



PPPs and the Price Competitiveness of International Tourism Destinations

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Introduction

1. In a series of articles published in recent years (Dwyer, Forsyth and Rao, 1999; 2000a,b,c; 2001; Dwyer, Mistilis, Forsyth and Rao 2001), the authors have sought to construct indices of the price competitiveness of tourism destinations worldwide. These studies make use of the very detailed and extensive price comparisons made by the International Comparisons Program (World Bank 1993, OECD 1987, 1993, 1998).

2. There is evidence that international travellers are sensitive to price (Crouch 1991). Therefore, it is important to pay particular attention to the *price* competitiveness of a country's tourism industry, as compared to that of its competitors, if the industry is to continue to grow.

3. Earlier studies have focused on destination price competitiveness where this involves comparing exchange rate adjusted expenditures on a similar bundle of tourism goods and services purchased in different locations (Martin and Witt 1987, Edwards 1995). In a major study of tourism price competitiveness the present authors constructed indices indicating the price competitiveness of nineteen destinations, taking account of travel costs to and from, as well as costs incurred within these destinations. These indices can be employed to determine, from the perspective of visitors from different origin markets, a nation's or region's tourism price competitiveness in absolute and relative terms. (Dwyer et al. 2000a). The indices can be used to assess a destination's tourism price competitiveness from the perspective of visitors having different journey purpose (Dwyer, Forsyth and Rao 1999, 2000b,c; Dwyer, Mistilis, Forsyth and Rao 2001). They can also be decomposed to determine the relative influences of exchange rate changes and domestic inflation rates on destination price competitiveness (Dwyer, Forsyth and Rao 2001).

4. The aims of this paper are: first, to demonstrate the importance of price in travel decisions; second, to demonstrate the use of PPPs in constructing tourism price competitiveness indices; third, to identify the types of studies that the author's studies have undertaken using PPP data in the construction of tourism price competitiveness indices; fourth, to demonstrate the policy relevance of these measures; and finally, to discuss the implications for the ICP in the provision of data for measuring international tourism price competitiveness.

The Price Sensitivity of Tourism Demand

5. The competitiveness of an industry is a critical determinant of how well it performs in world markets. The potential for any country's tourism industry to develop will depend substantially on its ability to maintain competitive advantage in its delivery of goods and services to visitors. Competitiveness is a general concept that encompasses price differentials coupled with exchange rate movements, productivity levels of various components of the tourist industry and qualitative factors affecting the attractiveness or otherwise of a destination.

6. We may distinguish several determinants of the demand for tourism:

- i) Socio-economic and Demographic factors such as population, income in origin country, leisure time, education, occupation etc.

Empirical research indicates that per capita income has the greatest impact on outbound tourism flows from individual countries. Those countries where outbound tourism is growing most rapidly are those, which are experiencing high real rates of economic growth (Crouch 1992, 1995).

- ii) Qualitative Factors - This category comprises variables such as tourist appeal, image, quality of tourist services, destination marketing and promotion, cultural ties etc. The strength of these factors will reflect changing fashions and tastes (Crouch and Ritchie 1999)

- iii) Price Factors - The cost of tourism to the visitor includes the cost of *transport services* to and from the destination and the cost of *ground content* (accommodation, tour services, food and beverage, entertainment etc.). Both types of costs are relevant to the travel decision. Changing costs in particular destinations relative to others, and adjusted for exchange rate variations, are regarded as the most important economic influence on destination shares of total travel abroad. According to Edwards (1995) study of cost competitiveness of selected countries in the Asian Pacific region, in both the medium and long term, an increase in relative cost can be shown to be linked to a fall in market share in travel from every origin country. A fall in relative cost is linked to a rise in market share (Crouch 1992, 1994)

7. The relevance of measures of price competitiveness is being recognised in studies of the tourism industry. Demand studies now go beyond using the nominal exchange rate as a crude measure of price competitiveness and beyond the use of real exchange rates (nominal rates adjusted for changes in the general level of prices). Thus, studies have attempted to determine exchange rate adjusted changes in the prices of identified 'tourist bundles' of goods and services. (Martin & Witt, 1987) However, these do not go beyond trends and do not determine whether a country is more or less competitive than another at a particular point of time. To measure the level, as opposed to simply trends in tourism prices, cross-sectional studies using the prices paid by tourists in different countries are needed. The Economist Intelligence Unit has undertaken a number of studies (Edwards, 1995) that gather together prices paid by tourists in selected countries. These studies go into considerable detail. Notwithstanding, they do not incorporate all forms of tourist expenditure and they do not lend themselves to extension of the sample of countries or time periods.

8. There is therefore a case for developing tourism price competitiveness indices that compare the prices in different countries of the goods and services that tourists actually buy. With data on detailed international price comparisons now available from the ICP, it is possible to construct a specialised tourism price competitiveness index. Prices for the goods and services that tourists buy, are obtained for different countries and are then combined using weights obtained from their shares in tourist budgets.

Use of PPPs in Constructing Tourism Price Competitiveness Indices

9. The construction of price competitiveness indexes for tourism in a selected destination requires several steps to be undertaken:

- First, the origin countries are chosen. Since visitors from different origins will have different purchasing patterns, a set of origin markets must be highlighted. The major current and emerging origin markets for the selected destination are used.

- Second, the destination markets are chosen. These include the major competitors of the selected destination. This reflects the fact that competitiveness is an essentially relative concept. A destination's price competitiveness can be fully understood only in comparison to alternative destinations that the visitor can choose.
- Third, expenditure patterns of tourists from different origin markets must be identified. In order to compute price competitiveness indexes it is necessary to attach weights to different goods and services consumed by tourists to reflect purchasing patterns. For many tourism destinations, these weights are available in the form of share of expenditure of each of the items in the tourist basket. Expenditure, in total and in pattern, varies depending upon the origin market of the visitor and the destination. Unfortunately, destinations vary considerably in the comprehensiveness and accuracy of the expenditure data that they collect.
- The fourth step involves the compilation of relevant price data. Price data can be compiled for each of the items comprising expenditure of tourists. A major source of data on the prices paid by visitors for goods and services in different destinations is the International Comparison Program (ICP)(World Bank 1993). Price data for 255 categories of products and services can be extracted from the ICP for selected years since 1985 and updated to current values using disaggregated consumer price index data for each competitor tourism destination.
- Fifth, price and expenditure share data are aggregated. In order to compute price competitiveness indices it is necessary to attach weights to different products and services consumed by tourists to reflect purchasing patterns . The weights used are the share of expenditure of each of the items in the tourist basket. Since price data are available at a very disaggregated level (255 different goods and services) while expenditure patterns are reported for only a small number of broad categories (eg. accommodation, food, shopping, entertainment, etc.), it is necessary to establish a correspondence between items in ICP categories and international visitor expenditure categories.
- Sixth, purchasing power parities for tourism expenditure are calculated. Establishment of a correspondence between tourist purchasing patterns and price data enables derivation of Purchasing Power Parities (PPP's) for each category of tourist expenditure. PPP's indicate the levels of expenditure required in different destinations to purchase the same basket of tourism goods and services.

10. Finally, PPP's are adjusted by exchange rates to derive price competitiveness indexes. The basic idea behind the index is to measure the level of prices of goods and services in a competitor destination, relative to prices in a selected destination Australia and then adjust for exchange rates

$$\text{Price Competitive Index} = \text{PPP/Exchange Rate} \times 100$$

11. Interpretation of the price competitiveness indexes is straightforward. A particular destination is taken as base and its index is 100. For any destination, a price competitiveness index less than 100, indicates that destination to be more price competitive than the selected destination. Similarly, a figure above 100 indicates that the destination is less price competitive than the selected destination. The values of the indexes allow destinations to be ranked according to their price competitiveness. The absolute values of the indexes can also be compared to determine the extent to which different destinations vary in price competitiveness in tourism. Both types of information can be used to measure the destination's price competitiveness in tourism in *relative* and *absolute* terms.

Price Competitiveness of Selected Tourism Destinations

12. Underlying a major study of the price competitiveness of international tourism destinations, commissioned by the Tourism Council of Australia, the nation's peak tourism industry body (Dwyer, Forsyth, Rao and Valerio 1998) was the question: what would a bundle of goods and services purchased within Australia by a tourist cost if that same bundle were to be purchased in another destination? To answer this question, and to construct indices of tourism price competitiveness, the authors made extensive use of price data from the ICP. In these studies, Australia, which has comprehensive visitor expenditure data, was taken as the base destination. and given a value of 100 for each set of index numbers constructed.

13. T able 1 provides an example of the type of expenditure data that provided the basis for the study. It relates to expenditure patterns of the 'representative' tourist to Australia from different origin markets. The Australian tourism expenditure data is very comprehensive and covers other types of tourists also eg. holiday, business, VFR, other. These other tables are not shown here.

Table 1
International Visitor Survey, 1998
Average Expenditure by all visitors

	United States	Germany	Japan	New Zealand	UK	South Korea	Indonesia	Taiwan	Hong Kong	Thailand	Malaysia	China
Food and drink	420	581	289	231	550	280	330	189	394	408	301	435
Accommodation	555	672	277	167	406	506	370	409	335	307	284	481
Shopping	362	414	475	390	387	689	723	656	574	805	597	593
Entertainment	78	82	23	50	105	52	60	43	76	49	48	80
Self-Drive cars	70	242	8	43	71	9	22	2	29	10	25	42
Taxis, limousines	43	33	19	26	42	19	47	23	43	46	33	50
Petrol, oil costs	29	126	4	16	43	12	12	9	18	6	17	15
Convention/registration	14	9	1	15	29	6	13	10	17	4	12	8
Organised tours (no acc)	73	127	135	23	67	94	33	80	69	29	45	16
Total	1660	2329	1241	970	1749	1677	1616	1423	1559	1668	1367	1722

Source: Bureau of Tourist Research, *International Visitor Survey 1999* with additional data supplied by Department of Tourism.

A brief overview of some results is appropriate.

Price Competitiveness of Australian Tourism by Origin Market

14. Visitors from different origin markets have different purchasing patterns whilst in Australia. For some visitors (eg. those from the USA), expenditure on accommodation is relatively large, while for others (eg. Asians), shopping comprises a large proportion of their total expenditure. For each origin market, Australia's price competitiveness was estimated and ranked relative to other destinations in the competitor set. The price competitiveness indices appear in Table 2 and are displayed in Figure 1. As figure 1 shows, Australia's price competitiveness on the ground component, from the perspective of each origin market, ranges between 7th and 10th. Number 1 indicates the top ranking; 18, the lowest.

Table 2
Price Competitiveness Indices for Various Destination Countries
Ground Component
Year = 1998, Australia = 100

<i>Origin</i>														
<i>Destination</i>	Japan	US	Germany	New Zealand	UK	South Korea	Indonesia	Taiwan	Hong Kong	Thailand	Malaysia	China	All Countries	Rank
Australia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	9
New Zealand	97.6	102.7	104.1	-	97.6	98.5	98.7	101.3	102.0	101.6	100.8	98.3	98.8	8
United States	126.4	-	125.6	112.6	123.2	121.5	114.7	120.6	118.1	113.8	115.6	120.8	121.8	13
Canada	110.0	114.1	112.0	100.4	108.9	106.9	101.2	105.5	103.6	99.7	100.6	105.7	106.5	11
France	154.1	159.5	158.2	139.3	151.5	148.8	134.2	148.1	141.4	136.2	130.9	143.1	148.4	18
Italy	119.0	123.0	124.8	113.3	121.7	114.7	109.9	113.5	114.5	110.0	92.4	114.7	117.2	12
UK	148.6	159.8	162.6	139.3	-	147.3	133.7	145.3	141.2	134.4	138.5	143.7	147.3	17
Germany	140.8	140.6	-	129.9	137.7	134.8	126.7	135.0	132.3	128.7	127.6	130.9	135.7	15
Spain	106.2	108.6	110.7	104.1	108.5	103.2	102.5	102.6	104.1	101.0	90.5	103.9	105.6	10
Turkey	68.9	74.2	77.4	69.4	69.6	71.8	71.1	70.2	68.6	68.2	51.2	73.0	70.7	6
Switzerland	149.7	149.3	147.1	141.8	150.4	140.4	137.2	141.2	144.5	141.6	141.2	141.4	145.6	16
South Korea	36.1	64.4	67.2	58.4	62.6	-	61.8	57.2	59.6	57.9	50.8	64.4	59.9	5
China	3.5	36.5	36.6	26.6	30.3	33.5	33.3	31.1	29.5	28.4	29.1	-	31.6	2
Hong Kong	115.5	133.2	146.0	125.1	132.5	124.1	119.9	120.5	-	120.8	119.0	129.2	124.7	14
Taiwan	77.2	81.3	77.2	68.5	74.6	75.5	73.9	-	72.5	69.8	66.1	76.0	74.9	7
Indonesia	18.9	20.0	19.6	17.2	18.6	20.0	-	18.7	18.8	18.0	15.4	21.2	19.2	1
Thailand	30.8	35.8	38.8	36.0	35.9	35.5	39.0	33.3	35.4	-	34.3	39.0	34.9	3
Japan	-	157.0	159.0	147.3	160.8	149.0	140.8	146.0	150.2	145.0	128.9	149.0	151	19
Malaysia	40.2	44.0	41.5	37.3	40.0	42.0	43.4	40.4	40.0	38.6	-	43.0	41	4
Australia Ranking	9	8	8	8	9	8	7	7	8	8	9	8		

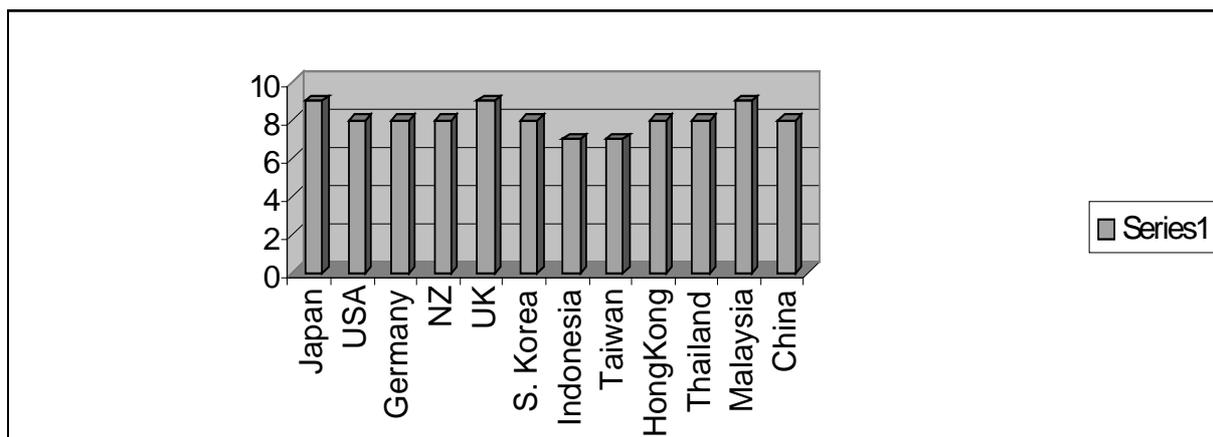


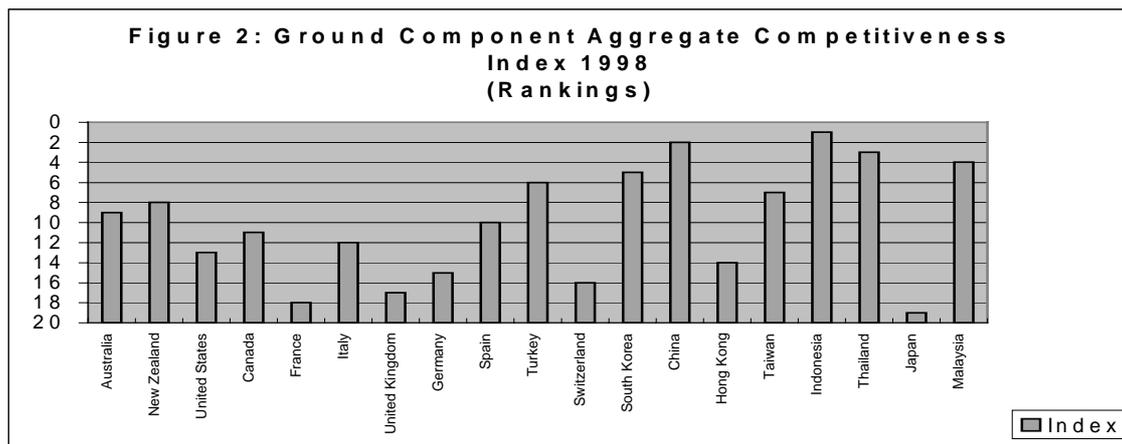
Figure 1. Australia's Tourism Price Competitiveness from Perspective of Key Origin Markets (Rankings), 1998

15. The price competitiveness rankings for ground content suggest that Australia ranks around the middle for the majority of the selected origin markets.

16. The rankings disguise some interesting data in Table 2. From the perspective of visitors from New Zealand, Indonesia, and Malaysia, Australia ranks only marginally above Canada and small price increases in Australia could see its overall ranking decrease. On the other hand, New Zealand's price competitiveness from the perspective of visitors from South Korea, Indonesia, Taiwan, Hong Kong, Thailand, Malaysia and China, is very close to that of Australia and small changes in prices in that nation, could, depending on directions, see Australia's ranking increase or decrease.

Aggregate measure of tourism price competitiveness

17. The data allows the construction of aggregate price competitiveness indexes for all destinations in the competitor set. The aggregate index is the price competitiveness index computed for a "typical" or average tourist. This index appears as the second last column of Table 2 and the rankings appear in the last column. The rankings are displayed in Figure 2. The index is derived as a weighted average of indices for each origin market with respect to every destination. The index is weighted by visitor numbers to Australia from each origin market.



18. Figure 2 illustrates that the top ranked destination in the competitor set is Indonesia and the lowest ranked destination is Japan. Australia is ranked in the middle at 9th. In respect of the level of price competitiveness, indicated in the final column of Table 2, there is a clear gap between Australia (100) and the 7th ranked destination, Taiwan (74.9). It seems clear that Australia and lower ranked destinations will be unable to match the price competitiveness of most Asian destinations in the foreseeable future.

19. One thing that is striking is that there are wide variations in destination price competitiveness. That is, tourism prices differ widely from country to country. The indices provide a quantitative indication of these prices. Any empirical demand study, which uses data from a cross section of countries, would be seriously in error if it simply used nominal exchange rates-tantamount to assuming a price competitiveness index of 100 for all countries.

20. These observations are consistent with the more general observation that purchasing power parity does not hold across countries-even approximately. There are systematic differences in price levels, even between countries, which trade intensively. Higher income countries tend to have higher prices, and lower income countries lower prices; however, there are important exceptions to this such as Australia and the USA.

21. The group comprising the USA, Australia, Canada and New Zealand all tend to have similar price levels. To a degree, this reflects their structure- all are high-income countries, which have significant exports of primary products and resources. For reasons yet to be determined, these countries have lower price levels than comparable high-income countries, such as many in Europe.

22. With the exception of Spain, European countries are now very expensive for the visitor. This is especially true of France. Successful manufacturing exporting industries have pushed real exchange rates up, making their tourism industries relatively uncompetitive price-wise. Several of these countries are major tourism destinations (partly for each other)- reflecting the influence other factors, such as cultural heritage and family visitation, which overcome low price competitiveness.

23. Countries in Asia show the most variation in price competitiveness. Japan is now, and has been for over a decade, a very expensive destination for tourists (and the converse is true- Asian, Oceanic and North American destinations are relatively cheap for Japanese tourists). The enormous success of Japan as a manufacturing exporter has raised exchange rates and made its tourism industry uncompetitive (tempered by recent falls in the value of the Yen). Hong Kong has also ceased to be a price competitive tourism destination.

24. At the other end of the spectrum is Indonesia, which is highly price competitive. In late 1997 the Indonesian exchange rate had plunged to a (temporarily) very low level, and domestic prices were yet to rise. In spite of this, Indonesia remains a very price competitive destination. The exchange rate falls in late 1997 also exaggerate the price competitiveness typically associated with Malaysia, Thailand and South Korea. Exchange rates were estimated as at December 31 1998, and thus take account of the sharp falls in the value of the currencies of Asian 'meltdown' economies of Thailand, South Korea, Malaysia and Indonesia in late 1997.

Price competitiveness by journey purpose

25. Since tourist expenditure patterns are associated with purpose of journey, the price competitiveness of a tourist destination will vary according to purpose of visit.

26. Australia has data on expenditure patterns of tourists classified according to their purpose of visit. Four major purpose of visit categories are: total tourism, holiday tourism, business tourism, visiting friends and relatives (VFR). The different expenditure data is presented in a format similar to Table 1. Price competitiveness indices, presented in the same format as Table 2, were constructed for each type of visitor.

27. The price competitiveness indices reveal that a destination may be price competitive from the perspective of some tourists, but not for others, depending on purpose of visit. Australia, for example, is relatively more price-competitive from the perspective of business travellers than holiday travellers, given its relatively lower priced accommodation in high standard hotels of the type patronised by business persons (Dwyer et al 1999).

28. The results also help to identify other market segments for which a destination's price competitiveness can be determined. Singapore, for example, distinguishes several types of motivations for visitation- pleasure/vacation; stopover; business; in transit; business/pleasure; visit friends/relatives; honeymoon; group tour/ non group tour. In principle, depending on the quality of the expenditure data for each category of traveller, price competitiveness indices can be constructed and compared with alternative destinations. The analytical framework can, data permitting, also be applied to determine destination price competitiveness for special interest tourism markets such as ecotourism, backpacking, cruise tourism etc. This outcome can affect the type of marketing and promotion programs aimed at these categories of visitors and highlight market segments which can be monitored for their competitiveness over time.

Price competitiveness by tourism sector

29. Price Competitiveness Indices can be disaggregated so as to provide information on destination price competitiveness in respect of key tourism products and services. In addition to overall price competitiveness, it is very useful to determine the price competitiveness of accommodation, food and beverages, organised tours, shopping, entertainment etc. Such data can provide a firmer basis for policies to enhance efficiency and productivity in different sectors of the tourism industry.

30. Price Competitiveness Indices for each of eleven major categories of goods and services that comprise tourist expenditure, were constructed for each destination in the competitor set, for 1998. (Dwyer et al. 2000c). The values of the indices enables destinations to be ranked according to their price competitiveness on each of the eleven major tourism services and products which they deliver to visitors. These products and services are: food; drink; accommodation; shopping; entertainment; self-drive cars; train, coach fares; taxis; organized tours; petrol; conventions. The selection of these products and services was determined by the fact that Australia collects detailed visitor expenditure data on these items. The absolute values of the index numbers indicate the extent to which destinations vary in their relative price competitiveness for each category of goods and services.

Table 3
Price Competitiveness Indices By Tourist Products in Selected Countries 1998

<i>Expenditure category</i>	Aust	USA	Canada	NZ	Germ	Italy	France	Spain	Switz	Turkey	UK	Japan	South Korea	Indon	Taiwan	Hong Kong
Food	1.000	1.225	0.957	1.009	1.428	1.455	1.523	1.209	2.032	0.670	1.471	2.271	0.824	0.172	0.690	1.600
Drink	1.000	1.255	1.273	0.969	1.153	1.041	1.073	0.942	1.337	0.578	1.370	1.736	0.826	0.195	0.779	1.988
Accomodation	1.000	1.846	1.528	1.184	1.539	1.317	2.177	1.073	1.308	1.066	2.376	1.778	1.110	0.493	1.265	1.973
Shopping	1.000	0.882	0.790	0.937	1.167	0.921	1.146	0.902	1.276	0.614	1.061	1.178	0.398	0.105	0.508	0.974
Entertainment	1.000	0.887	1.069	0.985	1.268	1.590	1.381	1.459	1.391	0.632	1.211	1.306	0.395	0.104	0.503	0.661
Self-drive cars	1.000	1.004	0.911	1.355	1.114	1.099	1.260	1.206	1.081	1.574	1.538	0.983	0.762	0.130	0.629	2.243
Train, coach fares	1.000	1.175	1.485	0.249	2.208	1.240	2.274	1.063	1.721	0.307	2.437	2.382	0.284	0.144	0.701	0.564
Taxis	1.000	1.155	1.040	0.725	1.213	0.715	1.306	0.836	1.682	0.308	1.387	1.542	0.292	0.149	0.721	0.580
Organised tours	1.000	1.288	1.485	0.496	2.042	1.507	2.224	1.263	1.523	0.497	2.009	1.954	0.311	0.158	0.769	0.619
Petrol	1.000	0.749	0.951	1.152	1.562	2.258	2.004	1.699	1.977	0.945	2.077	2.008	0.912	0.096	0.464	3.653
Conventions	1.000	0.814	0.700	0.783	1.301	1.280	1.595	1.335	1.391	0.386	2.067	1.550	0.469	0.093	0.452	1.611

Source; Price Competitiveness indices based on PPP's divided by Exchange Rates. Thus lower numbers denote greater price competitiveness.

31. Table 3 sets out price competitiveness indices by origin market for each of 11 major categories of goods and services comprising tourist expenditure in Australia for the year 1998. The price competitiveness indices for particular goods and services are interpreted in the same way as for those relating to destination price competitiveness. Thus, comparing Australia with the USA, the latter is a more expensive destination for the tourist in respect of food, drink, accommodation, self-drive cars, train, coach, taxis, and organized tours, but less expensive for shopping, entertainment, petrol and conventions.

32. The authors have also compared the price competitiveness of particular tourism products and services over time. Thus, price competitiveness indices for the eleven selected tourist products and services were constructed for 1985 and 1998, and analysed for changes. (Dwyer et al. 2000c). Sectoral price competitiveness indices can also be updated regularly to monitor destination price competitiveness in key products and services. This will require detailed expenditure patterns of tourists according to their country of origin or according to their motive for visit, coupled with accurate price data. Unfortunately, very few countries maintain accurate data on tourist expenditure patterns and international price data enabling the types of comparisons required is published irregularly.

Sources of and Trends in Tourism Price Competitiveness

33. Price competitiveness indices can be used to explore questions of how the competitiveness of destinations change over time and what causes these changes.

34. The authors have sought to extend their earlier studies of tourism price competitiveness by identifying changes in its underlying determinants. The price competitiveness indices were constructed for the period 1985-1997, and 1997-98 (following the Asian currency crisis which impacted substantially on both outbound and inbound travel), and are reproduced in Tables 4 and 5. These indices isolate the effects of exchange rate movements and shifts in tourism prices relative to the general consumer price index movements. The year 1985 was selected as the benchmark year as it was the latest year for which ICP PPPs are available on global basis (World Bank 1993).

Table 4 Changes in Tourism Price Competitiveness and Their Sources, 1985 - 1997

Country	Price Competitiveness Index 1985	Price Competitiveness Index 1997	Ratio 97/85	Exchange Rate Ratio	Relative CPI Change	Tourism/ CPI Prices Change
Australia	100	100	1.00	1.00	1.00	1.00
USA	86	85	0.98	0.93	1.06	0.99
Canada	92	94	1.02	1.00	1.08	0.95
NZ	108	95	0.88	0.78	0.89	1.28
Germany	102	75	0.74	0.57	1.23	1.05
Italy	111	88	0.79	0.86	0.89	1.03
France	100	69	0.69	0.86	1.18	0.95
Spain	136	99	0.73	0.83	0.85	1.03
Switzerland	89	68	0.76	0.55	1.17	1.18
Turkey	197	170	0.97	93.26	0.04	0.66
UK	92	70	0.76	0.71	0.94	1.13
Japan	67	65	0.97	0.51	1.34	1.36
Sth Korea	121	212	1.75	1.76	0.81	1.23
Indonesia	260	528	2.03	4.69	0.60	0.72
Taiwan	163	142	0.87	0.77	1.05	1.09
Hong Kong	104	82	0.79	0.93	0.76	1.12
Thailand	171	337	1.97	1.61	0.89	1.37
Malaysia	186	260	1.40	1.46	1.08	0.87
China	412	329	0.80	2.62	0.48	0.63

Source: World Bank World Development Report 1997: Accommodation Survey Data (PKF 1996, 1997),

Note: Price competitiveness indices derived by dividing exchange rates by PPPs. Thus greater numbers denote more price competitive destinations.

Table 5: changes in Tourism Price Competitiveness and their Sources 1997-1998

Country	Price Competitiveness Index 1997	Price Competitiveness Index 1998	Ratio 98/97	Exchange Rate Ratio	Relative CPI Change	Tourism / CPI Prices Change
Australia	100	100	1.00	1.00	1.00	1.00
USA	85	82	0.96	0.96	0.99	1.01
Canada	94	93	0.99	0.99	1.00	1.00
NZ	95	101	1.06	1.05	1.01	1.01
Germany	75	74	0.99	0.95	1.00	1.04
Italy	88	85	0.97	0.95	0.99	1.03
France	69	67	0.97	0.95	0.99	1.03
Spain	99	95	0.96	0.95	1.00	1.01
Switzerland	68	69	1.01	0.96	1.01	1.04
Turkey	170	142	0.84	1.22	0.59	1.17
UK	70	68	0.97	0.99	0.98	1.02
Japan	65	66	1.02	0.97	1.01	1.04
South Korea	212	167	0.79	0.83	0.94	1.01
Indonesia	528	521	0.99	1.73	0.65	0.88
Taiwan	142	134	0.94	0.95	0.99	1.00
Hong Kong	82	80	0.98	0.96	0.98	1.04
Thailand	557	287	0.85	0.85	0.95	1.05
Malaysia	260	245	0.94	0.97	0.96	1.01
China	329	317	0.96	0.96	1.00	1.00

Sources: based on World Bank Development report 1997, accommodation survey data (PKF 1996,1997 and 1998); Internet sources for CPI, the Economist and the Far Eastern Economic Review.

Note: Price competitiveness indices derived by dividing exchange rates by PPPs. Thus greater numbers denote more price competitive destinations

35. In Tables 4 and 5, the first two columns report price competitiveness indices for the two years and the third column shows the ratio of these. In this (earlier) work of the authors the price competitiveness indices were determined by dividing the exchange rate by the PPP. On this definition of price competitiveness a number greater than unity indicates an increase in price competitiveness. The definition given on page four, wherein PPPs are divided by the exchange rate is now the preferred way of displaying price competitiveness indices since there is a logic to having lower numbers represent more price competitive destinations. The implications of the figures are the same as long as one interprets them in a consistent manner.

36. The fourth column of Tables 4 and 5 shows the exchange rate effect. Similarly, a number greater than unity indicates improved competitiveness relative to Australia. In respect of exchange rate movements only (disregarding domestic price changes). The fifth column shows the inflation rate relative to Australia. In the last column, the residual is shown which indicates the contribution of the ratio of tourism prices to prices in general.

37. The changes in the price competitiveness of tourism destinations between the designated years are the outcomes of changes in a range of factors. Firstly, nominal exchange rates have changed. These partly reflect differences in inflation, as measured by changes in CPIs, in different countries - though not entirely, since real exchange rates may have altered. It is also possible for there to be shifts in the structure of prices within countries. Prices in the tourism sector can rise and fall relative to prices in general.

38. For expositional purposes the information in Tables 4 and 5 may be set out as in Exhibit 1. A plus sign indicates movement towards increased tourism price competitiveness while a minus sign indicates the reverse. Sometimes exchange rate changes and price changes reinforce each other in their impacts on tourism price competitiveness (eg. the UK), and sometimes they act in opposite directions (eg. Japan).

Exhibit 1 Source of Changes in Price Competitiveness of Tourism 1985-1997,1997-1998

Destination	Overall change in price competitiveness.		Exchange rate changes		Price Changes		Tourism prices relative to other prices	
	1985-97	1998	1985-97	1998	1985-97	1998	1995-97	1998
USA	-	-	-	-	+	-	-	+
Canada	+	-	+	-	+	0	-	0
NZ	-	+	-	+	-	0	0	+
Germany	-	-	-	-	+	0	-	+
Italy	-	-	-	-	-	-	-	+
France	-	-	-	-	+	0	-	+
Spain	-	-	-	-	+	0	-	+
Switzerland	-	+	-	-	+	+	-	+
Turkey	-	-	+	+	-	-	-	+
UK	-	-	-	-	-	-	-	+
Japan	-	+	-	-	+	+	-	+
Sth Korea	+	-	+	-	-	-	-	+
Indonesia	+	-	+	+	-	-	-	-
Taiwan	-	-	-	-	+	-	-	0
Hong Kong	-	-	-	-	-	-	-	+
Thailand	+	-	+	-	-	-	-	+
Malaysia	+	-	+	-	+	-	-	+
China	-	-	+	-	-	0	-	0

Source: Tables 4,5, Note: a plus sign indicates that the relevant change impacted positively on overall tourism price competitiveness (eg exchange rate depreciation, relatively low inflation rate); a minus sign indicates a negative impact (eg exchange rate appreciation, relatively high inflation rate) . Zero denotes no change.

39. Between 1985 and 1997 all destinations that experienced increased tourism price competitiveness relative to Australia experienced falling currencies relative to the Australian dollar. For some destinations-South Korea, Indonesia, Thailand, Malaysia, their exchange rate movements were primarily responsible for their increased tourism price competitiveness. Some countries, including Canada and Malaysia, also enjoyed lower inflation rates relative to Australia, thereby further enhancing their relative tourism price competitiveness. In no countries that experienced increased tourism price competitiveness relative to Australia were price movements primarily responsible for this. For those countries which experienced reduced tourism price competitiveness relative to Australia, exchange rate appreciations and higher inflation rates played a combined role, as they did for New Zealand, Italy, Spain, Turkey, UK, Hong Kong and China Interestingly, during this period, most destinations in the competitor set experienced a higher rate of inflation in general prices than in the prices of tourism goods and services, the exceptions being the USA, Canada, France, Turkey, Indonesia, Malaysia and China.

40. Due to the fact that detailed tourism prices are not available for 1997 and 1998 and movements in tourism prices were projected from broad categories of prices within CPI's, a reliable separation of effects into CPI and movements and changes in tourism prices relative to the CPI is not possible for this period. However, the separation into exchange rate and price effects is reliable. Between the end of 1997 and the end of 1998, Australia experienced increased tourism price competitiveness relative to all major competitor

destinations except New Zealand, Japan and Switzerland. The enhanced tourism price competitiveness of New Zealand, relative to Australia, was primarily due to exchange rate movements while price movements were primarily responsible in the case of Switzerland and Japan. For North America, both the USA and Canada experienced reduced price competitiveness during 1998. Both countries experienced an appreciation of their exchange rates while the USA also experienced a slightly higher inflation rate. Interestingly for the USA, tourism prices increased at a slower rate than did the Consumer Price Index. Every European country, except Switzerland, experienced a deterioration in price competitiveness during 1998. Each, except Turkey, experienced appreciation of its exchange rate relative to Australia. With the exception of Switzerland and Spain these countries, had higher rates of inflation than Australia. Exchange rate and price changes generally operated in the same direction to reduce tourism price competitiveness.

41. Some of the gains made from devalued currencies are offset by relative increases in the consumer prices in these countries. The results for Asian destinations are interesting. In the two years following the currency crisis, those destinations that have had substantial depreciations in the exchange rate (Indonesia, Malaysia, Thailand South Korea) have also had rapid price rises. In part, those price rises have been exacerbated by exchange rate depreciation, since the prices of imported and exported goods have been rising, and adding to general price inflation. This is an ongoing process - the depreciations of late 1997 are likely to push prices up well past the year 2000. The overall results are that the gains in tourism price competitiveness achieved by the Asian countries with depreciating currencies have been less than indicated by the currency depreciation. This highlights the danger of using the exchange rate as a measure of price competitiveness. It is very likely that the changing economic conditions, globally and within Asia, are having a continuing impact on tourism price competitiveness indices. Those Asian countries which keep inflation rates in check, however, are likely to preserve their competitiveness gains over the past two years.

42. The price indices reveal an interesting outcome of the Asian currency crisis for a destination such as Australia which has significant market shares of tourists from different geographic markets. In the immediate post crisis period, Australia lost price competitiveness relative the countries directly affected by the crisis but gained relative to other markets. While Asian destinations became more price competitive following the exchange rate falls, resulting in some loss of tourism to Australia, the reduced tourism price competitiveness of North American and European destinations appears to have cushioned the overall impact of the crisis on Australian inbound tourism flows. Certainly, following the crisis, Australia experienced increased numbers of tourists from its traditional source markets in North America and Europe (Tourism Forecasting Council 2000).

43. In the above study, no attempt was made to determine or discuss annual variations in the price competitiveness indices. Comparisons between two data points (eg. 1985 and 1997) may conceal fluctuations in tourism price competitiveness in the years in between. Ideally, estimates of the indices should be produced annually at least. Nevertheless, what emerges from this discussion is that both exchange rate changes and price changes are impacting on tourism price competitiveness, with exchange rate changes appearing to be more important in Asian countries and price changes more important in some European countries.

Policy Relevance of Price Competitiveness Indices

44. It is common, in discussing patterns of competitiveness, to look at trends in relative prices that tourists pay. These are useful, but they say nothing about what the levels are, and thus, how significant the trends might be. Price competitiveness indices, such as those developed here, do provide more information on the relative price competitiveness of different destinations than any of the alternatives, since they compare tourist expenditure on the same bundle of goods and services in different destinations.

45. For the most part, a destination's price competitiveness in total tourism or in some market segment, will be the outcome of its industry structure, the conduct and performance of firms, industrial productivity, and government microeconomic and macroeconomic policies, past and present (Dwyer et al. 1998; Crouch and Ritchie 1999). Once measures of price competitiveness have been developed, they can be used to

analyse a range of issues. It is important to be aware of which factors are determining the price competitiveness of the industry. It is useful for the industry and government to understand where a country's competitive position is weakest and strongest. It is helpful for both industry and government to know how price competitiveness is changing and why these changes are occurring. Patterns of changes in demand need to be assessed in the light of changes in price competitiveness.

46. While the expenditure patterns underlying construction of the price indices are those for Australian inbound tourism, the method has general applicability. The price competitiveness indices developed in this study enable comparisons of the prices of the goods and services that comprise the tourism product to be compared across countries and across different sectors of the tourism industry. They go beyond measured trends in prices and provide information on actual relative prices in different countries at a point of time. They enable us to see just how much more competitive one country is, compared to another, in offering the pattern of goods and services that tourists purchase.

47. Since the tourism sector has wide ranging links to a myriad of other industries there is often very little that tourism operators can do to influence the price competitiveness of their products and services in the absence of reforms elsewhere in the economy. Notwithstanding this, industry stakeholders can employ these results to help assess the impacts of alternative government policies on their international price competitiveness. The price competitiveness indexes can be used to explore the impact on overall competitiveness of particular policy measures. Some prices that tourists pay are susceptible to policy intervention while others are not. By examining price competitiveness indexes, and the components that comprise them, strategies can be formulated to achieve greater competitiveness of a destination. The results have implications for the direction of macroeconomic policy, industry policy and destination marketing.

48. While tourism operators may have little control over their country's exchange rates they may have some degree of control in issues involving pricing. The price competitiveness indices can also be used to determine the impacts of policy measures affecting prices paid by tourists (eg tourist taxes). Used with caution price competitiveness indices, such as those developed here, do provide more information on the relative price competitiveness of different destinations than any of the alternatives, since they compare tourist expenditure on the same bundle of goods and services in different destinations. They also enable the changing sources of tourism price competitiveness to be identified and analysed. They can provide the basis for tourist industry policy to enhance destination price competitiveness through studies of the productivity and efficiency of different tourism industry sectors.

49. The price competitiveness indices also have particular relevance for destination marketing. They indicate that a destination may be price competitive from the perspective of some tourists, but not for others, depending on purpose of visit. It is important that stakeholders in the private and public sectors of tourism understand for which market segments their tourism product is more or less competitive than other destinations. In an increasingly competitive global tourism environment, the price competitiveness of special interest markets may be expected to assume greater attention by policy makers. The issues addressed in this paper should provide a useful basis for further exploration of price competitiveness by journey purpose, an area relatively neglected in the research literature.

50. Price competitiveness indices have several limitations. For a start, indices are no better than the data on which they are based. The collection of comparable sets of prices, in detail, across a wide range of centres, is a relatively new process, and there are still problems being sorted out. Some of the individual price categories pose considerable problems. For example, of relevance to the present study, the comparison of airfares across countries is notoriously difficult, since there are a vast array of fares in most

countries and it is difficult to compare like with like. The same is true with accommodation prices. In this study, two different sources of accommodation prices (the ICP study prices and Hotel rate surveys) have been used. Both have their limitations.

51. In the price competitiveness indices constructed by the authors patterns of tourist expenditure in Australia have been used as the weights. Patterns of tourist expenditure in other countries differ; for example; shopping is more important in countries such as Hong Kong. Destinations that are not competitive in providing one type of tourist product (beach or nature- based holidays) may be very competitive in supplying others (shopping trips). To the extent that tourists display different purchasing behaviour in different destinations, the price competitiveness indices will vary from those estimated in this study. While the consistency of patterns across different origins, with different expenditure shares, suggests that results may not be very sensitive to this difference, useful research can be undertaken on constructing sectoral price competitiveness indices using other destinations as base case.

52. Another limitation of the study is that data used are economy wide data, and there may well be significant variations in tourism prices across regions within a country. Thus, hotel prices in Florida differ from hotel prices in New York. And, it is not the case that rates for every hotel in every region in Thailand are lower than for every hotel in every region in the USA. Nevertheless, rates in Thailand are, on average, lower than for the USA (and for similar types of accommodation, Thai rates will be lower than those for North America). All aggregate, economy wide statistics have this problem. The methodology for constructing price competitiveness indices allows such indices to be completed for different regions within a tourist destination. This has implications for the ICP (see below).

Implications for the ICP

53. Based on the experience of the authors in using the published PPP information for purposes of calculating price competitiveness indices for various tourist destinations, it is possible to identify a number of areas where provision of ICP results could be further improved. Such improvements have the potential to enhance the quality of the competitiveness indices and provide for a wider use and applications of ICP PPPs.

54. *Coverage of countries:* One of the main problems encountered in the use of ICP PPPs for our work on tourist destination competitiveness is the inadequacy of country coverage. While results are available for the OECD and EU countries on a fairly regular basis, coverage of the Asian countries has been unbalanced and lack of results on a global comparison basis made the application quite difficult. Some of the major destination countries in Asia, such as China and India, are unavailable from the mainstream international comparison publications. The authors feel that, notwithstanding the practical difficulties in extending the coverage, it is important that efforts are channelled into this endeavour.

55. *Quality and detail of PPPs at the basic heading level:* During the course of our work on price competitiveness we found that results at the more disaggregated level attracted considerable interest. For example, relative costs of purchased transport in different countries (including bus, rail and taxis) appear to be of considerable interest when dealing with price competitiveness. While such items are listed among the detailed basic headings in the ICP work, often no PPPs are available or in some cases available for only a small number of countries. In cases where PPPs are available it would be useful if there is some indicator of the quality of PPP estimates. In ICP related publications there is seldom any indication about the reliability of the PPPs published. Often decision to use PPPs at this level appears to be made on the apparent "plausibility" of the published PPP. It would indeed be a very useful indicator that provides guidance to the practitioner if PPPs at a basic heading level can be used and reported on their own. Based on our experience on our own work, PPPs computed at the level of disaggregation that matches the

International Visitor Survey data appear to be quite plausible and various industry experts are in agreement with the tourism destination competitiveness indices derived using published PPPs.

56. *Benchmark comparisons and PPP updates:* Price competitiveness of tourist destinations is a concept that is current which requires indices computed generally up to the current year under consideration. In addition, a long-term series of such indices are very useful in explaining tourism flow over time and in forecasting future tourism demand. Lack of ICP results at the global level has been a major problem encountered in constructing the indices of interest. Often indices had to be constructed after updating the latest set of PPPs available for different countries using country-specific indices at the most disaggregated level available. Availability of benchmark PPPs at more frequent intervals along with annual updates using national deflators has the potential to increase the applicability of PPPs from ICP.

57. A related issue concerns the dissemination of PPP results. Usually summary PPP results are made available on the websites of various international organisations. However, detailed basic heading level PPPs are difficult to find. Regular publication of detailed results, similar to World Bank (1993), using electronic or print media would increase the use of PPPs by researchers for various purposes.

58. *Price data within the ICP program:* The suitability of PPPs in certain applications, such as the computation of indices for tourism, largely depends upon the actual goods and services that are priced within the ICP. In the construction of tourism price indices, we replaced ICP PPPs on hotel accommodation with more detailed price data collected by more specialist bodies that deal with tourist accommodation.

59. The International Comparison Program (ICP) data include hotel accommodation prices. However, these are for accommodation across countries such that domestic tourists might use. International tourists are not always likely to use the accommodation, which is typical for a country- for example, international tourists to India tend to use higher than average quality hotel accommodation. An alternative source of hotel prices lies in surveys of accommodation prices and revenues that are periodically carried out by accounting firms. In this study, surveys by Pannell Kerr Forster (1997) were used to provide hotel prices and thus supplement some of the ICP data. Accommodation rates include accommodation taxes.

60. Currently such decisions are based on industry experience and intuition. In order to eliminate any arbitrariness involved in making such decisions, it would be extremely beneficial if a data bank were to be created where price data collected with item specifications were made available on the websites of relevant international organisations or provided to prospective users covering costs of dissemination. Public availability of price data can result in a more reliable data base, it can result in a more enthusiastic participation by the countries involved.

Conclusions

61. Overall destination competitiveness is determined by price and non price factors. Given some evidence on the price sensitivity of the demand for travel, destinations need to monitor their price competitiveness relative to alternate locations.

62. This paper has sought to demonstrate the importance of price in travel decisions and to highlight the use of PPPs in constructing tourism price competitiveness indices. To illustrate the latter it provided an overview of some recent results of the authors in constructing price competitiveness indices for international tourism. The method of constructing these indices relies heavily on price data from the ICP in estimating the relevant PPPs.

63. The method of constructing price competitiveness indexes can be used to compare the price competitiveness of tourism destinations worldwide. They go beyond measuring *trends* in prices to provide information on absolute and relative prices in different tourism destinations. This allows a quantitative assessment of how much more or less one destination compares in its tourism price competitiveness to another, in supplying particular patterns of tourist purchases. The indexes can be updated regularly to monitor trends in destination price competitiveness, and to determine which sectors may be causing changes in overall price competitiveness through changes in prices of particular goods and services and changes in exchange rates. If the limitations of these price competitiveness indexes are recognised, they can be a valuable tool for policy formulation for any tourism destination to achieve and maintain competitive advantage over competitors, as well as empirical studies of tourism demand.

64. The authors research on tourism price competitiveness is attracting attention internationally. Not only have several publications appeared in the major international tourism journals, but national Tourism Organisations are demonstrating great interest in the results. To date, the authors have been commissioned to undertake studies of the price competitiveness of Australia (Tourism Council Australia) and Singapore (Singapore Tourism Board), and Tourism Canada has also expressed interest in applying the methodology to a study of Canada's tourism price competitiveness. The authors are also currently involved in developing a general framework of tourism competitiveness, comprising price and non price variables, for a project jointly funded by the governments of Australia and Korea. In this context of growing interest in the topic of tourism destination competitiveness, the implications for the ICP in the provision of data for measuring international tourism price competitiveness receive added weight.

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