



**TOURISM IN EGYPT: AN UNFINISHED BUSINESS**

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## Abstract

Egypt's tourism has experienced significant growth over the past fifteen years, but such outstanding performance did not prevent doubts about the sector's effectiveness, potentials and future prospects. In this context, the paper investigates the reliability of official tourism figures in displaying the real economic impact of the sector, the extent to which tourism potentials are still untapped, and finally, whether tourism is yet a relatively restrictive business that requires further liberalization actions. To test tourism potential, the study applies a panel data econometric technique that estimates tourism demand and foregone opportunities. The findings pinpoint considerable foregone opportunities in terms of unsatisfied potential demand in general and for certain markets and tourism products, stressing the need for the design and implementation of well-targeted marketing plans and promotional campaigns. The study then analyzes Egypt's GATS commitments in tourism as well as the sector's international competitiveness, in an attempt to identify means for consolidating the country's position in the international tourism market. The main conclusion drawn in this respect is that further liberalization actions would not be effective unless conceived as an integral part of a full reform package, with special emphasis on the effectuation of domestic regulation relating to human resources, infrastructure development and environment conservation. The study highlights the main shortcomings of current tourism statistics, calling for the endorsement of the concept and methodology of tourism satellite accounts to ensure adequate and better assessment of tourism economic significance.

## ملخص

على الرغم من أن قطاع السياحة في مصر قد شهد نموا ملموسا خلال الخمس عشرة سنة الماضية، إلا أن هذا الأداء المتميز لم يمنع الشكوك المثارة حول مدى فعالية هذا القطاع وإمكاناته غير المستغلة ومستقبله. وفي هذا السياق، تبحث الدراسة في مدى دقة الأرقام الرسمية للسياحة في بيان التأثير الاقتصادي الحقيقي لهذا القطاع، وإلى أي مدى لا تزال إمكانات السياحة غير مستغلة، وما إذا كان قطاع السياحة يعاني نسبيا من القيود ومن ثم يحتاج لمزيد من التحرير. ولاختبار إمكانات السياحة، تطبق الدراسة أسلوب الاقتصاد القياسي للبيانات المقطعية عبر الزمن، والذي يقوم بتقدير الطلب والفرص الضائعة في هذا القطاع. وتشير النتائج إلى وجود عدد كبير من الفرص غير المستغلة، من حيث حجم الطلب المحتمل غير المستوفى بصفة عامة، وعلى أسواق ومنتجات سياحية بعينها—الأمر الذي يؤكد على الحاجة إلى تصميم وتنفيذ خطط تسويقية وحملات ترويجية جيدة الاستهداف. ثم تقوم الدراسة بتحليل التزامات مصر في قطاع السياحة في إطار الاتفاقية العامة للتجارة في الخدمات (الجاتس)، ومدى تنافسية القطاع على المستوى الدولي، وذلك في محاولة لتحديد سبل تعزيز وضع مصر في سوق السياحة العالمية. وتخلص الدراسة في هذا الصدد إلى نتيجة رئيسية مؤداها أن مزيد من التحرير لهذا القطاع لن يكون فعالا إلا إذا تم في سياق حزمة شاملة من الإصلاحات، مع التأكيد بصفة خاصة على تفعيل التشريعات المحلية المتعلقة بالموارد البشرية، وتطوير البنية التحتية، والحفاظ على البيئة. كما تلقي الدراسة الضوء على أوجه القصور في الإحصاءات السياحية الحالية، وتطالب بتطبيق مفهوم ومنهجية الحسابات الفرعية للسياحة لضمان تقييم التأثير الاقتصادي للسياحة بصورة أفضل وأكثر شمولاً.

## ACRONYMS

CAPMAS	Central Agency for Public Mobilization and Statistics
CBE	Central Bank of Egypt
CIESIN	Center for International Earth Science Information Network
CPI	Consumer Price Index
ECES	Egyptian Center for Economic Studies
ECR	Egyptian Competitiveness Report
EEAA	Egyptian Environmental Affairs Agency
EFTC	Egyptian Federation of Tourist Chambers
ENCC	Egyptian National Competitiveness Council
ENT	Economic Needs Test
ERF	Economic Research Forum
FDI	Foreign Direct Investment
GAFI	General Authority for Investment and Free Zones
GATS	General Agreement on Trade in Services
GCI	Global Competitiveness Index
GCR	Global Competitiveness Report
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IDSC	Information and Decision Support Center
ILO	International Labour Organization
MA	Market Access
MOED	Ministry of State for Economic Development
MOT	Ministry of Tourism
NT	National Treatment
OECD	Organisation for Economic Cooperation and Development
PEDMI	Passport and Emigration Department of the Ministry of Interior
PLACE	Population Landscape and Climate Estimate
SNA	System of National Accounts
T&T	Travel and Tourism
TDA	Tourism Development Authority
TSA	Tourism Satellite Account
TTCI	Travel and Tourism Competitiveness Index
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
VA	Value Added
WEF	World Economic Forum
WTO	World Tourism Organization
WTTC	World Travel and Tourism Council

## 1. INTRODUCTION

Over the past fifteen years, Egypt's tourism has witnessed significant developments; and today, it is considered among the most rapidly growing sectors in the economy, if not ranking first. However, such outstanding performance did not help much in preempting doubts about the sector's effectiveness, potentials and prospects.

Three arguments are often made in this respect. In the first place, it is argued that the tourism industry, albeit quickly developing, does exert little impact on the economy as displayed by official statistics. Second, it is often said that Egypt is well-endowed with tourist assets and diversity of visitors' attractions, however, this natural wealth remains to a large extent untapped, considering the country's humble share in worldwide tourism (1-1.5 percent). The third argument relates to tourism liberalization. While recognizing the fact that several positive measures have already been undertaken towards this end, it is frequently stated that tourism is still a relatively restrictive business slowing down the future pace of growth.

The arguments cited above tend in effect to underrate tourism achievements and implications. They cast doubts about the sector's capacity to sustain its own growth and effectuate development impact on the economy. They also nurture suspicions about the business ability to consolidate Egypt's positioning in the international tourism market.

The present study addresses these issues. Following this introduction, Section two tackles the issue of tourism economic contribution with recourse to data validation and assessment of impact analysis techniques. It examines in particular the extent to which official data reflect the real economic impact of the tourism industry. Section three focuses on the issue of tourism potential (Cattaneo 2006), applying a panel data econometric technique for the estimation of tourism demand and opportunities foregone. The purpose is to investigate how far tourism performance is lagging behind Egypt's potentials and in what specific market segments and tourism products in particular. Section four discusses the issue of liberalization of tourism services through the analysis of present status and modes of supply, as well as evaluation of requests and offers. The aim is to examine whether there is a genuine need for further liberalization in comparison with more consolidation of domestic regulation.<sup>1</sup> Section

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<sup>1</sup> Both Sections 2 and 4 extend their analysis based on data covering the last 25 years in order to trace Egyptian tourism long-term achievements, while Section 3 focuses on the period from the mid-1990s with Egypt's commitment to GATS to ensure a common database for international comparison.

five concludes, drawing some policy recommendations, based on the analysis and findings of previous sections.

## 2. TOURISM ACHIEVEMENTS AND ECONOMIC IMPACTS: A RE-CONSIDERATION

### 2.1. Tourism Developments

Throughout the last fifteen years, the tourism industry in Egypt has experienced significant developments, as illustrated in Table 1 which depicts the main indicators for two sub-periods (1985-1993 and 2000-2007).

For the period as a whole, the number of tourist arrivals increased more than seven-fold from 1.5 million in 1985 to 11.1 million in 2007, recording an average annual growth rate of 9.2 percent. In the meantime, tourist nights grew from 9 million to 111.5 million, at an annual rate of 12.1 percent on average, implying extension of the duration of stay of visitors from 6 nights to 10 nights over the period. Similarly, tourism earnings jumped from about \$315 million to nearly \$9.5 billion, accounting today for almost 25 percent of total tourism receipts of the Middle East region (WTO 2008).

With respect to tourism supply, lodging facilities witnessed considerable expansion in response to mounting inbound tourism flows. Total accommodation capacity of hotels and tourist villages in operation rose from 27.3 thousand rooms in 1985 to nearly 190.2 thousand by the end of 2007. An additional capacity of 156.2 thousand rooms is planned for the coming five years, particularly in rapidly growing resort areas along the Red Sea Coast and El Aqaba Gulf Coast in South Sinai, and more recently along the North Coast, West of Alexandria (MOT 2008).

**Table 1. Main Tourism Indicators, 1985-2007**

Tourism indicators	1985	1993	2000	2007	Average annual growth rate (%)		
					1985-1993	1993-2000	2000-2007
No. of arrivals (million)	1.5	2.5	5.5	11.1	6.8	11.8	10.6
No. of nights (million)	9.0	15.1	32.8	111.5	6.8	11.7	19.8
Average length of stay of visitors (night)	6	6	6	10	-	-	7.8
Tourism receipts (\$ billion)	0.3	1.9	4.3	9.5	26.7	12.5	12.0
Lodging capacity (000 room)	27.3	58.8	111.3	190.2	10.0	9.8	7.7

Source: MOT (Ministry of Tourism), Tourism in Figures (1996, 2008).

As a result of large and increasing influx of visitors, coupled with disproportionate growth in lodging capacity (less than 9 percent a year), occupancy rates displayed an upward

trend. The figures indicate escalation of average room occupancy rates from 43 percent in 1993 to slightly over 63 percent in 2007 (MOT 2008).

## ***2.2. Tourism Economic Contribution***

The above-cited tourism developments imply an annual growth rate averaging 12 percent over the period under review. This exceeds by far the overall growth rate of the economy (5 percent). Accordingly, one would have expected mounting economic contribution of the tourism industry as well as tangible impacts, given its large and diversified base as well as extended linkages. However, official tourism statistics do not provide supporting evidence.

In what follows, the study will highlight the data limitations which hinder proper evaluation of tourism economic impacts. It will investigate the extent of accuracy and reliability of tourism data, explaining the factors behind deficiency, and suggesting a course of action for improvement of tourism data and reporting practices.

At the outset, it is worth emphasizing that tourism data suffer in general from three drawbacks: they are incomplete, fragmented and inconsistent. Tourism statistics are incomplete in the sense that they do not cover all activities related to the business. They are also fragmented, being compiled by several bodies lacking proper coordination conducive to reliable aggregates (local administration, private associations and central authorities: MOT, MOED, GAFI, CBE and CAPMAS). Finally, reported data are inconsistent in many instances due to notable differences in spectrum of coverage and methodology in use.

As will be shown below, because of these caveats and difficulties in identifying inter-sectoral linkages and overall effects, official figures do conceal actual tourism achievements and hence fail to signal the real economic contribution of the sector's activities.

### *Tourism value added*

Fragmented data on tourism value added are available from CAPMAS and MOED surveys. These data need to be compiled and aggregated in a summary table form to reflect the overall GDP contribution of tourism. MOED data on sectoral distribution of value added include a lump sum figure for tourism industry under "Restaurants and Hotels". The published figures display meager tourism participation in value added generation, ranging between one percent and 3.7 percent (Table 2).

**Table 2. Tourism GDP Contribution**

Year	%	Year	%
1982/83	1.1	2002/03	1.9
1986/87	0.9	2003/04	2.6
1991/92	1.8	2004/05	3.0
1996/97	1.6	2005/06	2.9
2000/01	1.6	2006/07	3.5
2001/02	1.8	2007/08	3.7

*Source:* Ministry of State for Economic Development (MOED), Annual Follow-up Report on Economic and Social Development Plan, several issues.

The above figures do underestimate direct GDP contribution of tourism for several reasons. First, they exclude the impact of tourists' expenditures on food and beverages outside hotels and restaurants, as well as visitors' outlays on real estate services and retail goods, which affect sectors such as food production, retail and housing, even though such impact may be significant at local tourist destinations (El-Tohamy and Swinscoe 2000).

Second, tourist-related services that are integral elements in the tourism package, such as travel agencies, bazaars, sport and recreation services, are assigned to other sectors (e.g., transportation, trade, sport and culture) and added to aggregates without identification of tourism component.

Third, the procedure adopted in deriving restaurants and hotels' value added is inaccurate. Inbound tourism expenditures expressed in local currency are multiplied first by an arbitrary fixed ratio (62 percent) corresponding to tourism spending on lodging, food and beverages in hotels, then multiplied by another subjective constant ratio of 55 percent to subtract intermediate inputs. To account for domestic tourism expenditure, only a modest sum is added representing what is considered as value added generated from nationals' spending on restaurant services. The latter is computed based on estimates of (i) number of restaurants; (ii) average annual revenues per unit; and (iii) a ratio of 45 percent to 50 percent for intermediate inputs. The inaccuracy of this approach aggravates the extent of uncertainty about tourism value added, even in the narrow definition of the sector (i.e., restaurants and hotels).

#### *Tourism investment*

By the same token, published data on tourism investment do underrate actual contribution to overall investments. They exhibit a modest share ranging between 2.5 percent and 4.8

percent, and surprisingly, the least ratios were recorded for recent years where tourism witnessed a new boost, acting as principal driver in the economy (Table 3).

**Table 3. Tourism Investment Contribution**

Year	Tourism investment (LE million)	% of total	Year	Tourism investment (LE million)	% of total
1982/83	227	2.7	2002/03	2153	3.2
1986/87	590	4.0	2003/04	2502	3.1
1991/92	794	2.5	2004/05	2740	2.8
1996/97	3306	4.8	2005/06	3245	2.8
2000/01	2375	3.7	2006/07	3824	2.5
2001/02	2726	4.0	2007/08	5557	2.8

*Source:* Ministry of State for Economic Development (MOED), Follow-up Report on Economic and Social Development Plan, several issues.

In fact, MOED figures refer to investments in lodging, private restaurants and cafes, in addition to annual public appropriations for tourism promotion. Accommodation investments are based on the number of additional rooms and rough estimates of average cost per room ranging between LE 250,000 and LE 300,000. Arbitrary figures are assigned to investments in restaurants and cafes without reference to the number of units or basis of computation (Sakr 1997).

Apart from and in addition to cost miscalculation, investments in other tourist activities such as golf courses, diving centers, marinas and water sports are not counted. Exclusion also extends to tourist-related infrastructure investments, whether private or public, and to tourist establishments not licensed by MOT.

Other sources of investment data are available, but they all suffer from certain deficiencies. Local administration grants investment licenses to tourist projects within city boundaries; however, there is no regular dissemination of investment data at the local authority level, at least not in a compatible aggregate form.

TDA provides more comprehensive investment data that cover both individual projects and integrated development schemes. Activities include hotels, tourist villages, recreational facilities and tourist-related infrastructure. Investment statistics are structured in a manner that reflects the current status of development projects, distinguishing between recent approvals, projects under execution and those in operation. Unfortunately, TDA investment data are only crude estimates based on some assumptions concerning average cost per hotel room and share



of infrastructure component. The figures do not express actual investment outlays and suffer therefore from caveats of estimates based on non-tested presumptions (Sakr 2007).

### *Tourism employment*

Although tourism is usually labeled as a labor-intensive industry, it is difficult to validate this statement because of data limitations that inhibit accurate measurements of direct jobs generated by the tourism business.

In fact, there is a wide variation in the scope of coverage of tourism activities, with little coordination among the different bodies compiling information on tourism direct employment.

Apart from the issue of ill-reporting and the non-distinction between full-time workers and part-time or seasonal employment, the available data are fragmented and to a large extent incomparable (Table 4).

**Table 4. Tourism Direct Employment Figures by Source**

<b>Source</b>	<b>Year</b>	<b>(000)</b>
EFTC	1966/67	384
ECES	1996	978
WTTC	2000	963.3
	2004	882.4
	2005	1776.0
CAPMAS (*)	2001/02	296.2 (**)
	2003	294
	2004	102.2 (***)
	2006	129.6 (***)
ERF	2006	1313
MOT	2007	1200
MOED	2006/07	345
ENCC	2006	370

*Sources:* (\*\*) CAPMAS (2001/2002). (\*\*\*) CAPMAS (2004, 2006).

(\*) Assumes 1.3 workers/room in public hotels and tourist villages; 2.0 workers/room in private accommodation; 0.9 – 1.8 workers/room in public and private floating hotels, respectively.

To illustrate, data gathered by MOT differ in terms of coverage from CAPMAS data. The former is limited to employment in licensed establishments under MOT umbrella; whereas the latter covers all tourist concerns whether formal or informal, and whether licensed by MOT or by local authorities, in addition to inn hostels' employment.

Also, TDA employment figures are confined to tourist establishments under its jurisdiction; while local or regional data refer to direct jobs created in the tourism business within the boundary of the governorate or the region regardless of the land management of the

development authority in charge. Likewise, GAFI statistics only relate to tourist enterprises operating under investment laws, and the corresponding employment data refer to estimates of job opportunities not factual jobs. This is a main cause of confusion with the absence of clear distinction between actual employment data and estimated figures.

Data published by both GAFI and TDA refer to the job creating capacity of tourism entities based on investment cost estimates, planned lodging capacity and technical labor coefficients; whereas CAPMAS data pertain to actual labor sample surveys, hotels and resorts statistics, and five-year interval economic census (Sakr 2005).

Also worth-noting are MOED data series on tourism employment. Although based on actual number of additional lodging units, they are merely estimates based on subjective labor-room coefficients (two to three workers per room). Apart from improper computation, the figures overlook job creation in tourism activities outside the hotel business. Such drawback causes significant underestimation of tourism employment impact in the economy, limiting it to less than 2 percent (Table 5).

**Table 5. MOED Estimates of Tourism Direct Employment**

Year	No. (000)*	% of total employment	Year	No. (000)*	% of total employment
1981/82	154	1.5	2002/03	239	1.3
1986/87	177	1.5	2003/04	260	1.4
1991/92	151	1.1	2004/05	285	1.5
1996/97	205	1.3	2005/06	315	1.6
2000/01	217	1.3	2006/07	345	1.7
2001/02	217	1.2	2007/08	380	1.8

*Source:* Ministry of State for Economic Development (MOED), Follow-up Report on Economic and Social Development Plan, several issues.

\* Based on number of additional rooms assuming: 2 workers per room in (1-3\* hotels; 2.5 workers in 4\* hotels and 3 workers in 5\* hotels).

In a nutshell, there is a wide variation in estimates of tourism direct employment resulting from improper identification of tourism activities and varying degrees of ill-reporting, which disguise in turn the real employment impact of the business.

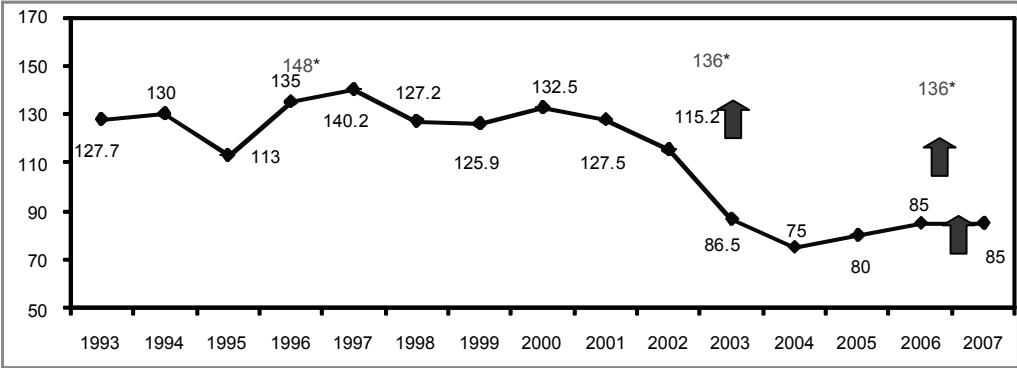
*Tourism earnings and balance of payments impact*

Tourism earnings were originally estimated on the basis of official foreign currency transfers through banking channels as reported by CBE. This method turned out to be ineffective for basing expenditure estimates as CBE does not capture all foreign exchange transactions undertaken by visitors or hoteliers or travel agencies and tour operators.

Since the early nineties, the direct survey method has been adopted instead, and CAPMAS has been conducting tourism sample surveys on a regular basis with a two-year interval. CBE figures on tourism expenditures are computed by multiplying the number of nights of departing tourists as reported by PEDMI by the average visitor's outlay per night. The latter is supposed to be as displayed in CAPMAS tourism sample surveys; but in practice, CBE applies its own estimates of average tourist expenditure per night, which turn out to be much lower than CAPMAS corresponding figures (Figure 1). Had the latter been applied in the past two years, tourism earnings would have shown a rise equivalent to 60 percent of reported figures.

However, this differential could be less if CAPMAS figures were revised downwards to consider margins of foreign tour operators and actual outlays of package-tour visitors in Egypt compared to individuals. But the earnings gap could be wider if other expenditure items uncovered by CAPMAS surveys were taken into consideration (e.g., entry visas, free zones purchases and expenditure of Egyptians residing abroad during their temporary visit to the country).<sup>2</sup>

**Figure 1. Estimates of Visitor's Average Expenditure (\$/Night)**

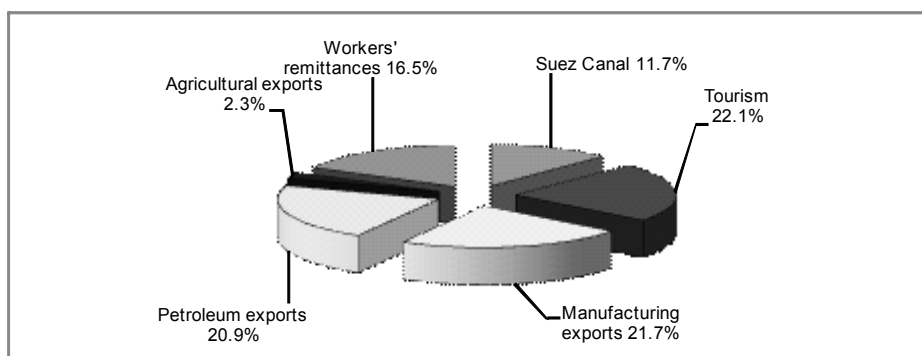


Sources: Central Bank of Egypt, Annual Report, several issues and CAPMAS tourism expenditure surveys, several issues.  
 \* The starred figures refer to average expenditure per tourist night as revealed by CAPMAS tourism sample surveys in the corresponding years (1996, 2002 and 2007).

Admittedly, tourism is a major generator of foreign exchange in the country. Judging by CBE data, it has occupied top position in most years since mid-1990s; and has maintained its stand as a top earner in the last five years (Figure 2).

<sup>2</sup> According to the WTO, nationals residing abroad visiting their home country are included in inbound tourism statistics. CAPMAS conducted in 2002 for the first time a sample survey on non-resident nationals' expenditures, which revealed an average daily outlay of \$53.5 (CAPMAS 2001/2002).

**Figure 2. Principal Sources of Foreign Exchange (Average 2001/02 – 2006/07)**



Sources: Ministry of Tourism (MOT), Tourism in Figures, several issues; Central Bank of Egypt (CBE), Annual Report, several issues; and Information Decision Support Center (IDSC), Economic and Social Indicators Bulletin, several issues.

According to CBE 2007/08 figures, tourism earnings jumped to \$10.8 billion compared with \$7.2 billion and \$8.2 billion in 2005/06 and 2006/07 respectively, accounting last year for about 40 percent of total invisible exports and covering nearly 46 percent of Egypt's trade deficit, with a net tourism balance of 73 percent of gross receipts. The figures of Table 6 display, however, varying outcomes under alternative scenarios assigning different values to average expenditure per visitor night.

So, unless accurate tourism expenditure accounts are provided, one can hardly assess—in a correct manner—the extent of tourism impact on the balance of payments.

**Table 6. Tourism Earnings and Balance of Payments Impact Under Alternative Scenarios**

	Average visitor expenditure per night			
	CBE estimate	Scenario I*	Scenario II**	Scenario III***
	\$85	\$115	\$125	\$136
Total earnings (\$ Billion)	10.8	14.6	15.9	17.3
% of invisible exports	40.0	47.1	49.2	51.3
Coverage ratio (% of trade deficit)	46.0	74.5	86.9	102.4
Net tourism surplus <sup>▲</sup> as a percent of gross receipts	73.0	80.1	81.8	83.2

Source: Study estimates.

\* CBE estimate for year 2002; \*\* CBE estimate for year 1999; \*\*\* CAPMAS (2002, 2006); <sup>▲</sup> Tourism Proceeds-Tourism Payments.

### *Overall economic impact and tourism multiplier*

Tourism and tourism-related spending generate secondary effects in other economic sectors. Apart from and in addition to primary or direct impacts in such area as lodging, restaurants and sightseeing operations, indirect effects are created in construction, agriculture and manufacturing industries as well as transport, financial services and the like; also "induced"

effects arise from the re-spending of factor incomes by employees in tourism and associated activities.

Simple computations usually use the Keynesian multiplier or the proportional method; while others apply simulation models or resort to more sophisticated techniques such as input-output analysis and macroeconomic models that estimate the overall incremental effects of tourism spending on other economic variables (such as value added and employment).

In the case of Egypt, few empirical studies have been conducted to track overall effects of tourism mainly because of data shortcomings. El-Tohamy and Swinscoe (2000) used economic impact analysis to trace direct and secondary effects of foreign tourists' spending on value added, employment and tax revenues. The results indicate that tourism impacts are of considerable magnitude, with a multiplier coefficient of 2.6<sup>3</sup> (Table 7).

**Table 7. Overall Economic Impact of Inbound Tourism Expenditure**

	<b>Direct (%)</b>	<b>Secondary* (%)</b>	<b>Total (%)</b>
As (%) of GDP	4.4	7.2	11.6
As (%) of employment	7.3	8.4	15.7
As (%) of total taxes	5.1	8.2	13.3

Source: El-Tohamy and Swinscoe (2000).

\* Indirect and induced effects.

The study was based on the 1991/92 and 1996/97 input-output tables (32 and 38 sectors, respectively). Although input-output modeling has the advantage of being able to track direct and secondary effects of tourism expenditure, the age of the I/O tables and the inappropriateness of the underlying assumptions of constant technical coefficients, given the changing structure of the economy; all these cast doubts on the validity of estimates.

Other estimates can be depicted from WTTC studies (2002, 2005, 2007). These are based on simulation models and extend the scope of tourism to cover travel activities. As illustrated in Table 8, the overall impact of Travel and Tourism (T&T) on the economy is almost double the direct effect of the industry, implying a multiplier coefficient close to 2.

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<sup>3</sup> The Tourism, Media and Culture Committee of the Shura Council (1999) reported higher tourism multipliers but without supporting evidence. In the case of employment, direct jobs estimations were around 254 thousand and secondary jobs about 762 thousand, implying a multiplier coefficient of 4.

**Table 8. Travel and Tourism Economic Impact (%)**

Percentage contribution to:	T&T industry (direct impact)			T&T economy (overall impact)		
	2002	2005	2007	2002	2005	2007
GDP	4.5	8.6	8.7	9.6	15.9	16.3
Employment	4.0	7.3	7.3	7.7	13.4	13.7

Source: World Travel and Tourism Council (WTTC) (2002, 2005, 2007).

Simulation models have been criticized on the ground that they do not reflect the key characteristics of the tourism industry in the economy under review, with no effective involvement of national statistical offices and central banks except as providers of information. Short and long term forecasts are usually conducted based on international data sources and econometric models. Although assertion is frequently made to the adoption of a UN standard for satellite accounting in the WTTC recent series of publications, there are still notable differences when compared to WTO TSA approach.<sup>4</sup>

Drawing on the TTCI (Travel and Tourism Competitiveness Index), a research study has attempted to measure the efficiency of the sector to gauge its contribution to GDP and employment and to estimate investment requirements using the so-called "innovative approach" for the evaluation of tourism performance (Makary and Ragab 2008).

According to the findings of this study, each million pounds invested would generate a value added (VA) of LE 2.27 million, create 3.3 direct jobs, 2.2 indirect jobs, and foreign currency of \$0.75 million. With the exception of employment effects, the results indicate that the profitability of capital investment in tourism exceeds by far that of the whole economy (Table 9).

**Table 9. Tourism Economic Efficiency and Impact**

Economic efficiency and impact	Tourism sector	National economy
Relative efficiency test (per one Egyptian pound)	LE 2.27	LE1.95
Employment effect (jobs per LE million)	5.5 jobs	9 jobs
Foreign exchange effect (per one Egyptian pound)	\$0.75	\$0.07

Source: Egyptian National Competitiveness Council (ENCC) (2008).

<sup>4</sup> For example, WTTC does not show how its data links to the 10 UNWTO satellite account tables and its figures are consistently higher than those derived from such tables. Also, the WTTC approach makes it impossible to identify the link between aggregates and detailed data by products and industries. Furthermore, while the TSA approach uses national accounts concepts, definitions, classifications and tables of results, travel and tourism industry and travel and tourism economy are WTTC specific concepts. See for details (WTO 2008).

The study focuses on efficiency considerations and direct impact of the industry compared to the economy as a whole, except in the case of employment, where reference is made to direct and indirect effects.

Apart from the adoption of the traditional absolute and relative efficiency tests as devised by UNIDO in the Manual for Evaluation of Industrial Projects (1980), the results of the study heavily rely on the extent of validity of basic assumptions, which reflect value judgments and experts' opinions, lacking substantiated evidence. Examples of such "non-tested" assumptions are given in Table 10.

**Table 10. Basic Assumptions of ECR Study on Tourism Investment Impact**

	<b>Assumption</b>
Tourist arrivals	Average annual growth 15% (2007/11); 7.5% (2011/15); 4.5% (2015/20)
Tourist nights	Constant 9.5 nights
Accommodation capacity	Occupancy rate (75%), room density (1.8)
Hotel classification (by star)	5* (42%); 4* (31%); 3* (18%); 2* (7%); 1* (2%)
Basic investments (LE/room)	5* (715000); 4* (440000); 3* (165000); 2* (82500); 1* (55000)
Construction period (3 years)	(20%; 40%; 40%)
Direct to indirect jobs (per one million pounds invested)	3.5 direct jobs, 2.2 indirect jobs, (E) multiplier: (1.6)

Source: Egyptian National Competitiveness Council (ENCC) (2008).

To sum up, official statistics are scanty, incomplete and inconsistent, and the analytical tools in use do in effect underrate tourism economic impact. Moreover, research studies lack a proper and reliable database and miss, therefore, supporting evidence. Accordingly, improving tourism statistics is a "*sine quo non*" for proper measurement of direct economic impacts and tourism multiplier effects.

In view of data limitations, the development of TSA becomes a must. As will be illustrated in Section five, TSA provides an analytical framework for tourism demand and supply properly based on a set of inherently compatible accounts that would determine in an

accurate manner tourism contribution to the economy, as well as its relative significance and links with other sectors.<sup>5</sup>

To develop a TSA would require, by definition, among others, designing adequate data structure, disaggregating tourism demand and supply components, broadening the scope of coverage to embrace all tourist activities and improving the reporting practices.

### **3. OPPORTUNITIES FOREGONE**

Egypt is gifted with various historical, cultural and natural attractions that enrich its tourism potentials. There are several destinations in the country with a diversity of attractions that meet the needs of both inbound and domestic visitors. The fact that Egypt is well-endowed with tourist assets widens the spectrum of choice among vacationers to include cultural, religious, therapeutic, adventure, recreational, entertainment and eco-tourism (Nair 2007).

Because of the abundance of such natural assets, which ascertains the multiplicity and diversity of the tourism product, the argument often made is that the sector's performance is lagging far behind its potentials. At present, Egypt's share in world tourism is around one percent. This is viewed as a too modest contribution that provides evidence of weak performance despite Egypt's comparative advantage and great tourism potentials (Ragab 2007).

Is it true that the tourism potential of Egypt is still largely untapped and, if so, to what extent? This section addresses this issue first by looking at the determinants of tourism flows at the aggregate level contrasting Egypt with other competitive tourist destinations in the region; then by considering main source countries and tourism product independently tracing gaps between performance and full exploitation of potentials within the conceptual framework of sustainable tourism development.

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<sup>5</sup> Recognizing the importance of TSA, several countries have already established their own TSAs yielding effective results. Canada was the pioneering country publishing its first TSA in 1993, followed by France and the United States. According to WTO statistics, tourism value added in these three countries accounted for 4.1 percent, 7.3 percent and 5.3 percent, respectively. The list also comprises Norway, Austria, New Zealand, Australia, Sweden, Singapore, Dominican Republic, Mexico and a few more. In Austria, for instance, the contribution of tourism industry to GDP amounted to 8.9 percent in 2000 (Statistik Austria/WIFO 2002). At present, more than 30 countries are in the process of developing a TSA. In the Arab Region, Saudi Arabia took the lead and published its TSA for 2007, revealing a tourism value added of nearly 3 percent (Saudi Arabian Monetary Agency 2008).



Using an econometric model of international tourism, this section investigates the existence of any unexploited tourism potential for Egypt through answering three related questions: First, how many tourists can Egypt potentially attract per year? Second, which source countries are underperforming their potential? And finally, which tourism products have unexploited potential?

Based on the review of economic literature as displayed in the Appendix, this section will first highlight the econometric model as well as the estimation procedure and methodology. It will then present the empirical findings before concluding with the tourism potential computations (Ryan 2003).

### ***3.1. Model and Data Description***

According to the theoretical framework addressing neoclassical limitations (Eilat and Einav 2004; Giacomelli 2006a), destinations' heterogeneity is analyzed drawing on Lancaster's consumer theory, while tourism uncertainty is examined in light of the expected utility theory (Goeldner, Ritchie, and McIntosh 2000; Luzzi and Flückiger 2003; Smith 1995).

The demand function introduced in this study is based on Giacomelli (2006a), using panel data econometric technique. Following the mainstream empirical tourism literature and theory (Crouch 1995; Eugenio 2002; Hellstrom 2002), the demand for tourism from country  $i$  to country  $j$  is specified as:

$$T_{ij} = f(Y_i, P_j, ER_{ij}, TC_{ij}, INFRA_j, A_{ij}, R_c)$$

where  $T_{ij}$  is the number of tourist arrivals from country  $i$  to country  $j$ ;  $Y_i$  is the income of country  $i$ ;  $P_j$  is price or cost of living in country  $j$ ;  $ER_{ij}$  is the nominal exchange rate measured as the currency of the tourist destination country per unit of currency of tourist source country;  $TC_{ij}$  is the transport cost between country  $i$  and country  $j$ ;  $INFRA_j$  is a measure of infrastructure in country  $j$ ;  $A_{ij}$  is a vector that represents any other factor that determines the arrival of tourists from country  $i$  to country  $j$ ; and  $R_c$  is a vector that represents a set of explanatory factors that determines tourist arrivals to competitive countries.

The applied equation is specified in log form for estimation purpose. The equation takes the following form:<sup>6</sup>

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<sup>6</sup> Note on variables other than the ones specified in the previous equation will be explained below.

$$T_{ij} = y_1 Y_i + y_2 P_j + y_3 ER_{ij} + y_4 TC_{ij} + y_5 HR_j + y_6 IU_j + y_7 AC_j + y_8 RL_j + y_9 CA_j + y_{10} HA_j + y_{11} EQ_j + y_{12} IU_C + y_{13} HA_C + y_{14} TP_C + y_{15} PR_C$$

The study uses annual data and the estimation covers the period 1995<sup>7</sup> to 2007 for the following variables:

The dependent variable, which is the number of tourist arrivals from country *i* to country *j* is based on bilateral tourism flows to Egypt from the top ten source countries for tourism over the period 1995-2007 (WTO 2008). WTO provides information on bilateral flows for 246 origins, and 212 destinations (Katafono and Gounder 2004; Walsh 1996).

We divide the independent variables to neo-classical and non-neoclassical variables. The neoclassical variables are all related to price: stay and transport and disposable income. The non-neoclassical variables are the destinations' non-price determinants.

#### *Neo-classical variables*

Income of the tourism source country is the most widely used variable. As Proenca and Soukiazis (2005), Walsh (1996) and Zhang and Jensen (2005) state, traveling to another country is generally expensive and is regarded as a luxury good and, therefore, disposable income is an appropriate variable as it affects the ability of tourists to travel. Since disposable income data are hard to find, many studies use real GDP per capita of the tourism source country as a proxy for income. An increase in income is positively related to the number of tourist arrivals, and hence  $y_1$  is expected to be positive (i.e.,  $y_1 > 0$ ). Data on the GDP per capita is obtained from the World Development Indicators Database (World Bank 2008).

The price of tourism is another most commonly used explanatory variable for tourism arrivals in many studies (such as Eilat, Hinaunye and Jordaan 2007; Naudé and Saayman 2004; Walsh 1996). It is the cost of tourism services that tourists pay at their destinations. A tourist price index which comprises goods purchased by tourists is appropriate, but since this index is not available, most studies use the consumer price index (CPI) ratios between the source and destination countries as a proxy for price of tourism services. A rise in price at

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<sup>7</sup>The analysis in this part aims to capture the effect of the second phase of reforms in the Egyptian tourism sector that started in the year 1991. However, our starting year is 1995 as the years 1992, 93 and 94 witnessed several terrorist attacks that distorted tourism figures. Thus, we omitted these three years and chose to start the analysis at the year 1995.

destination means that the cost of tourism service is increasing and this discourages tourist arrivals ( $y_2 < 0$ ).

The exchange rate variable is added to the list of neo-classical explanatory variables in addition to the price. This is the nominal exchange rate defined as the currency of the tourist destination country per unit of currency of the tourist source country. A depreciation of the exchange rate of the destination country makes tourism goods and services cheaper and encourages tourist arrivals ( $y_3 > 0$ ).

The cost of transport between the source and destination countries can be an important part of the cost of tourism goods and services. According to Eilat, Hinaunye, and Jordaan (2007), the cost of transport should take into account the costs of air tickets and the cost of the whole journey. The cost of transport should comprise all components of costs to the destination. This cost could probably be measured as weighted average price of air, sea and land transport. It is difficult to get data on all components of transport costs between the source and destination countries, and most studies (e.g., Da Cruz and Rolim 2005; Eilat and Einav 2004; Giacomelli 2006a) have used distance in kilometers. This study also uses distance in kilometers between the source countries and Egypt as a proxy for transport costs. It is expected that the closer a source country is to Egypt, the more tourists it will be sending to the country, i.e.,  $y_4 > 0$ .

#### *Non neo-classical variables*

A measure of infrastructure variable was added in recent research to explain tourism flows. Studies such as Naudé and Saayman (2004) used the number of hotel rooms in the country as an indicator of tourism infrastructure. The number of hotel rooms available in Egypt (HRj: accommodation capacity) is an appropriate indicator of the capacity of the tourism sector in the country.

According to Naudé and Saayman, the higher the number of rooms the greater the capacity of the tourism sector and this implies that the country is highly competitive. Another measure of infrastructure that proxies its quality, especially for business tourism, is the internet users per 100 people in the country (IUj), based on the World Development Indicators database. A third measure of infrastructure used by this study is the airport capacity

(ACj).<sup>8</sup> An increase or improvement in infrastructure attracts tourists and thus increases the number of tourist arrivals, hence  $y_5, y_6$  and  $y_7 > 0$ .

Risks in country j for individuals coming from country i may be divided into two categories: health and political risks (Giacomelli 2006a). Health risks encompass destinations' features, which are likely to increase the chances of tourists getting ill during the holiday (diseases, epidemics, etc.). Quite simply, it is expected that these features are inversely correlated to destinations' life expectancy at birth; however, multicollinearity was detected in the statistical model, which resulted in a near singular matrix, thus this indicator will not be included in the analysis despite its importance.<sup>9</sup> As for political risks, we use the rule of law indicator (RL) of the corporate governance of the World Bank. An increase in the rule of law is expected to increase tourism flows to the country, hence  $y_8 > 0$ .

Attractions of country j, both natural and historical attractions are approximated. For destinations' natural attractions, three variables are employed: destinations' climate (CAj), historical attractions (HAj) and environmental quality (EQj).

To approximate destinations' climate, information from the Population Landscape and Climate Estimate (PLACE) dataset is used (Centre for International Earth Science Information Network, CIESIN).<sup>10</sup> To approximate destinations' environmental quality, the study uses the components of the Environmental Sustainability Index, where countries are graded from 0 (minimum quality) to 100 (maximum quality). As for destinations' historical attractions, data from the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage List are used for this purpose. For each destination country, the number of world heritage sites is simply counted. An increase in the destination's natural and historical attractions is expected to stimulate further tourism flows to the destination. More attractions mean more tourist arrivals; hence,  $y_9, y_{10}$  and  $y_{11} > 0$ .

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<sup>8</sup> Measured as the maximum number of passengers that all airports in Egypt can handle annually.

<sup>9</sup> We also used the annual number of road accidents in Egypt as a proxy for the safety of tourists in the country. When we ran the regressions using this variable, multicollinearity was found; accordingly, we could not use this variable in the regression model.

<sup>10</sup> CIESIN divides the world into five climatic zones: "tropical climates (all months have average temperatures above 18 degrees Celsius); dry climates (deficient precipitation during most of the year); moist mid-latitude climates with mild winters; moist mid-latitude climates with cold winters; polar climates (extremely cold winters and summers)" (CIESIN); to these five zones, CIESIN adds a sixth climatic area, zones of water (seaside resorts).

Another set of explanatory factors consists of facilities and attractions, the price of tourism services, and risks in competitive countries. Internet users per 100 people in the country ( $IUC$ ) as a proxy for facilities of competitive locations, the number of world heritage sites in the destination countries as a proxy for attractions of competitive locations ( $HAC$ ). CPI is used as a proxy for price of tourism services in competitive locations ( $TPC$ ); and political risks in the location are applied as a proxy for risks ( $PRC$ ) and the figures are taken from the World Bank Corporate Governance Database.

The greater facilities and attractions competitive locations enjoy, the more tourists they will attract relative to Egypt, i.e.,  $y_{12}$  and  $y_{13} < 0$ . On the other hand, the greater the risks and the higher the price of tourism in rival locations, the less competition they will represent to Egypt, i.e.,  $y_{14}$  and  $y_{15} > 0$ .

### ***3.2. Estimation Procedure and Methodology***

There are different models in panel data estimation and these are: pooled, fixed and random effects. The pooled model assumes that there is no heterogeneity among countries and no fixed effects are estimated, i.e., it assumes that countries are homogeneous, which makes it a restricted model assuming that the intercept and other parameters are the same across all trading partners; while fixed and random effects introduce heterogeneity in the estimation.

We conducted the F-test to test the homogeneity of countries, with the null hypothesis regarding the variability or dispersion of our data set assumes that all of the data points are very close to the same value (the mean). From the calculation we got an F value (6.08) that is greater than the critical value (3.68); thus we reject the null hypothesis that all coefficients have the same mean, which indicates that the data is “spread out” over a large range of values, which means that a model with individual effects (fixed or random effects model) must be selected.

After excluding the pooled model in favor of individual effects models, we have to decide whether to use random or fixed effects model. A random effects model is appropriate when estimating the model between a country and its randomly selected sample of tourism source countries from a large group (population). A fixed effects model is appropriate when estimating the model between a country and predetermined selection of tourism source countries (Eilat, Hinaunye, and Jordaan 2007). Since this study deals with tourism arrivals in

Egypt from the top 10 source destinations for tourism in Egypt,<sup>11</sup> the fixed effects model will be more appropriate than the random effects model. The top 10 countries are selected based on the tourism data for the period 1995 to 2007. In addition, the study uses the Hausman test<sup>12</sup> to evaluate the significance of the fixed effects model versus the random effects model. The null hypothesis of the test assumes no correlation between individual effects and the regressors (explanatory variables). Random effects models are built under the assumption of independency between individual effects and the explanatory variables, thus the fixed effects model will be better if the null hypothesis is rejected.

The results of the Hausman specification test are represented in Table 11 that shows a  $\chi^2 = 213.0$  and a  $P = 0.00$ , and an F statistic of 15.3, which are higher than the critical values of both tests at all statistical confidence levels. Thus, we reject the null hypothesis of no correlation between individual effects and the regressors, i.e., the independence hypothesis was rejected. Accordingly, using a random effects model would give biased results and thus a fixed effect model is used in the estimation of tourism demand in Egypt as well as in calculating potential tourism.

**Table 11. Hausman Test Results<sup>13</sup>**

	<b>Value</b>	<b>Probability</b>
F	15.3	0.0000
Chi-squared	213.0	0.0000

*Source:* Study calculations.

After estimating the tourism demand function and identifying which variables affect inbound tourism to Egypt, the potential inbound tourism to Egypt was computed from three different angles (Zhou, Bonham, and Gangnes 2007):

First, the aggregate potential tourists that Egypt can attract per year is estimated through the computation of the inbound tourism demand function for Egypt after classifying the independent variables of the function into two sets of variables: first-nature and second-nature variables. The former variables are unalterable and cannot be affected by policy (natural and

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<sup>11</sup> Russia, Germany, UK, Italy, France, Libya, Saudi Arabia, Poland, Ukraine and the US.

<sup>12</sup> Hausman test is the most widely used test to evaluate the significance of an estimator versus an alternative estimator (Gujarati 1995).

<sup>13</sup> The degrees of freedom for the F statistic are (m, n-k) and for the Chi-squared (m), where m equals the number of regressors, k equals the number of parameters and n equals the number of observations (Gujarati 1995). F has (14,116) degrees of freedom, and Chi-squared has 14 degrees of freedom.

historic attractions and distance between Egypt and source tourism countries); in contrast to the latter variables used in the estimation equation.

To estimate the potential inbound tourism to Egypt, we re-estimate the demand function and use the first-nature variables of Egypt, while we substitute the second-nature variables by the parameters of competitive locations<sup>14</sup> (as averages) and calculate the potential tourism flows that could come to the country, had Egypt enjoyed the parameters of competitive locations.

Second, we simulate the fixed effects models in order to determine the within-sample tourism potential. To conduct the within-sample variation, we first estimate the equation<sup>15</sup> explaining inbound tourism coming from each country within the sample.<sup>16</sup> This equation (for each tourism source country) is then used in a simulation exercise to determine the natural tourism flows to Egypt from this source country given the availability of data on distance, the country's per capita GDP (to gauge the effect of both GDP and population) as well as other non-neoclassical determinants of tourism demand to Egypt. Such simulated inbound tourism estimates are compared with actual inbound tourism from these source countries to assess inbound tourism potential by source country. Actual tourist arrivals are then compared to potential tourist arrivals in order to see if there are countries with unexploited tourism potential. This would help in determining which countries need more promotion in order to utilize untapped tourism potential.

Third, we also simulate the fixed effects models in order to determine the within-sample variation by tourism product and identify which products are lagging behind in terms of tourists' arrivals.

### ***3.3. Empirical Results***

After deciding to use a fixed effect model, still there are some problems that need to be addressed as this model carries a potential statistical deficiency when estimating variables that do not change over time.<sup>17</sup>

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<sup>14</sup> The competitive countries used are: Turkey, Lebanon, UAE, Tunisia, Morocco, Jordan, Greece, Italy, Israel, Malta, Cyprus and Spain.

<sup>15</sup> Gravity-type equation.

<sup>16</sup> That consists of the top 10 source countries for tourism flows to Egypt.

<sup>17</sup> For further discussion of the problems associated with fixed effects models see Eilat and Einav (2004).

Eilat and Einav (2004) suggested solutions for this deficiency by developing a three-stage strategy. In the first stage, just the evolution of time variant determinants is allowed to affect international tourism demand. In the second stage, time variant variables are dropped and invariant variables are permitted to affect tourism demand. In the third stage, both sets of variables are allowed to explain tourism demand. It is worth noting that in the three stages of the models, neo-classical variables (variables related to income in the source country and price competitiveness of the destination country) are included. Only non-neo-classical variables are added or removed in each stage according to the variance/invariance with time.

The usefulness of Eilat and Einav's strategy is twofold. On the one hand, it reduces the potential bias due to omitted variables.<sup>18</sup> This reduction will be the greatest in the first stage, and the lowest in the third stage. On the other hand, this strategy allows distinguishing the time from the level effects.

#### *First stage*

We run the first stage model, where only time variant determinants are included. The results are presented in Table 12 where the coefficients can be interpreted as the effect on international tourist arrivals to Egypt, induced by time variations in their explanatory variables. All coefficients turn out to be significant and take their expected signs, except hotel capacity and facilities of competitive locations, which were not significant.

The most interesting finding is that the rule of law tends to be the most important factor that positively affects tourism demand in Egypt, with a 5.98 percent increase in tourist arrivals for every 1 percent improvement in the rule of law in Egypt.

On the other hand, the price of tourism is the most significant factor that negatively impacts tourist arrivals, as an increase of 1 percent in the price of tourism in Egypt causes a 5.36 percent reduction in arrivals.

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<sup>18</sup> As the approximation of some determinants in empirical studies is quite difficult.



**Table 12. First Stage Results**

Variable	Coefficient	t-Statistic
Exchange rate	0.07	3.25***
Income of source countries	0.37	1.94*
Transportation cost	-0.21	-4.13***
Business facilities in Egypt	0.34	4.25***
Hotel capacity	0.08	0.32
Natural and historical attractions	0.46	3.92***
Environment quality	0.17	3.85***
Rule of law	5.98	5.18***
Price of tourism	-5.36	-5.28***
Price of tourism in competitive locations	0.17	2.62**
Attractions of competitive locations	-0.26	-2.75***
Facilities of competitive locations	-0.06	-2.08**
Risk in competitive locations	0.04	4.79***
<b><i>R-squared</i></b>	<b>0.83</b>	
<b><i>Adjusted R-squared</i></b>	<b>0.79</b>	

Source: Study estimates.

Note: No star: not significant \* Significant at 90 percent \*\* Significant at 95 percent \*\*\* Significant at 99 percent confidence levels.

With such finding, we have to note that we cannot generalize and propose a pricing policy for tourism anchored in decreasing prices as the pricing policy depends on the market segment and the quality of the tourism product that Egypt provides.

### *Second stage*

The general second stage model is illustrated in Table 13 where the focus is on the effects induced by time invariant determinants. Geographical coefficients present the expected signs, and statistical significance, a 1 percent increase in the distance between Egypt and the source country, results in a 0.47 percent loss in tourists' arrivals from such country. All other coefficients take their expected signs and are statistically significant in accordance with the results obtained in stage one model.

**Table 13. Second Stage Results**

Variable	Coefficient	t-Statistic
Exchange rate	0.19	4.68***
Income of source countries	0.40	3.86***
Transportation cost	-0.47	-5.11***
Climate	3.67	8.33***
Price of tourism	-0.10	-8.33***
Price of tourism in competitive locations	0.73	13.02***
<b><i>R-squared</i></b>	<b>0.78</b>	
<b><i>Adjusted R-squared</i></b>	<b>0.71</b>	

Source: Study estimates.

Note: No star: not significant \* Significant at 90 percent \*\* Significant at 95 percent \*\*\* Significant at 99 percent confidence levels.

### *Third stage*

We run the third stage model to analyze both time variant and time invariant determinants. As illustrated in Table 14, all coefficients take their expected signs and are statistically significant (except hotel capacity and climate variables). No changes in the ranking of variables' importance, with the rule of law and the price of tourism being the most influential determinants of tourist arrivals to Egypt.

**Table 14. Third Stage Results**

<b>Variable</b>	<b>Coefficient</b>	<b>t-Statistic</b>
Exchange rate	0.07	2.29**
Income of source countries	2.25	5.29***
Business facilities in Egypt	0.51	3.79***
Hotel capacity	0.64	1.15
Natural and historical attractions	0.83	4.28***
Environment quality	1.28	3.16***
Transportation cost	-0.41	-1.90*
Climate	2.91	0.54
Rule of law	5.69	3.49***
Price of tourism	-5.36	-3.14***
Price of tourism in competitive locations	0.50	3.51***
Attractions of competitive locations	-1.50	-4.51***
Facilities of competitive locations	-0.16	-2.11**
Risk in competitive locations	0.03	2.26**
<b><i>R-squared</i></b>	0.85	
<b><i>Adjusted R-squared</i></b>	0.81	

*Source:* Study estimates.

Note: No star: not significant \* Significant at 90 percent \*\* Significant at 95 percent \*\*\* Significant at 99 percent confidence levels.

### ***3.4. Tourism Potential***

The potential inbound tourism is computed from three different perspectives. First, based on the tourism demand function and using the parameters of Egypt's competitive locations as an average, the study estimated tourist arrivals that Egypt could potentially attract considering the competitive locations' averages. The results show that Egypt could have attracted 20-28 percent more tourists over the period under consideration as illustrated in Table 15.

**Table 15. Potential Increase in Tourism**

Year	Potential increase in tourism (%)	Year	Potential increase in tourism (%)
1995	26.63	2001	26.63
1996	27.29	2002	25.52
1997	27.43	2003	24.43
1998	28.39	2004	23.07
1999	26.77	2005	22.78
2000	26.26	2006	22.42
		2007	20.35

Source: Study estimates.

Second, the study simulated the fixed effects models in order to determine the within-sample tourism potential. Actual tourist arrivals were then compared to potential tourist arrivals in order to see if there are tourism source countries<sup>19</sup> with unexploited tourism potential that would require in turn intensive promotional efforts. As displayed in Table 16, Egypt can increase inbound tourism from Saudi Arabia, France, Germany, Russia and Italy, and to a lesser extent from Ukraine and Libya. The top three unexploited markets are the Saudi, the French and the German markets, respectively.<sup>20</sup>

**Table 16. Countries Underperforming Their Potential**

Country	Potential increase in tourism (%)
France	29.35
Germany	19.97
Italy	13.23
Libya	1.54
Russia	19.69
Saudi Arabia	77.43
Ukraine	9.79

Source: Study estimates.

Third, the study simulated the fixed effects models in order to determine the within-sample variation by tourism product to identify products<sup>21</sup> lagging behind in tourists' attraction. The results indicate that Egypt could witness a potential increase in business tourism, health treatment, and same day tourism (Table 17). It should be noted that the narrowness of tourism product classification inhibited further breakdown to distinguish

<sup>19</sup> The source countries used are: Russia, Germany, UK, Italy, France, Libya, Saudi Arabia, Poland, Ukraine and the US.

<sup>20</sup> We only reported in the table the results of countries that are underperforming their potential. The results of countries that do not have unexploited potential (namely, the UK, Poland and the US) are not reported in the table.

<sup>21</sup> Health, leisure, study and training, business and convention, and same day visitors.

cultural, religious, shopping and recreational tourism (e.g., sport, beach tourism, safari and eco-tourism) and constrained, therefore, the identification of unexploited potential of tourist product at a more disaggregate level.

**Table 17. Tourism Products Underperforming Their Potential**

<b>Tourism product</b>	<b>Potential (%)</b>
Business	10
Health treatment	34
Same day stay	40

*Source:* Study estimates.

The above analysis asserts the need for investigating tourism impediments not only at the macro level but also and equally important at both source country and tourism product levels so that Egypt can capitalize on its tourism potential for fostering economic growth and employment creation.

**4. LIBERALIZATION OF TOURISM SERVICES OR MORE DOMESTIC REFORM?**

Egypt is one of the pioneering countries in liberalizing tourism services, even before its commitment to GATS in the mid-nineties of the last century. As early as the mid-eighties, several actions were taken in support of liberalization. Among these were, (i) cancellation of all import restrictions on tourism-related production sectors, (ii) easing land acquisition at nominal prices to initiate private investments for the development of new tourist destinations along the Red Sea Coast (iii) allowance of private management of some publicly-owned hotel establishments as well as the privatization of some other public lodging facilities, (iv) expansion of the national carrier's fleet (Egypt Air) and permission of chartered operations between two points not directly served by national "air companies" or foreign source countries.

Despite the "openness" measures undertaken in this regard, long time before GATS and the additional commitments of Egypt under GATS, there are still supporters of further liberalization of the country's tourism services as a stimulant for inbound tourism and foreign investment inflows.

In order to examine whether there is room for further liberalization of tourism services and the validity of more liberal actions, this section will highlight at the outset the present status of Egypt as illustrated in the schedule of commitments within GATS, commenting on

requests submitted by WTO members for more liberalization of Egypt's tourism business. Factors affecting the country's tourism competitiveness position will then be investigated with the purpose of (i) identifying the extent to which these factors relate to the liberalization process in comparison with domestic regulation, and (ii) advocating means of effectuating the liberalization process within a more comprehensive framework of sustainable development.

**4.1. Egypt's GATS Commitments**

According to Egypt's schedule of commitments to GATS, most characteristic tourism activities are covered with high degree of liberalization. As shown in Table 18, the list includes hotels and similar establishments, restaurants, travel agencies, convention centers, tourism training and management services, and others; while exclusion is limited to some tourism-related services, such as car rental, museum services, antiques trade, tourism marketing and promotion.

**Table 18. Extent of Tourism Services Coverage in Egypt's Schedule of Commitments to GATS**

<b>Covered services</b>	<b>Uncovered services</b>
* Hotels, motels and tourism resorts	* Museum services
* Restaurants, cafeterias, fast-food services	* Car rental services
* Tour operators and travel agencies	* Recreation and sport activities
* In-land and river transportation	* Antiques trade
* Tourism training institutes	* Ticketing services
* Tourism management services	* Tourism marketing and promotion
* Catering services	* Tourist guides
* Convention services	* Maritime transportation

Source: Egypt's schedule of commitments to GATS.

*Horizontal commitments* are only confined to two limitations related to specific modes of supply, putting Egypt among the least restrictive countries. These are:

Limitations on Market Access (MA) only confined to mode 4<sup>22</sup> (entry and temporary stay of natural persons). According to the Labor Law No. 137/1981 and its executive regulations, the “number of foreign personnel necessary to the supply of services in any entity, regardless of the number of its branches, shall not exceed 10 percent of the total number of personnel employed therein, unless otherwise specified in a sectoral entry of this schedule.”

- (i) Limitations on National Treatment (NT) apply only to mode 3 (commercial presence), and restricted to land acquisition. Authorization is required for the acquisition of land and/or real estate property. Applications in this respect are considered case by case on the basis of the evaluation of projects for which land acquisition is requested and in accordance with national policy objectives.<sup>23</sup>

As shown above, Egypt's horizontal restrictions are very few. For instance, there is no market constraint on commercial presence; and even in case of mode 4, the 10 percent limit of foreign personnel stipulated in the previous Labor Law No. 137/1981 and enclosed in Egypt's schedule of commitments to GATS turned out to be non-operational in practice, and even though it has been relaxed under the prevailing Labor Law No.12/2003, which grants flexibility to the concerned ministry to set up the maximum limit for foreign employment. In the hotel business, for instance, the participation of foreign workers is almost insignificant (though occupying key positions), accounting for only a meager share ranging between 1.5

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<sup>22</sup> There are four modes of supply of tourism services:

**Mode 1: Cross-border supply:** This refers to a service that is supplied from one member into the territory of any other member. In this case, the service crosses the borders between countries, similar to goods as both consumer and supplier remain in their respective territories during the delivery of the product (e.g., software services via mail).

**Mode 2: Consumption abroad:** This refers to services supplied in the territory of one member to consumers of another member. In this case, the consumers have to move physically to another country to get the service (e.g., students and tourists).

**Mode 3: Commercial presence:** According to this mode, services are supplied through any type of business or establishment of one member in the territory of another country. It involves establishing a subsidiary in another country, which supplies the service locally (e.g., foreign direct investment).

**Mode 4: Temporary movement of natural persons:** This occurs when individuals move temporarily from their own country to another to supply services (e.g., physicians, teachers traveling and working abroad on a temporary basis).

<sup>23</sup> However, acquisition of land and/or real estate property in free zone areas is unbound.

percent and 3 percent to total workforce in 5 stars hotels and much smaller percentage in lower hotel categories.<sup>24</sup>

A more restrictive and effective condition could have been to limit the entry and stay of foreign personnel to certain scarce specialized professions, for a limited period, and subject to the provision of adequate training to domestic employees, rather than simply setting a maximum percentage of total workers. The same applies to limitations on (NT) which is only applied in case of mode 3 and as far as land acquisition is concerned.<sup>25</sup>

*As for tourism commitments*, Egypt's schedule reveals a high degree of flexibility in doing business. Most activities are labeled "none", implying no restrictions. For tourism training institutions, caterers<sup>26</sup> and conventions, there are no limitations whatsoever, as the schedule states "none" for all modes.

With respect to tourist transport services, all commitments are either "none" or "unbound," except for inland Nile cruises. Also for mode 4, there are no restraints on both market access and national treatment in the case of hotels and restaurants, travel agencies and tour operators, as specified in the schedule of commitments.

Concerning mode 3, all restrictions in Egypt's schedule of commitments relate to two main items, namely, the total number of services operations which is subject to the economic needs tests (ENTs), and the training of personnel (under NT clause), which is based on contractual arrangements.

Limitations on market access depend on the extent of saturation of the tourism market, and apply to all potential newcomers into the business with no differentiation between national and foreign entities. In the hotel business, for instance, licences are granted depending on prevailing room occupancy rates and price levels. In case of over-supply, MOT refrains from granting further licences in quasi-saturated destinations, such as Hurghada and Sharm-El-Sheikh, encouraging investment in newly-developed "promising" tourist areas (e.g.,

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<sup>24</sup> At present, foreign workers in the hotel business are quite negligible, but they are concentrated in luxury establishments, as nearly 75 percent of them work in five-star hotels and another 10 percent in four-star hotels, where the need arises for certain technical expertise. Foreign personnel are highly numerated compared to nationals and are mostly engaged in top management positions, particularly in international hotel chains under contractual arrangements (Sakr 2005).

<sup>25</sup> This restrictive version would imply a transfer of horizontal commitment to a sector-specific one.

<sup>26</sup> With the exception of airport catering facilities which are confined to national companies.

North-West Coast). The same applies in the case of travel agencies and tourism management services provided by representative offices.

Physical conditions are also considered in granting projects' approvals. The accommodation capacity of the Nile in terms of safety of navigation and environmental impacts is taken into account when licensing cruisers. Also, the maximum carrying capacity of coasts for beach tourism, and that of archaeological sites for cultural tourism (e.g., St. Catherine Cathedral and Luxor Temples) are limiting factors. All these constraints are in conformity with environmental regulations and are acknowledged worldwide.

In the field of skill upgrading, there exists one limitation solely on national treatment as training of Egyptian employees in tourist establishments is to be performed by the foreign party within the terms of the contract.

Considering Egypt's schedule of commitments in general, it is apparent that tourism is a widely open sector. Even the two limitations cited above concerning the application of ENTs and the training personnel are to a great extent non-operative in practice. ENTs are not excessively used in Egypt compared to other countries (e.g., Italy and Switzerland),<sup>27</sup> and the ENTs restrictions can be easily reconsidered depending on market developments.

In effect, Egypt has been more liberal since its commitment to GATS, providing continuous impetus for foreign direct investment in the tourism business. The amendment of some articles of the Travel Agencies Law 38/1977 as stipulated by Law 125/2008 allows establishment of foreign travel agencies in the country. Moreover, the right of foreigners to purchase holiday residences in Egypt is currently under study.

As for training, there is no factual or common commitment on the part of many hotel managers.<sup>28</sup> Few management companies may stick to the training clause in the contract, confining implementation, however, to few professions.

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<sup>27</sup> Switzerland grants licences for restaurants based on economic needs using as criteria, population size, built-up area, type of neighborhood, visitors' interests, and number of existing restaurants. Italy imposes local ENTs on the opening of new bars, cafes and restaurants, sporting and other recreational services. See Sakr (2004).

<sup>28</sup> With the exception of some training schemes, such as "fire and life safety" programs conducted by the Civil Defence Administration, and the "First Aid" training programs of the Red Crescent, which are a precondition for allowing the "opening" of licensed hotel establishments.



In comparison to competitors, Egypt is less restrictive in its schedule of commitments. In the case of Turkey, for instance, there is strong discrimination against foreign travel agencies and tour operators, marginalizing their role and impact to a great extent.

Also, both Turkey and Tunisia are greatly concerned with labor regulations confining many professions to domestic citizens. Likewise, Israel puts severe restrictions on ownership and employment of foreigners. Travel agencies operations must be performed through Israeli-registered companies. Also, travel agencies should employ at least a minimum number of Israeli-licensed travel experts.<sup>29</sup>

#### ***4.2. Requests and Offers***

Proposals submitted by some WTO members entail requests for the cancellation of ENTs, in general, and the relaxation of constraints on casino services as well as foreign commercial presence in Sinai, in addition to the liberalization of mode 4 by removing the 10 percent ceiling on foreign labor participation. The opening of the tour guide services to foreigners is also a request made recently under the pretext of shortage in Egyptian tourist guides with rare foreign languages (e.g., Japanese, Chinese and Russian).

In this respect, the following observations are worth noting:

First, ENT is a common practice in both developing and developed countries, as displayed in the schedules of commitments. In the case of Egypt, the issue is not the relaxation of ENTs, but rather the adoption of governance principles relating to transparency, information disclosure and accountability. There is a need to “quantify” ENT limitations,<sup>30</sup> to clarify their rationale, and to ensure non-discriminatory actions.

Second, with respect to casino services that are restricted to 5 star hotels and confined exclusively to foreigners, Egypt is entitled to maintain current limitations for moral and ethical reasons that are well understood within the GATS framework.

Third, concerning investment in Sinai, the constraints on land property and foreign participation reflects Egypt's concern with security considerations and are in conformity with GATS regulations so long as there is no act of discrimination among foreign investors.

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<sup>29</sup> See Sakr (2004) for details.

<sup>30</sup> The imposition of the test should be based on a transparent quantitative criterion, as in the form of an equation for instance.

Fourth, the relaxation of the condition of the 10 percent ceiling for foreign labor participation, though still non-operative, should be dealt with cautiously, for a number of reasons:

- (i) In recent years, there has been a growing tendency in the hotel business to hire foreign staff not only for key management and technical positions, but also for low-skill occupations, such as cleaning staff, housekeeping and catering assistants, particularly from Far Eastern countries.<sup>31</sup> This raises the fear of labor displacement in the Egyptian market; an issue of concern in view of the current high rate of unemployment.<sup>32</sup>
- (ii) Most countries requesting the relaxation of the 10 percent limit are more restrictive in this respect (e.g., difficulties in getting entry visa and work permission for job seekers and cumbersome hiring procedures). This is an area where Egypt could ask for reciprocity, strengthening linkages between mode 2 and mode 4;
- (iii) Access conditions under mode 4 are usually governed by labor and immigration laws and regulations, which are interpreted and applied by institutionally independent administrations. However, there is a tendency to deal with labor issues on the international level—an issue that would be debatable. For example, should labor be dealt with under the WTO umbrella or the ILO, or human rights institutions (Adlung and Roy 2005).

Accordingly, a careful analysis of the potential impact should precede any future commitments in this area. Also, liberalization should be confined to scarce occupations and skills in the local market. Moreover, future commitments should focus on guaranteeing high-standard training schemes for Egyptian workers to upgrade skills and compensate for cases of brain drain (UNCTAD 1998).

Fifth, concerning tour guide services, Egypt did not commit itself to the liberalization of such services in GATS past negotiations and should keep this stand in the forthcoming rounds. At present, some tourist groups, mainly from China, Japan and Russia bring their

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<sup>31</sup> Hotel managers argue that foreign workers tend to be more disciplined, with language proficiency and better hospitality attitude.

<sup>32</sup> About 9 percent at present (MOED, Annual Follow-up Report on Economic and Social Performance, 2008).

own-mother-tongue guides during visit, and this is temporarily allowed by MOT so long as they act as “silent guides”. But the fear of foreign displacement has been raised and has been subject to complaints from the concerned labor union being a threat to Egyptian tour guides, in addition to other cultural considerations that necessitate confining guide services to nationals. So, the issue here is not to liberalize this activity but rather to focus on increasing the educational and training institutes' graduates of tour guides specialized in rare languages to cope with expected large influx of tourists from newly emerging markets in the Far East and avoiding thereby the need for foreign presence in the guide business. In this context, it is worth noting that Spain and Italy reserve the right to exercise the profession for the local guide organization. Also, in Greece, France and Portugal, the provision of tourist guide services is subject to a condition of nationality (Sakr 2004).

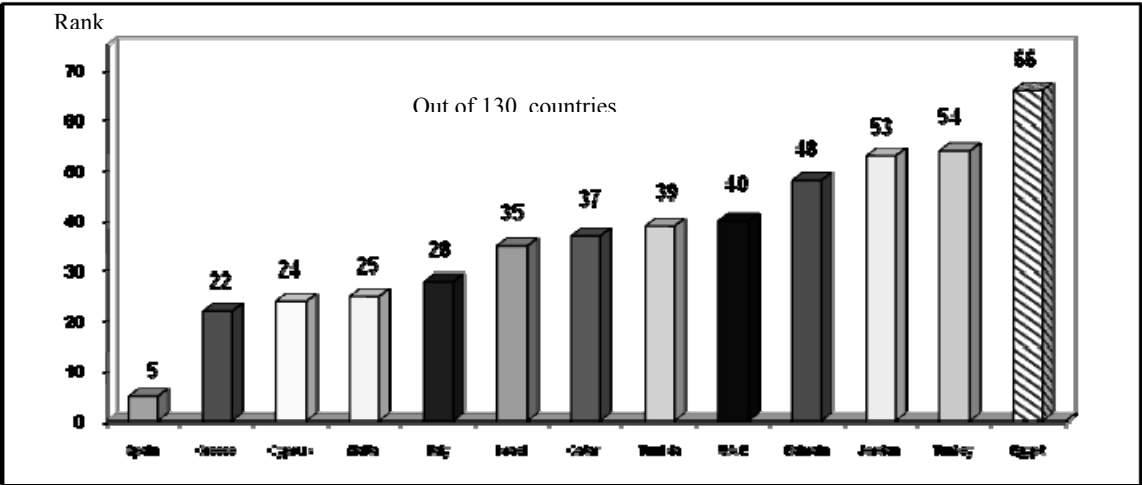
Sixth, there is the difficulty in assessing requests and offers given the time lag factor. While Egypt submitted its commitments as early as in 1995, many negotiator countries that are latecomers in the liberalization process request reciprocal benefits, a matter which complicates negotiation and conclusion of final agreements of mutual interest.

**4.3. Egypt’s Competitiveness Status**

According to the Travel and Tourism Competitiveness Index, Egypt occupied the 58<sup>th</sup> position out of 124 countries in 2007 and the 66<sup>th</sup> out of 130 countries in 2008 (WEF 2008a).

The latest ranking of 2008 shows that Egypt is superseded by many competitive countries in the tourism business (e.g., Tunisia, Greece, Cyprus, Malta and Turkey) (Figure 3).

**Figure 3. Egypt's Ranking Among Selected Tourist Destinations, 2008**



Source: World Economic Forum (2008a).

This applies to the overall index as well as the three main sub-indices namely: regulatory framework, business environment and infrastructure, and human, culture and natural resources (Table 19). Also, there are several components in each sub-index that pinpoint the relatively poor competitive position of Egyptian tourism. Among these are: quality of the natural environment (128); quality of the educational system (119); airport density (117); road traffic accidents (108); mobile subscribers (104); enforcement of environmental regulations (102) and visa requirements (101); all of which scoring a rank above (100) (Table 20).

**Table 19. Egypt's Ranking According to the Travel and Tourism Competitiveness Indices**

Country	Egypt	Spain	Italy	Tunisia	Turkey	Greece	Cyprus	Malta	Israel	Jordan	UAE
<b>Overall index</b>	<b>66</b>	<b>5</b>	<b>28</b>	<b>39</b>	<b>54</b>	<b>22</b>	<b>24</b>	<b>25</b>	<b>35</b>	<b>53</b>	<b>40</b>
T&T regulatory framework	58	28	41	25	56	17	27	13	32	36	44
T&T business environment & infrastructure	69	5	24	49	57	30	17	25	36	60	27
T&T human, culture & natural resources	70	4	15	57	44	18	40	43	59	64	89

Source: World Economic Forum (2008a).

**Table 20. Travel and Tourism Competitiveness Selected Sub-Indices**

Country	Egypt	Spain	Italy	Tunisia	Turkey	Greece	Cyprus	Malta	Israel	Jordan	UAE
<b>Overall index</b>	<b>66</b>	<b>5</b>	<b>28</b>	<b>39</b>	<b>54</b>	<b>22</b>	<b>24</b>	<b>25</b>	<b>35</b>	<b>53</b>	<b>40</b>
Visa requirements	101	30	30	12	73	30	46	46	21	124	83
Enforcement of environmental regulations	<u>102</u>	43	46	19	67	62	55	72	32	51	34
Road traffic accidents	<u>108</u>	99	104	82	97	72	17	1	38	60	59
Physician density	97	21	3	72	77	1	42	23	7	55	56
Effectiveness of marketing and branding	42	20	103	11	63	35	29	61	49	48	1
Airport density	<u>117</u>	50	65	74	85	16	13	8	61	80	31
Road density	95	23	14	82	41	30	n/a	n/a	37	98	116
ATMs accepting visa cards	96	1	15	78	52	20	14	36	49	75	37
Mobile subscribers	<u>104</u>	23	6	55	57	29	38	42	7	54	10
Extent and effect of taxation	33	71	126	20	103	74	19	65	68	73	2
Quality of the educational system	<u>119</u>	52	77	12	70	83	23	26	25	37	39
Attitude of population towards foreign visitors	91	47	76	64	39	17	18	5	67	65	6
Quality of the natural environment	<u>128</u>	72	76	30	106	55	41	110	60	35	29
Sports stadium	108	16	37	68	80	33	14	5	65	95	50

Source: World Economic Forum (2008a).

Such relatively poor position is used as a pretext for urging further liberalization of the tourism business in Egypt. For instance, according to FDI regulatory restrictiveness index, Egypt's tourism constraints take the form of operational restrictions limiting certain types of business activity in addition to some impediments to market access (OECD 2007). Hence, the removal of such constraints will improve the competitiveness of the tourism business.

This argument needs re-consideration for the following reasons:

First, it is difficult to trace a direct causal relationship between liberalization and tourism competitiveness. Tourism is a demand-driven industry with salient determinants. The removal of FDI restrictions does not necessarily improve the sector's competitive position if compensated by other pillars of T&T Competitiveness Index. Italy, for instance, which is among top tourism destinations and ranks 28 out of 130 countries in the T&T index, occupies the 109<sup>th</sup> position for business impact of FDI rules and the 108<sup>th</sup> position for transparency of government policies, worse than Egypt (98 and 92 respectively) that scores 66 in the T&T index. This means that further liberalization of investment regulations cannot guarantee a better position for Egypt's tourism in the international market.

Second, Egypt's moderate tourism competitiveness is basically due to factors relating to manpower skills, quality of infrastructure facilities, accessibility to information and communications technology (ICT), environmental standards, regulatory and administrative measures. As elaborated in the following sub-section, all these are implications of domestic policies and regulations.<sup>33</sup>

Third, the sub-indices which displayed good competitiveness performance for Egyptian tourism include fuel price index (3), hotel price index (5), low ticket taxes and airport charges (32), government tourism spending (20), and tourism fairs participation (1). All such factors—rather than liberalization—manifest the impact of pricing practices and government's interest in enhancing tourism through the allocation of sizeable appropriations for promotional campaigns.

Fourth, most deficiencies highlighted in the T&T index for Egypt concern tourism related services and infrastructure facilities. This implies that enhancing competitiveness in these services offers the promise of significant development gains (UNCTAD 2007).

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<sup>33</sup> Domestic reform implies—among others—more transparency and information disclosure, law enforcement, reforming regulatory laws relating to environmental protection.

Accordingly, the heavy reliance of tourism on networking, transport business and financial services makes it necessary for liberalization to go beyond the tourism sector and involve a wide range of connected services. Admittedly, beside tourism, Egypt has also undertaken positive liberalization steps in financial, construction, telecommunications and transport sectors,<sup>34</sup> but the wide variation in the time, pace and scope of liberalization among these sectors still impairs the improvement of the international competitiveness of the tourism business. In the air transport sector, for example, several progressive actions were taken in the past few years towards the liberalization of the sector (e.g., allowing establishment of private airports, gradual adoption of open skies policies and joining the Star Alliance). Nevertheless, the sector is still in need for more domestic reforms, including wider private participation, effective programs for upgrading human resources, more strict regulations to face anti-competitive practices, all of which would ensure better conducive economic environment (Ragab 2005).

Fifth, Egypt has already achieved substantial progress in the liberalization of the tourism sector; what is needed at this stage is to focus on capitalizing on its commitments and benefiting from the merits of GATS with the purpose of consolidating domestic reforms and re-regulations. For instance, skill upgrading schemes can benefit from technical assistance provided by relevant international organizations, making use of GATS Article IV (increasing participation of developing countries) as well as Article XXV (technical cooperation); in addition to effectuating the training component of hotel management contractual arrangements.

To reap such benefits, strengthening the negotiating capacity of the Egyptian delegation becomes a necessity, as it will help negotiators be more proactive rather than just receptive. This requires in turn the formation of a service coalition that includes stakeholders from different backgrounds (i.e., officials from national authorities and experts from private sector associations) but with one aim which is improving the international competitiveness of Egyptian services (tourism and other services as well).

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<sup>34</sup> Recent transportation initiatives have included a new legislation in June 2006 allowing private sector investment in the railway sector for the first time, a memorandum of understanding involving a consortium of international firms with \$30 billion of investments in highway, railroad and seaport projects, and plans are underway to more than double the capacity of Cairo International Airport through construction of a new third terminal, involving two foreign partners, TAV Airports Holding Company (Turkey) and ARINC Managed Services (US) (OECD 2007).

#### ***4.4. Significance of Domestic Reform***

As illustrated above, enhancing tourism competitiveness heavily depends on the government embracement of domestic reforms relating to human resources, infrastructure and environmental standards, in addition to regulatory and administrative arrangements.

*First considering tourism manpower*, special attention should be paid to the quality of the workforce in tourist enterprises to ensure continuous upgrading of their skills and sustainable competence in service delivery. This is a real challenge to the future development of the tourism industry. Despite the existence of managerial and vocational levels of education, the level of graduates from these institutes and faculties is not up to the required standard and does not satisfy market needs.<sup>35</sup> Overcoming the current shortage of specialized teaching staff and the revision of educational curricula of hotel and tourism faculties and institutes are seriously needed to match labor market requirements in the tourism business, which in turn requires adequate coordination between the Ministry of Higher Education, the Ministry of Tourism and the Egyptian Federation of Tourist Chambers (EFTC).<sup>36</sup> The formation of an executive steering committee for tourism vocational training under the umbrella of Egypt's Higher Council for Human Resource Development is also essential for managing and monitoring training in the tourism sector.<sup>37</sup> Furthermore, there is a need for developing a tourism employment information unit within the Ministry of Manpower and Emigration in collaboration with CAPMAS, EFTC, MOT and other national information networks, in order to identify the sector's specific needs and labor qualifications and skills. Moreover, the expansion of highly qualified technical medium and high level tourist hotel management institutes and the establishment of specialized training centers in newly developed tourist destinations (e.g., Marsa Alam and North Western Coast) would be beneficial to meet the growing need for trained staff in these locations.

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<sup>35</sup> For instance, the shortage of well-educated and trained front-line and supervisory level staff is a major complaint by practitioners in the business.

<sup>36</sup> According to the recent WEF Global Competitiveness Report (2008-2009) (WEF 2008b), out of 134 countries, Egypt occupies the 126<sup>th</sup> and 116<sup>th</sup> positions in terms of quality of higher education, and quality of management schools, respectively. Also, in terms of extent of staff training and availability of training services, Egypt ranks 96<sup>th</sup> and 92<sup>nd</sup> respectively.

<sup>37</sup> This committee would set the required procedures and accreditation system for the vocational training systems in addition to the required curriculum in line with international standards. Due to its specificity to the sector, the Committee's involvement would encourage private sector commitment to training co-financing by one percent of net profit as stipulated by Law 12/2003 (Article 134).

*Regarding infrastructure*, the expansion of airport facilities is strongly needed, not only to avoid current congestion and improve quality services in existing airports, but equally important, to ensure easy access to "targeted" destinations. The construction of Marsa Alam airport proved to be successful in attracting vacationers to this newly developed destination. Also the establishment of El Alamein airport and the current expansion of Borg El Arab and Matrouh airports are contributing to the promotion of the North West Coast for inbound tourism. Similar actions ought to be taken to exploit untapped tourist destinations such as Ras Sudr Coast which would be converted from simply a local destination for domestic visitors to an attractive site for international tourism once an airport had been established. Other examples include the establishment of an airport in Dahab, the modernization of St. Catherine airport, and the upgrading of Al Tor airport to accommodate regular flights.

By the same token, due to the high incidence of accidents in Egypt,<sup>38</sup> roads need to undergo further development and improvement in order to reach international safety standards.<sup>39</sup> Also, there is an urging need for the establishment of a higher council for security and traffic safety to set up a "national plan for traffic safety" with regional offices for monitoring and supervisory purposes, as well as the formation of special funds for the financing of safety assurance schemes and insurance programs for road users.

*As for water and sanitation facilities*, the inadequacy of supply to meet rapidly growing demand requires proper coordination among the concerned parties, as there are incidences of trade-offs. For instance, the Sinai Development Authority has executed some water and wastewater projects in areas considered first priority whereas the General Authority for Roads and Bridges and Land Transport has implemented projects elsewhere without paying much attention to complementary considerations.

Furthermore, local administration units have carried out some projects that could have been more beneficial if linked to major development schemes, such as the construction of "local secondary roads" not connected with regional and principal roads executed by the General Authority for Roads and Bridges and Land Transport.

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<sup>38</sup>During the period 1990–2007, the number of recorded road accidents rose by 25 percent with a result of death and injury cases growing by nearly 37 percent and 50 percent respectively (IDSC 2008).

<sup>39</sup> For instance, in South Sinai, there is a need to (i) speed up the completion of the main coastal road (El Shat – El Tor Road), and the widening of Sharm el Sheikh – Dahab road, (ii) complete pavement of secondary roads in Ras Sudr, Dahab, and Newiba', and (iii) upgrade roads easing access to tourist attraction sites, such as Oyoun Moussa, Hammam Moussa, Hammam Pharaon, Sarabeet el Khadem and Feiran village.



In short, the development of an effective institutional framework is essential to monitor and follow up on the implementation of infrastructure development strategy and action plans to ensure compatibility with set-up targets in due time.

*As for environmental issues*, the enforcement of preservation measures and the resort to strict regulations are strongly recommended to control occupancy and utilization density in accordance with the accommodation capacity of beaches, museums and historical sites.<sup>40</sup> Large scale tourism development imposes heavy stress on the ecosystem and requires strict mitigation measures to ensure rational management of the physical environment, and hence, sustainability of tourism development. Therefore, enforcement of ecotourism activities' regulations, already developed by TDA, is of vital importance to limit the number of visitors to sensitive areas and avoid environmental damage affecting in turn the quality of tourism product (WTO 2003).

*Concerning regulatory and administrative arrangements*, the re-consideration of current practices is a critical issue. To cite a few examples, there are more than 17 official authorities involved in the supervision and follow-up of tourism business operations with no proper coordination (e.g., Ministry of Health, Ministry of Culture, Ministry of Interior, Ministry of Manpower and Emigration, to mention but a few). Also, although there is a clear-cut distinction between tourism development projects under the jurisdiction of TDA and those under the umbrella of local administration, the latter often intervenes in day-to-day operations of TDA tourist establishments causing a lot of resentment in the business circle.

Furthermore, the Ministry of Civil Aviation and the Ministry of Culture tend to raise services' fees from time to time without prior consultation with the Ministry of Tourism, and in many cases with very short notice to tour operators and travel agencies, an act which adversely affects Egypt's competitiveness.

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<sup>40</sup> The carrying capacity of reefs is limited and cannot support an indefinite amount of recreational use. The total amount of reef area is fixed and reef health requires careful maintenance and periods of closure of protectorates to allow reef generation. The damage inflicted by divers and snorkelers consists mostly of breaking fragile, branched corals or causing lesions to massive corals. To give examples, Ras Mohamed protectorate gets at peak 600,000 visitors a year, which is too excessive. Also, Nabq protectorate is receiving about 1,500 guests per year. The degradation of the reefs is indeed a serious problem as it takes decades for reef recovery, sometimes more than one hundred years depending on the type and severity of impact. The problem is exacerbated by the concentration of diving spots in areas well-endowed with coral reefs, creating strong pressure beyond their carrying capacity. Some dive sites, such as Jackson's reef, are under great pressure. As reported by EEAA, international norms suggest a maximum of 15,000 dives a year carrying capacity basis, but this site had up to 120,000, i.e., eight-fold the international acceptable level (Sakr 2007).

In a nutshell, what ought to be emphasized is that the above cited institutional and regulatory reforms and measures can be carried out without recourse to further liberalization of the tourism sector. So, the issue is not to liberalize more but to focus on domestic reforms that would improve the business climate in general, with special attention to the upgrading of human capital and infrastructure, as well as preservation of the environment within the framework of sustainable development, and the reconsideration of regulatory frameworks. In other words, the competitiveness of the tourism sector is a broad issue that goes beyond liberalization agreements and commitments as it is a reflection of a combination of factors most of which come under the umbrella of domestic regulations.

## **5. CONCLUSIONS AND POLICY RECOMMENDATIONS**

The issues raised in this study are of paramount importance to tourism development in Egypt. They relate to the degree of reliability of tourism statistics to assess the economic contribution of the sector; the extent of exploitation of tourism potentials; and the validity of further liberalization of tourism services.

The results of the study are quite clear in this respect: (i) tourism statistics are shaky and inconsistent, and one can hardly rely upon them to evaluate the economic impact of the business; (ii) foregone opportunities are considerable in terms of unsatisfied potential demand, whether in general, or for particular markets or product type; and (iii) Egypt has already liberalized most basic tourism activities so that there is no need for further liberalization efforts, but what is important is to effectuate past commitments and consolidate domestic regulation.

To overcome the problem of data limitations, the study recommends the development of the tourism statistical system by embracing the concept and methodology of tourism satellite accounts (TSA) advocated by the WTO and endorsed by the UN in accordance with the 1993 SNA.

The merits of TSA, already developed in nearly 40 WTO member countries, are quite significant. At the aggregate level, the development of TSA would (i) highlight tourism's contribution to the economy in terms of GDP, employment, foreign exchange earnings and tax revenues; (ii) provide a set of internationally compatible accounts in line with national accounting principles; (iii) offer policy makers insights into tourism and its socio-economic functions and impacts; (iv) determine the extent of tourism importance in comparison to other

sectors in the economy; in addition to inter-country comparison of tourism activity; (v) illustrate tourism linkages with the rest of the economy; with quantitative identification of industries that benefit from tourism development; and (vi) create awareness among the various players—not directly involved with tourism—of the importance of tourism.

At the industry level, by analyzing the components and key characteristics of both demand and supply sides (i.e., demand and production functions), TSA would provide information relating to the structure of visitors (i.e., households, business, government employees or non-residents; same-day visitors versus tourists); weight of tourism expenditure incurred by various visitor categories and the weight of tourism activity in terms of outputs for tourism-related industries; employment profiles of the tourism industries and labor compensation; interaction of various forms of tourism in the economy; and the extent to which visitor demand is matched by domestic supply.

To develop TSA, the improvement of the tourism statistical system should rest on the following:

- decomposing tourism demand into inbound, outbound and domestic tourism with accurate measurement of each form, following WTO definition and measurement methodologies;
- disaggregating the tourism supply-side component into appropriate subcategories using WTO classification criteria;
- designing adequate data structure and collection methods for relevant subcategories in conformity with WTO;
- establishing an intergovernmental council headed by MOT to assure proper coordination among various agencies involved in collecting and disseminating tourism statistics;
- strengthening the following-up and monitoring capacity of MOT departments and affiliated bodies to ensure adequate and continuous data reporting by both tourist establishments and related activities;
- developing the MOT Information Center and establishing links with the Federation of Tourist Chambers, as well as CAPMAS and other national information networks;
- producing and tabulating tourism data in a consistent format to allow accurate analysis of supply-side activities as well as statistical linkages with demand-side elements; and

- introducing tourism supply-side categories into the national account system, input/output tables, and economic census to ensure adequate representation of the tourism sector and achieve better assessment of its economic impacts.

*Considering untapped tourism potential*, the study suggests adopting the panel data econometric technique for estimating the demand function, broadening its scope of application to identify other source markets and tourism product types that could be tapped in the near future, and to design promotional campaigns accordingly. Based on the research findings, extensive surveys need to be carried out among tour operators and focus groups in the "defined" potential source markets, including collection of information on the needs and motivation of potential tourists.

Accordingly, new image, logo and slogan could be designed and used in future promotional campaigns in the marketplace, tailored to the specific need of each source country, and the salient characteristics of each tourism product and attracting site.<sup>41</sup> The selected design and theme should be progressively introduced in all public and private sector promotional materials.

Based on the market research findings, the formulation of a marketing plan should embrace detailed targets for individual potential markets and product type, including special interest and niche markets and products. Activating tourism flows from the Arab Gulf states and from newly emerging markets (China and some South and South East Asian countries), and promoting untapped tourism products (e.g., health, sport tourism, safaris, and eco-tourism) should be well targeted in the marketing plan.

*With regard to tourism liberalization*, as stressed in the study, there is no need at present for further liberalization measures in the tourism sector. What is recommended is (i) the effectuation and capitalization on commitments as stipulated in Egypt's GATS schedule; (ii) to tailor further commitments to the sector's needs (e.g., upgrading labor quality, limiting temporary movement of foreign personnel to specific skills and occupations); (iii) to take advantage of some GATS articles, such as articles IV [increasing participation of developing countries] and XXV [technical cooperation]; (iv) to strengthen Egypt's capacity in future

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<sup>41</sup> MOT current promotional campaigns in European countries lack specificity. It sends a common message to all source countries, regardless of differences in motivations and preferences. The promotion of Egypt as a sunny destination, for instance, could be effective in Scandinavian countries, such as Norway and Denmark, but not in Spain or Italy.

negotiations by forming an effective service coalition including all stakeholders and taking a pro-active stand rather than a defensive position; and above all (v) to focus on domestic regulation in both tourism and tourism-related activities to strengthen competitiveness and, equally important, to mitigate risks associated with tourism liberalization, such as cross-border anti-competitive practices threatening local entities.<sup>42</sup>

To wrap up, liberalization should be conceived as an integral part of a full reform package. Any future commitments should be tailored so that more opening is linked to improving competitiveness of the sector, and effectuating domestic regulation relating to human resources, infrastructure development and environment conservation.

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<sup>42</sup> As vertical integration among foreign tour operators and travel agencies, which increases the degree of concentration in the travel market in favor of the mega operators, thus putting Egyptian entities at a disadvantage.

## **APPENDIX: LITERATURE REVIEW**

Economic literature on the tourism industry is divided into two distinct strands: first is the international trade literature, which is a natural starting point since tourism is essentially a form of international trade and studying it can be similar to other types of trade in services, especially trade in financial services.

The general starting point for theoretical and empirical literature on international trade is the Heckscher-Ohlin theory or pattern. It states that international trade depends on relative factor endowments. This is important when the factors of production are capital and labor as this makes it less necessary for tourism analysis. In the case of tourism, the most important factors of production are unique to the specific country and not easy to measure, evaluate or compute (Da Cruz and Rolim 2005; Eilat and Einav 2004; Papatheodorou 1999; Giacomelli 2006b; Zhang and Jensen 2005). In Egypt, the Pyramids, religious sites, coral reefs and nice beaches are good examples of these unique factors of production, which make the investigation of the determinants of international tourists to the country less attractive theoretically, as these factors are unique and cannot be generalized across countries. However, such uniqueness increases the empirical interests in these factors of production.

The second strand of literature, which is the one followed in this study, is the empirical tourism literature. This literature can be grouped into two clusters: the first cluster comprises studies that use time series and co-integration econometric techniques to investigate the determinants of tourism demand and forecast future tourist arrivals (e.g., Halicioglu 2008; Katafono and Gounder 2004; Narayan 2005). The second cluster involves studies that deal with determinants of tourism using panel data econometric techniques (such as Da Cruz and Rolim 2005; Eilat and Einav 2004; Giacomelli 2006b; Walsh 1996; Naudé and Saayman 2004). However, the overwhelming majority of existing studies uses traditional econometric methods and ignores possible supply-side influences (Zhang and Jensen 2005).

The neoclassical (or Marshallian) consumer theory has so far represented the theoretical cornerstone of empirical tourism research. According to this theory, destinations provide a homogeneous tourism good characterized by a certain price with two components: stay and transport. Individuals coming from a given source country (henceforth origin) allocate their tourism disposable income according to destinations' price competitiveness.

Thus, the most important explanatory variables of tourism flows to date have been identified in the literature as follows (Zhang and Jensen 2005):

- income (in the tourism source country),
- population (in the tourism source country),
- cost of living (i.e., relative prices or consumer price index (CPI) ratios between the source and destination countries),
- transportation cost (between the two countries),
- currency exchange rate (between the pairs of destination and source countries), and
- other price factors (inflation, exchange rates).

In spite of this simple framework that also has the advantage of functioning as a forecasting model in the short run to estimate the tourism demand for a destination country from its main tourism markets, few attempts to establish a consistent relationship between empirical models and neoclassical theory have been made. The typical econometric model consisted of a single equation, aimed at estimating aggregate tourism figures for a given destination, and without theoretical justification for the functional form adopted (Giacomelli 2006b).

In spite of its persistent prominence, the Marshallian approach has been subject to criticism:

First, the application of the neoclassical traditional demand theory suffers from serious drawbacks, as the theory ignores the particularities of the product by assuming that a representative tourist treats all destinations as homogeneous tourist products (Giacomelli 2006b; Papatheodorou 1999; Zhang and Jensen 2005). This homogeneity assumption prevents neoclassical researchers from explaining tourism choice with destinations' features other than price, overlooking that tourist products are heterogeneous and unique (in the sense that tourists obtain unique travel experiences in each tourism destination), as well as ignoring the comparative advantage of tourism exporting countries and their active role in attracting tourism flows.

Second, traditional neoclassical models are also static, treating all tourism destinations equally, ignoring thereby development efforts. Real experiences of individual countries,

however, show that during some periods, some destinations may lose their edge while new destinations may emerge as fresh tourism attractions. Accordingly, the development and competitiveness of tourism destinations should be taken into consideration when analyzing tourism flows (Zhang and Jensen 2005).

Third, individuals can evaluate the utility arising from tourism products right after their consumption, i.e., the quality of tourist product (Da Cruz and Rolim 2005). In other words, tourism choice is an uncertain process. Thus, destinations characterized by high levels of uncertainty would lose their competitive edge and their ability to attract voluminous flows of tourists, a fact that challenges the neoclassical assumption of homogeneity.

In addition, applied tourism research suffers from severe lack of data (Eilat and Einav 2004). This is reflected in the use of different variables and the restrictiveness of destinations set. Thus, no consensus could be reached from the empirical literature on the effects induced by tourism determinants (Giacomelli 2006b).

Stimulated by the above criticisms, a group of non-neoclassical models emerged (Da Cruz and Rolim 2005; Eilat and Einav 2004; Giacomelli 2006b; Naudé and Saayman 2004). These models share some common features: they consist of systems of equations; assume a multi-stage budgeting process; employ large datasets; introduce destinations' non-price determinants (i.e., implicitly refuse the neoclassical homogeneity assumption); introduce non-price determinants in a "causal" way, with no reference to the non-neoclassical theory of tourism demand; and rarely offer theoretical justification for the functional form adopted.

Non-neoclassical models improved upon the previous literature, although the lack of connection with a sound non-neoclassical theory undermines these models' reliability.

To improve upon non-neoclassical models, such a connection was built (Giacomelli 2006b) with an attempt to answer two essential questions: First, assuming destinations' heterogeneity, and considering tourism uncertainty, what are the theoretical determinants of tourism demand? Second, what empirical data should be used to approximate these determinants? Both questions are addressed in section 3.1 of the study.



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