations, forwarders were asked to quote rates for moving the following types of fully laden cargo units on the six specified routes to the mainland:

- 5.08 metre cargo tray
  - high gate (loaded to 2.5 metres)
  - low gate (loaded to 1.5 metres)
  - staked pair (loaded to 4.0 metres)

- 6.01 metre (20 foot) ISO box

- 6.01 metre (20 foot) ISO reefer

- 11 metre (37 foot) trailer

Quotations were also obtained on the costs of moving a fully loaded 12 metre trailer and a 12 metre refrigerated trailer on the specified mainland comparison routes, i.e. Melbourne to Adelaide, Sydney to Adelaide and Sydney to Brisbane. Where a forwarder was able to offer a lower rate on any route by using rail for the line haul, the relevant rail quotation was also obtained and taken into account in the calculations.

As expected, there was some variation in the figures contained in both the mainland and Tasmanian quotations. The difference between the highest and lowest mainland quotations was not great, but the range in the Tasmanian figures was quite marked. However, further contact with freight forwarders enabled the Bureau to determine a set of Tasmanian quotes which it is believed are representative of the rates charged for most Tasmanian interstate consignments.

Nevertheless, it does seem that the variation in the rates charged on freight out of Tasmania is greater than the range in rates on mainland routes. This situation could be due to a variety of factors. Some freight forwarders are said to have operations which are inherently more efficient than their competitors thus enabling them to charge lower rates. Other instances could be due to individual forwarders trying to obtain a more efficient 'mix' of cargo. This might involve a pricing strategy of attracting particular types of freight with low rates while not accepting other types of cargo unless the rate covered all costs involved plus an acceptable margin for profit.

Both the mainland and Tasmanian freight rates provided by forwarders were those being charged on 1 December 1977. No changes were made during December and the same rates were effective on 1 January 1978.

Finally, it should be pointed out that any legitimate calculation of Tasmania's freight disadvantage should be based on a comparison of the Tasmanian and mainland freight rates by similar types of services. For example, it would not be valid to compare the rate charged by a freight forwarder for a door-to-door service out of Tasmania with the cost of hiring an owner-driver trailer for a mainland movement. Such a comparison would include the costs of organising and supervising the transport operation in the Tasmanian rate, but exclude them from the mainland figure. The result would be an overestimate of Tasmania's freight disadvantage. Since most Tasmanian shippers send their freight through freight forwarders, the BTE's calculations were based on a comparison of freight forwarders' rates.

METHOD OF CALCULATING NEW ASSISTANCE RATES

An outline of the principles followed by the BTE in recalculating the TFES assistance rates is set out in Chapter 1 on pages 7 to 11. In this section, a general description is given of the way in which the calculations were carried out.

For each commodity group, data was obtained on:

- the usual cargo unit used for movements from Tasmania to the mainland;

- the capacity of this cargo unit for the commodity under consideration (i.e. the maximum load in tonnes, cubic metres, bales etc);

- the cost for moving the cargo unit on each of the six routes from Tasmania to the mainland.

In calculating the new assistance rates for a particular commodity the following procedure was followed:

- For each of the six routes from Tasmania to the mainland, the 'Unit Tasmanian Cost' was calculated by dividing the cost of moving the cargo unit by its capacity for the commodity under consideration;

- A similar procedure was carried out for each of the mainland routes in order to calculate a set of 'Unit Mainland Costs';

- The new assistance rate for each route was then calculated as the difference between its 'Unit Tasmanian Cost' and the 'Unit Mainland Cost' for the equivalent mainland route.

For movements out of Tasmania, individual calculations were based on data for 5.08 metre containers, ISO boxes, trailers, pantechnicons, a variety of refrigerated cargo units and some specialised units. Calculations of mainland unit costs were based on 12 metre trailers, pantechnicons and a variety of refrigerated units and some specialised units. The most common form of calculation involved a 5.08 metre container out of Tasmania and a 12 metre trailer on the mainland. A hypothetical example of how the new assistance rates were calculated is given in Table 10.

TABLE 10 - HYPOTHETICAL TFES CALCULATIONS FOR ONE COMMODITY[a]

Movement from Tasmania				Equivalent Mainland Movement			Recommended Assistance (3)-(6)
(1) Route		(2) Rate ($)	(3) Unit Cost[b] ($)	(4) Equivalent Route	(5) Rate ($)	(6) Unit Cost[c] ($)	($)
A	Hobart-Melbourne	1200	75	Sydney-Brisbane	800	38	37
B	Hobart-Adelaide/Perth	1300	81	Sydney-Adelaide	900	43	38
C	Hobart-Sydney	1400	88	Sydney-Brisbane	800	38	50
D	N.Ports-Melbourne	1300	81	Melbourne-Adelaide	700	33	48
E	N.Ports-Adelaide/Perth	1400	88	Sydney-Brisbane	800	38	50
F	N.Ports-Sydney	1500	94	Sydney-Brisbane	800	38	56

(a) The rates shown in this table are for a hypothetical door-to-door movement. For the puposes of preparing this table it was assumed that the movement out of Tasmania involved a 5.08 metre container carrying a 16 tonne load and that the equivalent mainland consignment was carried by a 12 metre trailer with a 21 tonne load.

(b) Tasmanian rate divided by the capacity of a 5.08 metre container for the commodity being carried; in this example 16 tonnes.

(c) Mainland rate divided by the capacity of a 12 metre trailer for the commodity being carried; in this example 21 tonnes.

In calculating the unit costs, care was taken to obtain data on the exact cost and capacity of cargo units with respect to each commodity. This was particularly necessary where movements involved a 5.08 metre container since the rates on this type of unit were calculated on the height of the load, starting from a minimum for loads less than 1.5 metres and increasing by 0.5 metre increments up to a maximum of 4.0 metres. Thus the unit cost of moving metal bars might be calculated as the cost of a 5.08 metre container divided by, say 16.6 tonnes. For items of lower density the same calculation might entail dividing the cost of a 2.5 metre high container by some figure less than 16.0 tonnes. (Safety regulations prevent most commodities being loaded above the 2.5 metre level and for low density items the load limit is thus significantly less than 16.0 tonnes). Similarly, care was taken to make appropriate allowances for those low density commodities of which it would not be possible to load a full 21 tonnes onto a 12 metre trailer.

Where BTE investigations revealed that one of the 1 July 1976 commodity classifications covered two or more types of cargo of significantly different transport characteristics, consideration was given to splitting the category into two groups. In some cases commodity groups were split to facilitate payment of the subsidy on a weight basis rather than a volume basis. In other instances, individual commodity classes covered items suffering significantly different levels of transport disadvantage, and by splitting a group the Bureau was able to set subsidy rates providing exact levels of freight equalisation. The alternative to splitting the group would have been to set an average rate which would have overcompensated one type of cargo and under-compensated the other.

Some minor complications were experienced with commodities for which no claims for TFES assistance had been lodged with the Department of Transport. In these cases, rates were generally set on the basis of comparison with commodities having similar transport characteristics. A similar difficulty existed with

those commodities requiring some form of specialised handling and which were only consigned from one of the two Tasmanian regions (i.e. Northern Tasmania or Southern Tasmania). In these cases the available data was used to calculate new rates for the consigning region and identical rates were set for the non-consigning region.

CHAPTER 5 - RECOMMENDED NORTHBOUND ASSISTANCE RATES AT 1 JANUARY 1978

The main part of this chapter comprises Table 11 which sets out the recommended northbound assistance rates necessary to provide freight equalisation as at 1 January 1978. Table 11 is preceded by general explanatory notes applying to all commodities and followed by notes relating to individual commodity classifications. The last section of this chapter deals with the financial requirements implied by the recalculated rates and the future inclusion of new commodities in the Scheme.

GENERAL NOTES

The following general explanatory notes apply to the rates set out in Table 11.

- Some commodities which require special cargo units or special handling are shipped only from either Northern Tasmania or Hobart. In these cases it has not always been possible to calculate a rate for the non-consigning region and the same set of assistance rates has therefore been recommended for both regions.

- For refrigerated cargoes, the BTE's initial calculations indicated that the assistance rate on route B (Hobart-Adelaide) would be much less than the rate for route A (Hobart-Melbourne). This situation arose because the refrigerated goods freight rates charged on the Sydney-Adelaide route are significantly higher than those charged on the Sydney-Brisbane route. In the opinion of the BTE this result did not give a true and accurate indication of the disadvantage suffered by refrigerated cargoes consigned to Adelaide and it was therefore decided to make the assistance rates for refrigerated goods on route B equal to the rates for route A.

- For those commodities where the BTE has recommended an assistance rate per cubic metre, the unit of measure to be used is the shipping volume; i.e. the volume actually occupied by the freight within the cargo unit.

- For commodities where assistance is recommended on a weight basis, the weight should be taken to include the weight of the commodity plus cartons and other direct packaging, but should not include the weight of pallets, loose packing material or cargo units.

It should also be pointed out that the freight rates currently charged by Tasmanian shipping companies are based on the current mix of trailers and 5.08 metre cargo units being consigned across Bass Strait. If there were a significant increase in the number of trailers being carried to and from Tasmania then it is likely that there would be a change in the rates charged, necessitating some revision to the figures set out in Table 11.

SPECIFIC NOTES

The following notes apply to some of the individual commodity classifications in Table 11.

Commodities 01A Cattle and 02 Sheep

Consideration was given to setting higher assistance rates for stud animals. For sheep, the BTE's investigations showed that there were no grounds for giving a higher assistance rate for stud stock. It was found that the unit cost of moving stud animals out of Tasmania was higher than the unit cost for ordinary animals, but that a similar price differential existed on the mainland. Calculations showed that the freight disadvantage on stud sheep was the same as the freight disadvantage on ordinary sheep.

TABLE 11 - TASMANIAN FREIGHT EQUALISATION SCHEME: RECOMMENDED NORTHBOUND ASSISTANCE RATES AT 1 JANUARY 1978

TFES category		Unit	Unit assistance rate ($)					
			Hobart to -			Ntn. Tasmania to -		
			Vic	SA/WA	NSW/Qld	Vic	SA/WA	NSW/Qld
01A	Cattle	Head	15	24	24	15	24	24
01B	Horses	Head	10	15	20	10	15	20
02	Sheep	Head	3	4	4	3	4	4
03	Fresh, chilled & frozen meat							
03A	Hanging meat	t	50	50	67	50	56	62
03B	Other meat	t	36	36	52	30	36	43
04	Processed meat & other meat preparations	t	25	33	39	24	27	33
05	Dried & condensed milk	t	27	35	42	25	29	35
06	Fresh & frozen fish	t	50	50	67	50	56	62
07	Other processed fish & fish preparations	t	25	33	39	24	27	33
08A	Dry Malt preparations & food beverages	m^3	17	24	26	16	23	25
08B	Liquid malt preparations	t	14	18	24	11	18	18
09	Other cereals & cereal preparations	t	27	35	42	25	29	35
10	Refrigerated fresh fruit							
10A	Apples	Carton	1.10	1.10	1.40	1.00	1.10	1.20
10C	Other	m^3	22	22	28	20	22	24
10	Non-refrigerated fresh fruit							
10B	Apples	Carton	1.10	1.10	1.40	1.00	1.10	1.20
10D	Other	m^3	22	22	28	20	22	24
11	Fresh vegetables	t	25	46	46	25	46	46
12	Frozen fruit & vegetables							
12A	Stowage $2.22m^3/t$ or less	t	34	34	49	29	34	40

TABLE 11 - TASMANIAN FREIGHT EQUALISATION SCHEME: RECOMMENDED NORTHBOUND ASSISTANCE RATES AT 1 JANUARY 1978 (CONTINUED)

TFES category		Unit	Unit assistance rate ($)					
			Hobart to -			Ntn. Tasmania to -		
			Vic	SA/WA	NSW/Qld	Vic	SA/WA	NSW/Qld
12B	Stowage more than 2.22m^3/t	t	50	50	67	50	56	62
13	Other processed fruit & vegetables	t	29	37	44	27	30	37
14	Hops, refrigerated	t	38	48	55	35	40	48
15	Hops, not refrigerated	t	38	48	55	35	40	48
16	Honey & beeswax	t	25	33	39	19	29	29
17	Confectionery & chocolate products	t	20	37	35	20	37	35
18	Animal feeding stuffs	t	25	33	39	24	27	33
19	Beverages							
19A	Drums	t	14	18	24	11	18	18
19B	Cartons, etc	t	25	33	39	24	27	33
20	Hides & skins	t	31	39	47	29	33	40
21	Timber	m^3	13	17	20	11	13	16
22A	Baled wood pulp & pellets	t	25	33	39	24	27	33
22B	Waste paper	m^3	17	24	26	16	23	25
23	Wool							
23A	Undumped	Bale	11	15	16	9	13	14
23B	Dumped	Bale	9	11	12	7	9	11
24	Rutile & zircon concentrates	t)						
25	Tin concentrates	t)	13	17	23	10	16	16
26	Sausage casings	t)						
27	Seeds	t	27	35	42	25	29	35
28	Tallow	t	23	28	35	17	26	26
29	Calcium carbide	t)						
30	Titanium dioxide	t)	13	17	23	10	16	16
31	Casein	t	29	37	44	27	31	37

TABLE 11 - TASMANIAN FREIGHT EQUALISATION SCHEME: RECOMMENDED NORTHBOUND ASSISTANCE RATES AT 1 JANUARY 1978 (CONTINUED)

TFES category		Unit	Unit assistance rate ($)					
			Hobart to -			Ntn. Tasmania to -		
			Vic	SA/WA	NSW/Qld	Vic	SA/WA	NSW/Qld
32A	Hardboard & plywood	t	19	27	28	19	27	28
32B	Particle board	t	39	46	54	39	46	54
33	Newsprint	t	17	29	20	17	29	20
34	Other paper	t	22	32	46	22	32	46
35	Hand knitting yarn	t	54	117	127	54	117	127
36	Blankets	t	52	75	80	49	71	78
37	Floor coverings	t	52	75	80	49	71	78
38	Other textile yarns & articles of clothing	t	52	75	80	49	71	78
39	Footwear	t	44	55	62	39	45	54
40	Articles of asbestos cement	t	14	18	24	11	18	18
41	Aluminium powder, metal & paste	t	12	15	21	9	15	15
42	Zinc metal	t						
43	Metal castings	t	23	28	35	17	26	26
44	Machine & hand tools	t	29	37	44	27	30	37
45	Other metal manufactures & metal parts							
45A	volume rate	m^3	17	24	26	16	23	25
45B	mass rate	t	29	37	44	27	20	37
46	Machinery & transport equipment	m^3	17	24	26	16	23	25
47	Furniture	m^3						
48	Other wood & cork manufactures	m^3						
49	Other ores & concentrates	t	13	17	23	10	16	16
50	Fertilisers, manufactured	t						

TABLE 11 - TASMANIAN FREIGHT EQUALISATION SCHEME: RECOMMENDED NORTHBOUND ASSISTANCE RATES AT 1 JANUARY 1978 (CONTINUED)

TFES category		Unit	Unit assistance rate ($)					
			Hobart to -			Ntn. Tasmania to -		
			Vic	SA/WA	NSW/Qld	Vic	SA/WA	NSW/Qld
51	Waste metal & scrap	t)						
52	Ferro alloy products	t)	13	17	23	10	16	16
53	Grinding ball millstones	t)						
54	Colouring materials other than titanium dioxide	t)						
55	Gravel aggregate	t)						
56	Fibreglass & plastic products	m^3	17	24	26	16	23	25
57	Quarried stone	t	13	17	23	10	16	16
58	Waste rag	Bale	13	17	18	11	15	16
59	Soil conditioners							
59A	seaweed	t	25	33	39	24	27	33
59B	peatmoss	t	75	105	115	70	100	110
60	Iced confectionery	t)						
61	Refrigerated meat products	t)	36	36	52	30	36	43
62	Glassware	t	40	47	60	41	46	54
63	Fibreglass & plastic materials	t	27	35	42	25	29	35
.	Cheese, refrigerated							
64	Assisted	t	36	36	36	30	30	30
66	Unassisted	t	36	36	52	30	36	43
.	Cheese, unrefrigerated							
65	Assisted	t	27	27	27	25	25	25
67	Unassisted	t	27	40	47	25	41	41
68	Turf	t	25	33	39	24	27	33

In the case of cattle, it appears that there might be some justification for giving a higher assistance rate for stud animals. However, further investigations would be required to confirm whether or not a higher assistance rate was justified and, if justification does exist, to determine the amount of assistance required. At present there is not adequate information available on the costs and transport practices for moving stud cattle on the mainland, and until such data is available the BTE does not propose to make any recommendation on whether a higher rate of assistance should be paid for stud cattle.

Commodities 10A and 10B, Apples

The specified unit of carton is 0.05 cubic metres. Where apples are consigned in bins, the maximum capacity of each bin is defined as 20 cartons.

Commodity 12, Frozen Fruit and Vegetables

Because of the wide range in densities of frozen food consignments separate assistance rates are recommended for normal and low density products. The low density products are defined as those having a stowage factor of more than 2.22 cubic metres per tonne (in density terms, less than 450 kg per cubic metre). It is understood that this low density group includes french fry potatoes, cauliflower, broccoli and shoestring potato chips. Applications for the inclusion of other types of frozen food in the low density category will be investigated by the Department of Transport.

Commodity 19, Beverages

The rate for drums is intended to apply on containers having a capacity of 20 litres or more, or on any type of container with a low stowage factor (i.e. with a high density). The carton rate is intended to apply to cartons of bottles, cans etc.

Consignments of vinegar are to be included in this commodity group.

Commodity 21, Timber

Timber consignments from Tasmania comprise a wide range of products of significantly different transport characteristics. The BTE would therefore have preferred to split this category into two or more classifications, but this was not possible due to lack of data and lack of time to carry out the investigations that would have been required. In carrying out this recalculation the BTE was forced to assume that all timber products had the same transport characteristics. The assistance rates recommended should give adequate compensation to consignors of low density timber products and will probably over compensate shippers of high density products. The BTE considers that further studies on timber shipments should be carried out before the next recalculation of TFES rates so that the rates of assistance for timber can be more accurately determined.

Commodity 23, Wool

An undumped bale is defined as having a volume of $0.60m^3$ and a dumped bale $0.35m^3$.

Commodity 45, Other Metal Manufactures and Metal Parts

This commodity classification covers products of widely different transport characteristics. Claimants should therefore have the option of receiving assistance on a volume or mass basis.

Commodities 56, Fibreglass and Plastic Products and 63, Fibreglass and Plastic Materials

Commodity 56 is defined as including manufactured volume products such as pipes etc, while commodity 63 applies to raw materials to be used in manufacturing, such as drums of liquid.

Commodity 58, Waste Rag

The volume and bale definitions for this commodity are the same as for commodity 23, wool.

FUNDING REQUIREMENTS

Although the schedule of assistance rates in Table 11 is basically similar to the original schedule of 1 July 1976, there are a number of significant differences. Some commodity groups have been split into two classifications and for many commodities the basis of payment has been changed from cubic metres measure to tonnes weight. It is not possible therefore to make an accurate prediction of how much the northbound freight equalisation Scheme will cost to fund in a full year under the rates set out in Table 11.

However, an estimate has been made of what the northbound Scheme would have cost in the 1976-77 financial year if the Table 11 rates had been operative. Instead of the $16.4 million actually paid out, the Table 11 schedule would have cost between $16.7 million and $18.6 million, an increase of between 2 and 13 per cent over the actual 1976-77 payments. These maximum and minimum figures were calculated by using the higher and lower rates for those commodities split into two classifications.

In fact, the future cost of funding northbound TFES payments will probably be greater than indicated by the estimates given above. Payments of northbound TFES assistance for the 4 months July to October 1977 indicate that the physical quantity of freight shipped out of Tasmania in 1977-78 will be greater than the total for 1976-77. It also seems likely that there will be a change in the relative importance of individual commodity categories.

NEW COMMODITY CLASSIFICATIONS

The methodology used by the BTE in preparing this report could be used in setting the assistance rates for any new commodities admitted to the scheme before the next recalculation of assistance rates. Special investigations would only be required for new commodities requiring special cargo units or special handling.

CHAPTER 6 - RECOMMENDATIONS FOR FURTHER STUDIES: THE CURRENT SCHEME

When the Government introduced the Tasmanian Freight Equalisation Scheme it directed that a review of the Scheme be carried out in 1980. It is expected that this review will examine the efficiency of the Scheme and its effects on both Tasmanian industries and on the transport operations serving Tasmania. Due to the complexity of the relationship between transport services and industrial and agricultural development, it is suggested that there is a need for studies and discussions on various aspects of the TFES to be carried out over the next few years in order to provide a basis for the 1980 review. The information gained might also lead to improvements and refinements in the existing Scheme before 1980.

The following chapters outline a number of matters which could be the subject of further study and discussion as a foundation for the 1980 review. In this chapter a number of investigations are proposed which could lead to improvements and refinements in the current Scheme, perhaps before 1980.

METHODOLOGY OF RE-CALCULATION

For this study, the BTE followed the methodology of the Nimmo Commission, however, it is possible that further research could lead to the development of a better system of calculating assistance rates. This is not meant to imply any criticism of the Nimmo method. Given the existing state of knowledge on transport practices and freight rates, the Nimmo approach seems as good as any, but further research could lead to a better understanding of the nature of Tasmania's transport disadvantage.

For example, there is the question of whether consignments to Sydney and Adelaide should receive higher assistance payments than Melbourne cargoes. An alternative point of view might hold that Tasmania's freight disadvantage is represented by the cost of moving goods across Bass Strait to Melbourne. Many consignments to Sydney and Adelaide are in fact moved by sea to Melbourne

and thence by road or rail to the final destination. Cargoes transhipped through Melbourne do face extra handling costs, depending on the type of cargo unit used, but from that point onwards they are moving under the same conditions as cargoes from mainland origins. The data gathered for this study by the BTE seems to indicate that the difference between the costs of sending similar consignments to Sydney and Melbourne approximates the cost of sending the goods from Melbourne to Sydney by land transport. The differences between the rates to Melbourne and Sydney seem to be partly due to the higher sea line haul charge for the sea movement to Sydney and partly due to a higher charge for the freight forwarder's services.

TRANSPORT COSTS

The methods used in future re-calculations of TFES assistance rates could be further refined if additional information were available on interstate transport freight rates and practices. There is a particular dearth of information in this area with regard to mainland freight movements. It is therefore suggested that a study be undertaken on the transport costs incurred by Australian industry as a whole, both in Tasmania and on the mainland.

CATEGORY SPLITTING

In this re-calculation the BTE has split a number of the original commodity groups. This practice enables more exact compensation to be given to all types of commodities being shipped out of Tasmania and reduces the chances of paying either too much or too little compensation on individual consignments. The Bureau considers that the Scheme could be further improved by splitting certain additional categories. For example, the assistance rates paid on category 21, timber, probably overcompensate consignors of high and medium density cargoes while undercompensating loads of low density wood products. It was not possible to alter the timber category for the current re-calculation because adequate data was not available, but an in depth study of timber movements

aimed at determining the rates paid by shippers throughout Australia is considered a prerequisite for any further review of TFES assistance rates.

COMPETITION WITH MAINLAND INDUSTRIES

Further study ought to be given to those areas where strong competition exists between Tasmanian and mainland producers. For most commodities, this does not seem to be a problem since the Tasmanian industry is either a dominant supplier to the Australian market or at the other extreme, not significant in the national scene. However, for a small number of agricultural products where mainland demand seems to be relatively fixed the TFES has enabled Tasmanian producers to have a significant effect on the mainland market. Detailed studies of the individual industries concerned might lead to a solution of this problem.

AIR CARGO

The Nimmo Commission recommended that some form of freight equalisation assistance be provided for cargo consigned by air out of Tasmania[1]. The Government subsequently decided against assisting air freight since it might create inequities for manufacturers in comparable circumstances elsewhere in Australia.

In the light of investigations made for this project the BTE considers that further investigations might justify some assistance for certain classes of air freight out of Tasmania. Mainland consignors have the option of using a range of road services ranging from the basic, lowest cost service up to the most expensive fast overnight parcel services. Tasmanian consignors on the other hand must use either the relatively slow sea services or go to air freight. For those industries facing strong mainland competition the need to provide fast delivery to customers can be critical to commercial success.

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(1) Nimmo Report, p. 166.

Second, for some Tasmanian industries it should be noted that air freight is the most efficient form of interstate transport. For commodities with stowage factors over about 5 cubic metres per tonne air transport is the lowest cost mode out of Tasmania to Melbourne and, in some cases, to other destinations. Even using air freight, however, these commodities are still at a disadvantage relative to similar goods being carried by road or rail on the mainland. For one commodity, the assistance rates given in this report were calculated on the basis of air freight rates out of Tasmania as assistance based on shipping rates would have been extremely high. The commodity in question is generally consigned by air.

The Bureau is not suggesting that all air consignments from Tasmania should receive assistance. Rather, it is proposed that an investigation be carried out to see whether certain classes of freight might justifiably be given assistance. The calculation of such assistance rates might involve a comparison with the higher rates charged by the fast parcel services operated by road transport on the mainland.

OVERSEAS CONSIGNMENTS

The BTE recommends that some consideration be given to extending the TFES to certain overseas cargoes. The Government's current policy is that overseas cargoes should not be assisted because centralisation costs of overseas containers are paid by overseas shipping lines and because such subsidisation could prejudice the possibility of future direct calls at Tasmanian ports by overseas ships.

The Bureau agrees that no assistance should be paid in cases where an overseas shipping line is meeting the costs of moving containers across Bass Strait. However, there are instances where the costs of moving cargoes across Bass Strait are borne by the consignor rather than an overseas shipping line. For example, Tasmanian products which are sold to a mainland firm and then

re-sold overseas are not eligible for TFES assistance. Given that these products are being sold on the competitive international market even without TFES assistance, it would seem that the industries concerned are among the more efficient enterprises in the Tasmanian economy. If this is so, then a selective extension of TFES assistance to some overseas cargoes could result in a better allocation of resources within the Tasmanian economy.

There is also the possibility that TFES assistance might stimulate an increase in overseas trade towards a level at which it would be more economical for overseas shipping lines to make direct calls at Tasmanian ports.

VALUE OF PRODUCTS

Some consideration might be given to whether all Tasmanian produced goods ought to be included in the TFES, or alternatively, if all goods ought to be included on a full freight equalisation basis. The Bureau raises this question in view of the great variation in the value of goods coming out of Tasmania and their differing market situations. Some products have an extremely high unit value and the cost of transport across Bass Strait is negligible relative to the total value of consignments. For other items, transport costs are a significant proportion of the mainland value. Similarly with regard to market situations, some Tasmanian producers hold a dominant position within the Australian economy while others face strong competition from mainland producers. The net result of these two factors is that in some industries the freight equalisation assistance will act as a strong stimulus to increase production, while in others it might not cause any change in output.

The Bureau also considers that it would be worthwhile studying the effects of TFES assistance on those Tasmanian industries which are mainly competing for domestic sales against imports from overseas.

24370/78—3

CONCLUSION

The Bureau wishes to emphasise that apart from commodity splitting, the points raised in this section have been put forward as areas for further discussion and study. It is not suggested that any sudden changes be made in the basic philosophy of the Freight Equalisation Scheme. Indeed, the beneficial impact of the Scheme might be reduced if industry thought that the terms and conditions of the TFES were subject to unpredictable change. Rather, if it is decided that any changes in the Scheme are necessary they should be introduced after appropriate notice so as to minimise the effects of uncertainty.

CHAPTER 7 - EFFECTS OF TFES ASSISTANCE ON TASMANIAN INDUSTRY

In administering the Freight Equalisation Scheme, there is a need to ensure that rates are neither too low to provide full freight equalisation or so high as to provide over compensation to Tasmanian industry. Over compensation would unnecessarily increase the cost of funding the TFES and in the medium to long term could have undesirable effects on the Tasmanian economy. This is because transport subsidies are not neutral, but rather may have diverse effects on the development of both industries and transport operations. This is in fact the objective of the Government insofar as the TFES is designed to stimulate the expansion and development of Tasmanian industries. However, care should be taken to monitor developments in Tasmania's industries and transport services in order to ensure that the Scheme does not cause changes which are not in Tasmania's long term interests. For example, a "worst-possible" case from too high a subsidy might involve the establishment or growth of a labor intensive industry in Tasmania which was totally dependent on TFES payments for survival. The social and economic problems of correcting such a mistake could be considerable.

This chapter therefore discusses some of the possible effects of Freight Equalisation assistance on Tasmanian industries.

In deciding where to locate or re-locate manufacturing establishments, entrepreneurs take into account the alternative sources and costs of input materials, the locations of markets and the transport costs for input materials and for output. For many industries labor supplies are an important factor determining location. The entrepreneur's objective is to select a location which has the greatest advantage for manufacturing the specific commodity under consideration.

The 'advantage' of the location finally chosen would comprise an acceptable rate of profit plus perhaps some other criteria, such as access to materials or markets. The advantages may be either natural, such as mineral deposits or forests, or may be man-made such as power supplies, transport infrastructure or a skilled workforce.

Because all resources are not uniformly distributed throughout the nation, individual regions tend to specialise in producing those commodities for which they have some form of advantage. Such specialisation is a form of regional division of labor. The nation as a whole is able to enjoy a higher standard of living under an arrangement where individual regions specialise in producing a certain range of commodities and engage in trade with other regions.

In implementing the TFES, the Government's objective was to stimulate the development and expansion of Tasmanian industries. The effect of reducing the net transport costs of goods moving out of Tasmania was in many respects analogous to a lowering of tariff barriers in international trade. In the course of its investigations the BTE came across evidence to suggest that TFES assistance has already begun to stimulate the development and expansion of new and existing industries.

However, it should be remembered that the Freight Equalisation Scheme is acting across the whole range of Tasmanian industry. The Scheme does seem to be assisting the expansion of industries in which Tasmania has a comparative advantage over other areas in Australia, but on the other hand there is a possibility that it might be hindering structural change by affording protection to declining industries.

A further point of concern is that the combined effects of the northbound and southbound Freight Equalisation Schemes could distort to some degree the allocation of resources within the Tasmanian economy. Industries producing intermediate goods to be

used as inputs by other industries have easier access to the mainland market as a result of northbound TFES assistance, but at the same time they are exposed to increased competition from mainland industries because of the southbound assistance Scheme. Given that mainland producers often benefit from economies of scale, Tasmanian industries producing intermediate goods could face strong competition. It seems reasonable to generalise that Tasmanian industries which can operate under these conditions are efficient and should be assisted to expand.

On the other hand, industries producing final consumption goods have easier access to mainland markets as a result of TFES assistance, but do not face increased competition from the mainland since such goods do not qualify for the southbound Freight Equalisation Scheme.

The BTE is not recommending that any restrictions should currently be placed on TFES assistance limiting it to particular types of industries. However, changes in Tasmania's industries should be monitored to ensure that expansion and development are occurring in areas where Tasmania has some form of comparative advantage. If it was observed that TFES assistance was encouraging developments which were not in Tasmania's long term interests then the Government might wish to make some changes to the Freight Equalisation Scheme.

To assistant Government policy in this matter it is recommenced that studies be carried out on the factors determining the location of industries in Tasmania. This could include input-output studies to give an understanding of the relationships within the Tasmanian economy and between the economies of Tasmania and the mainland States.

CHAPTER 8 - RECOMMENDATIONS FOR FURTHER STUDIES: TASMANIAN TRANSPORT SERVICES

Prior to the TFES all Commonwealth assistance for Tasmania's interstate transport was directed to ANL services, most of which sailed from Burnie, Devonport and Bell Bay. The ANL was thereby able to offer lower rates and a large proportion of the freight to and from the Hobart area was diverted through the northern ports. This resulting pattern of freight movements probably did not make the most efficient use of the transport resources used in serving Tasmania. By requiring all transport operations to charge economic rates and by giving consignors freedom of choice, the regulations of the TFES have probably resulted in an improvement in the utilisation of transport resources.

There are several areas, however, where further improvements could be made. Improvements in Tasmania's transport services would reduce the transport costs faced by Tasmanian shippers and would thereby reduce the cost of funding the Freight Equalisation Scheme.

This chapter outlines a number of areas where further studies could lead to an improvement in Tasmania's transport services.

ADVISORY SERVICE

In the course of its field investigations the BTE noted that many small and medium size consignors had little understanding of the nature of Tasmania's transport services or of the range of options available. It was also noted that many firms could benefit from improved materials handling techniques. In this area the TFES may have been counter-productive to some degree insofar as it has reduced the incentive for Tasmanian industry to investigate and implement better handling and transport techniques.

It is suggested that some consignors could make worthwhile reductions in their operating costs by introducing improved packing and materials handling techniques, by investigating alternative transport arrangements and by seeking a greater number of quotes for transport services.

It is further suggested that there may be a role for some form of transport user advisory service in Tasmania, perhaps through an organisation providing consultative services or alternatively through the preparation and distribution of published material. The Bureau understands that the ANL will investigate customers' transport arrangements and advise on possible cost savings, however, the service is not advertised and many consignors probably do not know of its existence.

Consideration should be given to a study on the materials handling aspects of Tasmania's interstate trade before the 1980 review. Such a study could be carried out by the National Materials Handling Bureau, perhaps in association with the BTE. It is suggested that future TFES assistance rates be determined on the basis of the most efficient feasible practices and that Tasmanian firms be made aware of this intention.

CONTAINER POOL

The Nimmo Commission suggested that the formation of a container pool could cut down on the number of empty containers being carried across Bass Strait[1]. Information provided to the Bureau indicated that the cost of empty returns is still a significant factor in Tasmanian transport costs. It seems that consignors and freight forwarders are prepared to meet the cost of empty returns to be sure of containers being available where and when required. Nevertheless, the Bureau considers that further investigation should be given to the container pool concept.

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(1) Nimmo Report, p. 23

OUT OF AREA PERMITS

Many Tasmanian industries complained to the BTE about the handicap imposed by 'out of area' permit payments. Each Tasmanian commercial vehicle is licensed to operate in one of the State's 8 traffic areas. Permits are required for road movements where either the pick up or delivery point is outside the area for which the vehicle is registered. The fee for an out of area permit is calculated as the product of three factors: the list rate for the commodity being carried; the unladen weight of the vehicle; and the total laden distance travelled[1]. A vehicle is not allowed to carry any load where both the pick up and delivery points are outside its area of registration. Whilst they do not directly restrict interstate trade, out of area permits may hinder Tasmanian firms in their competition against interstate producers for the Tasmanian market. If this is so, out of area permits could be working counter to the objectives of the TFES. Further, if elimination of the permit system reduced the empty running distance travelled by trucks, then there could be a potential for lower rates on road movements of interstate cargoes[2]. It should be noted that mainland States are moving away from policies involving restrictions on intrastate road transport services and it is suggested that consideration be given to whether a relaxation of restrictions would not also be in the best interests of Tasmania's economy.

PRICING POLICY

At present, very little published data is available on the factors determing prices charged by the freight forwarders and shipping companies serving Tasmania. Previous BTE studies have shown that the formulation of optimum pricing policies requires information

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(1) Australian Road Transport Federation, Yearbook, 1977, p. 94.
(2) BTE, A Study of Intersystem Railway Freight Rating Practices, AGPS, Canberra, November 1976, pp. 50-54.

on both the costs of providing the transport services and the nature of the demand functions for the various services provided.[1]

Such information would also be useful in the formulation of Government policies on assistance to Tasmania and in the 1980 review of the Freight Equalisation Scheme. It is suggested therefore that some form of research be carried out to gather information on the factors determining Tasmanian freight rates, perhaps initially by a study of ANL's rating practices.

RATIONALISATION OF PORTS

As part of its inquiry into Tasmania's transport services, the Nimmo Commission studied the financial operations of Tasmania's ports. The Commission concluded that under the then prevailing conditions there would not be any advantage in closing one of the three main northern ports to general cargo. In view of the important role of Tasmania's ports it is recommended that their future development and utilisation be kept under continuing review, perhaps using the special techniques developed by the BTE over the last few years for carrying out economic evaluations of transport operations. A comprehensive review of Tasmanian port functions would definitely be required if any significant changes occurred in the nature of shipping services involving say new ships or cargo units.

NEW TRANSPORT ASSETS

In the medium to long term, the development of Tasmania's industries will probably depend more on the general efficiency of the State's interstate transport services than on the assistance provided by the Freight Equalisation Scheme. It is vital therefore that detailed studies be carried out before deciding on the nature

(1) BTE, A Study of East-West Rail Passenger Services: The 'Indian-Pacific' and 'Trans Australian', AGPS, Canberra, 1977 and BTE, A Study of Intersystem Railway Freight Rating Practices, AGPS, Canberra, 1976.

and design of the next generation of equipment and ships to be used in Tasmania's interstate transport services. The decisions taken by the shipping companies will influence a great range of outlays on ships, cargo units, pallets, wharves, handling facilities and factories. The options available include retaining a container based system using either the current type of container or ISO boxes, or using pure Ro-Ro ships carrying trailers. Whatever system is chosen should be designed to minimise modal transfer costs and to faciliate transhipment of Tasmanian cargoes to mainland areas beyond the port of landing.

CHAPTER 9 - THE INCIDENCE OF TFES ASSISTANCE

At present very little quantitative data is available on the nature of the demand for, and supply of, transport services between Tasmania and the mainland. It is not possible therefore to make any empirical calculations on the ultimate effects of the TFES. However, on the basis of economic theory it is possible to outline the nature of the results that might be expected even though it is not possible to quantify them. This chapter looks at the incidence of TFES assistance i.e. it looks at which sections of the economy will benefit from the Scheme. The calculations on which this chapter is based are given in Annex C.

The immediate effect of TFES assistance would probably be to enable Tasmanian industry to ship a greater quantity of freight across Bass Strait. At the same time there would probably be an increase in the rates charged for transport services. This is not necessarily meant to imply any criticism of freight forwarders. Rather, the increase in rates charged could be due to a change in the market forces of demand and supply for transport services brought about by the introduction of the TFES assistance.

In the first instance therefore, the benefit of the TFES subsidy will be divided between shippers and freight forwarding companies. It is not possible at present to calculate what part, if any, of TFES assistance is going to freight forwarders in the form of higher freight rates although it should be noted that the BTE did not receive any complaints about excessive freight rates during its investigations in Tasmania. It seems reasonable to assume therefore that the larger part of the assistance is going, in the first instance, to consignors.

Two other sectors will benefit to some degree from TFES assistance. Part of the benefit accruing to consignors will ultimately be passed on to the final purchasers of Tasmanian goods. The proportion of benefit going to final buyers will vary between industries. Those Tasmanian industries facing strong competition from mainland

producers will probably be forced to pass on a considerable proportion of their TFES benefit in the form of reduced prices. On the other hand, those Tasmanian industries in a strong market position will probably be able to retain the larger part of TFES assistance received.

Similarly, some part of the TFES benefit which initially went to freight forwarding companies will probably be passed on to shipping companies and road hauliers in the form of higher charges for pick up and delivery services and for the sea line haul.

Lastly, it was pointed out above that one effect of the TFES could be to increase Tasmania's interstate freight rates. If this effect is at all significant it could have serious consequences in the medium to long term, since each re-calculation of the assistance rates would be influenced by an increase in freight rates generated by the last increase in assistance rates i.e. the TFES could be generating freight rate increases.

The Bureau does not recommend that any immediate changes be made to the TFES as a result of the matters raised in this section. At present there is no evidence to suggest that the major benefit of TFES assistance is not accruing to Tasmanian industry or that excessive freight rate increases have taken place. Nevertheless, in view of the possibilities outlined above it is recommended that further investigations be carried out to determine which sectors of the economy are ultimately benefiting from TFES assistance.

ANNEX A

NEWS RELEASES ON TASMANIAN FREIGHT EQUALISATION SCHEME

NEWS RELEASE

TASMANIAN FREIGHT EQUALISATION
(Statement by the Commonwealth Minister for Transport)
the Honourable P.J. Nixon, M.P.)

Tasmanians are to receive a better deal on northbound and southbound freight rates under a freight equalisation scheme announced today by the Commonwealth Minister for Transport, Mr Peter Nixon.

"The scheme will include subsidy on southbound shipment of producers' material and equipment," said Mr Nixon.

"In addition, subsidy payment to the ANL for operation of the passenger vessel "Empress of Australia" is to be increased from July 1 from $1 million to $2 million a year.

"The assistance scheme takes as a starting point the recommendations of Commissioner Nimmo's enquiry into Tasmania's transport costs.

"Although Commissioner Nimmo recognised Tasmania's transport disability the Commonwealth Government has decided that the rates of subsidy proposed by him do not provide for freight equalisation. We therefore have made more generous provision in accordance with our policy announced before the 1975 election.

"Commissioner Nimmo had made subjective assessments of the advantages that industry might enjoy by reason of locating in Tasmania.

"After determining the extent of the excess transport charges between Tasmania and the mainland, he reduced those as his Terms of Reference required, to take account of those advantages.

"This was not sufficient to meet the Government's election pledge and it therefore decided the adjustments he made shall be removed to provide for freight equalisation.

"The equalisation scheme is designed to provide that the cost of transporting goods between Tasmania and the mainland is approximately the same as moving similar goods by land across the same distance on the mainland.

"Essentially it is designed to remove the transport disability Tasmania suffers by reason of its separation by sea from the other States of the Commonwealth," Mr Nixon said.

"The Government has accepted that the goods Mr Nimmo recommended receive assistance should be those covered by the proposal. At the same time, we recognise that some products which could be

eligible for assistance may have been excluded from his recommendations. Consideration of the admission of any such items to the scheme will be dealt with speedily.

"Work is in progress to adjust Mr Nimmo's recommended levels of subsidy and details of the higher rates will be released as soon as possible.

"Payment of subsidy will be made directly to consignors and, as Mr Nimmo recommended, shipping operators will be required to charge economic levels of freight.

"Subsidy payments to ANL, estimated to cost $4.5 million in 1975/76 will be discontinued and consignors using the interstate services operated by the Tasmanian Transport Commission will be eligible for assistance only if the Commission sets rates for its interstate service at economic levels.

"This will mean increases in shipping rates. The exact levels will be determined by the Australian Shipping Commission and the Tasmanian Transport Commission. In the case of ANL, indications are that northbound rates are likely to double and southbound rates increase by 20 per cent.

"In most cases", Mr Nixon pointed out, "northbound consignors would, of course, be paying lower freight costs after receipt of subsidy. A few shippers may be initially disappointed to find their rates have increased, even after subsidy. This arose because the decision to freeze ANL rates at 1974 levels was largely arbitrary and those commodities affected would not be paying a lower transport cost from Tasmania than for a comparable movement by land on the mainland. The aim of the scheme", he emphasised, " was to equalise the transport position of Tasmania.

"The charging of economic rates," Mr Nixon said, "preserves the opportunity for private shipping operators to continue their services. A competitive situation provides the incentive for operators to maintain efficiency and service and improve methods. This is essential to Tasmania.

"To ensure the subsidy preserves the relationship between Tasmanian freight rates and mainland rates a reassessment of the level of subsidy will be made in 18 months. This will be undertaken by the Bureau of Transport Economics.

"The efficiency of the whole scheme will be reviewed not later than 1980. Mr Nixon stated that the Government was concerned the scheme should continue to meet the objectives set. The northbound scheme was estimated to cost $16 million in the first year.

"Whilst southbound carriage of producers' material and equipment will also be assisted, Mr Nimmo had not had sufficient time to complete his inquiry into this trade and recommended further study. The Government had decided that such assistance should be available and work will commence immediately to determine the

levels of assistance. Further announcements would be made as soon as possible.

"The Government had also accepted Mr Nimmo's recommendation that, subject to ANL charging economic rates, it should increase the subsidy payment for the operation of the "Empress of Australia" from $1 million to $2 million per annum.

"The Empress of Australia" subsidy will be for a period of two years from 1 July during which period an examination will be made, as recommended by Mr Nimmo, into alternate methods of serving this trade.

"At the same time the Government had approved the recommendation of the Australian Shipping Commission that it sell the "Australian Trader" which operates a combined passenger/cargo service from Sydney. This is operating at a loss of $1.3 million per annum. Delivery of the new "Bass Trader" will permit the Commission to redeploy its general cargo fleet to achieve maximum efficiency.

"Detailed administrative arrangements for the operation of the freight equalisation scheme will be released later this month. The scheme will be administered by the Department of Transport".

Mr Nixon said that Commissioner Nimmo had made a wide range of other recommendations. These will be given consideration by the Government as soon as possible. As it was not practical to review these immediately the government had decided to give first priority to the recommendations on transport assistance and passenger fares by sea.

"I am certain Tasmanians will agree these matters demanded priority. I am delighted at the prospect the Government's decisions afford for the development and future prosperity of Tasmania."

HOBART 9 June 1976

NEWS RELEASE

ADMINISTRATION OF TASMANIAN FREIGHT EQUALISATION SCHEME
(Statement by the Acting Commonwealth Minister for Transport, the Honourable J.W. Howard, M.P.)

The Acting Minister for Transport, Mr John Howard, today announced details of administrative arrangements and assistance to be provided for eligible cargo under the Tasmanian Freight Equalisation Scheme. This scheme, which initially applies only to northbound movements of eligible cargoes by sea, was announced by the Minister for Transport, Mr Peter Nixon, on 9 June 1976.

Mr Howard said that the scheme would start on 1 July and would be administered by the Department of Transport from its Hobart Regional Office.

Claims, on the forms provided, should be sent to the Department of Transport.

Mr Howard said that the shipper would need to detail the amount and type of commodity shipped and provide supporting evidence in the form of the original consignment notes for the shipment of the goods and any necessary invoices and receipts establishing that the freight had been paid.

The amount of the subsidy will be calculated on this information and cheques sent to applicants as soon as possible.

Mr Howard said that a document had been prepared that explained the scheme in detail and included copies of the relevant claim forms shippers would need. Copies of the document and relevant forms will be available on Tuesday morning from the Department's Regional Office in Hobart, Customs Offices in Launceston, Devonport and Burnie and the Department of Transport Office at 35 Elizabeth Street, Melbourne.

Mr Howard said the Government would ensure that any problems would be resolved as they arose and that officers of the Department of Transport would be readily available to answer questions. He added that shippers should not hesitate to contact the Department as necessary through the Hobart Regional Office on 34-6688.

Mr Howard said these arrangements would initially cover only the northbound movement of goods from Tasmania. These goods were those recommended for assistance by Mr J.F. Nimmo. He said that the administrative arrangements covering subsidy payments for southbound goods would be announced at the earliest opportunity.

Mr Howard said that as Mr Nimmo had not been in a position to conclude his investigations on assistance required for southbound cargo, the Department of Transport was treating the matter as one of high priority.

A short delay could be expected, however, before details were announced as the Government had placed the highest priority on implementing the northbound scheme by 1 July. This having been done, urgent consideration will be given to the development of a scheme for southbound goods and other recommendations by Mr Nimmo.

Editors' Note: Document explaining scheme attached.

CANBERRA 27 June 1976

24370/78—4

TASMANIAN FREIGHT EQUALISATION SCHEME

BACKGROUND

The Commission of Inquiry into Transport to and from Tasmania in its Report published in March 1976 found that because of Tasmania's physical separation from the Mainland by sea, Tasmanian shippers suffer a cost disability in moving non-bulk cargoes by sea between Tasmania and the Mainland.

The Commonwealth Government announced on 9 June, 1976 the introduction of a Tasmanian Freight Equalisation Scheme to apply to eligible cargoes shipped from Tasmania to the Mainland by sea. The scheme arises out of the fact that, under current conditions of transport and transport costs, the people of a State that is wholly separated by sea from all other States and the Territories of the Commonwealth inevitably suffer a disadvantage by reason of their State's lack of access to road or rail transport services to the other States or to the Territories. The Commonwealth wishes to adopt measures that will help to alleviate this disadvantage. Tasmania is the only such State and the object of this scheme is to take some steps towards removing the disadvantage suffered by Tasmania and its people by reason of its lack of access to road or rail transport services to the Mainland. It will achieve this object by subsidising transport services by sea between Tasmania and the Mainland in order to make the door-to-door freight costs of the Tasmanian consignor approximate the door-to-door costs for moving similar goods by road or rail over the same distance on the Mainland.

Administering Authority

The Commonwealth Department of Transport is responsible for the administration of the Scheme through the office of the Regional Controller Tasmania. All claims, enquiries and payments should be made through the Tasmanian Freight Equalisation Section, Regional Office, Commonwealth Department of Transport, P.O. Box 1269N, Hobart 7001. Telephone enquiries should be made to Hobart 34-6688.

Date of Implementation

The Scheme will apply to eligible cargoes consigned on or after 1 July 1976.

Eligible Cargoes

Initially the scheme is to apply only to goods produced for the use or for sale on the Mainland moving by sea from Tasmania to the Mainland on shipping services which in the opinion of the Minister for Transport are operated at economic freight rates.

Freight assistance will be paid on cargoes, listed in Schedule 1. This assistance will not be available to cargoes destined for export from Australia.

The scheme will be extended at a future date to cover southbound cargoes of certain non-consumer items moving from the Mainland to Tasmania by sea. Arrangements for that scheme have not as yet been determined. An announcement of the details and date from which it will apply will be made as soon as possible.

Admission procedures for Cargoes Presently Ineligible

Shippers of goods produced for sale or use on the Mainland and not presently covered in Schedule 1 may make written submissions to the Minister for Transport, Parliament House, Canberra, seeking to have such goods included in the Scheme.

The application should give detailed information showing the origin and destination and the methods of shipment, volumes of cargo moved and the average quantity and size of each shipment, and should specify the current door-to-door charges being paid for shipment of the commodity between Tasmania and the Mainland. Where possible charges should be shown as a rate per cubic metre or per tonne.

Rates of Subsidy

The rates of assistance provided under the scheme are set out in columns A to F of Schedule 1. The amount of assistance will be calculated on a pro rata basis in accordance with the quantity of cargo shipped.

These rates are broadly equivalent to the difference by which the charge for transporting goods between a place in Tasmania and a place on the Mainland exceeds, or is estimated to exceed, the charge for transporting goods over approximately the same distance between two places on the Mainland. As the appropriate equalisation rate varies for individual shipments the assistance provided in Schedule 1 reflects an average of these differences.

Separate rates are specified for cargo moving from two defined regions, Northern Tasmania and Southern Tasmania to the point of destination. In determining the appropriate rate of assistance to apply, the point of origin is regarded as the point from which the goods are initially despatched for carriage to the mainland. Destination on the mainland is the destination specified in the original contract of carriage, consignment note or other relevant documents. Any combination of land and sea transport may be used to perform the movement. EXAMPLE. If a contract is made with Forwarding Agents for carriage of goods from Hobart to Sydney and the goods are carried by rail from Hobart to Nth Tasmania shipped to Melbourne and then carried by road/rail from Melbourne to Sydney the point of origin is Hobart and the point of destination is Sydney.

For the purposes of the Scheme

: Southern Tasmania is defined as any area south of latitude 42 degrees South

: Northern Tasmania is defined as any area north of latitude 42 degrees South.

Principal townships in both regions close to latitude 42 degrees South are shown in the following map.

The rates of assistance set out in Schedule 1 will be reassessed in 18 months or earlier if considered necessary by the Commonwealth. The efficiency of the scheme will be reviewed not later than 1980 to ensure that it continues to meet the objectives set. Any modification to the scheme will be notified by advertisements in Tasmanian press.

Submission of Claims
Eligible Claimants

Assistance is provided by way of direct payment to persons who incur the costs of carriage of eligible cargo to the mainland.

Accordingly where goods are despatched through a freight forwarder or agent the claimant is the consignor and not the freight forwarder or agent.

Where the consignor forwards the goods on the basis of the consignee paying the freight charges the consignee will be the claimant.

In all cases it is necessary for the claimant to have paid the freight before claiming assistance.

How and When

Claims must be made on the official forms accompanied by supporting evidence. These forms are Treasury Form 12 and Claim Calculation Form MF 391.

Treasury Form 12 requires a summary of the claim. Each claim is to be accompanied by claim calculation form MF 391 on which details are to be listed of each consignment of eligible cargo shipped from Tasmania to the Mainland by sea. Assistance will not be paid unless claims are made within three months of the date of shipment of the cargo.

Forms will be available in Tasmania from the Department of Transport Regional; Office Hobart and the Customs offices in Launceston, Devonport, Burnie and in Melbourne from the Commonwealth Department of Transport, Sea Transport Policy Division, 35 Elizabeth Street, Melbourne, 3000.

Examples of the two forms required by the Department of Transport to be completed in full before claims are processed are contained in this document.

Where

Claims for payment of Tasmanian Freight Equalisation Assistance may be lodged at the Department of Transport Regional Office, 40 Macquarie Street, Hobart or sent by post to:

Tasmanian Freight Equalisation Section,
Commonwealth Department of Transport,
PO Box 1269N,
HOBART. TAS. 7001

Supporting Documentation Required

Evidence of shipment and evidence of payment of the freight account is to accompany each claim. It is to consist of

- original copy of the consignment notes; (except where the freight forwarders or line hauliers invoice includes a copy of the relevant consignment notes)
- copy of invoice from forwarders, carriers or shipping companies;
- either receipt for payment of freight for cargo carried; or details of cheque payments made including
  - name of Bank and Branch on which cheque drawn;
  - cheque number;
  - amount.

Documents submitted in support of each claim will be retained by the Commonwealth unless specific request is made for their return and the Commonwealth may dispose of them at its discretion. No claimant is to be entitled as of right to subsidy assistance nor to sue the Commonwealth in respect thereof. Subsidy assistance will not be paid unless the evidence required by the Department of Transport to substantiate the claim has been provided.

How often

Claims may be submitted as frequently as required but it would facilitate early payment if claimants where to submit a single consolidated claim monthly after freight charges have been paid.

Enquiries

Any enquiries regarding the Scheme should be made either by post, or telephone Tasmanian Freight Equalisation Scheme Section, Department of Transport, Hobart Phone 34-6688.

Personal enquiries may be made at the temporary office of the Freight Equalisation Section, Old Police Building, 1st Floor, Franklin Wharf, Hobart.

Payment of Assistance

Cheques in payment of assistance will be mailed, as promptly as possible after the claim has been submitted. Incomplete or inaccurate claims will delay payment. Every endeavour will be made to process claims with a minimum of delay.

Examination of Claimants' Records

In order to meet the requirements of the Commonwealth Audit Act, the payment of Tasmanian Freight Equalisation Assistance is made on the understanding that the records of the claimants are subject to inspection by an officer authorised by the Secretary, Commonwealth Department of Transport.

For the purposes of this scheme, an authorised officer may at all reasonable times enter the claimants premises and may inspect, make and retain copies of and extracts from the accounts, books, documents and other records relating to the transportation of goods for which assistance has been claimed.

Failure of a claimant to allow an authorised officer to carry out these duties will render the claimant ineligible for future assistance.

Recovery of Assistance Paid But Incorrectly Assessed

All amounts incorrectly paid under this scheme are repayable to the Commonwealth on demand.

Responsibility rests with the claimant to advise the Department of Transport of any changes in amounts claimed previously because of non-shipment of cargoes (e.g. recall of perishables, damage to consignments prior to shipment).

The Commonwealth reserves the right to withhold assistance from claimants who fail to comply with this requirement within 3 months from the date on which the relevant claim was lodged.

SCHEDULE 1

Levels of Assistance to Equalise Charges for moving goods of Tasmanian Origin by Surface Transport from Tasmania to the Mainland with the Charges for Moving the Same Goods over Comparable Distances by Land Transport on the Mainland

Item	Code	Unit	Route					
			Southern Tasmania to			Northern Tasmania to		
			Vic	SA/WA	Rest of Mainland	Vic	SA/WA	Rest of Mainland
			A	B	C	D	E	F
			$	$	$	$	$	$
Cattle	01	per head	11	12	12	11	12	12
Sheep and pigs	02	per head	2	3	3	2	3	3
Fresh, chilled & frozen meat	03	m^3	20	25	28	20	25	28
Processed meat & other meat preparations	04	m^3	14	15	17	12	14	17
Dried & condensed milk	05	m^3	14	15	17	12	14	17
Fresh & frozen fish	06	m^3	20	25	28	20	25	28
Other processed fish & fish preparations	07	m^3	14	15	17	12	14	17
Food beverages, malt & malt extracts	08	m^3	14	15	17	12	14	17
Other cereals & cereal preparations	09	m^3	14	15	17	12	14	17
Fresh fruit, refrigerated	10A	m^3	20	25	28	20	25	28
unrefrigerated	10B	m^3	14	20	24	14	20	24
Fresh vegetables	11	m^3	14	14	14	12	12	12
Frozen fruit & vegetables	12	m^3	20	25	28	20	25	28
Other processed fruit & vegetables	13	m^3	14	15	17	12	14	17
Hops, refrigerated	14	m^3	20	25	28	20	25	28
unrefrigerated	15	m^3	14	15	17	12	14	17
Honey	16	m^3	14	15	17	12	14	17
Confectionery & chocolate products	17	m^3	14	17	20	12	14	17
Animal feeding stuffs	18	m^3	14	15	17	12	14	17
Beverages	19	m^3	14	15	17	12	14	17
Hides and skins	20	m^3	10	12	14	10	12	14
Timber	21	m^3	10	14	14	10	12	14
Baled wood pulp and waste paper	22	m^3	14	14	14	12	12	12
Sheep & lamb's wool	23	m^3	10	12	14	10	12	14
Ores & concentrates - Rutile and zircon	24	tonne	16	16	24	16	16	24
- Tin	25	tonne	16	16	24	16	16	24
Sausage casings	26	tonne	14	14	16	12	12	14
Seeds	27	m^3	14	15	17	12	14	17
Tallow	28	tonne	14	14	14	12	12	12
Calcium Carbide	29	tonne	25	25	30	20	20	20
Titanium dioxide	30	tonne	10	16	20	10	16	20
Casein	31	m^3	14	15	17	12	14	17
Particle board, hardboard & plywood	32	m^3	18	20	22	16	18	22
Newsprint	33	tonne	13	20	18	11	18	18
Paper other than newsprint	34	m^3	15	20	25	13	20	25
Hand knitting yarn	35	tonne	40	70	80	40	70	80
Blankets	36	tonne	40	50	50	40	50	60
Floor coverings	37	tonne	30	40	50	30	40	50
Other textile yarns, fabrics & made-up articles & clothing	38	tonne	40	50	60	40	50	60
Footwear	39	tonne	30	40	50	30	40	50
Articles of asbestos cement	40	tonne	9	12	14	9	12	14
Aluminium metal, powder & paste	41	tonne	9	15	20	9	15	20
Zinc metal	42	tonne	14	14	15	14	14	15
Metal castings	43	tonne	15	20	18	13	20	18
Machine & hand tools	44	tonne	20	30	30	15	20	20
Other metal manufactures & machine parts	45	m^3	10	15	15	8	15	15
Machinery & transport equipment	46	m^3	10	15	15	8	12	12
Furniture	47	m^3	11	12	14	9	11	14

SCHEDULE 1 (CONTINUED)

Item	Code	Unit	Route					
			Southern Tasmania to			Northern Tasmania to		
			Vic	SA/WA	Rest of Mainland	Vic	SA/WA	Rest of Mainland
			A	B	C	D	E	F
			$	$	$	$	$	$
Other wood & cork manufactures	48	m^3	10	14	14	10	12	14
Other ores & concentrates	49	tonne	14	14	15	10	14	15
Fertilisers manufactured	50	tonne	14	14	15	10	14	15
Metal waste & scrap	51	tonne	14	14	15	10	14	15
Ferro alloy products	52	tonne	14	14	15	10	14	15
Grinding ball millstones	53	tonne	14	14	15	10	14	15
Colouring materials other than titanium dioxide	54	tonne	14	14	15	10	14	15
Gravel aggregate	55	tonne	14	14	15	10	12	14
Fibreglass reinforced plastic products	56	m^3	10	14	14	10	12	14
Quarried stone	57	tonne	14	14	15	10	14	15
Waste rag	58	m^3	12	14	14	10	12	14
Peat moss	59	m^3	12	14	14	10	12	14
Iced confectionery	60	m^3	20	25	28	20	25	28
Refrigerated meat products n.e.i.	61	m^3	20	25	28	20	25	28
Glassware	62	m^3	12	14	14	10	12	14
Plastic and PVC products n.e.i.	63	m^3	12	14	14	10	12	14
Cheese "assisted" (see note below) -								
refrigerated	64	m^3	20	20	20	20	20	20
unrefrigerated	65	m^3	14	14	14	14	14	14
Cheese "unassisted" (seen note below) -								
refrigerated	66	m^3	20	25	28	20	25	28
unrefrigerated	67	m^3	14	20	24	14	20	24

NOTE: "Assisted" cheese movements refer to interstate sales and transfers for which transport assistance is otherwise provided (e.g. Commonwealth Dairy Produce Equilisation Committee "approved" movements of chedder cheese to meet approved shortages on the Mainland).

"Unassisted" cheese movements relate to interstate sales and transfers which do not receive transport assistance from any other source.

ANNEX B
CARGO UNITS

Several different types of cargo units are used for carrying Tasmania's interstate trade. For general cargo, the most commonly used type is the 5.08 metre cargo tray, equipped with either a high (2.21 metres) or a low (1.37 metres) gate. The carrying capacity of both units is just over 16 tonnes and hence the low gate unit is more suitable for deadweight cargoes while the high gate container is used for lighter weight commodities with higher stowage factors. A staked pair comprises one high gate container and one low gate container consigned together. (The high gate unit is carried on top of the low gate unit in the ship's hold.) The sea line-haul rates charged for a staked pair are more economical than for a single 5.08 metre unit, both on a per tonne and per cubic metre basis. The 5.08 metre tray can be collapsed so as to take up less space when being carried empty.

Other cargo units used for carrying dry cargoes out of Tasmania include ISO containers, trailers and rigid tray trucks, and pantechnicons. Some specialised units have been constructed for carrying paper, livestock, and some liquid products.

Refrigerated cargoes are carried in a variety of reefer containers, rigid trucks, and trailers. As a generalisation, it is more economical to consign goods with low stowage factors in ISO type containers and the smaller road vehicles, while trailers are better suited to goods with higher stowage factors.

Loads of timber are consigned as bolsters, on trucks, or in 5.08 metre containers. A bolster is a self contained load of timber which has been strapped together in such a way that it can be lifted or carried by a fork-lift truck.

The remainder of this annex comprises Table B.1 which gives the specifications of the most common cargo units used in the Tasmanian trade followed by plates showing cargo units and timber bolsters.

TABLE B.1 - SPECIFICATIONS OF TASMANIAN CARGO UNITS

Type	External			Internal			Volume	Tare	Max Payload	Max Gross
	length	width	height	length	width	height				
	(mm)						(m^3)	(tonnes)		
6.01m ISO	6070	2440	2440	5900	2330	2205	30.4	2.5	17.8	20.3
5.08m Highgate	5080	2500	2440	4927	2425	2230 (a)	26.8	2.2	16.2	18.4
5.08m Lowgate	5080	2500	1670	4927	2425	1370 (a)	16.4	1.9	16.6	18.4
6.01m Reefer	6070	2440	2440	5425	2220	2038	24.6	3.7	16.6	20.3
11.3m trailer (37') (b)	1128	2440	2440	-	-	-	67.2	-	21.0	-
12.2m trailer (40') (b)	1220	2440	2440	-	-	-	72.6	-	21.0	-

(a) 5.08m cargo trays have an open top and for some cargoes it is possible to load above this height.
(b) Specifications for trailers vary widely depending on several factors and these figures should only be regarded as approximations.
Source: ANL.

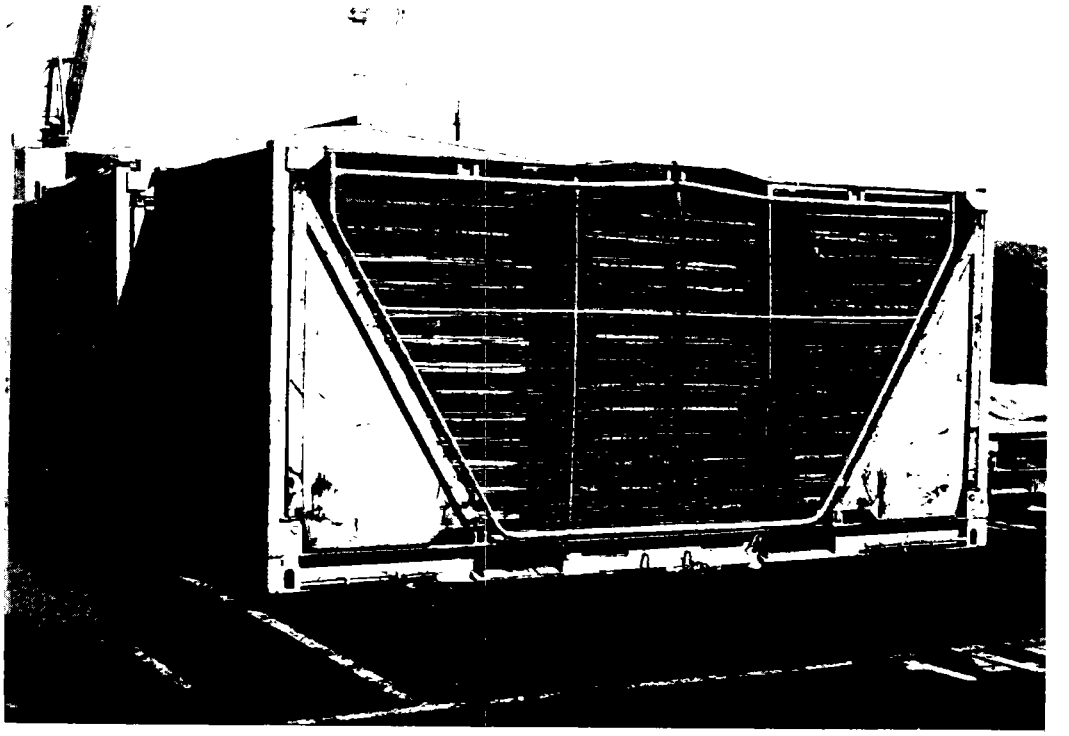

Plate 1 : A high gate 5.08 metre container carrying a load of pallets

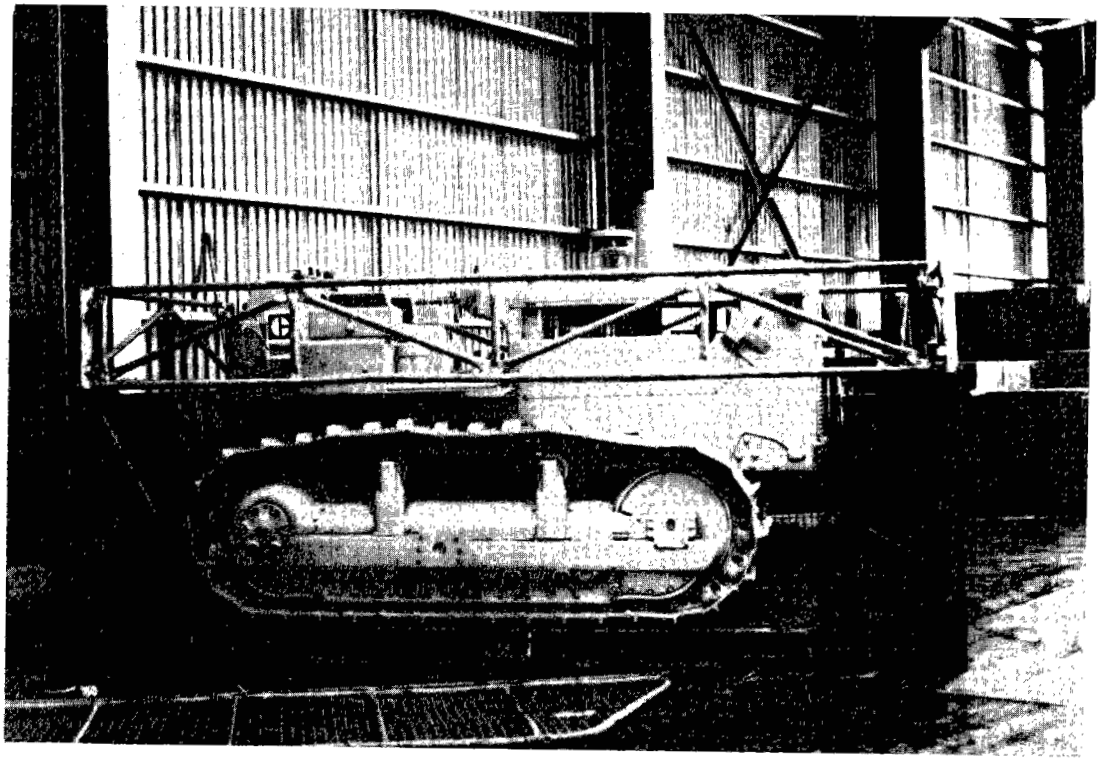

Plate 2 : A low gate 5.08 metre container fitted with an attachment to increase the gate height

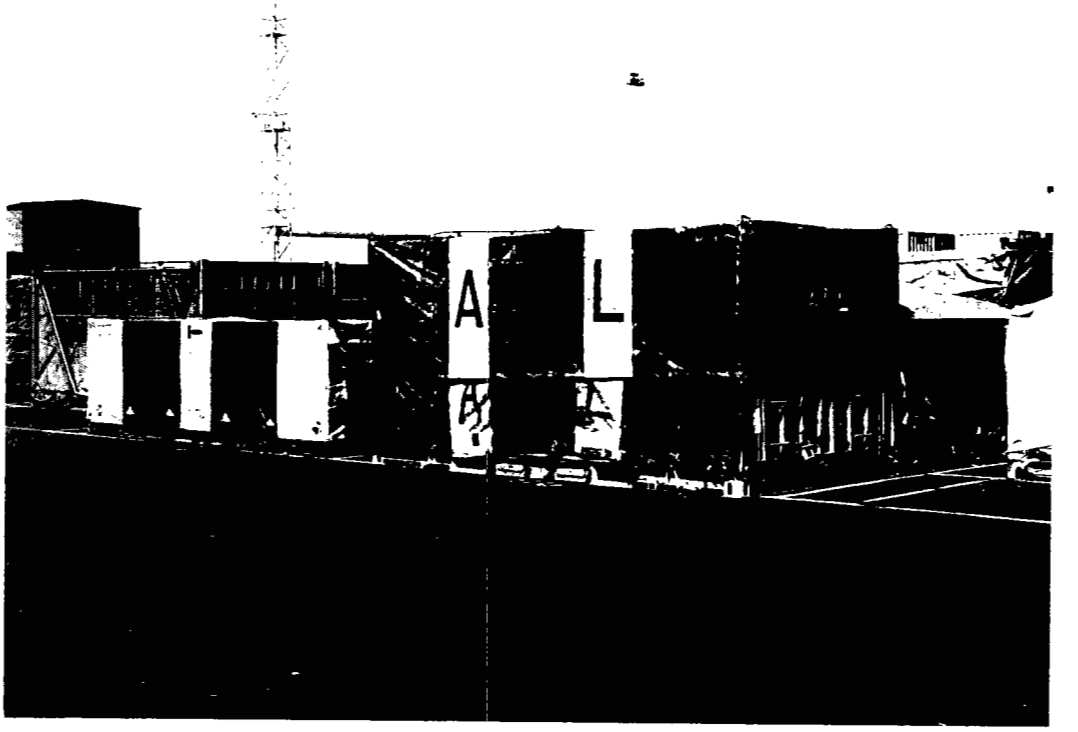

Plate 3 : 5.08 metre containers covered by tarpaulins; low gate unit on the left and high gate unit on the right

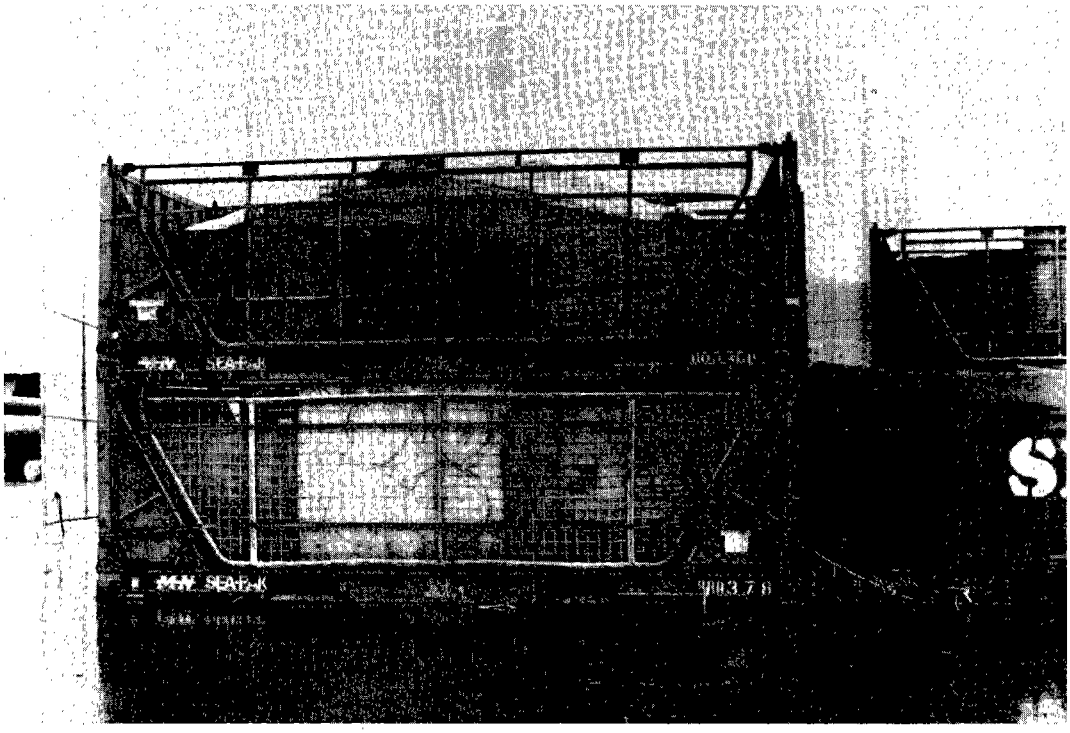

Plate 4 : A staked pair of two low gate 5.08 metre containers

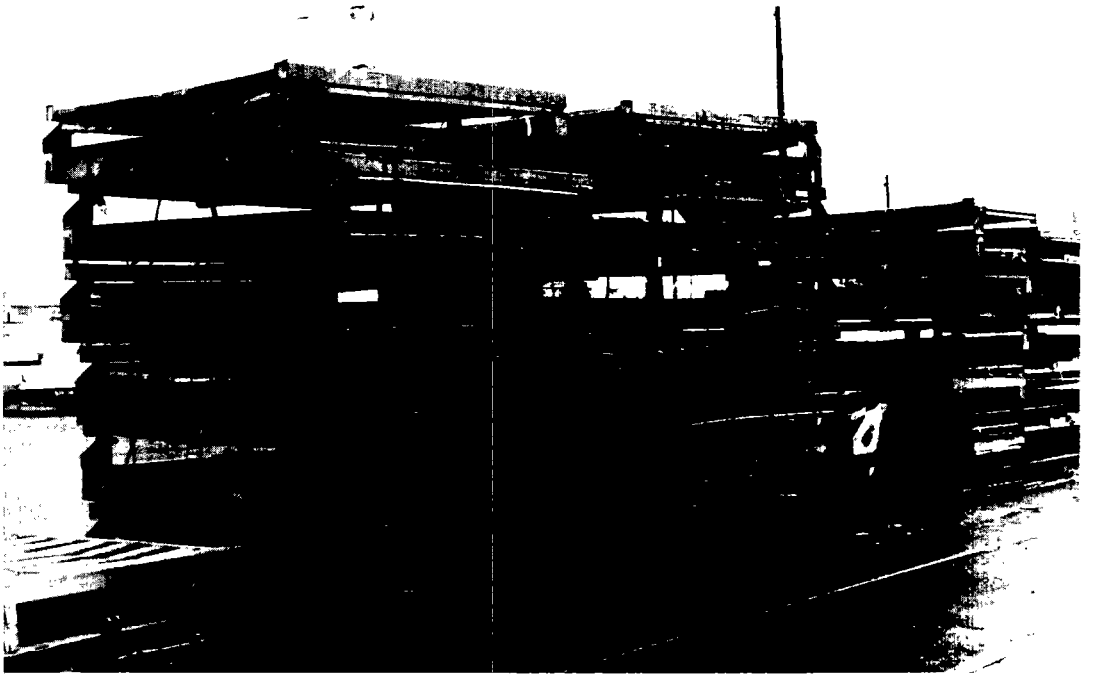

Plate 5 : A stack of collapsed 5.08 metre containers

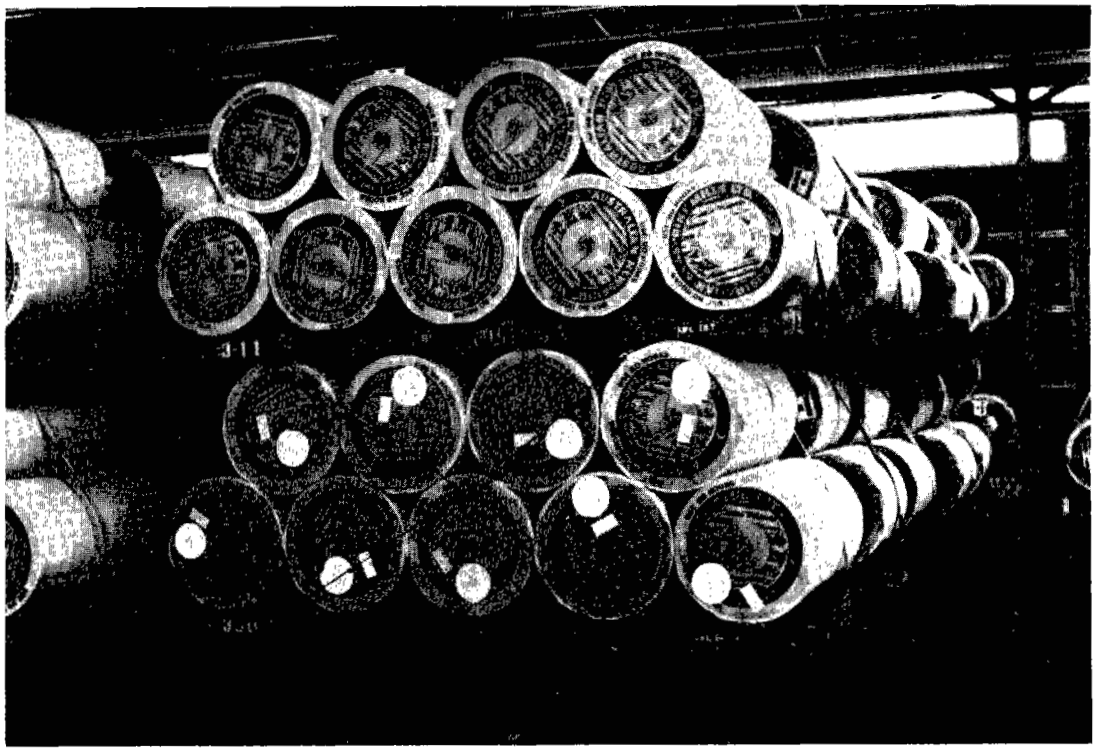

Plate 6 : Rolls of newsprint on special purpose cargo trays

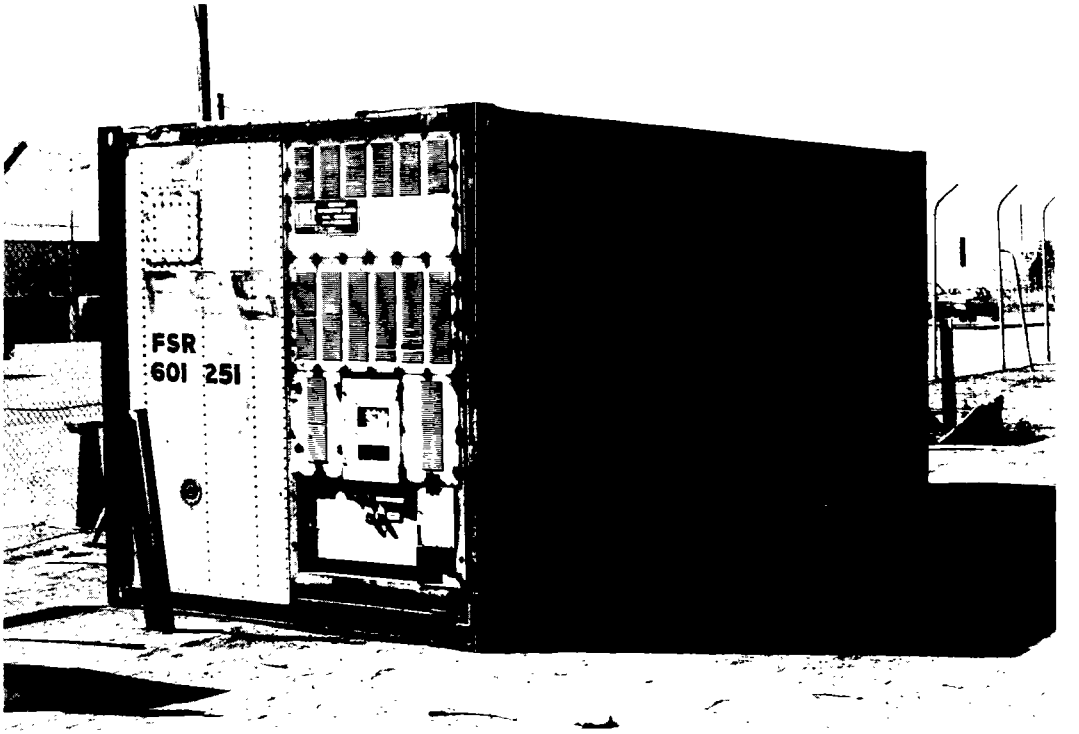

Plate 7 : A 6.01 metre (20 foot) ISO refrigerated container with built in refrigeration unit

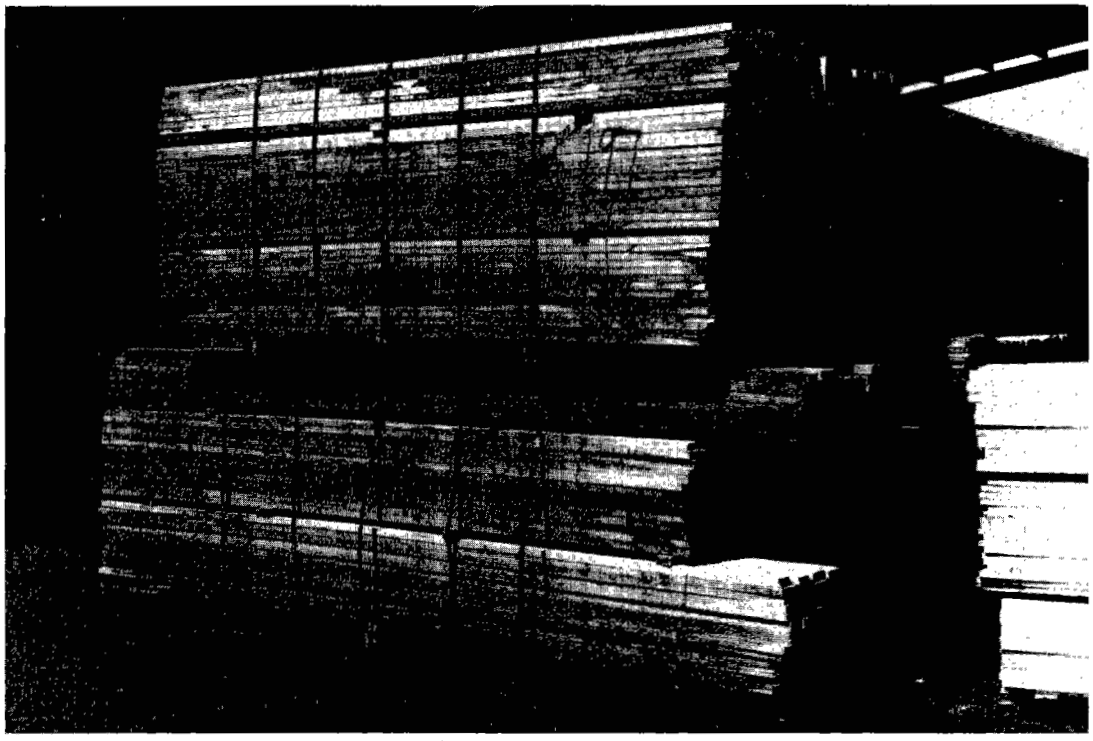

Plate 8 : Bolsters of timber. Bolsters are put together in such a way as to facilitate handling by fork-lift trucks

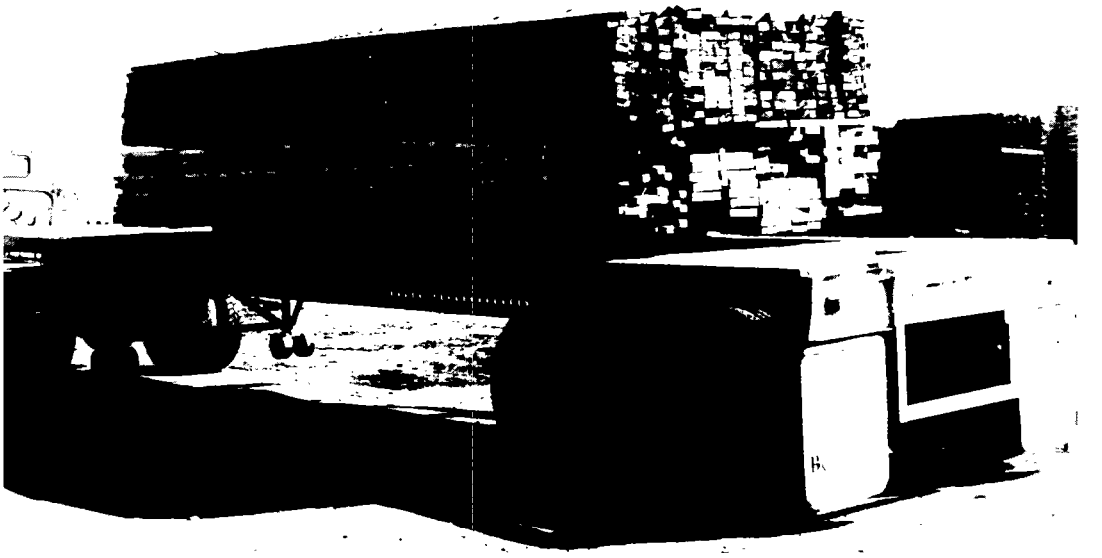

Plate 9 : A bolster of timber on a trailer.
A timber consignment on the mainland would not always require all of the strapping shown on this bolster.

ANNEX C

THEORETICAL PREDICTIONS ON THE EFFECT OF THE TASMANIAN FREIGHT EQUALISATION SCHEME

This Annex discusses the possible effects of the Tasmanian Freight Equalisation Scheme on the freight rates charged for Tasmanian interstate freight services. It should be emphasised that no empirical data is currently available concerning the nature of the demand and supply functions for Tasmanian transport services. The Bureau therefore cannot carry out quantitative calculations on the matters discussed below. Rather the Annex puts forward a theoretical discussion on the basis of which it is recommended that the Government should monitor changes in Tasmanian freight rates. Two opinions are put forward:

- First, that a portion of the TFES assistance will go to freight forwarders in the form of higher rates, and;

- Second, even in the absence of inflation and resource cost increases the mere payment of the TFES subsidy together with the periodic re-calculation of assistance rates could tend to cause continuing increases in the rates charged for Tasmania's interstate transport services.

Attachment A shows a calculation of the results of paying a subsidy S where demand and supply are represented as linear functions of price. This is almost certainly an over simplification of the real-world situation as it exists in the market for transport services between Tasmania and the mainland, but it serves to illustrate the arguments being put forward in this annex. The initial demand curve for transport services is shown by D_1D_1. After a subsidy is introduced, the price each firm is willing to pay from its own resources for any quantity of transport services is not changed, but in addition to this amount there is available the TFES subsidy. There are thus two demand curves in existence: first the demand curve perceived by consignors, showing the amount Tasmanian shippers are willing to pay

from their own resources for any quanitity of transport services; and second, the demand curve perceived by freight forwarders showing the amounts actually paid for transport services. In this simple model the difference between these two demand curves is equivalent to the unit subsidy paid.

As indicated in Figure C.1, the initial equilibrium position will be at a price p_1 while after the subsidy is introduced the new equilibrium will rise to p_2. As far as consignors are concerned, the subsidy is enabling them to increase the amount of transport services purchased from x_1 to x_2 while at the same time reducing the unit cost from p_1 to p_3. From the freight forwarders' point of view there has been an increase in the price from p_1 to p_2. Using this analysis, the benefit received by consignors equals the product of the quantity of transport services purchased by the reduction in freight rates paid (i.e. $x_2.(p_1 - p_3)$). The benefit received by freight forwarders is the product of the quantity purchased by the increase in the price received (i.e. $x_2.(p_2 - p_1)$). The sum of the benefit received by consignors and the benefit received by freight forwarders equals the total amount of subsidy paid.

The consignors' share of the total benefit will depend on the relative slopes of the demand and supply curves. At present the Bureau does not have adequate data to make any calculations on this matter. If future investigations indicate that a substantial proportion of TFES assistance is going to freight forwarders rather than to Tasmanian industry, then it might be advisable to investigate alternative forms of assistance.

The long term effect of the subsidy is shown by Figure C.2. The Figure assumes that there is no inflation in the economy and no change in resource costs and that the level of freight rates on the mainland are not significantly effected by variations in the level of Bass Strait trade. The level of mainland freight rates is shown by the line p_m and the initial demand and supply curves for Tasmanian transport services are shown by D_1D_1 and SS.

When the TFES is first introduced, the initial rates of assistance are calculated as the difference D_1 between the mainland rate p_m and the Tasmanian rate p_1. If a subsidy S_1 is granted which equals D_1, then the new demand curve as perceived by freight forwarders will become D_2D_2 and the new equilibrium freight rate will rise to p_2.

Now, when the TFES subsidy is recalculated, the differential will have risen to D_2 even if there have been no increases in resource costs. Increasing the subsidy to S_2 will generate a new demand curve D_3D_3. Each successive re-calculation could result in a further increase in freight rates.

Because the actual nature of the demand and supply curves for Bass Strait transport services is not known, it would not be possible to quantify the effect described above. However, in the interests of minimising freight rate increases it would seem reasonable for the BTE to recommend that subsidy re-calculations should not be carried out too frequently.

Attachment A to Annex C

I. Initial Equilibrium before introduction of TFES assistance is:

$$y_s = ax + b \text{ (Supply curve)}$$
$$y_d = -cx + d \text{ (Demand curve)}$$

At equilibrium, demand equals supply

$$ax + b = -cx + d$$
$$x = \frac{d - b}{a + c}$$

II. After TFES assistance is introduced, the new equilibrium point will be determined by the original supply curve and the demand curve D_2D_2 as perceived by freight forwarders.

$$y_s = ax + b \text{ (Supply curve)}$$
$$y_d = -cx + d + S \text{ (New demand curve, } D_2D_2)$$

At the new equilibrium point:

$$ax + b = -cx + d + S$$
$$x = \frac{d + S - b}{a + c}$$

III. The increase in the quantity of transport services purchased by consignors can be calculated as follows

$$\Delta x = \frac{d + S - b}{a + c} - \frac{d - b}{a + c}$$
$$= \frac{S}{a + c}$$

IV. The proportional increase in the quantity of transport services purchased is:

$$\frac{\Delta x}{x} = \frac{S}{a+c} \cdot \frac{a+c}{d-b}$$

$$= \frac{S}{d-b}$$

V. The proportion of the subsidy benefits going to freight forwarders and consignors can be analysed as follows:

$$\text{Gradient of Supply curve} = \frac{\text{change in price}}{\text{change in sales}}$$

$$a = \frac{\Delta p}{\left(\frac{s}{a+c}\right)}$$

$$\Delta p = \frac{aS}{a+c}$$

This means that the increase in price received by freight forwarders as a result of the subsidy is $\frac{aS}{a+c}$

i.e. $p_2 - p_1 = \frac{aS}{a+c}$

The reduction in the price paid by consignors is:

$$S - \frac{aS}{a+c} = \frac{cS}{a+c}$$

i.e. $p_1 - p_3 = \frac{cS}{a+c}$

This enables the proportions of the subsidy going to freight forwarders and consignors to be calculated

$$\text{Ratio of benefits (forwarders : consignors)} = \frac{aS}{a+c} : \frac{cS}{a+c}$$

$$= a : c$$

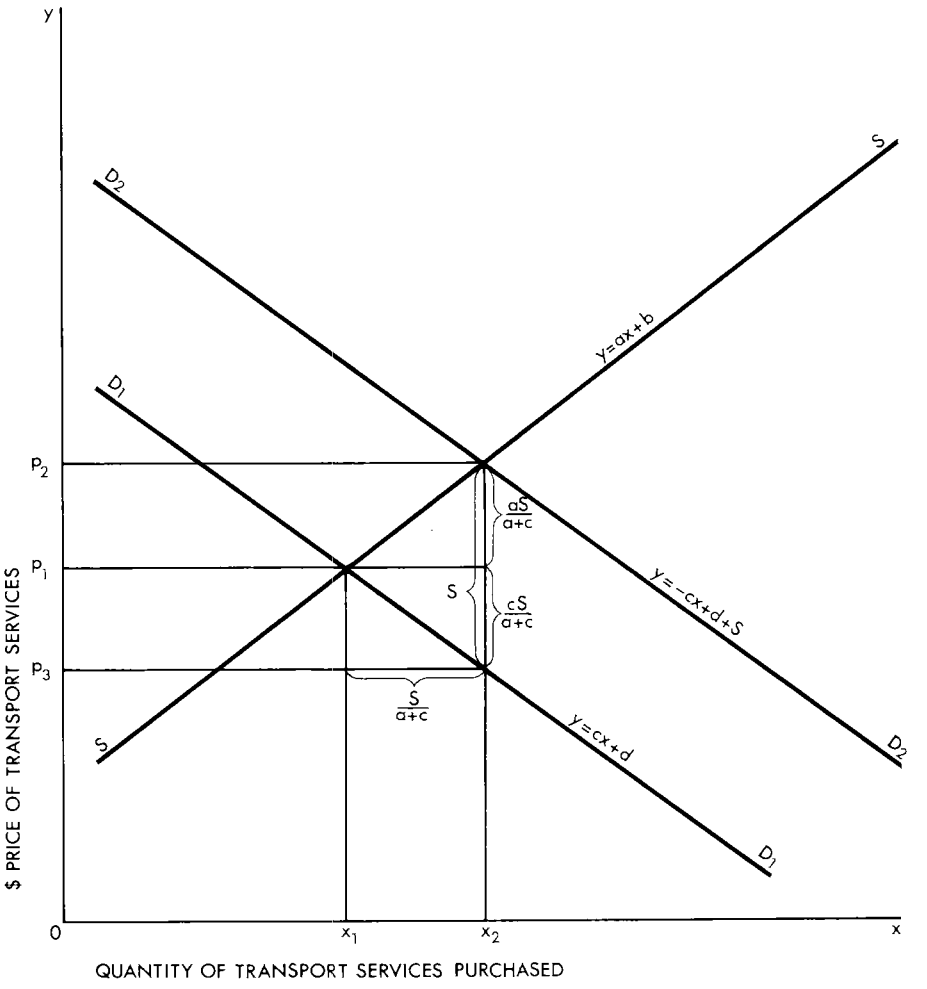
y
D2
D1
S
y=ax+b
P2
P1
P3
aS/a+c
S
cS/a+c
S/a+c
y=-cx+d+S
y=cx+d
D2
D1
S
0
x1
x2
x
$ PRICE OF TRANSPORT SERVICES
QUANTITY OF TRANSPORT SERVICES PURCHASED

FIGURE C·1

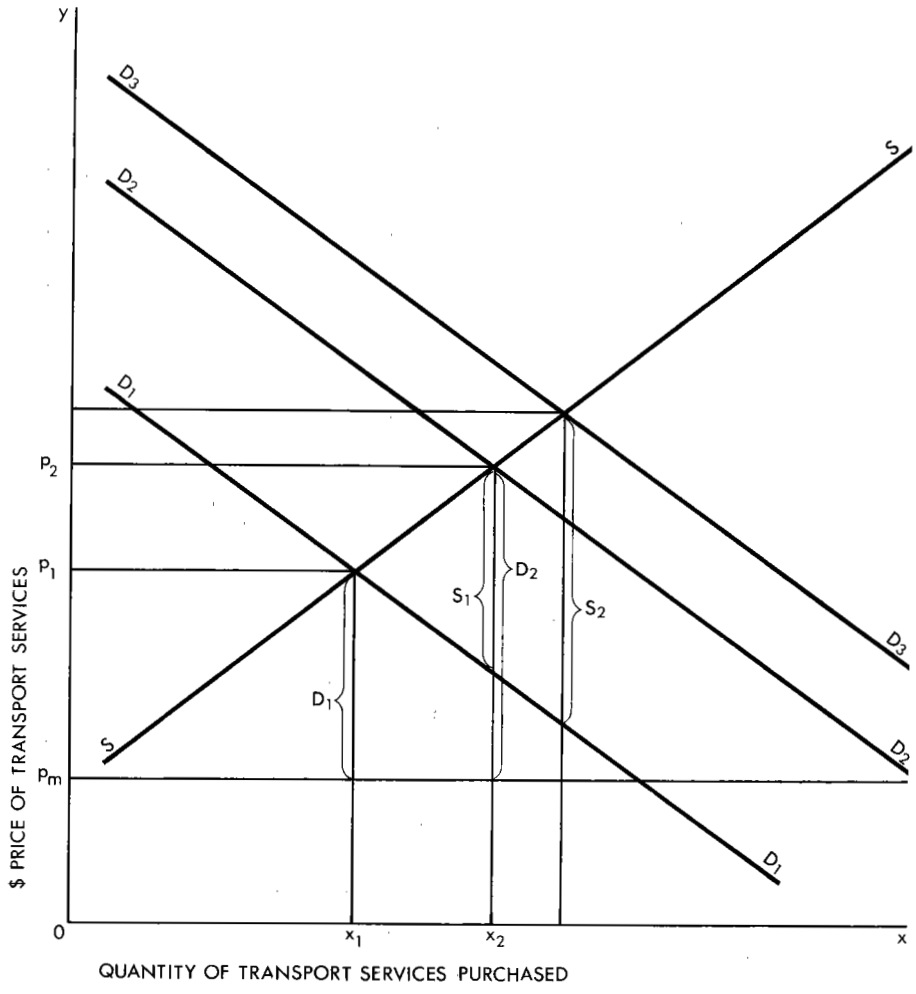
y
D3
D2
D1
S
P2
P1
Pm
S1
D2
S2
D1
D3
D2
D1
S
0
x1
x2
x
$ PRICE OF TRANSPORT SERVICES
QUANTITY OF TRANSPORT SERVICES PURCHASED

FIGURE C·2

ANNEX D

NORTHBOUND TASMANIAN FREIGHT EQUALISATION PAYMENTS

JULY 1976 TO OCTOBER 1977

Code	Category	1976-77	July-Oct 1977	Total
01	Cattle	106416	104975	211391
02	Sheep & Pigs	148620	97277	245897
03	Fresh, chilled and frozen meat	65302	56906	122208
04	Processed meat and other meat preparations	445	-	445
05	Dried and condensed milk	12759	1620	14379
06	Fresh and frozen fish	54509	10493	65002
07	Other processed fish and fish preparations	5966	3555	9521
08	Food beverages, malt & malt extracts	64238	11707	75945
09	Other cereals & cereal preparations	3685	1799	5484
10A	Fresh & chilled fruit-refrigerated	99699	16448	116147
10B	Unrefrigerated	142209	85562	227771
11	Fresh vegetables	86046	179826	265872
12	Frozen fruit & vegetables	2529735	959032	3488767
13	Other processed fruit & vegetables	317079	209103	526182
14	Hops, refrigerated	-	-	-
15	Hops, unrefrigerated	12073	8155	20228
16	Honey	1142	927	2069
17	Confectionery & chocolate products	550985	247292	798277
18	Animal feeding stuffs	-	280	280
19	Beverages	96039	29410	125449
20	Hides and skins	1075	652	1727
21	Timber	2838008	986399	3824407
22	Baled wood pulp & waste paper	262302	232831	495133
23	Sheep and lamb's wool	44213	18034	62247
	Ores & concentrates			
24	Rutile & zircon	6882	24987	31869
25	Tin	146727	77447	224174
26	Sausage casings	374	290	664
27	Seeds	7038	32723	39761

Code	Category	1976-77	July-Oct 1977	Total
28	Tallow	98	1226	1324
29	Calcium carbide	120801	107741	228542
30	Titanium dioxide	296050	119251	415301
31	Casein	3274	751	4025
32	Particle board, hardboard & plywood	693248	239692	932940
33	Newsprint	2856866	1052649	3909515
34	Paper other than newsprint	2939731	1142818	4082549
35	Hand knitting yarns	708	-	708
36	Blankets	-	-	-
37	Floor coverings	9	101	110
38	Other textile yarns, fabrics & made-up articles and clothing	49798	21935	71733
39	Footwear	768	181	949
40	Articles of asbestos cement	16084	7370	23454
41	Aluminium metal, power & paste	1096860	427858	1524718
42	Zinc metal	544747	92534	637281
43	Metal castings	22343	10373	32716
44	Machine & hand tools	-	-	-
45	Other metal manufactures & machine parts	6351	6359	12710
46	Machinery & transport equipment	2405	756	3161
47	Furniture	15109	4331	19440
48	Other wood & cork manufactures	5117	3686	8803
49	Other ores & concentrates	30048	11745	41793
50	Fertilisers, manufactured	2855	29978	32833
51	Metal waste and scrap	20643	6627	27270
52	Ferro alloy products	14778	9382	24160
53	Grinding ball millstones	3338	571	3909
54	Coloring materials other than titanium dioxide	-	-	-
55	Gravel aggregate	2996	-	2996
56	Fibreglass reinforced plastic products	7094	4243	11337
57	Quarried stone	-	-	-
58	Waste rag	1463	585	2048

Code	Category	1976-77	July-Oct 1977	Total
59	Peat Moss	27	2014	2041
60	Iced confectionery	-	-	-
61	Refrigerated meat products n.e.i.	4633	350	4983
62	Glassware	-	10489	10489
63	Plastic PVC products n.e.i.	-	594	594
	Cheese "assisted"			
64	- refrigerated	-	4486	4486
66	- unrefrigerated	4703	14509	19212
	Cheese "unassisted"			
65	- refrigerated	-	16625	16625
67	- unrefrigerated	34678	27644	62322
TOTAL		16401189	6777184	23178373

Source: Department of Transport.