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CONTEMPORARY TOURISM REVIEWS

Economics of Tourism

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1. Introduction

Tourism has been a major growth industry globally for over five decades. Factors underpinning this growth include the growth of incomes and wealth, improvements in transport, changing lifestyles and consumer values, increased leisure time, international openness and globalization, immigration, special events, education, information and communication technologies, destination marketing and promotion, improved general and tourism infrastructure and so on (Matias et al 2007). Since there are economic consequences to all of these factors it is not surprising that research in the area of tourism economics has increased substantially during the same period. At the same time, the study of tourism economics has attracted relatively few research economists compared to other topics, such as energy and transport economists, within the mainstream discipline.

Although indirectly related to tourism economics, we may argue that the serious study of the field began in the mid 1960s with the seminal book produced by Clawson and Knetsch (1966) on the *Economics of Outdoor Recreation*. Rather prophetically, the book dealt in detail with environmental issues, which are now considered of crucial importance in tourism economics. Four years later, Gray (1970) published a very enlightening book on the interrelation between international travel and trade. From then onwards, tourism gradually gained momentum among economists; interestingly, however, it was not until 1995 that *Tourism Economics*, i.e. the first academic journal dedicated to the study of tourism economics, emerged. As a complementary development it is also worth noting the establishment of the International Association for Tourism Economics in 2007.

Four major observations can be made about the state of research in tourism economics.

- First, there are ongoing areas of research very much within the single disciplinary mainstream economic methodological framework. Obvious topics include demand modelling, forecasting, economic impact and industry analysis (Stabler et al., 2010).
- Second, several areas of research in economics have emerged that were either non-existent two decades ago or were in their infancy. These include Game Theory, Chaos Theory and climate change economics. These have been applied to tourism.
- Third, there are several research areas relevant to the wider context of tourism studies, that tourism economists have virtually ignored, or have relatively neglected. These relate to themes and issues and methodologies of analysis that have been recognized in other fields of the subject. These include ecological economics, poverty alleviation, and sustainable development.
- Fourth, tourism economics has become increasingly quantitative over time, paralleling developments in the economics literature.

Critics have argued that the emphasis on 'positivist/post positivist' epistemologies renders the economics of tourism less relevant than it might otherwise be in addressing real world issues and problems. As Jennings (2007) has argued, quantitative based research has become the 'orthodoxy' for tourism economists and has prevented them from addressing tourism problems in a more holistic, interdisciplinary way appropriate to the complexity of tourism phenomena. Jennings's view is that new and different methodologies and methods must be employed by tourism economists for theory development, to better serve the industry, and for policy formulation. Jennings' review reflects the debate in the wider tourism literature con-

cerning the continued unwarranted adherence to positivist, quantitative oriented orthodoxy in the face of tourism's complexity, rapidly changing characteristics and instability, quite different from its nature in the 1960s.). For some years now geographers (and new economic geographers) have taken up a political economy stance. Williams (2004), advocates a political economy perspective wherein theoretical developments in the approach have relevance to issues in tourism as illustrated by issues such as commodification in the sector's markets, its labour structures and processes and its regulation.

A discussion of the issues that have been addressed in tourism economics for the past 50 or so years reveals that the range of issues addressed is perhaps much wider than the criticisms might imply. We highlight several topics for discussion below.

2. Developments and Current Issues in Tourism Economics

a. Tourism Demand and Forecasting

Demand modelling, one of the most developed and rigorous areas of the economic analysis of tourism, is a long-established area of economic research and continues to be so. Research over the past four decades suggests that the range of factors affecting the demand for tourism is very large. The more prominent factors that have been included in destination demand modeling are income, (exchange rate adjusted) relative prices, transport costs, marketing and promotion activity, migration levels and qualitative factors time available for travel, trade and ethnic ties between the countries; destination attractiveness (for example, culture, climate, history, natural resources, tourism infrastructure; special events taking place at the destination; natural disasters; and social threats such as political instability, health issues or terrorism) (Crouch 1994a, Lim 2006, Saymaan et al 2008). Of these factors, the bulk of studies indicate that income, and to a lesser extent price, are the most important (Crouch 1992). Still, the focus on income as an influence on tourism flows has been associated with a relative neglect of wealth as a determining factor (Alperovich and Machnes 1994). Thus, while the Global Financial Crisis (GFC) certainly reduced incomes on average for millions of people, perhaps the greatest effect was on their level of wealth due to the decline in value of their assets including superannuation payouts. While there has always been some recognition that wealth is important for some tourism markets eg. Seniors' tourism, the issue needs more research (Sheldon and Dwyer 2010)

Demand analysis has recently taken new directions, with greater attention being increasingly paid to the characteristics framework of demand (Lancaster 1966). This is also associated with the development of the hedonic pricing method (Rosen 1974, Sinclair et al 1990, Clewer et al 1992, Papatheodorou 2001, 2002) and discrete choice analysis (Louvier 2000). More recent studies evaluating a variety of tourism markets are using panel data techniques (Naudé and Saayman 2005, Van Der Merwe et al 2007, Saayman and Saayman 2008). When cross-sectional and time series data are combined, as in panel data analysis, greater insights are gained from the data. Panel studies offer all the advantages of a larger number of observations; that is, more informative data, less multicollinearity, more degrees of freedom and more efficient estimates. In tourism demand studies, panel data techniques allow the inclusion of the variables that are mostly static for one region (such as distance), but which differ between regions, which is not

possible with time series data only. Panel data is expected to play an increasingly important role in tourism demand analysis.

Over time, the modeling of tourism demand has become more sophisticated and more complex and different contexts of study, different data sets, use of different variables and different modeling techniques preclude generalizations (Crouch 1994a, 1995; Lim 1999, 2006). Given the importance of a better understanding of demand for destination management, marketing and policy purposes tourism demand modeling may be expected to continue to be refined with more input from the econometrics literature (Song and Witt 2000, Li et al 2005, Song and Li 2008).

Forecasting is especially important in tourism because it aids long term planning and is fundamental to the conduct of modern business and destination management. It is particularly challenging because: the tourism product is perishable; tourism behaviour is complex; people are inseparable from the production-consumption process; customer satisfaction depends on complementary products and services; and tourism demand is extremely sensitive to natural and human-made disasters (Archer 1980, 1994). In a changing global tourism environment it is important, for both government policy development and business planning, to have reliable short-term and long term forecasts of tourism activity (Frechtling 2001).

There are two broad approaches to tourism forecasting: qualitative tourism forecasting and quantitative tourism forecasting (Sheldon and Var 1985). The same as for the area of demand modeling the forecasting literature is increasingly incorporating 'state of the art' statistical techniques that are new to tourism research (Song and Turner 2006). Song and Witt (2000) were the first researchers to systematically introduce a number of modern econometric methods to tourism demand analysis. More recently, modern econometric methods, such as the autoregressive distributed lag model (ADLM), the error correction model (ECM), the vector autoregressive (VAR) model, the almost ideal systems approach (AIDS and the time varying parameter (TVP) models, have emerged as the main forecasting methods in the current tourism demand forecasting literature.. The technical illustration of these methods is in Song and Witt (2000) and Li, Song and Witt, 2006; Song and Li 2008). There is no single quantitative technique that gives best forecasting results in all contexts (Song and Li 2008).

Qualitative tourism forecasts are based on the judgments of persons sharing their experience, practical knowledge and intuition. These judgments are found through polling, expert opinion, panel consensus, surveys, Delphi technique and scenario writing and are often used to moderate or "second guess" quantitative forecasts (Frechtling 2001). Qualitative forecasting is best applied when facing insufficient historical data; unreliable time series; rapidly changing macro environments; major disturbances; and when long term forecasts are desired.

The choice of forecasting method depends on several considerations including: the level of accuracy required; the ease of use of the forecasting technique; the cost of producing the forecasts compared with the potential gains from their use; the speed with which the forecasts can be produced; the time frame of the forecast; the quality and availability of data on which the forecast is to be made; and the complexity of the relationships to be forecast. Recently, attempts have been made to enhance tourism forecasting accuracy through forecast combination and forecast integration of quantitative and qualitative approaches (Faulkner and Valerio 1995; Blake et al. 2004). Forecasts need to be justifiable with the forecasting process transparent

and open to all to question and challenge. Combined forecasts tend to have greater explanatory power than single approach forecasts and tend to be more accurate and future research in this area should reflect an understanding of this (Song and Li 2008).

At bottom, we simply do not know enough about consumer travel behaviour to give definite forecasts in many circumstances. Since tourism is subject to volatility, exogenous events of considerable magnitude and sudden changes in consumer behaviour, we can expect a continuing emphasis on consumer behaviour as a topic in tourism research generally and tourism economics in particular (Sheldon and Dwyer 2010).

b. Supply and Pricing

The price that a tourism firm sets for its supplied products depends on the interplay of a number of factors that are internal and external to the firm. These include the firm's objectives and ownership pattern, the market structure in which it operates, the degree of competition within the market and the firm's position within the market, seasonality, government policy, the macroeconomic environment, the price of other goods, capacity constraints, the degree of perishability of its products and so on (Fyall and Garrod 2005). In the wider economics literature, competitive profit maximizing firms are acknowledged to apply a variety of pricing strategies including uniform pricing, price discrimination, bundling, tying, peak load pricing, and two part tariffs as well as non-marginal pricing strategies involving penetration pricing, markup pricing, non-profit goals, as necessary. Marginal pricing approaches of the type most used in economic analysis work best when the firm is well informed and able to make effective use of the information available to it. Moreover, in the tourism industry generally, some firms may be less focused on maximizing profits than in achieving other objectives. Tourism firms can potentially adopt different pricing strategies according to their objectives (which may emphasize market share or lifestyle objectives). The pricing strategies adopted will have different implications for firm output, sales and profits. There is a real issue of whether firms can be characterised as profit maximisers. The issue is important since small businesses of the type that comprise the global tourism industry historically have operated with low profitability.

While firms can compete through the use of pricing strategies they can also improve the quality of the characteristics of goods and services. Such quality improvements often enable the products to be sold for higher prices, effectively by making the demand curve more inelastic. Determining the importance of quality in firms pricing strategies is important (Mangion et al 2005). The hedonic pricing method has been used by tourism researchers to show how various supply- related factors explain the variation in overall accommodation and package tour prices, presenting tourism managers with an opportunity to enhance their strategic pricing through quality improvements and innovation (Sinclair et al 1990, Papatheodorou, 2002; Monty and Skidmore 2003).

In general, the economic analysis of the structure of tourism supply is founded in industrial economics. Issues concerning tourism supply cover economic efficiency (mainly relating to productivity), employment, industrial structure, entrepreneurship and management and information communication technologies (ICT). The traditional approach of market competitive structures and pricing has not figured strongly in tourism research until recently, particularly the concepts of oligopoly, duopoly and contestable markets that characterize certain tourism sectors (Papatheodorou, 2004; Stabler et al 2010). There has been research recently on tourism

sectors within the Structure-Conduct-Performance (SCP) paradigm, in particular the travel trade. The structure prevailing in any tourism market depends on numerous interlocking characteristics, amongst them: the number of sellers; the existence and extent of product differentiation; the cost structure; the presence of barriers to entry; and the extent of vertical and horizontal integration. The SCP paradigm is useful for gaining an overall picture of tourism markets, highlighting key features and capturing essential relationships (Davies and Downward 1998, 2006). Within this framework, the market structure within which a tourism firm operates is held to affect the firm's conduct (decision-making processes), which, in turn, is held to affect the firm's performance (potential to make profit, increase its market share and achieve efficiency). This linearity may also work in reverse. Public policy (government involvement and influence in the marketplace) affects basic demand and supply conditions in the market, influencing market structure, rewarding or disparaging conduct and, ultimately, conditioning performance. Important ways through which government may differentially affect tourism markets include taxes and subsidies, regulation, price controls, competition laws, and information provision to tourism stakeholders (Lei 2006).

A good example of the above is provided by air transport. Over time, , governments have chosen to implement less restrictive regulation of air transport, and this has led to more competition, lower fares (especially as a result of the development of low cost carriers such as Southwest and Ryanair), and more travel (Papatheodorou, 2008). This provides a policy dilemma for governments in their regulation and/or support of both industries (i.e. transport and tourism). For example does a country wish to encourage tourism, and maximize economic benefits of tourism, by keeping taxes, on both aviation and ground tourism, low? Or does it wish to make use of its market power, and use foreign tourists as a source of revenue? Whichever of these options it chooses, it will need to determine at which level –aviation or ground tourism- such taxes are best levied. Furthermore, if there is already general taxation of tourism and aviation services, it will need to determine how best to counteract these if it wishes to keep taxes low. Aviation and tourism taxation need to be considered jointly- though they often are not (Forsyth, 2006).

Research on the supply of tourism products has benefitted from attention to the supply side of tourism products and industries, which is documented in the Recommended Methodological Framework (TSA-RMF) (UNWTO 2008). The recommended framework for tourism statistics identifies tourism's component products and industries through the concepts of Tourism Characteristic and Tourism Connected products and industries. Progress made in the development of the recommended framework of statistics has now opened up a suite of research opportunities for tourism economists (Frechtling 1999). These include measuring tourism's interrelationship with other industries as well as comparison of tourism activity with other major industries in terms of size, economic performance, employment, and contribution to the national and regional economy, and comparisons between regions, countries or groups of countries. Researchers now have a better opportunity to help tourism stakeholders to better understand the economic importance of tourism activity; and by extension its role in all the industries producing the various goods and services demanded by tourists. In this way tourism economics can better serve as a tool for enhanced strategic management and planning for the tourism industry to achieve enhanced destination competitiveness in the context of broader policy agenda.

Among others, the framework should consider the effect of the continuing development of Information Technology (IT) on the structure of supply, particularly the intermediaries, determining their competitiveness, efficiency, innovation and productivity. IT is essentially about such matters as competitiveness, efficiency, innovation diffusion, marketing and productivity, each of which is capable of being informed by economics. The oligopolistic nature of various tourism sectors shows that firms seek to control their supply chains through vertical and horizontal integration and through the formation of strategic alliances (Howarth and Kirsebom 1999, Morley 2003). Game theory seems to be an area of particular relevance to enhance our understanding of the behaviour and strategies of tourism suppliers in different tourism sectors, destinations and contexts (Evans and Stabler 1995, Taylor 1998).

The tourism industry has experienced many financial crises over the years, yet there remain large knowledge gaps about the behaviour and strategies of firms under financial stress. The implications for new product development, investment, marketing, and staffing are not well understood. Likewise, the strategic options to help firms remain viable during economic downturns are not well researched. Additionally, little is known about the impacts of financial and economic crises on event sponsorship, business meetings and corporate travel. Historical accounts and case studies of tourism stakeholder responses to previous economic recessions may also provide valuable lessons for the future (Smeral 2010).

c. Measuring Tourism's Economic Contribution, Impacts and Net Benefits

It is widely acknowledged that both domestic and international tourism make an 'economic contribution' to a destination, that tourism has positive and negative 'economic impacts' and that it brings 'benefits and costs' to a destination. While often used in the literature, these terms are generally not well understood by researchers.

The economic contribution of tourism refers to tourism's economic significance - to the contribution that tourism related spending makes to key economic variables such as Gross Domestic (Regional) Product, household income, value added, foreign exchange earnings, employment, and so on. Given the development of Tourism Satellite Accounts (TSA) worldwide it can be expected that more research will be undertaken on tourism's economic contribution to a destination. TSA allow the tourism industry to be better included in the mainstream of economic analysis. Tourism's total economic contribution (both direct and indirect) measures the size and overall significance of the tourism industry within an economy. The research literature may now be expected to contain more studies that compare and analyse the contributions that tourism and its component industries make to key variables such as GDP, value added and employment. TSA provide policy makers with insights into tourism and its contribution to the economy providing an instrument for designing more efficient policies relating to tourism and its employment aspects. As a result of basing more of their research in analysing data from TSA, the outputs of tourism economists should become even more relevant to the information needs of destination managers (Frechtling 1999, Jones, Spurr 2006, Jones and Munday 2007).

TSA can also be used to develop performance indicators such as measures of productivity, prices and profitability for the tourism industry as a whole as well as performance in individual sectors (Dwyer, Forsyth and Spurr 1997), measures of tourism yield, and also estimates of tourism's carbon footprint (Dwyer et al 2010). Tourism researchers now have the data to explore the performance of individual tourism sectors or of the entire tourism industry relative

to that of other industries, domestically and internationally. TSA are not in themselves modeling tools for economic impact assessment. Tourism economists have a role to play in keeping other researchers and destination managers aware of the distinction between 'economic contribution' and 'economic impact'. *Economic contribution* measures the size and overall significance of the industry within an economy, while e*conomic impact* refers to the *changes* in the economic contribution resulting from specific events or activities that comprise 'shocks' to the tourism system.

Over the past four decades a substantial number of economic impact studies have been published based on multipliers estimated from input-output models. These have generally focussed on the effects of tourism demand shocks to nations (Archer 1977, Archer and Fletcher 1996), subregions (Archer 1973), and special events (Burns et al 1986, Crompton et al 2001). Unfortunately, researchers, destination managers and tourism policy makers often ignore the limitations of multipliers based on Input Output (I-O) modelling, despite their limited policy relevance for tourism (Briassoulis1991). Economy wide effects must be taken into account in determining the impacts of increased tourism expenditure on a destination. An expanding tourism industry tends to 'crowd out' other sectors of economic activity. The extent of these 'crowding out' effects depends, in turn, on factor constraints, changes in the exchange rate, the workings of labour markets and the macroeconomic policy context (Copeland 1991). The study of the economic impacts of tourism shocks has recently undergone a 'paradigm shift' as a result of the use of CGE models in place of I-O models. CGE models can be tailored to allow for alternative conditions such as flexible or fixed prices, alternative exchange rate regimes, differences in the degree of mobility of factors of production and different types of competition. Thus, a number of useful papers have been published using CGE modelling to estimate the economic impacts of shocks associated with inbound tourism (Adams and Parmenter 1995,1999;Dwyer et al. 2003); the economic impacts of tourism crises (Blake et al. 2003a; Pambudi et al. 2009); the economic impacts of special events (Dwyer, Forsyth and Spurr 2005; Blake 2005); evaluation of economic policy (Blake and Sinclair 2003); and tourism effects on income distribution and poverty reduction (Blake, Arbache, Sinclair and Teles 2008;Wattanakuljarus and Coxhead 2008).

While CGE models are particularly helpful to tourism policy makers who seek to use them to provide guidance about a wide variety of 'what if?' questions, arising from a wide range of domestic or international expenditure shocks or alternative policy scenarios, economic impact analyses do not provide the right information for policy formulation. The measured impacts on economic activity of most tourism shocks, such as increases in tourism expenditure, may normally be expected to be much greater than the net benefits which they generate for the community (or in other words, the measure of the extent to which they make the community better off). Recognizing this, some CGE models (Blake 2005, Blake et al. 2008, Dwyer et al, 2006) are explicitly designed to include a measure of resident welfare. Consistent with economic theory, Blake et al (2008) measure a change in welfare by equivalent variation (EV), which indicates how much the change in welfare is worth to the economy at the pre-simulation set of prices. This measure takes the results from what may be quite complex effects of a simulation on a household and produces a single value to describe how much better (or worse) off the economy is as a result of such effects. Tourism economists now have an added opportunity to inform tourism stakeholders on the net benefits associated with tourism development.

Surprisingly, perhaps, despite the progress in concepts and applications of cost benefit analysis in the economics literature, this area is relatively neglected in tourism economics.

d. Investment and Innovation

Strong, continuing tourism investment is vital to a strong, successful tourism industry. Apart from the increase in capacity and profits that accrue to individual firms and the tourism sector in general from successful investment, the perceived national and regional benefits that come from a more favourable tourism investment climate include economic growth; job creation; utilisation of domestic resources, particularly renewable resources; skills acquisition; expansion of exports; development of remote areas of the country; and facilitation of increased ownership of investment by the nation's citizens. Unfortunately these outcomes of investment are often taken for granted by researchers and insufficiently examined in particular cases.

The importance of tourism investment became particularly evident during the recent Global Financial Crisis. Declining asset values impacted on the ability of firms to fund debt or invest and many capital projects (including fleet expansion, hotel projects, attractions etc) were shelved due to financing difficulties. Credit availability and de-risking of bank balance sheets stifles the volume of tourism investment needed to support tourism growth over time with its attendant economic effects. The source of capital financing is an important issue in tourism investment decision-making, since it can substantially affect a tourism project's overall costs. We need greater understanding of the sources of finance available to support tourism investment including the extent of distortions that exist in different economies to restrict its volume. Various theories of the basis of firms financing decisions have been proposed in the wider finance literature. These include the Pecking Order and Trade-off theories as well as right-financing and the Market Timing Hypothesis (Frank and Goyal 2008). There are opportunities for tourism economists to explore the implications of these different perspectives to increase our understanding of the conditions that support successful tourism investment.

Tourism industries worldwide (eg, airlines, rail services, public transport) display the problems associated with regulated infrastructure such as inadequate investment, excessive investment, poor service quality, over servicing, high cost operation, and ineffective use of available capacity. These problems also appear with tourism infrastructure. The positive side is that in many destinations the problems are being diagnosed, and regulation is being better designed to take account of the problems that have developed... The extent of environmental constraints on the development of tourism infrastructure is an area in need of the attention of researchers. Consideration of the trade-offs that must be made between economic and environmental attributes is a crucial task to achieve sustainable development of the tourism industry.

Infrastructure industries are often complex ones which pose a number of public policy problems which need to be addressed- for example, they are often monopolies, and governments will wish to limit the use of their market power. Infrastructure projects, which often involve large, capital intensive investments, often have large environmental impacts, (for example airports) which mean that obtaining approval for them is a drawn out process. There are various economic problems associated with ensuring the supply of tourism infrastructure, These include investigation of the changes that have been taking place in the institutional structure of infrastructure- the move from public to private provision; the congestion problem which impedes the efficiency of infrastructure provision; problems in government regulation

of tourism infrastructure; the effects of environmental constraints on infrastructure; how provision of good infrastructure can stimulate tourism; and the particular problems that developing countries face in ensuring that their infrastructure helps their tourism development. Moves to privatization appear to have resulted in improved performance of infrastructure generally, including tourism oriented infrastructure. The establishment of public private partnerships, and an increasing emphasis on 'user pays are two initiatives that hold out the promise of further improvements over time.

Provision of tourism infrastructure and its maintenance is a particular problem for developing countries given lack of local investment, limitations on local legal systems and pressure from donor countries. While researchers have addressed these issues, very often the type of economic modelling that has been employed will not give accurate results on the extent to which investment in tourism infrastructure will benefit a destination nor does it lead to a better understanding of who gains and who loses within the destination. As some researchers have shown (eg. Blake 2008, Wattanakuljarus and Coxhead 2008), it cannot be assumed that investment in infrastructure to develop the tourism industry will reduce poverty within a destination. The GFC has reminded us that public sector investment in 'tourism and community infrastructure' may have both counter-cyclical and longer-term merits in the current and prospective environment, provided its social return justifies the use of taxpayer funds involved. However, little effort seems to have been devoted to investigate the 'returns' to destinations from provision of infrastructure that is used by tourists, especially when tourist use is subsidized by resident ratepayers and taxpayers. Infrastructure provision also increases the efficiency of privately producing and distributing tourism services, facilitating the supply of tourism services at competitive prices. Productivity measurement is an emerging research area in tourism and this has given rise to increased research on investment, innovation, labour skills, enterprise and competition. While there is a large research literature concerned with developing productivity measures in hospitality (Barros and Alves 2004, Barros 2005, Assaf 2008) and in aviation (Barbot et al 2008) the relative productivity performance of different countries' tourism industries is a relatively neglected research area. A fundamental problem in deriving tourism production functions is the difficulty of establishing what constitutes the sector's inputs and outputs.

e. Taxation

Tourism economists have argued that there are sound economic reasons for taxing tourism beyond simply collecting revenues to provide public services to tourists and their suppliers. A well designed system of tourist taxation can benefit the residents of destinations in several ways (Mak 2006).At the heart of it, there is the exportability of tourism taxes. Much or all of the tax burden can be paid by tourists who are not resident in the country in which the taxes are levied (Mak 2006). On the other hand, tourism taxes can impose costs on a destination. They can result in a contraction of economic activity with adverse effects on Gross Domestic Product, employment and foreign exchange earnings. The reduced price competitiveness of a tourism destination following the imposition of general or specific taxes may be such as to reduce the economic contribution of tourism to the wider economy. Additionally, taxes result in deadweight losses to destinations that impose them, reducing the welfare of resident consumers and producers. Taxes can also lead to retaliation by other destinations resulting in a lose-lose situation for the residents of each country. Furthermore, 'tourism tax exporting' may

result in inefficiently high tourism taxes that may well be rational from the viewpoint of the individual country or jurisdiction, but too high from a more general, worldwide welfare perspective (Forsyth and Dwyer 2002).

Given the increasing importance of tourism taxation in both developed and developing countries, greater understanding of the economic underpinnings of tourism taxation and its effects is necessary, so that appropriate policies for tourism taxation can be formulated.

The great bulk of research has involved partial equilibrium analysis of specific sectors of the economy (Spengler and Uysal 1989, Fujii, Khaled and Mak (1985), Sakai (1985), Mak (1988, 1996, 2008) and Hiemstra and Ismael (1992, 1993). A tax that directly affects tourism flows will have impacts across the entire economy as the reduced demand impedes employment growth in tourism and related industries. To understand the full implications of any tourism shock it is necessary to move beyond partial equilibrium analysis to consider the general equilibrium (economy wide) effects (Gooroochurn and Sinclair 2005). It is necessary to use CGE models of the economy, with all direct and indirect linkages between sectors, to explore this issue and tourism economists can be expected to undertake research along these lines.

The net benefit from tourism development depends critically on how a destination designs its public finance/revenue system to tax travel and tourism. Given the increasing importance of tourism taxation in both developed and developing countries, greater understanding of its economic underpinnings and its effects is necessary, so that modelling of tourism taxation can be undertaken and appropriate policies can be formulated.

f. Environment and Sustainability

The importance of environment to sustainable tourism development is widely acknowledged. At the same time, much of the discussion of the interaction between the two has been uninformed by economic analysis. It is the "public good" aspect of many environmental resources that leads to their under-provision (Tisdell 2006). Given the progress made in the environmental economics literature tourism economists have the opportunity to make greater contributions to our understanding of how to preserve valued natural environments in the context of tourism development.

Tourism economists have emphasised that the total economic value of a tourism environmental amenity is composed of its use value (actual use value) and non-use value. Components of non use value are option, quasi-option, existence, bequest, and vicarious value. Within this framework of thinking, the environmental impacts of tourism activity may be measured either directly (through their obvious price effects in the marketplace) or indirectly (through the construction of proxy prices) (Tisdell 2006)

The various measurement techniques available for valuing environments in tourism contexts and which can be used to inform policy making have been much discussed. The techniques available to measure the non use of an environmental amenity include: stated preferences (for example, contingency valuation (Lockwood & Tracy 1995; Lockwood et al 1996); and contingent choice (Louvier et al 2000, Hanley et al 2001); revealed preferences (for example, hedonic pricing (Espey and Lopez 2000, Monty and Skidmore 2003) and travel cost (Carr and Mendelson 2003,Chen et al 2004); and imputed valuation (for example, replacement cost, damage cost avoided and production factor method).

There has been a gradual trend towards the use of market-based instruments for environmental policy. Tourism economists have the opportunity to meet the challenge of addressing the issues that attend the use of economic instruments in their protection of the environment from any adverse effects of tourism, including: uncertainty; boundary problems; transaction costs; and public good considerations (Dwyer et al 1995, Tisdell 2001).

A topic which is expected to increasingly engage the attention of tourism economists is that of mitigation of, and adaptation to, climate change. The climate is a public good. Human-induced climate change is an externality on a global scale which, in the absence of policy intervention, is not 'corrected' through any institution or market. Climate change is argued to be the greatest market failure the world has seen (Stern 2006). Markets for relevant goods and services (energy, land use, innovation, and so on) do not reflect the full costs and benefits of different consumption and investment choices for the climate (Tol 2008). The same as for other industries, the tourism industry contributes to climate change through its generation of greenhouse gas emissions to meet tourist needs. Tourism generates a carbon footprint both directly (through emissions associated with production of a tourism service) and indirectly (through emissions associated with the supply of inputs into tourism production). Climate change, in turn will directly impact on a country's tourism industry and the benefits it creates through loss or degradation of attractions, the costs of adaptation and replacement of capital infrastructure. Climate also has a major influence on destination choice. Tourism is a footloose export industry, and both suppliers and consumers will cross borders to the extent that a destination becomes less attractive due to climate change (Berrittellaa 2006, Bosello et al 2007). Tourism will be affected by the different types of climate change mitigation policies, all of which will increase the cost base of tourism firms. Since climate change generates both negative and positive impacts in the tourism sector and these impacts will vary substantially by market segment and geographic region, there are 'winners and losers' at the business, destination and nation level. There is thus substantial scope for tourism economists to investigate these issues, including the effects on the tourism industry of different policy measures to mitigate climate change and achieve development on a sustainable basis

g. Destination Competitiveness

Destination competitiveness is linked to the ability of a country or region to deliver goods and services that perform better than other destinations on those aspects of the tourism experience considered to be important by tourists. Recognizing this, researchers have developed indices of both general and price competitiveness. If the limitations of the various competitiveness indices are recognized, they can be valuable tools for policy formulation for any tourism destination to achieve and maintain competitive advantage over competitors, as well as empirical studies of tourism demand. The outcomes will be more informed policy making regarding the type of tourism development most likely to enhance resident quality of economic and social life. Tourism economists can contribute to our understanding of how these goals can be achieved, most effectively and efficiently. It has proved difficult, however, to develop an integrated model of destination competitiveness comprising both quantitative and qualitative variables (Crouch and Ritchie 1999, Dwyer and Kim 2003).

With some exceptions (Dwyer et al 2000, Forsyth and Dwyer 2009), tourism researchers generally appear to have placed greater effort on developing models of overall destination

competitiveness rather than on price competitiveness. Factors that impinge on price competitiveness include: exchange rates; inflation; the price of labour; productivity; export booms; tax structures and levels; infrastructure charges; fuel prices; and environmental charges. There is substantial opportunity to undertake further research on the determinants of price competitiveness of different sectors of the tourism industry as well as the price competitiveness of the destination as a whole (Forsyth and Dwyer 2010). The type of price competitiveness index employed depends on the research or policy needs at a given time. In some situations, quickly calculated, simple measures are most useful, while in others, more detailed and accurate measures are required. Tourism economists can help to refine the existing price indicators or develop new ones while assessing their relevance to the different research needs in different destinations. Since 2007, the World Economic Forum (WEF) has been publishing its annual Travel and Tourism Competitiveness Index (TTCI) to compare the tourism performance of different countries (133 in 2009) .The TTCI is composed of 14 "pillars" of T&T competitiveness. The pillars are organized into three sub indexes capturing broad categories of variables that facilitate or drive Travel and Tourism competitiveness. These categories are (1) T&T regulatory framework, (2) T&T business environment and infrastructure, and (3) T&T human, cultural, and natural resources (World Economic Forum, 2009).

3. Tourism and the Way Forward

Like other areas of economics, tourism economics is a mixture of areas which are at different stages of development. Some areas are well developed, others are newer, and possibly controversial, and some are newly emerging.

Some areas which are relatively established are: demand analysis and forecasting; pricing and firm strategies; and destination competitiveness. In these areas, research will take the form of applying new techniques (such as panel studies in demand or more rigorous measurement of indices with destination competitiveness).

Some of the newer and possibly more challenging areas include: the use of CGE models to develop policy; eexploring the boundaries of tourism taxation; and the use of CGE models in tourism policy work is becoming established, though controversies remain. On the other hand, the taxation of tourism is an old issue, but there are still questions about how it should be used. In particular, the use of CGE models can be used to measure what the costs in terms of foregone economic activity might be.

Finally, there are some areas which have not yet been given much attention, though they could become big issues of the future –these include: cclimate change and how it is addressed and mitigated; risk and investment, and trade and location.

There is already a lot of interest in climate change issues, and this is likely to be an area which blossoms. The GFC has highlighted the risks that tourism firms operate under, and thus the importance of research in risk mitigation. Finally, tourism is very much an industry which has strong spatial dimension. In spite of this, explosion of interest in geography and trade has made little impact on tourism economics so are.

Tourism economists, like their mainstream colleagues, largely continue to work within the traditional positivist paradigms of micro and macroeconomics, emphasizing the attainment

of equilibrium outcomes. Mainstream economics has long been criticised for its restrictive assumptions that have narrowed the accepted orthodoxy. Critics claim that this divorces the discipline from real world issues and problems. The range of different approaches in the discipline suggests that a pluralistic attitude is required, with cross-fertilization of concepts, theories and methods, both within and from outside the subject. As pointed out by Stabler et al (2010) within the mainstream discipline there are signs of pressure to broaden its perspective coming from psychology, social psychology and sociology which can inform tourism demand modelling the newer fields of ecological and environmental economics. In particular, the ecological research field has widened the scope of economics by acknowledging the relevance of and embracing the natural sciences, sociology, cultural, ethical and political studies and welfare economics, which recognizes the normative elements of the subject. By implication, tourism economists will need to better embrace mixed (quantitative and qualitative) methodologies within interdisciplinary research agenda to advance knowledge in tourism (Jennings 1997, Stabler et al 2010).

In addition to some of the under-researched issues as noted above, we can identify other areas that tourism economists have relatively neglected. New Economic Growth theories, which have helped to bring spatial issues more into the agenda of mainstream economics, have been relatively neglected in tourism economics. With some exceptions Labour market theories and tourism employment are also under-researched (Baum 1996, Dwyer and Forsyth 1998). There is also a lack of attention to the contribution that growth theories can make to our understanding of tourism development (Stabler 2010). In particular, insufficient attention has been paid to issues of how international trade, both in goods and services, coupled with globalization, affects the structure, development and growth of destinations and consequently their natural, human-made and human environments. Drawing on examples concerning branding, niche and segmentation marketing, Stabler et al (2010) argue that the Ricardian and Ohlin–Heckler theories applied in mainstream economics do not fully accord with what is required to analyse tourism. In particular, there are problems in relating them to how trade influences infrastructural investment and strategies, The theories of Linder (1961) and Porter (1998) that concern market structures, emphasizing the relevance of inter-industry trade that is a feature of tourism have not received sufficient attention from tourism economists.

The directions for further research highlighted above are just some of those that arise in the topics covered in the wider literature. Changing global trends (economic, social, demographic, political, technological and environmental) will continually pose challenges to economic theory and policy and the ways we analyze tourism activity. Whatever the specific topics that researchers will address in the coming years it is clear that tourism economics provides a fertile ground for research with the potential to inform policy making to improve socio-economic prosperity in all destinations worldwide.

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Glossary

CGE Models: CGE modelling involves a mathematical specification of key relationships within the economy (what determines levels of demand, supply and so on). A CGE model is calibrated to real data to ensure that the model provides a good representation of the economy. CGE models treat an economy as a whole, allowing for feedback effects of one sector on another. They represent the economy as a system of flows of goods and services between sectors.

Climate Change Economics: Examines the impact of climate change in relation to the economy.

Delphi Technique: A forecasting method reliant on a panel of experts. It is a questionnaire-based system in which the panel answer a series of questions over the course of two or more rounds. After each questionnaire the answers are summarised and the panel are encouraged to refine their answers to the next questionnaire based on the answers from the last. The process is a way of bringing experts' opinions together without bringing the people together face to face. The experts also remain anonymous throughout the process.

http://is.njit.edu/pubs/delphibook/

Discrete Choice Analysis: used where there is a choice between two or more discrete alternatives. Discrete choice analysis examines these situations and choices in which the optimum is not characterised by "standard first order conditions", looking at a number of alternatives.

Ecological Economics: "Ecological Economics is the science of sustainability. It brings together academics and practitioners from a variety of science and social science disciplines including biology, ecology, chemistry, computer science, economics, management, sociology and philosophy.

The common goal of ecological economists is to improve theoretical models and practical solutions to achieving long term economic and social well-being without undermining the absorptive, regenerative and resource capacity of the natural environment."

"The United States Society for Ecological Economics" http://www.ussee.org/v2/about.php

Economic Impact: An economic impact is the change that takes place in an economy due to some existing or proposed project, action, event or policy.

Forecasting: Making statements estimating the outcome of events before the actual outcome occurs, often using techniques such as qualitative research and quantitative methods. The Delphi technique (link) is a popular qualitative technique in forecasting.

Foreign Exchange Earnings: Proceeds from the export of goods and services of a country, and the returns from its foreign investments

Gross Domestic Product: Gross Domestic Product is the measure of the total economic activity of one country or the value of the economy's output. This includes the income on production of goods and services and takes into account the consumer, investment and government spending. And the price or value of exports minus the value of imports.

http://www.hm-treasury.gov.uk/data_gdp_backgd.htm

Hedonic Pricing Method: A system used to estimate the price of a good using both factors and characteristics relating to the product itself and external factors. The most common example is

the housing market, where the price is based on factors within the house and external factors (such as area, proximity to amenities). The method is used to determine how much each factor contributes to or affects the price of the house.

Income: On an individual level this is earnings through employment or investment. On a company level this equals to total revenue over costs, including taxes.

Input-Output Models: I–O models comprise tables that are a set of accounts relating the components of final demands to the various industrial sectors, the interaction between industrial sectors and the relationship between the industrial sectors and the primary inputs. Using a matrix representation, a nation or regions' economy the model is used to predict the effects of changes in an industry will have over others. As well as the effect by the government, consumers and foreign suppliers and business on the economy in general.

http://www.sjsu.edu/faculty/watkins/inputoutput.htm

Modern Econometric Methods: The use of statistics and mathematical approaches to the economy and problems within it, analysis and development.

Multipliers: "Applies to the changes in exogenous demand for any industry's output, and is thus not solely related to tourism activity. Within the context of tourism multiplier effects are those economic impacts brought about by a change in the level or pattern of tourism expenditure. The term 'multiplier' is derived from the fact that the value of expenditure is multiplied by some estimated factor in order to determine the total economic impact."

John Fletcher. *Encyclopaedia of Tourism*

Panel Data Techniques: Panel data is multi-dimensional data, which examines observations and occurrences over long or multiple time periods.

Poverty alleviation: Strategies and policies aimed at reducing the amount of poverty in anything from a small community to the wider world.

Price: The published or negotiated terms of the transaction of goods or a service between those who produce the product and the consumer.

Richard Teare, Haydn Ingram and Gavin Eccles. Encyclopaedia of Tourism

Pricing Strategies: The different methods of pricing a product. Price must reflect the supply and demand and take into account a number of factors including competition and fixed and variable costs.

Public good: Within economics a 'public good' is a non-rivalrous good, one that if consumed by one individual the availability of that good to others is not reduced. It is also non-excludable, thus no one can be excluded from consuming the good.

Public Policy: Action taken by government on a particular issue or set of issues, this can take the form of laws, funding, legislative acts or judicial decisions.

Scenario Writing: "description of variables related to sectoral developments, eg the energy scenarios of the International Institute for Applied Systems Analysis (IIASA) in which the variation range of the scenarios is determined by the world energy-consumption. Variables consist of low, high oraverage energy-consumption, and from that the consequences for the availability of energy sources are considered. For each scenario the geo-political and the ecological consequences are discussed."

The second way in which scenarios are used is less common but in my opinion more important. In this category scenarios provide alternatives of societal developments with regard to one another.

The third form in which scenarios are presented encompasses all scenarios with two, or more, differing parameter values of the same variable:"

Jozef W. M. van Doorn. "Scenario writing: A method for long-term tourism forecasting?" *Tourism Management*. Volume 7, Issue 1, March 1986, Pages 33-49

http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V9R-45P18PK-KD&_user=10&_coverDate=03%2F31%2F1986&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&view=c&_searchStrId=1328527846&_rerunOrigin=google&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=2945998a6d53f2c05dd28c192dcbe747

Structure-Conduct-Performance (SCP) paradigm: Based on the idea that market performance is controlled by the conduct of firms which in turn depends on market structure. These three factors, conduct, performance and structure are interconnected through the characteristics of the structure of the market. The connection between these factors turns on 'matching' the structural characteristics against models of perfect competition, monopoly, monopolistic competition and oligopoly.

Ferguson, Paul R and Glenys J. Ferguson. *Industrial economics: issues and perspectives*. NYU Press, 1994.

http://books.google.co.uk/books?id=LqcndL_hTP4C&printsec=frontcover&source=gbs_v2_summary_r&cad=0#v=onepage&q&f=false

Sustainable Development: A form of development that does not compromise the ability of future generations to meet their needs but at the same time meeting the needs of the present. Sustainable development would at least maintain ecological integrity and diversity, meet human needs.

Geoffrey Wall, *Encyclopaedia of Tourism*

Tourism Infrastructure: The facilities and services that form the underlying base for the tourism industry (link to def) on both the small scale in a resort and the larger scale for a country.

Tourism Satellite Accounts (TSA) : "A Tourism Satellite Account (TSA) is a statistical accountant framework in the field of tourism and measures the goods and services according to international standards of concepts, classifications and definitions which allow valid comparisons from country to country in a consistent manner. A complete TSA contains detailed production accounts of the tourism industry and their linkages to other industries, employment, capital formation and additional non-monetary information on tourism."

http://ec.europa.eu/enterprise/sectors/tourism/cooperation/tourism-satellite-account/index_en.htm

Tourist Taxation: The taxes that fall on tourists and tourism businesses.

http://books.google.co.uk/books?id=XsGdBReOQSgC&pg=PA441&lpg=PA441&dq=Tourist+Taxation+definition&source=bl&ots=jMEPoyM_58&sig=cJpx3XK3sMx5uZhIOIBKqBVd6vk&hl=en&ei=FuXiS9m_DYnWmgO7_Jwo&sa=X&oi=book_result&ct=result&resnum=2&ved=0CAkQ6AEwAQ#v=onepage&q=Tourist%20Taxation%20definition&f=false