

## **Inwards Duty Free Shopping at Australian International Air Terminals: An Economic Evaluation**

### **Report**

This Report was prepared in response to a Ministerial reference relating to the feasibility of the introduction of duty free shopping for inward-bound passengers at Australian international air passenger terminals. Some of the major conclusions of this report are based on a simple conceptual model of duty-free shops which is described in detail in Appendix 2 of the Report.

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BUREAU OF TRANSPORT ECONOMICS

INWARDS DUTY-FREE SHOPPING AT AUSTRALIAN  
INTERNATIONAL AIR TERMINALS:  
AN ECONOMIC EVALUATION

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## FOREWORD

This report was prepared in response to a Ministerial reference relating to the feasibility of the introduction of duty-free shopping for inward-bound passengers at Australian international air passenger terminals.

Some of the major conclusions of this report are based on a simple conceptual model of duty-free shops which is described in detail in Appendix 2 of the report. This model has been used to make sales and Commonwealth franchise revenue forecasts by terminal. Because of the time constraint and the fact that inwards duty-free shopping is a relatively new concept internationally, the Bureau had very little solid information on which to estimate the model. As a consequence many of the basic parameters of the model have had to be subjectively determined on the basis of discussion with persons in the duty-free industry. There is unfortunately no system of independent validation which can be used to estimate a priori the degree of accuracy of the values of the various parameters used. Notwithstanding these qualifications, the report provides what would appear to be the best qualitative and quantitative discussion of inward duty-free shopping currently available.

Discussions with persons involved in the industry were important in arriving at some of the basic conclusions of the report. In particular the information supplied by Mr J. Olsen and Mr B. Ross of Alders International Pty Ltd and Mr D. Price of Qantas was most helpful. Mr A. Summerville from the Department of Transport also assisted with the development of our understanding of the operation of the industry. Nicholas Clark and Associates carried out the survey of prices charged at air terminals, downtown duty-free and normal retail outlets which is contained in Appendix 3.

(Colin A. Gannon)

Director

Bureau of Transport Economics  
Canberra, September 1979

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## CHAPTER 1 - SUMMARY OF THE STUDY

A Committee consisting of Qantas and a number of departmental representatives has brought forward a proposal that would make duty-free facilities available for incoming passengers at Australian international air terminals. Currently these facilities are confined to departing international passengers.

In July 1979 the Minister for Business and Consumer Affairs, as Minister responsible for the Committee, approached the Minister for Transport to request the Bureau of Transport Economics to prepare a report on the Committee's proposal in order to assist the Committee in its deliberations. This report is a response to that request.

Chapter 2 of the report provides a brief description of the current duty-free market and the proposed changes. Persons departing from Australia may purchase a wide range of duty-free goods. Operators currently supplying this market consist of the outwards duty-free shops at all Australian international terminals plus the licensed duty-free retail outlets which operate in all major cities. Under the Committee's proposal facilities would be provided to establish duty-free shops to cater for incoming passengers. Initially, at least, these shops would be confined to the sale of alcoholic beverages and tobacco.

Based on the number of arrivals and the current duty-free allowances, it is estimated that the total potential market for inwards duty-free purchases of these goods at all five international terminals in Australia is approximately 1.5 million litres of spirits and 1.5 million cartons of cigarettes annually. This market is currently served almost entirely by overseas duty-free shops with some limited 'in flight' sales. Under the Committee's proposal some of this potential market would be captured by Australian inwards duty-free shops.

Chapter 3 relates to the effect of the proposal on government administration. This topic is covered under three headings:

- Terminal facilitation

It is important to ensure that the proposed facilities do not unduly impede the orderly flow of passengers nor add to passenger processing times. An estimate has been made of the floor space area required (Table 3.1) and the type of operation (counter sales or supermarket) which would be required for the efficient operations of facilities in each terminal.

- Customs administration

There would be two effects on customs administration. First there may have to be amendments to existing Customs by-laws in order to permit inwards duty-free sales. Second, Customs would be required to administer the operation of a possible five additional duty-free bond stores. The introduction of five new duty-free operations would be unlikely to require the employment of additional Customs officials. At the same time licence fee receipts would recoup \$6 500 annually.

- International impact

If the establishment of inwards duty-free shops at Australian terminals is successful they will capture some sales from overseas outwards duty-free shops. The amount of business captured will depend to a large extent on their degree of price competitiveness. It has been assumed that the inwards duty-free shops will charge somewhat higher prices than those available overseas. The loss in trade by any country as a result of this proposal will be small. For example in the first year of operation sales of liquor and tobacco products by inwards duty-free shops would represent a loss in trade to the Asian region of about \$A657 000. When the shops are fully operational the loss would amount to about \$A1.6 million annually. These sums are small when compared to the amount of purchases currently made by Australian tourists in these countries.

Chapter 4 discusses the effect of the introduction of inwards duty-free shopping facilities on airline operations. There

would appear to be some marginal increases in air safety as a result of the proposal. Bottles of spirits stowed on the cabin floor or in lockers pose a small risk in the form of potential missiles, broken glass or inflammable liquid in the event of atmospheric disturbance or accident. In the event of an air crash, spirits may increase the risk of in-cabin fire and reduce survival time. In addition to safety considerations there are some minor aircraft fuel savings to be achieved through the adoption of this proposal. Perhaps a more important consideration for international carriers is the contribution which the proposal can make to cost recovery relating to air terminal facilities. The international carriers operating into Australia would support any form of cost recovery which does not directly have an impact on their costs or reduce the demand for international air travel.

In Chapter 5 the economic effects of the proposal are discussed. Sales to inward-bound passengers at all terminals are estimated to rise from \$3.8 million in the first year to approximately \$9.4 million in the third year. Franchise revenue accruing to the Commonwealth is estimated to amount to \$1 million in the first year and rise to \$2.5 million in the third year. These estimates of potential Commonwealth revenue are likely to be conservative.

The introduction of inward duty-free facilities could create between forty-four and sixty-seven new jobs by the third year of operation. At the same time it would make a minor positive contribution to the Australian balance of payments.

The effect of the proposal on the existing Australian duty-free market would be minimal. The vast majority of international travellers purchase their full duty-free entitlement of tobacco and liquor on both legs of the journey. Downtown and terminal outwards duty-free operators who serve the outwards duty-free market would thus be largely unaffected. If the concept of inwards duty-free shops were to spread to a significant number of

other countries the Commonwealth revenue from outward duty-free franchises at Australian air terminals would fall.

Consumers would gain from the proposal. So long as the proposal does not place a further restriction on where purchases can be made it must widen the range of alternatives open to the consumer at duty-free prices. The increased choice represents an unambiguous gain to consumers.

Chapter 6 contains the detailed conclusions of the study. Greater gains in consumer welfare than are mentioned above could be achieved by expanding the range of products offered, for example, to include cosmetics and perfume. This addition alone could increase sales by 25 per cent. Commonwealth revenue could be expected to rise by a similar percentage.

Because of the uncertainty associated with the level of sales, it is suggested that tenders for franchises be called on the basis of a lump sum plus a percentage of actual sales. The system proposed permits some scope for the franchise fee to adjust to the level of sales. If the forecast sales are not achieved the overall franchise payment is automatically reduced, while if sales exceed expectations then the Commonwealth will obtain additional revenue. An estimate of the level of tender for each inwards duty-free shop which might be expected to evolve from a competitive tendering process is provided. The estimates are probably conservative. Attention is drawn to the possibility that a Darwin inwards duty-free shop operated as a separate entity may not be commercially viable.

## CHAPTER 2 - THE DUTY-FREE MARKET AND THE PROPOSED CHANGES

### INTRODUCTION

Duty-free shopping facilities are currently available to international travellers leaving Australia. Departing passengers may purchase a wide range of duty-free goods at the licensed duty-free retail outlets operating in all major cities, or at the duty-free shops trading at all Australian international terminals.

### DOWNTOWN DUTY-FREE SHOPS

All Australian capitals have a number of retail outlets trading as duty-free shops at off-airport sites. The number of duty-free shops operating in the various state capitals is presented in Table 2.1. Downtown duty-free premises are strictly controlled by the Bureau of Customs. At present a licence to operate such premises is allocated for a fixed annual fee of \$1 300. The Bureau of Customs has no policy of limiting the number of licence holders.

TABLE 2.1 - NUMBER OF DOWNTOWN DUTY-FREE SHOPS IN AUSTRALIAN  
STATE CAPITALS <sup>(a)</sup> : 1979

City	Number
Sydney	23
Melbourne	4
Brisbane	4
Perth	3
Adelaide	2
Hobart	1
Darwin	1
Canberra	<u>3</u>
TOTAL	41

(a) Including the ACT and the Northern Territory.

Source: Department of Business and Consumer Affairs.

These shops cater for international travellers leaving Australia who opt to buy their duty-free entitlements a short time before leaving the country. These stores tend to specialise in high value goods such as cameras and electronic equipment that frequently require long selection time and the provision of reliable after-sales service.

Duty-free goods purchased at a downtown shop are sealed with a tag. The seal must not be broken until the tag is reclaimed by a nominated collector, acting on behalf of the downtown operator, during customs clearance at the airport. Strict adherence to the procedures and the retrieval of tags is required if the downtown operator is to avoid being charged the duty applicable to the goods that have been purchased. The tag collector is usually employed by a consortium of downtown operators formed for the purpose of joint recovery of tags. The fee for this service can be substantial. For instance, the current cost of this service to each of the downtown duty-free operators in Sydney is a flat payment of \$19 000 per annum.

#### DUTY-FREE SHOPS AT AUSTRALIAN INTERNATIONAL AIRPORTS

Duty-free shopping facilities are currently provided for departing passengers at Sydney, Melbourne, Brisbane, Perth and Darwin international airports. These facilities are licensed for the storage of dutiable goods. The current annual licence fee is \$1 300. In addition, airport operators are subject to a leasehold and authority agreement with the Department of Transport. The space and the shop facade are periodically<sup>(1)</sup> offered for tender, and the application specifies either a percentage of estimated gross turnover, or a fixed sum plus a percentage of gross turnover. In addition the successful tenderer is required to pay floor space rent which ranges from \$20 to \$160 per square metre<sup>(2)</sup>. A range of conditions is attached to the lease but

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(1) Tenders are typically offered for a three year period.

(2) Floor space rents are related to such factors as local government rating practices.

in general the tenderer has wide commercial freedom. Airport operators make their sales after customs clearance and are therefore free from the costs involved in tag collection.

#### PRICE LEVELS

Table 2.2 presents a comparison of the prices of a selected range of goods (spirits and tobacco products) at airport and downtown duty-free shops at Sydney and Melbourne together with a range of normal domestic prices. A number of conclusions can be drawn from this table. Some consumers are prepared to pay significantly higher prices at the airport duty-free shops in comparison to downtown duty-free shops in return for the convenience involved. Also it is clear that despite the relatively higher prices applying at the airport shops consumers still make substantial savings over the normal retail price. The higher airport prices may be largely explained by the 'spatial' (and 'temporal') monopoly<sup>(1)</sup> enjoyed by the airport outlets.

#### INWARDS DUTY-FREE FACILITIES

The introduction of inwards duty-free shopping facilities at Australian international airports has been advanced by Qantas and has recently been the subject of government consideration by a committee consisting of Qantas and the representatives of the departments of Business and Consumer Affairs, Foreign Affairs, Immigration and Ethnic Affairs, Finance, Industry & Commerce and Transport. These facilities would be provided within the terminal

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(1) Spatial monopoly may be defined as trading in geographic isolation from competitors and thus being the sole supplier within a defined space, in this case the air terminal. Similarly a temporal monopoly exists when a producer is supplying the entire market at any point in time. In both cases the degree of monopoly 'protection' depends on the costs of potential competitors (or consumers) overcoming the geographic or temporal separation. In the case of an airport duty-free operator there remains the opportunity of a potential competitor tendering a higher franchise price and gaining the franchise in the next round of tendering. However at any point in time the successful tenderer is a monopolist.

TABLE 2.2 - PRICES OF SELECTED PRODUCTS AT AIRPORT, DOWNTOWN DUTY-FREE AND SELECTED NORMAL AND DISCOUNT DOMESTIC  
RETAIL OUTLETS: SYDNEY AND MELBOURNE, AUGUST 1979

(dollars)

Item (Quantity)	Sydney				Melbourne				
	Airport	Downtown Duty-Free	City		Airport	Downtown Duty-Free 1	Downtown Duty-Free 2	City	
			Normal (a)	Discount (a)				Normal (a)	Discount (a)
Johnny Walker Red (1000) (b)	7.35	3.50	n.a.	n.a.	6.00	4.05	4.40	n.a.	n.a.
(750)	n.a.	2.50	12.79	13.37	4.00	3.25	n.a.	14.50	13.08
Black (1000) (b)	11.95	5.50	n.a.	n.a.	9.00	6.25	7.50	n.a.	n.a.
(750)	n.a.	4.00	16.83	17.28	7.60	5.00	n.a.	19.76	17.58
Glenfiddich Malt (1000) (b)	14.60	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	21.25	n.a.
(750)	n.a.	n.a.	19.50	21.47	n.a.	n.a.	n.a.	n.a.	n.a.
Marlboro (200)	4.80	n.a.	n.a.	9.00	4.80	3.10	3.65	8.60	n.a.
Benson & Hedges Gold (200)	4.95	2.65	n.a.	9.00	n.a.	3.20	3.70	8.70	n.a.
Rothmans Kingsize (200)	4.80	2.95	n.a.	9.20	n.a.	3.10	3.60	8.80	n.a.

(a) For basis of selection see Appendix 3, footnote (g).

(b) Approximate.

n.a.: Not available at this store/airport.

Source: Survey data contained in Appendix 3.



concourse and passengers would have access to them before proceeding through customs and immigration clearance<sup>(1)</sup>.

The introduction of inwards duty-free facilities would be implemented by the Department of Transport which is responsible for terminal accommodation. It is envisaged that the franchise would be offered on a similar basis to that applying to existing terminal facilities. That is, a base rent for the floor space and other services provided, and a tendered amount for the specific authority to trade which may be a percentage of gross turnover or a percentage of gross turnover plus a flat amount. The term of such agreements is usually short with periodic re-tendering. An inwards duty-free operator would also require an authority from the Department of Business and Consumer Affairs (Bureau of Customs) to trade as a duty-free shop.

It is envisaged that inwards duty-free franchises would be offered for tender at all major Australian international airports. This would include facilities at Sydney, Melbourne, Brisbane, Darwin and Perth. There are international passenger movements through a number of other small terminals but the number of inwards movements is small and unlikely to sustain a commercially viable duty-free facility<sup>(2)</sup>.

One possibility<sup>(3)</sup> is that the inwards duty-free franchises would be initially restricted to the sale of alcoholic beverages and tobacco products. These two commodities comprise the major component of the duty-free goods currently being imported by international travellers. They are also thought to offer the best revenue potential given the space limitations that may have to be imposed on the leases to be offered. Provision can be made to extend the range of goods as demand and space permit.

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- (1) This would mean that in most instances the inwards duty-free facility would need to be physically distinct from the outwards duty-free shop. At Sydney, for instance, the inwards and outwards concourse areas are on different levels.
  - (2) There were 13 814 passenger movements through Cairns and 13 588 movements through Norfolk Island during 1977.
  - (3) This is an integral part of the proposal suggested by the Committee.

## INWARD PASSENGER MOVEMENTS

The size of the potential market for inwards duty-free facilities in Australia is determined primarily by the volume of inward passenger movements. There were 1.8 million passenger movements into Australia during 1978. The non-charter portion of these movements by last port of call is shown in Table 2.3. Since most of the passengers concerned have the opportunity to make duty-free purchases either at airport terminals or downtown, inwards duty-free shops in Australia would be seeking to penetrate this market and induce passengers to relocate their duty-free expenditure. The degree to which an Australian duty-free facility would be able to penetrate the existing market would depend principally on the relationship between prices charged by the Australian and foreign duty-free shops. This relationship is discussed in Appendix 2.

Table 2.4 presents the number of passenger movements through customs at the major Australian international terminals. These figures were compiled from customs figures and describe movements through customs rather than into the terminal facilities. The table presents the basic market size available to potential inwards duty-free operators. Due to the triangular routeing of international carriers travelling to and from Australia, these figures ignore the transfers of passengers that take place between Sydney and Melbourne when passengers disembark at Sydney, proceed through the terminal 'airside' and travel to Melbourne before being cleared through customs. These passengers are also potential customers of the inwards duty-free facilities and could influence the potential profitability of any operator trading at a transit terminal and also the market value of the franchise<sup>(1)</sup>.

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(1) This would only be true if in-transit passengers were permitted to purchase at inwards duty-free shops. All calculations in this paper are based on the assumption that they would not be permitted to do this. At present transit passengers are prevented from making purchases at the outwards duty-free facilities.

TABLE 2.3 - INCOMING INTERNATIONAL AIR PASSENGERS BY LAST PORT  
OF CALL: 1978<sup>(a)</sup>

Port	Number of Passengers
Djakarta/Den Pasar	49 726
Kuala Lumpur	27 577
Manila	34 742
Singapore	196 278
Bangkok	21 296
Fiji <sup>(b)</sup>	77 111
Noumea <sup>(b)</sup>	32 951
Port Moresby	44 042
Hong Kong	91 917
India (Total)	11 640
New Zealand (Total)	492 180
London	182 908
United States (Total)	76 190
Vancouver	8 443
Other <sup>(c)</sup>	290 407
TOTAL MOVEMENTS	1 637 408

(a) Excludes charter flights and non-revenue passengers.

(b) Estimated only, as returns for all carriers for the period August to December 1978 were not available.

(c) Includes Japan, Bahrain, Beirut.

Source: Unpublished D.O.T. statistics.

TABLE 2.4 - PASSENGER MOVEMENTS<sup>(a)</sup> THROUGH MAJOR AUSTRALIAN  
INTERNATIONAL TERMINALS: 1978

Port	Inwards	Outwards	Total
Sydney	1 057 415	1 032 223	2 089 638
Melbourne	423 425	394 780	818 205
Brisbane	151 332	145 661	296 993
Perth	149 533	142 204	291 737
Darwin	11 463	13 695	25 158
TOTAL	1 793 168	1 728 563	3 521 731

(a) Excludes transit passengers.

Source: Customs statistics compiled by D.O.T.

## THE LEVEL OF DUTY-FREE IMPORTS

The potential market which the inwards duty-free operators would be attempting to tap consists of the total level of duty-free imports entering Australia. Under existing Customs by-laws an international traveller entering Australia is entitled to import the equivalent of 1 litre of alcoholic liquor and 250 grams of tobacco products free of duty. This entitlement is not available to persons under the age of 18 years and excludes goods that do not accompany the traveller. Persons aged 18 years and over are also entitled to import other goods free of duty to the value of \$200. Persons under the age of 18 years may import goods to the value of \$100 if accompanied. Beyond these duty-free limits travellers are also permitted additional goods to the value of \$160 which are charged 20 per cent duty<sup>(1)</sup>.

Assuming that the inwards duty-free facilities are limited to the sale of spirits and tobacco products these duty-free entitlements represent a practical limit of one 1 litre bottle of spirits and one carton of 200 cigarettes for each arriving passenger over the age of 18. The bottles sold on the domestic market are of 750 ml capacity. Duty-free facilities both in Australia and overseas supply 1 litre bottles and these would presumably be made available at an inwards duty-free facility to enable travellers to take maximum advantage of their entitlement. This entitlement needs to be modified in two ways before it can be used as a measure of the potential market within which the inwards duty-free shop would operate. Not all arriving passengers are over 18 and thus able to purchase a duty-free entitlement. Also not all passengers wish to exercise their entitlement. A sample survey undertaken by the Department of Business and Consumer Affairs (Customs and Excise) suggested that 95 per cent of adult passengers exercise their entitlement of spirits and cigarettes. A similar survey conducted by the Department of Transport suggested that 85 per cent of all passengers import

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(1) The relevant Customs by-law (number S2494) is reproduced in Appendix 4.

their entitlement. The difference presumably relates to the exclusion of passengers under 18 years of age from the Department of Business and Consumer Affairs survey.

If it is assumed that under current arrangements 85 per cent of all passengers import their full quota then the annual potential market amounts to 1.5 million litres of spirits and 1.5 million cartons of cigarettes<sup>(1) (2)</sup>.

This market represents annual sales of approximately \$A24 million<sup>(3)</sup>. This figure represents the potential market in 1978. The degree to which Australian inward duty-free facilities could capture this market would depend on a number of economic influences which are examined in Chapter 5.

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(1) Or their tobacco equivalent.

(2) Based upon  $0.85 \times 1.8 \text{ million} \times 1 \text{ (litre or carton)} = 1.5 \text{ million}$ .

(3) Based on current Australian outward duty-free prices. Sales estimates are based on an average airport duty-free price of \$11.30 for a 1 litre bottle of liquor and \$4.80 for a carton of cigarettes. That is for liquor:  $1.5\text{m} \times \$11.30/\text{litre} = \$17\text{m}$ ; tobacco:  $1.5\text{m} \times \$4.80/\text{carton} = \$7\text{m}$ ; total: \$24m.

## CHAPTER 3 - EFFECT ON GOVERNMENT ADMINISTRATION

### INTRODUCTION

The possible introduction of inwards duty-free shopping facilities at Australian international terminals would have implications for the administrative responsibilities of a number of Commonwealth Government departments. The diversity of concern is reflected in the range of departments represented on the Committee currently examining the proposal. The Committee includes representatives from the departments of Business and Consumer Affairs, Foreign Affairs, Immigration and Ethnic Affairs, Finance, Industry and Commerce and Transport.

The economic effects of the introduction of inwards duty-free facilities are examined in Chapter 5. This chapter examines the likely administrative considerations that could be expected to flow from this proposal. These effects can be grouped under the three headings of terminal facilitation, customs administration, and international relations.

### TERMINAL FACILITATION

The facilitation of passenger movements through Australian international terminals is a major concern. The introduction of duty-free facilities 'airside' of Customs and Immigration clearance may involve some reduction in the space allocated for thoroughfare in the concourse area. Unreasonable delays may be caused in the time taken for passengers to clear the concourse area by providing the opportunity for them to make duty-free purchases. The general question of terminal facilitation is of concern to a number of departments including Immigration and Ethnic Affairs, Business and Consumer Affairs, Transport and Industry and Commerce. Of these departments, Immigration and Ethnic Affairs, Business and Consumer Affairs and Transport have direct responsibilities in the administration of passenger air terminals.

The departments of Immigration and Ethnic Affairs and Business and Consumer Affairs are responsible for the passage of travellers through respective Customs and Immigration clearance. Thus both are concerned that the introduction of duty-free facilities 'airside' of clearance should not unduly impede the orderly flow of passengers nor add to passenger processing times. Similarly the Department of Transport is responsible for providing adequate terminal space of efficient design to accommodate both passengers and the Immigration and Customs officials.

In consultation with the Department of Transport, the BTE has established that sufficient, but perhaps not ideal, areas in suitable locations could be made available at the terminals under consideration. These areas would not impinge on the minimum amount of concourse area necessary for the smooth passage of travellers. Table 3.1 provides estimates of the amount of terminal space required for inwards duty-free shops at the various terminals<sup>(1)</sup>. This table also gives details of the type of operation - counter sales or supermarket - envisaged at each terminal. The amount of space depends on the level of sales and the need to service customers quickly. A supermarket type operation would be only warranted at Sydney and Melbourne. In the initial year of operation both of these ports would require a counter sales service only which would reduce the amount of space required. These space requirements may be met with little or no loss to the concourse area if sufficient space can be diverted from other areas<sup>(2)</sup>. The extent to which these areas would impinge upon the concourse area would depend on the location and design of the facilities. However, on the information that is currently available, it appears that the disruptive effects on passenger movements would be minimal.

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- (1) These space requirements are for the shopping facilities only and may need to be supplemented by an additional area of bond store. There is no necessity, however, for this bond store to be within the concourse area or the terminal.
- (2) At Sydney, for instance, sufficient space could be reclaimed from the existing outwards duty-free shop bond store resulting in no loss of space in the concourse area. This however would require structural changes to the terminal interior.

TABLE 3.1 - ESTIMATED SPACE REQUIREMENTS FOR THE PROVISION OF  
INWARDS DUTY-FREE SHOPPING FACILITIES AT AUSTRALIAN  
INTERNATIONAL AIR TERMINALS  
(square metres)

Port	1980	1981	1982
Sydney	20	50 <sup>(a)</sup>	75 <sup>(a)</sup>
Melbourne	20	50 <sup>(a)</sup>	75 <sup>(a)</sup>
Brisbane	5	10	10
Perth	10	15	15
Darwin	5	10	10

(a) Indicates a supermarket type operation.

A related matter is the effect of an inwards duty-free shop in operation. Concern has been expressed that the shopping times involved may add to passenger processing times. An inwards facility 'airside' of the Immigration/Customs examination area could, however, tend to even out the peaks in passenger flows and thus potentially improve facilitation by temporarily diverting some incoming passengers.

#### CUSTOMS ADMINISTRATION

The introduction of inwards duty-free facilities is likely to affect the administration of the Customs by-laws in two ways. First, the by-laws themselves will need to be changed since they currently require the passenger to 'import' his purchases. Legal issues are obviously outside the scope of this report. However, it appears that some amendments to existing regulations may be required before goods purchased at a duty-free shop prior to customs clearance could be deemed exempt from duty.

Second, the introduction of inwards facilities would place an additional work load on the Bureau of Customs which is responsible for administering the operation of duty-free bond stores.



Airport duty-free shops are required to be licensed as premises for the storage of dutiable goods. The annual licence fee is \$1 300. This fee is the same as that levied on a commercial warehouse and is designed to recoup the administrative costs involved in policing such an operation. The Bureau of Customs is concerned that the volume of transactions at a duty-free shop far exceeds the number of clearances through a typical warehouse. Thus, despite possible economies of scale, the cost of controlling a duty-free outlet may be in excess of the annual fee received. No effort has been made to estimate this cost excess since the administration expenses involved in policing a duty-free shop would depend on the co-operation and efficiency of the proprietor. It is sufficient to note that the introduction of five new duty-free operations would be unlikely to require the resources equivalent to the employment of one extra customs official<sup>(1)</sup>. At the same time licence fee receipts would recoup \$6 500.

#### INTERNATIONAL IMPACT

The successful introduction of inwards duty-free shops at Australian international terminals would result in the capture of a proportion of the sales of overseas outwards duty-free shops. The amount of business which the Australian inwards duty-free facilities manage to take will depend to a large extent on their prices vis-a-vis those charged at overseas terminals<sup>(2)</sup>. The sales estimates contained in Chapter 2 are based on the assumption that prices charged by Australian inwards duty-free shops would be somewhat higher than those at foreign ports of call. Despite this, it is expected that Australian inwards duty-free shops would be able to obtain a small proportion of the duty-free business currently enjoyed by those countries.

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- (1) This estimate allows up to four full days per month per site for a Customs officer to exercise the control function. Industry sources suggest that this would be an ample allowance for an efficient duty-free operation.
- (2) Knowledge of these prices and of the existence of the facilities at Australian air terminals would also be contributing factors.

Using the available data and the model described in Appendix 2 the BTE has estimated the loss in trade of duty-free shops in five broad regions of Asia, North America, New Zealand, Other Pacific, and the United Kingdom. These estimates are presented in Table 3.2. The relative trade losses by region will be principally influenced by the proportion of total passengers coming from these regions. The regional groupings above comprise 28, 5, 30, 12 and 11 per cent respectively of total incoming passengers. The sums shown would amount to only a small proportion of the total Australian tourist expenditure in each region.

TABLE 3.2 - ESTIMATED LOSS OF TRADE OF FOREIGN DUTY-FREE SHOPS  
RESULTING FROM THE INTRODUCTION OF INWARDS DUTY-FREE  
SHOPPING FACILITIES AT AUSTRALIAN INTERNATIONAL AIR  
TERMINALS

(dollars)

Region/Country	1980	1981	1982
Asian Region	657 000	1 079 800	1 636 300
North America	149 400	245 600	371 900
New Zealand	865 000	1 421 800	2 152 700
Other Pacific	291 200	478 700	725 300
United Kingdom	321 900	529 100	801 000

Source: Results of the model described in Appendix 2.

## CHAPTER 4 - EFFECT ON AIRLINE OPERATIONS

### INTRODUCTION

The Australian national carrier (Qantas) initiated the current proposal to introduce inwards duty-free facilities at Australian international airports. The benefits for airline operations, as identified by Qantas, include an improvement in safety and savings on fuel<sup>(1)</sup>.

### SAFETY

Improvements in the safety aspects of airline operations are seen by Qantas to flow from a reduction in the quantity of luggage and the risk of injury and fire from broken bottles of spirits. The extent to which these aims would be realised depends on the extent of market penetration by the domestic inwards duty-free shops. If the greater proportion of current imports were purchased on arrival there would be significant reductions in the level of risk involved in baggage of this type.

Current Qantas luggage entitlements allow a passenger to carry one item of hand-held luggage plus the duty-free entitlement into the aircraft cabin. Thus a high proportion of imported spirits and tobacco are carried in the aircraft cabin and not in the cargo hold. In this situation these goods are far more likely to pose a significant safety risk than if they were stowed in the luggage hold. Additionally, economy class passengers are faced with a weight restriction on the luggage that can be stored in the overhead locker<sup>(2)</sup>. This forces some passengers to carry duty-free goods under their feet on the floor of the aircraft where they are unsecured and therefore much more likely to pose a safety risk. Cartons of cigarettes constitute little or no risk

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(1) An additional, indirect benefit to the airline is the creation of an alternative source of revenue for the purposes of the cost recovery policy of the Australian Government.

(2) Some economy class lockers have a design weight limitation.

to passenger safety because they are both relatively light and not of a volatile nature. Bottles of spirits however are relatively dense, breakable and inflammable. Consequently, if there is a significant safety factor involved in carrying duty-free goods it would be attributable to bottles of spirits.

In the event of clear air turbulence, severe storms or emergency aircraft manoeuvres, bottles stowed on the floor of the aircraft or in unsecure lockers pose a minor risk in the form of potential missiles, broken glass or inflammable liquid. Alternatively in the event of an aircraft crash the duty-free liquor contents in the cabin may pose the risk of in-cabin fire and reduce survival time<sup>(1)</sup>. While the accident risk involved in the carriage of duty-free goods can be readily identified, the magnitude of that risk is likely to be very slight indeed. Aircraft accidents, involving either substantial aircraft damage, deaths or severe injuries, are rare events. In the ten year period 1967 to 1976, there were three accidents involving Qantas aircraft<sup>(2)</sup>. None of these accidents involved fatalities. During the same period Qantas carried 8.8 million passengers.

As liquor is also sold to seated passengers for immediate consumption, the reduction in duty-free carriage would only reduce the amount of bottled liquor carried in the aircraft cabin. Moreover, the maximum amount of spirits carried on board would be about 400 litres<sup>(3)</sup> which is small compared to the 195 000 litres of fuel carried by a typical aircraft operated by Qantas.

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- (1) Survival time in an aircraft fire can vary from seconds to a few minutes, depending mainly on fuselage integrity and fuel spillage.
  - (2) Department of Transport, Air Safety Investigation Branch, Survey of Accidents in Australian Civil Aircraft 1975, AGPS, Canberra, 1977. There is no suggestion that in any of these accidents there were problems with liquor carried in the aircraft cabin.
  - (3) The seating capacity of most Qantas B-747s is 411. It is assumed that 85 per cent of this full load carry a full liquor entitlement and that Qantas carries 50 litres for in-flight consumption.

The probability of an aircraft accident which would result in death or injury is already so low that any further reduction due to less duty-free spirits being carried would be minor. It is reasonable to conclude that any safety benefits from the inwards duty-free facility would be quite small.

#### FUEL SAVINGS

Fuel consumption by aircraft is related to gross aircraft mass. All other things being equal, a reduction in aircraft mass will result in a reduction in fuel consumption and a financial gain to the airline operator.

Duty-free goods currently form a small but significant part of total aircraft mass and hence of total fuel costs. Qantas has estimated that in 1978-79 the carriage of duty-free spirits and cigarettes resulted in an additional burnoff of 1.13 million litres of fuel indicating a cost to operations of \$154 132<sup>(1)</sup>. Qantas accounts for approximately 47 per cent of total inwards movements and so the cost for all international airlines providing services into Australia may be approximately double this figure<sup>(2)</sup>. These figures represent an estimate of the total fuel cost involved in carrying duty-free goods and do not include adjustment for less than full utilisation by passengers of their duty-free entitlement, or for the likely market penetration by the inwards operators. Allowing for these adjustments the estimate of total fuel cost savings ranges from \$54 000 in 1980 to \$163 000 in

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(1) Estimated by the Sector Planning Analyst, Qantas Planning Department. These estimates are based on the following assumptions:

(a) Each passenger carrying a full entitlement weighing 2 kg;

(b) An average sector of 4 500 nautical miles; and

(c) An average fuel price of 13.7 cents per litre.

The figures represent approximately 0.2 per cent of total Qantas fuel consumption in 1978-79.

(2) Assuming that the load factors and the aircraft technology used by all other operators are similar.

1982<sup>(1)</sup>. These savings are small and would be an insignificant part of the total operating costs of any international airline providing services into Australia.

#### OTHER FINANCIAL IMPLICATIONS FOR AIRLINE OPERATIONS

A secondary but possibly more important implication for the international carriers is the contribution that the inwards duty-free franchise can make to the cost recovery objectives of the Commonwealth. The cost recovery policy attempts to recoup the total costs incurred by the Commonwealth including costs of terminal and pavement provision. The revenue gained from the inwards duty-free franchise will contribute to these cost recovery objectives. More importantly from the point of view of airline operators, the source of this revenue is completely external to their operations and will not adversely affect their finances or the overall demand for international air travel.

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(1) Assuming an increase in projected arrivals of 7.5 per cent per annum and a fuel price increase of 15 per cent per annum.

## CHAPTER 5 - ECONOMIC EFFECTS OF THE PROPOSAL

### INTRODUCTION

This chapter contains an economic analysis of some of the effects of the proposal. The conclusions are based on a model of inwards duty-free shops which is outlined in Appendix 2. The model has been used to make estimates of the expected level of sales and Commonwealth revenue which could be obtained at each terminal and the employment effects of the proposal. These results are discussed in the following two sections. Estimates are then presented of the savings in foreign exchange which might be expected to flow from the proposal. Finally the likely effect of the proposal on downtown duty-free shops and the potential benefits to the consumer are discussed.

### COMMERCIAL VIABILITY OF THE PROPOSAL

Table 5.1 contains estimates of the expected sales by terminal for the three years 1980 to 1982 inclusive. These estimates are based on the assumption that stores at terminals would commence operation at the beginning of 1980. Sales from all terminals are forecast to rise from \$3.8 million in the first year to \$9.4 million in the third year.

Table 5.1 also gives the level of franchise fee which the Commonwealth might expect to receive for the right to operate at each terminal. Total revenue from all inwards duty-free franchises is expected to amount to \$1 million in the first year and rise to approximately \$2.5 million in the third year. The assessment of the level of franchise revenue which could be gained from each terminal has been based on a calculation of the amount of money a firm operating an inwards duty-free shop as a separate entity could afford to pay while still maintaining the commercial viability of the operation. There are, however, likely to be economies associated with a single firm holding the franchise for both the inwards and outwards duty-free facility at a terminal.

These economies would derive from such factors as a common bond store and the ability to fully utilise labour by switching staff from one shop to another in periods of peak demand. It follows that current holders of outwards duty-free franchises may well be able to tender higher franchise fees for the inwards facility and still maintain the commercial viability of the operation by exploiting these economies.

**TABLE 5.1 - EXPECTED SALES AND TENDER FOR INWARDS DUTY-FREE FACILITY**  
**BY TERMINAL: 1980-1982**  
 (\$'000)

Terminal Facility	1980		1981		1982	
	Expected Sales	Expected Tender	Expected Sales	Expected Tender	Expected Sales	Expected Tender
Sydney	2 181	606	3 586	997	5 426	1 508
Melbourne	921	256	1 515	421	2 292	637
Brisbane	315	44	518	121	783	218
Perth	320	46	525	124	795	221
Darwin	23	-	38	-	58	-
All Terminals	3 760	952	6 182	1 663	9 354	2 584

Source: Appendix 2.

From the results of calculations made for this report it would appear that substantial franchise fees could be charged for all terminals with the possible exception of Darwin. It may be difficult to profitably operate a Darwin inwards duty-free shop as a separate entity if franchise charges similar to those applying to other terminals are levied<sup>(1)</sup>.

One way of increasing operators' profitability and Commonwealth revenue from all terminal operations, which has not been fully considered in this report, would be to allow operators to also

(1) That is, at between 12 and 30 per cent of gross turnover plus the nominal floor space rent.



sell perfume and cosmetics in addition to liquor and tobacco. This could be expected to increase the value of sales at all terminals by about 25 per cent. Commonwealth revenue would be increased by a similar amount. In addition, this might enable the Darwin operation to become commercially viable.

#### EMPLOYMENT EFFECTS OF THE PROPOSAL

The establishment of inwards duty-free facilities at Australian international air terminals could create additional domestic employment opportunities. However, the number of new positions directly created by the proposal is difficult to estimate. This is because the number of positions created is not independent of the firm which is awarded the rights to operate. If the franchise holder for the outwards duty-free facility is able to win the tender for the inwards duty-free facility, it would be possible for some of the additional labour requirement to be met through better utilisation of existing staff, rather than by the creation of extra jobs.

Table 5.2 gives the upper and lower estimates of additional employment directly created from the proposed duty-free facilities. In addition to the employment directly created by the proposal there are likely to be indirect employment effects. No attempt has been made in this report to assess the additional employment indirectly created by this proposal.

TABLE 5.2 - ADDITIONAL EMPLOYMENT DIRECTLY CREATED BY THE PROPOSAL

Estimate	1980	1981	1982	Total Jobs Created
Upper	34	13	20	67
Lower	18	10	16	44

Source: Appendix 2.

## SAVINGS IN FOREIGN EXCHANGE

The proposal appears to result in a minor saving in foreign exchange since much of the duty-free tobacco and alcohol products purchased at the proposed inwards duty-free facilities would otherwise have been purchased abroad. However, a partial offset to these savings arises from the fact that the majority of the products sold at the duty-free shops must themselves be imported.

The overall savings in foreign exchange would appear to be small. Based on the sales projections given above, by 1982 inwards duty-free shops would attract spending of about \$4 million which would otherwise have been spent by Australians returning from abroad in overseas duty-free shops. However, that amount of tobacco and spirits which would have cost Australians abroad about \$4 million, would have involved Australian duty-free shops or their suppliers importing spirits and tobacco products worth \$2 million. Thus the 'savings' in foreign exchange when inwards duty-free shops become fully operational is likely to amount to about \$2 million annually.

## EFFECT ON EXISTING DUTY-FREE SHOPS

The potential for inwards duty-free sales to grow at the expense of downtown or airport duty-free sales is limited. The proposed duty-free franchise is limited to alcoholic liquor and tobacco products. Even if it were to be extended to include perfume and cosmetics it would primarily be in competition with foreign duty-free shops rather than domestic establishments. The vast majority of Australian international travellers purchase their full duty-free entitlement of tobacco and liquor on both legs of their journey. Downtown and terminal outwards duty-free operators who are concerned with the outwards duty-free market would thus be largely unaffected.

If the concept of inwards duty-free facilities gained wide international acceptance then it is possible that Australian

outwards duty-free facilities could be adversely affected by overseas inwards duty-free shops. Any reduction in sales by airport outwards duty-free shops would erode Commonwealth franchise revenue. This would not appear to be an immediate problem, since few countries either have or are considering inwards duty-free shopping facilities<sup>(1)</sup>.

No suggestion has been made to provide downtown operators with access to the inwards duty-free market. Not only would the administrative problems of such an arrangement be formidable, but unless some Commonwealth levy could be placed on downtown operators it would seriously reduce the potential franchise revenue accruing to the Commonwealth and adversely affect the commercial viability of air terminal operators.

#### EFFECTS ON CONSUMERS OF THE INTRODUCTION OF INWARDS DUTY-FREE SHOPPING FACILITIES

The proposal as formulated does not include compelling any passenger to alter the amount purchased, and more significantly, the place where the entitlement is purchased. So long as these basic conditions are maintained it is possible to conclude that the proposal involves a net gain to consumers<sup>(2)</sup>. It also follows that the greater the range of products offered by the inwards duty-free shop (e.g. by the addition of perfume and cosmetics) the greater the consumer welfare benefit.

The gain to the consumer from the proposal also includes a widening of the range of alternatives. If, in the judgment of

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- (1) Countries currently with inwards duty-free facilities include Iceland, Pakistan, Egypt, Singapore, Iraq, Sri Lanka, Poland and Bulgaria. Brazil is currently considering a proposal for inwards duty-free shopping.
  - (2) It would be possible to derive an estimate of this consumer surplus gain using the model described in Appendix 2. However the necessarily subjective nature of a number of the parameters required for this exercise would make such an estimation tenuous.

the consumer, the added convenience of inwards duty-free shopping and the possibly wider range of alternatives are important, then it is likely that this type of shopping will be chosen.

## CHAPTER 6 - CONCLUSIONS

The feasibility of the introduction of duty-free shopping facilities for inward-bound passengers at Australian international airports, with particular reference to the issues listed below, is as follows:

- . the impact on the civil aviation cost recovery program;

*Commonwealth revenue from the sale of franchises for inwards duty-free shopping facilities could be an important source of additional revenue and an aid to cost recovery. In the first year of operation the Commonwealth could expect to receive approximately \$1 million rising to \$2.5 million in the third year.*

- . the effects on governmental administration as a whole but notably for the Departments of Transport, Business and Consumer Affairs, and Immigration and Ethnic Affairs;

*There would be no significant effects on government administration, with the exception of the Department of Business and Consumer Affairs, which may suffer additional administrative costs in Customs administration in the order of \$10 000 per annum.*

- . an assessment of the benefits and costs liable to accrue to the airlines;

*There would be no additional costs to the airlines. However, the airlines operating into Australia would together achieve a small benefit from fuel savings of \$54 000 in the first year of operation, rising to \$163 000 in the third year. Minor increases in air safety would also accrue.*

- . an evaluation of the effect on passengers;

*So long as passengers are not compelled to alter the amount of tobacco and alcoholic liquor products purchased, or the place where the entitlement is purchased, there must be a net gain to the passenger from the proposal. It also follows that the greater the range of products offered by the inwards duty-free shop (e.g. an expansion of products offered to include perfume and cosmetics) the greater the welfare benefit to passengers.*

- . the likely impact on the Australian economy as a whole, including the duty-free shopping segment;

*The proposal could directly create between forty-four and sixty-seven new jobs in the first three years of operation. With respect to the savings in foreign exchange it is expected that minor savings of the order of \$2 million annually could be achieved by the third year of operation. It was concluded that the effect of the proposal on the existing duty-free shopping sector would be minimal. The majority of Australian international travellers purchase their full duty-free entitlement of tobacco and alcohol on both legs of the journey. Downtown and terminal outwards duty-free operators who are concerned with the outwards duty-free market would thus be largely unaffected by changes to inwards duty-free arrangements.*

- . the projected reactions by overseas countries from economic viewpoints.

*The establishment of inwards duty-free shopping facilities at Australian air passenger terminals would capture some sales from overseas outwards duty-free shops. In the first year of operation the inwards duty-free sales of tobacco and alcoholic liquor products would represent a loss in trade to duty-free shops in the Asian region, for instance, of about \$A657 000. This would rise to about \$A1.6 million annually when the Australian shops are fully operational.*

The Bureau also examined options other than the current proposal for inwards duty-free shops.

*Expansion of the range of products offered to include cosmetics and perfume could increase sales and Commonwealth revenue from the facilities by approximately 25 per cent.*

*Because of the uncertainty associated with the level of sales it is suggested that tenders for franchises be called on the basis of a lump sum plus a percentage of actual sales. In this way if the forecast sales are not achieved the overall franchise payment is automatically reduced while if sales exceed expectations then the Commonwealth will obtain additional revenue. On this basis the level of tenders for the inwards duty-free facility at the various international air passenger terminals which might be expected to evolve from a competitive tendering process would be:*

*Sydney:*

- first year: \$455 000 lump sum plus 27.8 per cent of actual sales in excess of \$1 636 000*
- second year: \$748 000 lump sum plus 27.8 per cent of actual sales in excess of \$2 689 000*
- third year: \$1 131 000 lump sum plus 27.8 per cent of actual sales in excess of \$4 069 000*

*Melbourne:*

- first year: \$192 000 lump sum plus 27.8 per cent of actual sales in excess of \$691 000*
- second year: \$316 000 lump sum plus 27.8 per cent of actual sales in excess of \$1 136 000*
- third year: \$478 000 lump sum plus 27.8 per cent of actual sales in excess of \$1 719 000*

*Brisbane:*

- first year: \$33 000 lump sum plus 14.0 per cent of actual sales in excess of \$236 000*
- second year: \$91 000 lump sum plus 23.3 per cent of actual sales in excess of \$388 000*

third year: \$163 000 lump sum plus 27.8 per cent of actual sales in excess of \$588 000

*Perth:*

first year: \$34 000 lump sum plus 14.3 per cent of actual sales in excess of \$240 000

second year: \$93 000 lump sum plus 23.5 per cent of actual sales in excess of \$394 000

third year: \$166 000 lump sum plus 27.8 per cent of actual sales in excess of \$596 000

*Darwin:*

Attention has been drawn to the possibility that a Darwin inwards duty-free shop operated as a separate entity may not be commercially viable.

The estimates made by the Bureau represent the amount which a new entrant could be expected to offer for a franchise. An outwards duty-free franchise holder at a terminal may be prepared to pay in excess of these figures due to the economies which can be achieved by jointly operating an inwards and outwards duty-free facility at the one terminal. It should be noted that the estimates above are prepared on the understanding that the shop is confined to tobacco and liquor. If the proposal were to be extended to include cosmetics and perfumes all dollar figures should be raised by approximately 25 per cent.



APPENDIX 1

TERMS OF REFERENCE FOR BTE

EVALUATION OF THE PROPOSAL

TO ESTABLISH INWARDS DUTY-FREE

SHOPPING FACILITIES AT AUSTRALIAN

INTERNATIONAL AIRPORTS

In accordance with a recent request from an inter-departmental committee chaired by the Department of Business and Consumer Affairs, and charged with considering a Qantas proposal concerning on-arrival duty-free shopping at Australia's international airports, the Bureau of Transport Economics is hereby directed:

To undertake a cost benefit study to investigate the current proposal and the various other options open to the Commonwealth for the introduction of duty-free shopping facilities for inward-bound passengers at Australian international airports, with particular reference to:

- . the impact on the civil aviation cost recovery program;
- . the effects on governmental administration as a whole but notably for the Departments of Transport, Business and Consumer Affairs, and Immigration and Ethnic Affairs;
- . an assessment of the benefits and costs liable to accrue to the airlines;
- . an evaluation of the effect on passengers;
- . the likely impact on the Australian economy as a whole, including the duty-free shopping segment; and
- . the projected reaction by overseas countries from economic viewpoints.

A draft report should be provided to the Departments represented

on the IDC by 31 August 1979 on a confidential basis, and the final report presented to me as soon as possible thereafter for approval to release.

P.J. NIXON  
Minister for Transport  
29 August 1979

## APPENDIX 2

### A MODEL OF INWARDS DUTY-FREE SHOPS

#### INTRODUCTION

This Appendix contains details of the model which underlies the estimation of sales and franchise payments for each of the proposed inwards duty-free shops.

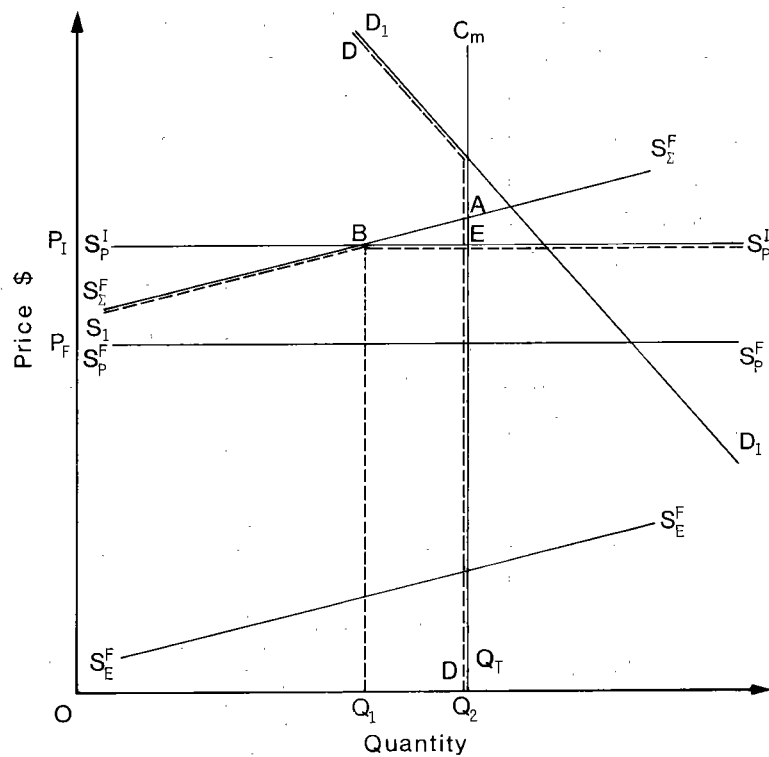
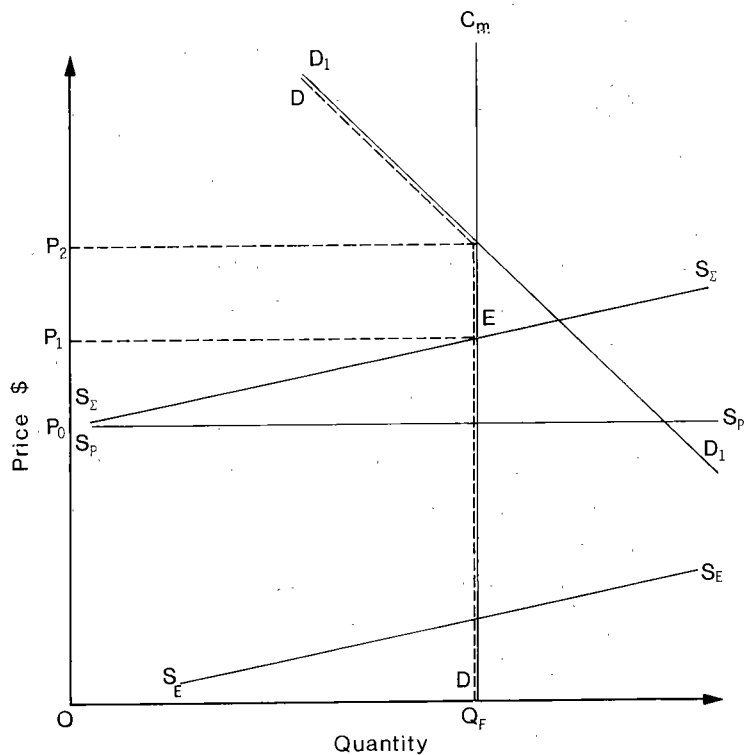
The first two sections contain a theoretical discussion of the existing market and the effect of the introduction of a domestic supplier. In the third section an attempt is made to develop a mathematical model which reflects the theoretical conclusions of the first two sections. The final section contains the values of the exogenous variables and parameters used in the model to obtain the results which have been discussed in the main text.

#### THE EXISTING MARKET

At present international travellers have only two options if they wish to purchase duty-free goods when entering Australia. They can purchase duty-free goods at a foreign port of call or on the aircraft in transit to Australia. The passenger who opts to purchase goods on board is constrained by a limited supply and choice. For the moment, this option is set aside.

If the passenger purchases goods at a foreign port of call he must transport those goods, along with his other luggage, to Australia. Thus the purchase involves some degree of inconvenience and effort which become part of the 'price' involved in making the purchase.

Figure 2.1 illustrates the theoretical market interaction involved in this decision-making process. The demand curve  $D_1D_1$  describes the demand for duty-free goods by passengers travelling to Australia. For all prices up to  $P_2$ , demand is constrained by the



customs constraint  $C_m^{(1)}$ . The foreign duty-free supply price is assumed to be set in a competitive environment in the absence of economies of scale and is described by the supply curve  $S_P S_P$ .

The purchase of duty-free goods at a foreign port of call involves the need for the transportation of those goods to Australia. This transportation involves the supply of effort by the consumer which includes the inconvenience of carrying the goods in hand luggage, the loss of some portion of the passenger's luggage entitlement and such factors as foreign search times and the need to obtain foreign currency. The supply of effort is a positive function of quantity and is described by the curve  $S_E S_E^{(2)}$ . The passenger is both the consumer and the supplier of effort.

The aggregate supply curve is derived from the vertical summation of the effort and foreign supply functions. This is the supply curve that is perceived by the consumer. Because demand is constrained, consumers will purchase duty-free goods up to the point where the supply curve intersects either the constraint or the demand curve  $D_1 D_1$ . In this example market equilibrium is given by the point E. The market 'price' is set at  $P_1$  which is comprised of the foreign supply (money) price,  $P_0$ , and the implicit price of effort  $P_0 P_1$ . In summary, the quantity of duty-free goods purchased is a function of the foreign supply price, the implicit price of the effort involved, the demand for these goods and the customs constraint.

The two constraints on individual welfare in this market are the foreign supply price and the customs constraint. Both the demand for duty-free goods and the supply of effort are provided in a free market situation with a multitude of participants.

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- (1) This constraint is divided evenly among all passengers so the market analysis is related directly to an analysis of individual behaviour.
  - (2) For the sake of simplicity the quantity of effort is assumed to be linearly related to the quantity of goods purchased. Also it can be argued that the supply of effort may be non-linear. However a non-linear supply of effort curve may be vertically summed in a similar way to a linear one.

The foreign supply price is determined by the market conditions applying in the country involved<sup>(1)</sup>. It will be determined by the costs<sup>(2)</sup> and competitiveness of the economic environment which will, in turn, be influenced by the number of participants in the duty-free industry. As mentioned in the text, the customs constraint is effective and constrains demand by a great many inwards-bound international passengers at the present range of prices<sup>(3)</sup>.

#### THE MARKET WITH A DOMESTIC SUPPLIER

The proposed scheme to introduce a domestic supplier into the inwards duty-free market would add another dimension to the theoretical model outlined above.

The arriving air passenger would be able to choose between two alternative sources of supply; he may purchase the goods from a supplier at a foreign port of call or he may purchase the same goods at an inwards duty-free shop at an Australian international terminal.

Figure 2.2 describes the theoretical interaction between the suppliers (both domestic and foreign) of duty-free goods and the demand for these goods by international passengers flying into Australia.

The supply curve  $S_P^F S_P^F$  describes the supply of a duty-free good at a duty-free facility at a foreign port of call. The supply curve  $S_P^I S_P^I$  describes the supply of this good at an Australian duty-free shop. Purchases at the Australian duty-free shop are assumed to require no effort. Both foreign and Australian

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- (1) Travellers passing through intermediate ports often have the opportunity to buy duty-free goods in transit. Thus foreign competition may occur between ports.
  - (2) Including the presence or absence of institutional constraints such as fixed wage structures.
  - (3) All but a small number of passengers would buy more than their present entitlement, if allowed to do so.

duty-free prices are assumed to be set competitively in the absence of economies of scale. Thus the supply curves are horizontal and become price lines. The foreign and domestic prices are  $P_F$  and  $P_I$  respectively<sup>(1)</sup>.

The supply of effort involved in making foreign purchases is described by the curve  $S_E^F S_E^F$ . This function is defined as the quantity of effort that will be supplied in return for reward. Within the framework of this model the supply of effort is determined by the relative foreign and domestic prices. Thus the supply of effort curve is purely endogenous although it is possible to estimate this function independently of the relative prices.

The vertical sum of the supply of effort curve and the foreign supply curve,  $S_P^F S_P^F$  gives the implicit supply curve for foreign purchases as perceived by consumers  $S_\Sigma^F S_\Sigma^F$ .

Given a choice of supply and perfect knowledge of all alternatives, consumers will always opt for the lowest price. Therefore the supply curve perceived by the consumer is comprised of the lowest price segments of the two active supply curves  $S_\Sigma^F S_\Sigma^F$  and  $S_P^I S_P^I$ . Thus the derived supply curve is described by the dotted line  $S_1 S_1$ .

The demand for duty-free goods is described by the curve  $D_1 D_1$  subject to the customs constraint  $C_m$ . The constrained point of equilibrium is given by E.

Within this market scenario the point of inflection in the market supply curve  $S_1 S_1$  sets the division of the market between the foreign and the domestic suppliers. For quantities up to  $OQ_1$ , the foreign supply price, including effort, is lower than the domestic supply price and consumers will purchase at the foreign

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(1) In this example the domestic price is assumed to be greater than the foreign price. These relativities can be reversed with no substantial effect on the analysis.

port of call. For quantities in excess of  $OQ_1$  however, the domestic supply price is lower and passengers can be expected to purchase their goods from the domestic supplier.

There are a number of conclusions which can be drawn from this analysis. First, any reduction in the duty-free entitlement is likely to adversely affect inwards duty-free shop sales relative to overseas duty-free purchases. If this entitlement is reduced the option of purchasing part of the entitlement at lower overseas prices and incurring the associated transportation costs remains attractive and consumers reduce the quantity purchased at the higher inwards duty-free shop price.

Second, an increase in restrictions on passenger luggage and particularly hand luggage (that is an increase in the slope of the effort curve), is likely to benefit inwards duty-free shops since it raises the costs associated with goods purchased overseas and carried in passengers' luggage.

Third, inwards duty-free shops are restricted in the price they can charge since increases in price will improve the option of purchasing overseas and incurring the associated costs of transporting the goods, relative to the option of purchasing from an inwards duty-free shop and avoiding the personal transport costs. Increases in the inwards duty-free price will result in a reduction in market share for the inwards duty-free shop<sup>(1)</sup>.

Fourth, the higher the duty the more valuable the inwards duty-free shop franchise will be since passengers will be more likely to exercise their full duty-free entitlement. The rewards for the resale of these goods in the domestic economy will be higher.

Fifth, from this analysis there are welfare gains to international air passengers from the introduction of inwards duty-free shop franchises at Australian international air terminals. Passengers

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(1) This will depend on the level of information available to the consumer at the time of purchase.



who place a high value on the effort involved in transporting goods purchased overseas would benefit from the introduction of these facilities in Australian passenger air terminals. In terms of Figure 2.2 the welfare gain to consumers is given by the triangle BAE. The owner of the inwards duty-free franchise would also benefit from the introduction of this facility by earning the profit normal for this type of business. The magnitude of these welfare changes depends on the characteristics of the supply of effort curve, the domestic and foreign price relativities, the characteristics of demand and the customs constraint.

#### A THEORETICAL MODEL OF INWARDS DUTY-FREE SHOPS

Let  $\pi$  be the probability that an individual who passes through customs exercises his full entitlement to import duty-free tobacco and alcoholic products. We postulate

$$\pi = \alpha_1 + \alpha_2 \left( \frac{p_d}{p_i} - \alpha_3 \right) \quad (1)$$

where  $p_d$  is the domestic duty-paid price for tobacco and alcoholic products and  $p_i$  is the cheapest duty-free price to persons passing through customs. As  $p_d$  increases relative to  $p_i$  the probability of a person exercising his entitlement increases.

Given that a person imports the full duty-free entitlement, we denote  $\xi(m,n)$  as the probability that the person of type  $n$  will purchase product  $m$  at the inwards duty-free shop. We identify two types of person (i.e.  $n = 1, 2$ ) where  $n = 1$  indicates that he is an Australian resident returning to Australia and  $n = 2$  that he is a foreign visitor to Australia. We identify two goods ( $m = 1, 2$ ) where  $m = 1$  denotes tobacco products and  $m = 2$ , alcoholic products. We represent the relationship between  $\xi(m,n)$  and the prices at the various alternative sources by four equations of the form

$$\begin{aligned} \xi(m,n) = & \beta_{m,n} - \gamma_{m,n} \{ p_{df}(m) - \frac{1}{3} (p_i(m) + h(m)a(m) + p_q(m) \\ & + k(m)a(m) + p_{df}(m)) \} \end{aligned} \quad (2)$$

where  $\beta_{m,n}$  and  $\gamma_{m,n}$  are coefficients,  $p_{df}(m)$  is the price of good  $m$  at the inwards duty-free shop,  $p_i(m)$  is the price of these goods at overseas duty-free shops and  $p_q(m)$  is the price of the goods if purchased in flight. The variable  $h(m)$  is the 'inconvenience cost' per unit of purchasing good  $m$  overseas;  $k(m)$  is the 'inconvenience cost' of purchasing on the flight; and  $a(m)$  is the number of units permitted to be imported duty-free under customs regulations<sup>(1)</sup>.

It should be noted that in the formulation used above, as the price of goods from the inwards duty-free shop falls relative to other alternatives, the probability of purchase from that source increases. Similarly, if the customs allowance ( $a(m)$ ) increases, the total inconvenience costs associated with competing sources of purchase ( $h(m)a(m)$  and  $k(m)a(m)$ ) increase and the probability of purchase from the inwards duty-free shop increases.

If  $\mu(k,n)$  is the probability of a person of type  $n$  arriving at terminal  $k$  ( $k = 1$  to  $5$ ; Sydney = 1, Melbourne = 2, Brisbane = 3, Perth = 4, Darwin = 5) and  $A$  is the total number of arrivals through all terminal points, then  $N(m,k)$ , the number of persons making a purchase of good  $m$  at terminal  $k$  is

$$N(m,k) = A \pi \sum_n \xi(m,n) \mu(k,n) \quad (3)$$

Sales at terminal  $k$ ,  $S(k)$ , are

$$S(k) = \sum_m N(m,k) p_{df}(m) \quad (4)$$

Labour costs at terminal  $k$ ,  $L(k)$  are specified such that if  $S(k) \geq Z_1$  then

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(1)  $p_i(m) + h(m)a(m)$  and  $p_q(m) + k(m)a(m)$  represent the costs to the consumer (including transport costs) of purchase of the item from overseas and 'in flight' sources respectively. Thus when the inwards duty-free price is at a level equal to the average of the generalised costs from the two competing sources, the probability of purchase at an inwards duty-free shop is  $\beta_{m,n}$ .

$$L(k) = \rho S(k) \quad (5)$$

and  $L(k) = Z_2$  elsewhere.

Profit plus all other costs excluding franchise fee, cost into store of goods and labour costs are denoted as  $P(k)$  where

$$P(k) = \sigma S(k) \quad (6)$$

Franchise fee  $F(k)$  is calculated as

$$F(k) = S(k) - L(k) - P(k) - \sum_m N(m,k) C(m) \quad (7)$$

where  $C(m)$  is the cost into store of the  $m$ th good.

#### EMPIRICAL ESTIMATION

Since there are no inwards duty-free shops in operation in Australia it is not possible to estimate the model by conventional statistical techniques. The approach adopted was to interview various people with some knowledge of the operation of duty-free shops in order to attach what are considered to be 'reasonable values' of the various parameters.

Table A2.1 gives the values chosen for the parameters and exogenous variables. The table also contains a summary of the assumptions used to obtain the values used in the application of the model.

TABLE A2.1 - VALUES FOR PARAMETERS AND EXOGENOUS VARIABLES USED TO SOLVE THE MODEL

Parameter	Value			Comments
$\alpha_1$	.85			Approximately 85 per cent of all persons passing through customs import the maximum allowance. Domestic prices are approximately three and a half times duty-free prices. If domestic prices were to double while duty-free prices remained constant the percentage of persons importing the maximum allowance could be expected to increase to about 90 per cent.
$\alpha_2$	.014			
$\alpha_3$	3.5			
	<u>1980</u>	<u>1981</u>	<u>1982</u>	
$\beta_{11}$	.21	.29	.37	These parameters have been estimated on the basis that with a price structure similar to the existing outwards duty-free shops at Australian terminals, an inwards duty-free shop would, in the first year sell to about 17 per cent of returning Australians who had decided to exercise their entitlement. It is assumed that this figure would rise to 33 per cent by the third year of operation. The corresponding figures for foreigners would be about half that of Australians because of their lack of awareness of inwards duty-free facilities at Australian terminals. It has been assumed that if inwards duty-free shops were to price in line with the lowest available duty-free prices they could, in the longer term, obtain 50 per cent of the purchases by Australians returning from overseas and 25 per cent of foreigners' purchases.
$\beta_{12}$	.105	.145	.185	
$\beta_{21}$	.13	.205	.29	
$\beta_{22}$	.065	.1025	.145	
$\gamma_{11}$	.129	.129	.129	
$\gamma_{12}$	.0645	.0645	.0645	
$\gamma_{21}$	.07	.07	.07	
$\gamma_{22}$	.035	.035	.035	
h(1)	\$0.0072	\$0.0076	\$0.0079	Estimated 'inconvenience cost' of importing 1 gram of tobacco products which has been purchased overseas.
h(2)	\$3.32	\$3.49	\$3.66	Estimated 'inconvenience cost' of importing 1 litre of spirits from overseas.
k(1)	\$0.0036	\$0.0038	\$0.0040	Estimated 'inconvenience cost' of purchasing 1 gram of tobacco products in flight.
k(2)	\$5.00	\$5.25	\$5.51	Estimated 'inconvenience cost' of purchasing 1 litre of spirits in flight. Note the difficulty of doing this on some airlines and the limited choice available means that this cost is high.

TABLE A2.1 (CONT'D)

Parameter	Value			Comments
$P_i(1)$	\$3.00	\$3.15	\$3.31	Price of 'typical' tobacco purchase overseas.
$P_i(2)$	\$7.98	\$8.38	\$8.80	Price of 'typical' liquor purchase overseas.
$P_q(1)$	\$3.00	\$3.15	\$3.31	Price of 'typical' in-flight tobacco purchase.
$P_q(2)$	\$7.98	\$8.38	\$8.80	Price of 'typical' in-flight liquor purchase.
$P_{df}(1)$	\$4.80	\$5.04	\$5.29	Average value of inwards duty-free purchase of tobacco.
$P_{df}(2)$	\$11.30	\$11.87	\$12.46	Average value of inwards duty-free purchase of liquor.
A	2 000 000	2 150 000	2 311 250	Projected arrivals for Australia assumed to increase by 7.5 per cent per annum.
C(1)	\$2.33	\$2.45	\$2.57	Cost into store of tobacco purchase.
C(2)	\$5.27	\$5.53	\$5.81	Cost into store of liquor purchase.
$\mu_{11}$		.345		These figures represent the probability of an Australian or a foreigner entering Australia through a given terminal. The figures are derived from D.O.T. arrivals data.
$\mu_{12}$		.245		
$\mu_{21}$		.159		
$\mu_{22}$		.077		
$\mu_{31}$		.051		
$\mu_{32}$		.033		
$\mu_{41}$		.054		
$\mu_{42}$		.029		
$\mu_{51}$		.004		
$\mu_{52}$		.002		
$\rho$		.10		Parameters for labour cost function. Based on the assumption that a minimal operation would employ five persons. For a large operation it has been assumed that labour costs would represent 10 per cent of sales.
$Z_1$		\$750 000		
$Z_2$		\$75 000		
$\sigma$		.15		Proportion of total sales allocated to profits and costs other than labour costs, franchise costs and costs of goods into store.
a(1)		250		Duty-free allowance for tobacco (grams).
a(2)		1		Duty-free allowance for liquor (litres).

### APPENDIX 3

#### SURVEY PRICES OF SELECTED GOODS AVAILABLE AT AIRPORT AND DOWNTOWN DUTY-FREE SHOPS AND CITY STORES, INCLUDING DISCOUNT STORES

This Appendix provides details of the survey of prices undertaken for the purposes of this report by Nicholas Clark and Associates.

The price comparisons indicate that consumers are prepared to pay a substantial premium for the relative convenience of making a purchase at the airport as compared to downtown duty-free shops. The implicit premium paid for convenience which can be derived from this Table has been used to obtain estimates of the 'inconvenience costs' (h(1) and (h(2))) for the model described in Appendix 2.

Duty-free airport prices in Australia appear to be comparable to those operating in some other countries. One of the reasons that airport duty-free prices are somewhat higher than off airport prices is because the labour costs involved in providing an airport duty-free service are considerably higher than those for a downtown operator. Airport duty-free shops are typically required to be open whenever international flights depart. This can involve considerable overtime payments to staff.

It is possible that differences in price between downtown and airport duty-free shops for some specific items may not be due entirely to a premium for convenience. In part such differences might conceivably reflect pricing arrangements in downtown shops which specialise, for example, in duty-free electrical equipment and regard tobacco and liquor sales as a secondary activity. This possibility and its net consumer effects could not be examined without a detailed analysis of the commercial practices of downtown duty-free shops which was outside the scope of this study. However, such possibilities would not affect in any significant way the major issues addressed in this report.

TABLE A3.1 - SURVEY PRICES OF SELECTED GOODS AVAILABLE AT AIRPORT AND DOWNTOWN DUTY-FREE SHOPS AND CITY STORES,  
INCLUDING DISCOUNT STORES

(dollars)

Item (Quantity)	Sydney				Melbourne				
	Duty-Free		City		Duty-Free			City	
	Airport	Downtown	Normal	Discount	Airport	Downtown		Normal	Discount
						Shop 1	Shop 2		
<u>Tobacco Products</u>									
*Dunhill (200)	4.80	3.45	n.a.	9.30	4.80	3.20	3.70	n.a.	n.a.
*Dunhill (200) Menthol	5.60	n.a.	n.a.	n.a.	5.60	3.60	n.a.	n.a.	n.a.
*Rothmans Kingsize (200)	4.80	2.95	n.a.	9.20	n.a.	3.10	3.60	8.80	n.a.
*Stuyvesant (200)	4.80	2.95	n.a.	9.00	4.80	3.10	3.55	8.70	n.a.
*Benson & Hedges (200)									
Gold	4.95	2.65	n.a.	9.00	n.a.	3.20	3.70	8.70	n.a.
Inter	n.a.	n.a.	n.a.	n.a	5.60	n.a.	n.a.	n.a.	n.a.
*Marlboro (200)	4.80	n.a.	n.a.	9.00	4.80	3.10	3.65	8.60	n.a.
<u>Henri Wintermann</u>									
Excellent (25)	12.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ritmeester Half Corona (25)	7.90	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ritmeester Corona (25)	9.60	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<u>Alcoholic Liquor Products</u>									
*Johnny Walker Red (1000) (a)	7.35	3.50	n.a.	n.a.	6.00	4.05	4.40	n.a.	n.a.
(750)	n.a.	2.50	12.79	13.37	4.00	3.25	n.a.	14.50	13.08
*    Black (1000) (a)	11.95	5.50	n.a.	n.a.	9.00	6.25	7.50	n.a.	n.a.
(750)	n.a.	4.00	16.83	17.28	7.60	5.00	n.a.	19.76	17.58
*Glenfiddich Malt (1000) (a)	14.60	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	21.25	n.a.
(750)	n.a.	n.a.	19.50	21.47	n.a.	n.a.	n.a.	n.a.	n.a.
Napoleon VSOP (750)	3.95	2.95	12.98	12.98	n.a.	n.a.	n.a.	n.a.	n.a.
*Courvoisier VSOP	15.50	11.95	23.75	n.a.	n.a.	n.a.	n.a.	n.a.	22.10
*Camus (700)	23.50	19.65	21.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Tia Maria (750) (a)	6.50	n.a.	12.99	13.65	n.a.	n.a.	6.25	14.22	12.83
(1000)	n.a.	6.80	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Bacardi (1000) (a)	5.70	2.85	n.a.	n.a.	n.a.	n.a.	2.75	n.a.	n.a.
(750)	n.a.	n.a.	12.25	9.90	n.a.	n.a.	n.a.	13.47	12.12

TABLE A3.1 (CONT'D)

Item (Quantity)	Sydney				Melbourne				
	Duty-Free		City		Duty-Free			City	
	Airport	Downtown	Normal	Discount	Airport	Downtown		Normal	Discount
						Shop 1	Shop 2		
*Gordon's Gin (1000) (a)	6.25	3.65	n.a.	n.a.	6.00	4.60	4.15	n.a.	n.a.
(750)	n.a.	n.a.	11.60	11.26	n.a.	n.a.	n.a.	13.14	11.85
*Smirnoff Vodka (750)	3.80	n.a.	13.20	11.81	n.a.	n.a.	n.a.	12.37	11.14
(1000)	n.a.	n.a.	n.a.	n.a.	6.00	2.45	2.95	n.a.	n.a.
<u>Perfume</u>									
*Christian Dior 7241 (7)	18.00	n.a.	32.95	n.a.	n.a.	n.a.	n.a.	32.95	n.a.
*Arpege 7852 (120)	20.50	n.a.	29.50	n.a.	n.a.	n.a.	n.a.	29.50	n.a.
*Worth C37	16.50	n.a.	n.a.	n.a.	n.a.	16.00	n.a.	n.a.	n.a.
<u>Other Goods</u>									
*Instamatic Kodak 177	28.50	n.a.	30.75	30.95	n.a.	n.a.	n.a.	n.a.	n.a.
Agfa 1000	32.00	n.a.	31.95	32.00	28.00	28.00	n.a.	n.a.	n.a.
Cassette Radio Sanyo									
2438	n.a.	85.00	99.00	99.95	n.a.	92.00	n.a.	100.00	99.00
*AIWA TPRI30	79.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sanyo Clock Radio									
RM500	n.a.	38.50	47.50	42.50	41.00	n.a.	n.a.	49.00	45.00
*Sanyo Clock Radio									
2402	49.95	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Citizen Multi Alarm	99.00	99.40	195.00	191.50	n.a.	n.a.	n.a.	195.00	n.a.



TABLE A3.1 (CONT'D)

Notes: (a) Approximate.

- (b) The manager of the Sydney duty-free shop was asked to specify a list of goods he would carry if he had a very limited amount of shop space. The items he specified are marked with an asterisk (\*). Some substitutions were necessary when some of the electrical goods he specified could not be found downtown.
- (c) Pipe tobacco is not usually stocked in the duty-free stores. Cigars were only available at a few duty-free stores.
- (d) Because of the duty-free limits, the most popular size bottle in the duty-free shops is the litre and not the standard 750 ml bottle. Often 750 ml bottles are not available in the duty-free shops. In shops where duty is payable, litre bottles are never available. However, 1125 ml bottles are available and their price is within a few cents of the standard bottle price on a per ml basis. It is therefore suggested that one-litre duty-free bottle prices and 750 ml duty-payable prices should be compared on a per ml basis. The savings implicit in packaging for the larger bottle would appear to be minimal.
- (e) In Sydney the duty-free airport shop does not list prices in catalogues available in the departure lounge. Access to the shop (and to price information) is only possible once the passenger has passed through Customs and Immigration controls. In Melbourne price information may be obtained from the display in the Concourse area.
- (f) There appear to be differences in the types of goods sold at the airport and downtown duty-free shops. While the Sydney airport shops claimed a good turnover of cheap cameras (such as Instamatics) as well as more expensive models, the downtown shops claimed that there was only demand for better quality cameras.
- (g) The definition of 'normal' and 'discount' was left to the surveyor. As may be seen from the recorded prices, the surveyor's opinions are not necessarily reflected in actual prices.

n.a. Not available at this store/airport.

#### APPENDIX 4

#### CUSTOMS BY-LAWS RELATING TO THE DUTY-FREE

#### IMPORTATION OF CERTAIN ITEMS BY PASSENGER ARRIVALS

The purpose of this Appendix is to set out the details of the Customs By-laws relevant to the inwards duty-free shopping proposal, as published in the Commonwealth of Australia Gazette, No. S278, 14 December 1978. The details are as follows.

Customs Act 1901

Customs Tariff Act 1966

#### THE SCHEDULE

By-law No. S2494

Item No. 15

1. This by-law may be cited as Customs By-law No. S2494.
2. Item 15 in Schedule 2 to the Customs Tariff Act 1966 as proposed to be altered applies, subject to the next succeeding paragraphs, to goods that are specified in Column 1 of a Part of the Table hereto and subject to such provisos (being conditions, qualifications, exceptions or exclusions), if any, as are set out in Column 2 of that Part and opposite those goods.
3. Goods to which this by-law applies shall be imported by an arriving person, that is to say a person who is -
  - (a) a passenger arriving in Australia from parts beyond the seas; or
  - (b) a member of the crew of a ship or aircraft arriving from parts beyond the seas, being a person who -
    - (i) is ordinarily domiciled in Australia; and
    - (ii) has not availed himself/herself of the concessions accorded under any of the provisions of this by-law in the twelve month period commencing on the first day of the year in which the goods are imported.

4. Subject to the next succeeding paragraph, Parts I and II of the Table hereto apply in relation to goods that -

- (a) are personal goods;
- (b) are non-commercial goods; and
- (c) except for the goods specified in paragraph 5(3), accompany the arriving person.

5. In this by-law -

- (1) 'personal goods' means goods that -
  - (a) are the arriving person's property; and
  - (b) except in respect to goods specified in Part II of the Table hereto, are suitable and are intended for the arriving person's own use.
- (2) 'non-commercial' goods means goods that -
  - (a) are not intended to be used by the arriving person for any commercial purpose, including sale, lease, hire or exchange; and
  - (b) are not goods that have been imported in such a quantity that, having regard to their nature or durability, that quantity represents a commercial quantity.
- (3) the following goods are specified for the purposes of paragraph 4(c) -
  - (a) goods specified in clauses (12), (13), (14), (15), (16) or (17) of Part I of the Table hereto;
  - (b) goods brought to Australia by persons who are coming or who have come with the intention of forthwith taking up permanent residence for the first time; or
  - (c) goods, other than goods purchased in Australia on a duty or sales tax free basis, which the arriving person took out of Australia on departure and which the arriving person sent back separately to Australia.
- (4) In the calculation of the weight of tobacco products, 200

cigarettes are to be taken to equal 250 grams weight.

(5) 'family' means a husband, wife, and their children who are aged less than 18 years.

(6) 'used' in relation to the expression "personally owned and used" means available for use by the arriving person on a continuing basis in each country in which that person was residing on a long term basis.

#### THE TABLE

Column 1 Goods	Column 2 Provisos
PART I	
(1) Apparel of all kinds	Excludes articles of fur apparel exceeding \$150 each in value
(2) Articles for personal hygiene, grooming or adornment	
(3) Articles (not being goods falling within clause (1) or (2)) of a strictly utilitarian nature of a kind carried or worn on the person or packed and carried in hand baggage	Excludes - (i) radio receivers or transmitters; (ii) television receivers, transmitters or other video equipment; (iii) gramophones, magnetic tape recorders or reproducers or other audio equipment; and (iv) goods specified in subparagraphs (i) to (iii) above in any combination with each other or with other goods
(4) Binoculars, opera glasses and hand telescopes	
(5) Cameras, photographic	
(6) Exposed photographic films, whether or not developed	Restricted to film depicting incidents of the arriving person's travels

THE TABLE (Cont'd)

Column 1	Column 2
Goods	Provisos
(7) Typewriters, portable	
(8) Sporting requisites, including sporting or camping equipment of travelling sportsmen and riding saddles	
(9) Hand instruments of a kind used by the medical, dental or veterinary profession	Excludes diagnostic or other equipment of a kind that stands on a table, bench or on the floor
(10) Hand tools of a kind used by a tradesman	Restricted to portable tools of a kind held in the hand when in use
(11) Portable equipment of a kind ordinarily owned and used by an employee for the carrying out of his particular trade	
(12) Bicycles, non-motorised	
(13) Motor cycles, with or without side cars	
(14) Vehicles of the following kinds:- motor cars, vans, trucks or motorised caravans	Restricted to vehicles imported by - <ul style="list-style-type: none"> <li>(1) A person who satisfies the Collector that he has come to Australia with the intention of forthwith taking up permanent residence for the first time, provided the Collector is further satisfied that - <ul style="list-style-type: none"> <li>(i) the vehicle has been for the whole of the period of six months immediately preceding the arriving person's departure for Australia personally owned and used overseas by him; and</li> <li>(ii) neither the arriving person nor any member of his family has previously entered for home consumption a motor car,</li> </ul> </li> </ul>

THE TABLE (Cont'd)

Column 1	Column 2
Goods	Provisos
(14) Cont'd	<p data-bbox="757 325 1125 401">van, truck or motorised caravan free of Customs duty and sales tax; or</p> <p data-bbox="632 420 1175 605">(2) A person who satisfies the Collector that he has returned to Australia with the intention of forthwith taking up permanent residence, provided that the Collector is further satisfied that -</p> <p data-bbox="696 624 1175 891">(i) the vehicle was personally owned and used overseas by the arriving person on or before 1 December 1978, or alternatively, that the arriving person had, on or before 1 December 1978, entered into a binding arrangement to purchase the vehicle;</p> <p data-bbox="680 910 1175 1119">(ii) the vehicle was, for the whole of the period of fifteen months immediately preceding the arriving person's departure for Australia, personally owned and used overseas by him; and</p> <p data-bbox="667 1138 1175 1428">(iii) neither the arriving person nor any member of his family had, within a period of three years immediately preceding his arrival in Australia, entered for home consumption a motor car, van, truck or motorised caravan free of Customs duty and sales tax</p>

THE TABLE (Cont'd)

Column 1	Column 2
Goods	Provisos
(15) Goods, as follows:-	(i) Only one article selected from each of the three groups (a), (b) and (c) (specified in Column 1) will be allowed per family per three years;
(a) non-motorised caravans	
(b) box, boat or similar trailers, non-motorised	
(c) vessels of a kind designed principally for use in sheltered waters for sport or recreation, being vessels conforming to one of the following specifications:	(ii) in each case the Collector shall be satisfied that -
(i) boats of a kind propelled by manual or pedal power;	(a) the arriving person has come to Australia with the intention of forthwith taking up permanent residence;
(ii) sailing boats that -	(b) the goods have been for the whole of the period of fifteen months immediately preceding the arriving person's departure for Australia, personally owned and used overseas by the arriving person; and
(a) in the sailing condition do not exceed 2.5 metres in width at any section;	
(b) do not exceed 1000 kilograms unladen weight;	(iii) In respect to a vessel specified in group (c), security shall be given by the arriving person to and to the satisfaction of the Collector that the goods will not be sold or otherwise disposed of in Australia by or on behalf of the arriving person, or in the event of the arriving person's prior decease, by or on behalf of the arriving person's legal personal representative, within two years after the date of its entry for home consumption
(c) do not incorporate any device for propelling the boat by power, for example an auxiliary motor; and	
(d) are not of the deep keel type; or	
(iii) powered boats that -	
(a) do not exceed 7 metres in length, overall;	
(b) do not exceed 2.5 metres in width at any section; and	

THE TABLE (Cont'd)

Column 1	Column 2
Goods	Provisos
(15) (c) (iii) Cont'd	
(c) do not exceed 1250 kilograms unladen weight when imported with driving units and transmissions or, 800 kilo- grams unladen weight when imported with- out driving units and transmissions	
(16) Machinery, plant and equip- (1) ment, not being goods of a kind specified in a pre- ceding clause, imported by an arriving person aged 18 years or older who has come to Australia for the first time	<p>The Collector shall be satisfied that -</p> <p>(a) the arriving person has come to Australia with the intention of forth- with taking up permanent residence;</p> <p>(b) the goods have for the whole of the period of twelve months immediately preceding the arriving person's departure for Australia been personally owned and used by the arriving person; and</p> <p>(c) the arriving person is or will be in a position to put the goods to his or her own use;</p> <p>(2) Security shall be given by the arriving person to and to the satisfaction of the Collector that -</p> <p>(a) the goods will, for a continuous period of two years, be put to use in Australia by the arriving person for the purpose for which they are intended; and</p> <p>(b) the goods will not be</p>



THE TABLE (Cont'd)

Column 1	Column 2
Goods	Provisos
(16) Cont'd	(2) (b) Cont'd sold, leased, hired, mortgaged or otherwise disposed of, or by or on behalf of the arriving person, or in the event of the arriving person's prior decease, by or on behalf of the arriving person's legal personal representative, before the expiration of the two-year period referred to in subparagraph (a) of this proviso
(17) Fur apparel, furniture and household goods, but being goods of a kind specified in a preceding clause	The Collector shall be satisfied that the goods have been, for the whole of the period of twelve months immediately preceding the arriving person's departure for Australia, in the regular use and physical possession of the arriving person or family

PART II

(1) Alcoholic liquors (potable) to a quantity not exceeding 1 litre per person aged 18 years or older	(1) Not available to persons aged less than 18 years (2) Excludes goods that do not accompany the arriving person
(2) Tobacco products to a quantity not exceeding 250 grams per person aged 18 years or older	(1) Not available to persons aged less than 18 years (2) Excludes goods that do not accompany the arriving person
(3) Other personal baggage being - In the case of a person travelling alone or aged 18 years or older - goods to a value not exceeding \$200 per person In any other case - goods to a value not exceeding \$100 per person	Excludes - (i) television receivers, transmitters or other video equipment or any combination of such goods with each other or with other goods; (ii) power driven vehicles or tractors of any kind other

THE TABLE (Cont'd)

Column 1 Goods	Column 2 Provisos
(3) Cont'd	<p>(ii) Cont'd</p> <p>than motor-cycles or toys;</p> <p>(iii) fur apparel;</p> <p>(iv) alcoholic liquors;</p> <p>(v) tobacco products;</p> <p>(vi) goods that do not accompany the arriving person, except furniture or household goods that -</p> <p>(a) the Collector is satisfied -</p> <p>(i) are the property of an arriving person who is coming or has come to Australia with the intention of forthwith taking up permanent residence for the first time;</p> <p>(ii) were, immediately preceding the arriving person's departure for Australia, owned and in physical possession of the arriving person or family, and</p> <p>(b) are goods that would, had they accompanied the arriving person, have been goods to which the provisions of this by-law would have applied.</p>

6. Customs By-law No. S2494 shall be deemed to operate on and from 1 December 1978.

7. Customs By-law No. S2493, published in Gazette No. S259 dated 30 November 1978 is revoked as from 1 December 1978.