



**International Tourism Volatility
with Special Reference to Egypt**

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Abstract

Over the last 50 years, many developing countries have turned to tourism as a possible engine for economic growth and Egypt is no exception. However, despite its obvious economic benefits, tourism is generally considered a highly volatile industry that is prone to frequent internal and external shocks leading to downturns in activity.

This paper examines the extent of tourism volatility and its economic impact. It addresses questions such as: How volatile is the tourism industry? How severe is the impact of tourism downturns on the economy? And how fast is tourism recovery? The paper answers these questions, while assessing the main determinants of Egypt's tourism fluctuations and the effectiveness of its tourism restoration and business compensation policies as mitigation measures.

ملخص

على مدار الخمسين عاما الماضية، اتجهت العديد من الدول النامية، ومن بينها مصر إلى دامتعالا على قطاع السياحة كقاطرة لتحقيق التنمية الاقتصادية. وعلى الرغم من توافر كثير من مقومات هذه الصناعة في مصر، ومن تمتع هذا القطاع بالعديد من المزايا النسبية، إلا أنه يعد من أكثر القطاعات عاقلا تقلبا نتيجة لما يتعرض له من صدمات داخلية وخارجية، الأمر الذي يتسبب في معاناة هذا النشاط من الركود وما يترتب على ذلك من انخفاض في عائدات السياحة وظهور البطالة الدورية.

وتتناول هذه الورقة بالدراسة والتحليل التقلبات في قطاع السياحة وانعكاساتها على الاقتصاد القومي. وتحديدا، تجيب الدراسة عن الأسئلة الآتية: ما هي أسباب التقلبات في قطاع السياحة حاسلا ما هي الآثار المترتبة عليها بالنسبة للاقتصاد في موقلا وما هي سبل مواجهة هذه التقلبات وفي معرض الإجابة عن هذه الأسئلة، تقوم الدراسة بتقييم المحددات الرئيسية للتقلبات في قطاع السياحة في مصر، وكذلك مدى فعالية السياسات المتبعة لاستعادة النشاط وتعويض الشركات كتدابير هادفة للتخفيف من آثار هذه التقلبات.

I. Introduction

Over the past five decades international tourism has witnessed a wide range of crises – economic, social, political, and natural – which led to sluggish growth and notable economic implications. As a result, tourism has come to be seen as a volatile industry. However, proponents of global tourism argue that when compared to other sectors, the tourism industry is relatively stable. Other industries, such as information technology, are envisaged as more volatile and therefore have stronger adverse affects on the economy. Moreover, it is argued that international tourism has developed a capacity to resist, adapt to, and overcome crises. This resilience enables the industry to successfully rise above complications and continue to grow. The adoption of sound crises management practices and mitigation measures allows the tourism industry to not only survive but also quickly recover from setbacks.

This paper first examines the extent of tourism volatility and its economic impacts. Then it focuses on Egypt in light of its experience with successive internal and external shocks and tourism's increasing importance to the economy. The paper assesses Egypt's tourism resiliency, the determinants of its tourism fluctuations, and the effectiveness of remedial actions such as crisis management and mitigation policies. Specifically, the paper discusses the following questions:

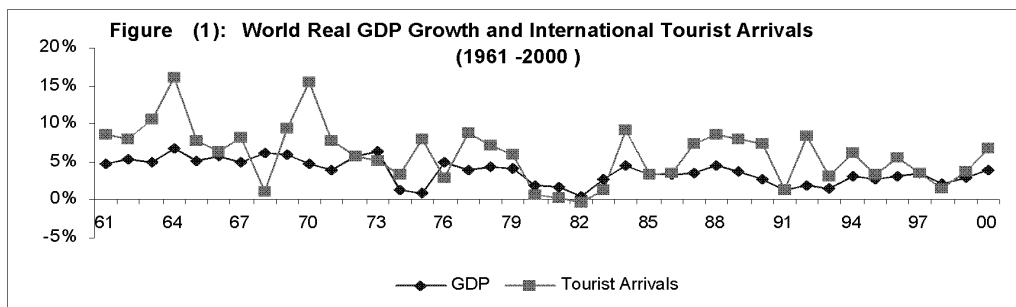
- * How volatile is the tourism industry?
- * How severe are the adverse economic impacts of tourism downturns?
- * How fast is tourism recovery?
- * What are the main determinants of Egypt's tourism fluctuations?
- * How to mitigate the negative implications of Egyptian tourism volatility?

II. The Extent of Tourism Volatility

This section discusses the relationship between global tourism and economic growth. It also outlines regional disparities, provides country experiences, assesses the volatility of tourism receipts, and offers a comparison of volatility levels among various sectors.

Global Tourism and Economic Growth

Time-series data on global tourism and GDP growth reveal a strong relationship between tourism development and economic growth. As shown in Figure 1, both variables tend to follow a similar trend: they flourish in times of favorable economic climate, and slow down in periods of global crises and conflicts. However, it is worth mentioning that the rapid growth of international tourist arrivals has significantly outpaced the growth of the world economy.¹



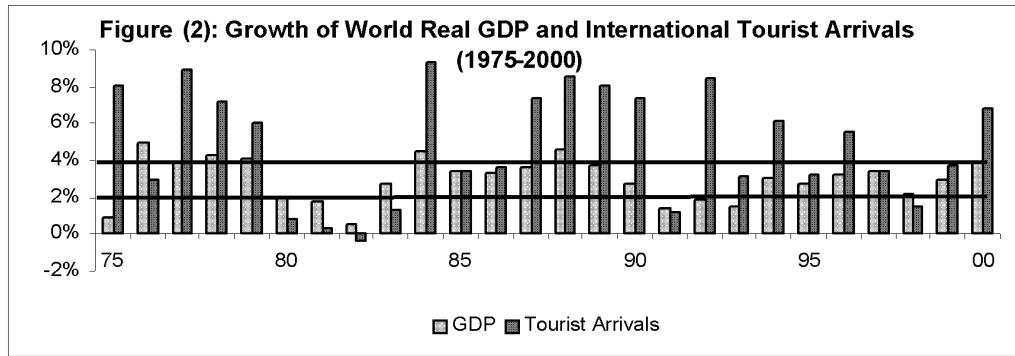
Sources: WTO, *Yearbook of Tourism Statistics*, various issues, and *Compendium of Tourism Statistics 1996-2000* (2002 edition).

This growth reflects wide fluctuations in global tourism flows compared to real GDP. In general, tourist arrivals are likely to grow much faster than GDP in years of economic prosperity, but lag far behind in years of recession or unfavorable incidents.²

The high volatility of global tourism can be seen in Figure 2. When world economic growth surpassed 4 percent a year, tourism flows registered higher growth rates; conversely, when GDP growth fell below 2 percent a year, tourism deceleration was more pronounced.

¹ Throughout the 1960s - the golden age of tourism - global tourist arrivals grew at an exceptional rate of 9.2 percent a year on average, in contrast to a GDP growth rate of about 5.5 percent (Van Harsseel, 1994). Also, during the period 1975-2000, international tourism grew on average 1.4 times faster than GDP, recording a growth rate of 4.9 percent a year compared to 3.4 percent for world GDP (WTO, 2001a).

² In 1982, for instance, the slowdown of global GDP growth to 0.5 percent was associated with a decrease of 0.4 percent in international tourist arrivals. This particular year witnessed the Falkland War; the conflict between Israel and Lebanon; the declaration of the martial law in Poland; the increasing travel restrictions in Central and Eastern Europe; in addition to the adverse economic climate echoing the second oil crisis of 1979. The events of September 11th, 2001 are another example. The IMF predicted world real output growth to be as low as 2.4 percent in 2001 and 2002, but the impact on tourism flows was more dramatic, as they declined in absolute terms - for the first time since 1982- registering a decrease of 0.6 percent in 2001 compared to the previous year (WTO, 2002c).



Sources: World Bank (2002), *World Development Indicators*; WTO (2001a).

The reason behind this phenomenon is that tourism is a demand-driven activity largely influenced by visitors' perceptions of the safety of travel and destinations. Erratic events affecting such perceptions are numerous including acts of terrorism, wars, political uncertainty, social unrest, economic crises, natural disasters, and health and environmental hazards; all of which strongly deter travel.³

Regional Disparities

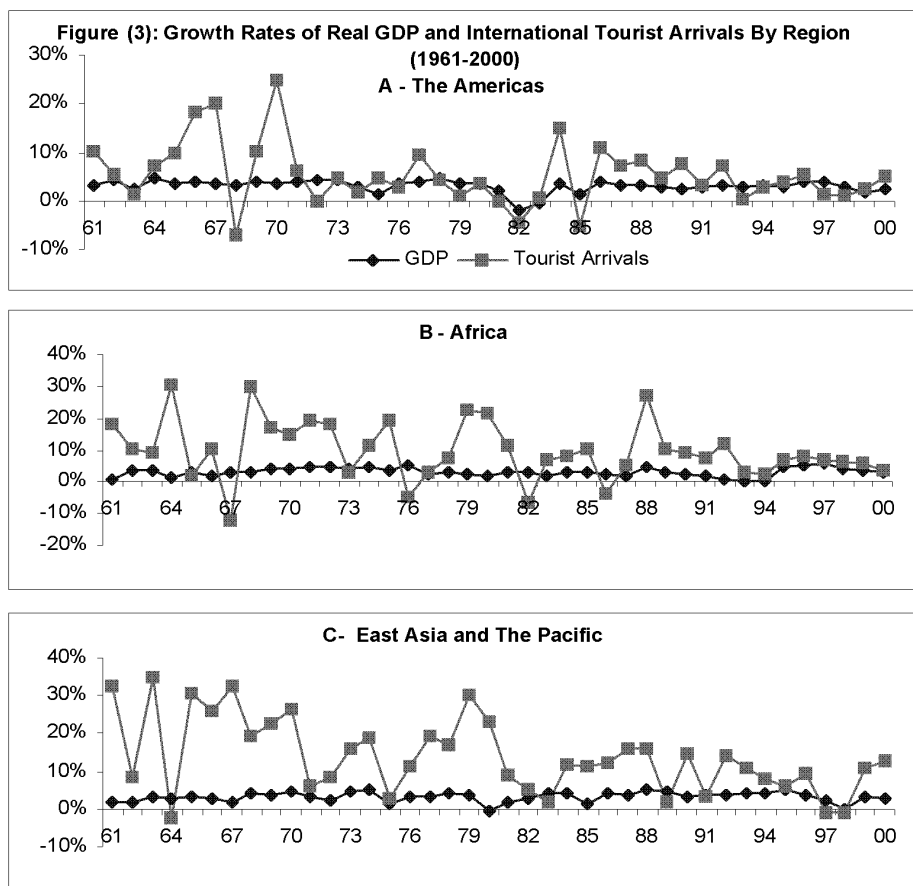
Global data tend to undermine the extent of tourism volatility because the reallocation of travelers' movements across regions and tourist destinations offset its impact. Driven by safety and security considerations, travelers shift to more secure destinations; above all, tourists value their personal safety and the ability to travel without threats to this safety is of paramount importance.

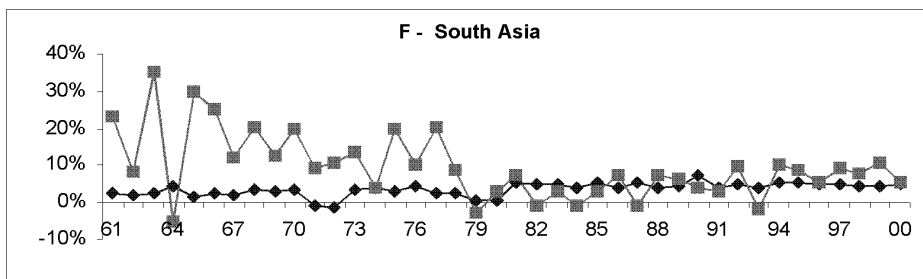
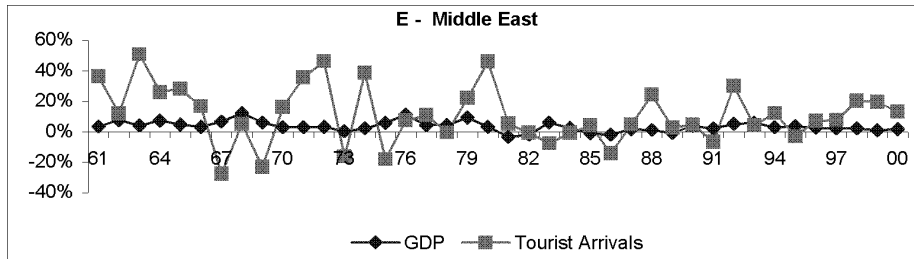
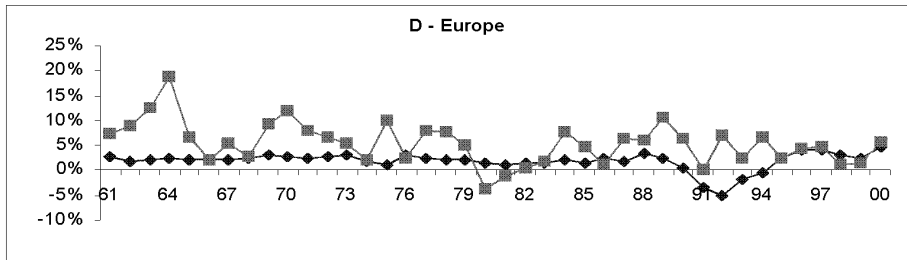
The fact that international tourism enjoys high inter-regional and intra-regional elasticities of substitution – given the diversity of tourist destinations and visitors' free choice in the matter – may well explain the notable drop in tourist flows in affected areas. The industry is highly competitive and there are numerous destinations from which to choose. So, if security is jeopardized in a particular region, it is not difficult for travelers to cancel bookings, postpone vacations or switch to other destinations.⁴

³ The events of September 11th are again a good example. Since the attacks, travelers' confidence has weakened worldwide, and there is apprehension and a certain fear of traveling, as well as a general atmosphere of uncertainty. During the period September - December 2001, tourist flows experienced a drop of 11 percent compared to same period of the previous year (WTO, 2002a).

⁴ For example, the terrorist attacks in Europe during 1986 led millions of Americans to vacation in North America (Van Harsseel, 1994). Also, the political violence in Jamaica (1976 and 1980) and in the Caribbean Basin in general since 1985 induced many American tourists to change destinations to Spain and Greece in Europe and to Mexico (Rosensweig, 1988). Similarly, the political unrest caused by the Asian Crisis in 1997/98 kept visitors away for some time from tourist destinations in Southeast Asia (Low, 2000).

Figures 3 and 4 not only reveal the high regional fragility of inbound tourism compared to real GDP growth, but also show wide inter-regional disparities in volatility levels. Of all regions, Europe and the Americas exhibit the least volatility; while East Asia and the Pacific region recorded the highest coefficient of variation throughout the past decades, except during the 1990s when the Middle East took over. The fluctuations in tourism flows were quite significant in South Asia and Africa during the 1960s, and in the Middle East during the 1970s and 1990s. Despite these disparities, inter-temporal comparisons reveal a declining trend in global (and most regional) tourism volatility with the passage of time.





Sources: WTO, *Yearbook of Tourism Statistics*, various issues, and *Compendium of Tourism Statistics 1996-2000* (2002 edition).

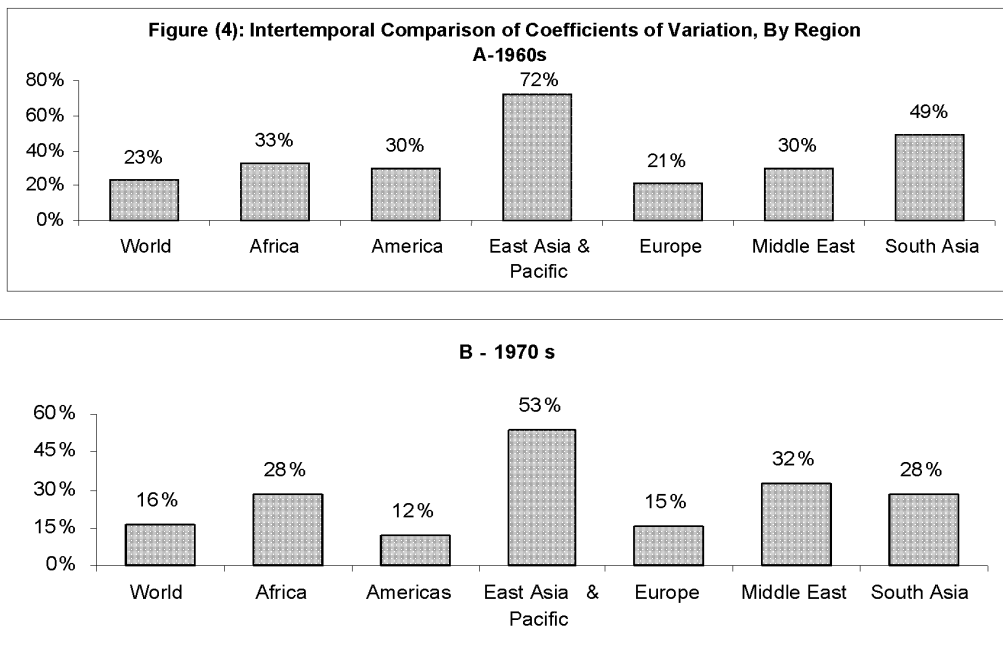
For the Middle East in particular, there are at least three possible explanations for the high volatility of inbound tourism. First, the region has been continuously subject to dramatic events that endanger the safety of visitors. Among these are the Arab-Israeli Wars (1967 and 1973); the Gulf Wars (1981 and 1990/91); the two Palestinian *Intifadas* (1987 and 2000); the terrorist acts in Egypt (1993/94 and 1997); and recently, the Iraqi crisis (2002/03).⁵ The frequency and severity of such occurrences strongly influence the risk perception of prospective travelers to the region, causing them to switch to alternative destinations most likely along the Mediterranean rim or in Southeast Asia.

Second, due to the proximity of Middle Eastern countries (i.e., Egypt, Syria, Jordan, Lebanon and the Gulf states), most foreign visitors consider them political and social complements rather than substitutes. As a result, all countries in the region

⁵ In addition to these incidents, other events affected the stability of the region like the Lebanese Civil War (1976-1990), the Israeli invasion of Beirut (1982), and several plane hijackings during the late 1970s and early 1980s.

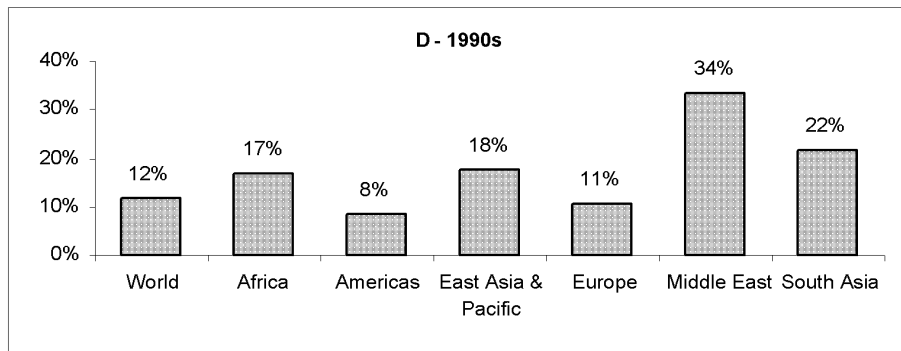
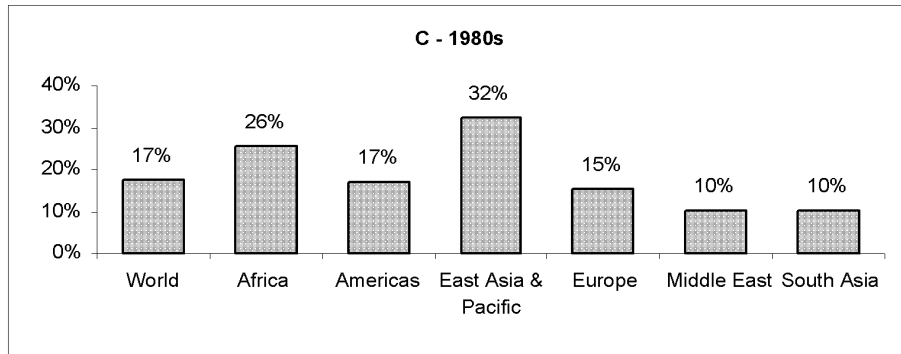
suffer a decline in tourism due to an incident or instability in one country. For example, a wave of violence in the Palestinian territories is likely to have adverse impacts on tourism flows to Egypt and Jordan.⁶ Media coverage plays a vital role in perpetuating the distorted risk perception among travelers.

Finally, inbound tourism is heavily concentrated in few destinations in the region, namely, Egypt, Jordan, Syria, Bahrain and the United Arab Emirates (UAE). The first three countries are directly exposed and most affected by disturbing events, while the other two lie on the periphery of the “hot” zone. Altogether, they account for about 80 percent of total visitor arrivals to the Middle East.⁷ Consequently, if this core of the region faces serious conflicts, incidences of violence or political uncertainties a significant setback of tourist flows can be expected.



⁶ In the case of Egypt, this occurrence led to a drop of nearly 6 percent in tourist arrivals during the period January–August 2001 (computed from MOT, 2001)

⁷ WTO (2001b).



Source: Authors' calculations based on WTO data.

In contrast, Europe displays remarkable stability in tourism growth, with relatively low frequency and intensity of shocks. This is attributable to three factors. First, inbound tourism in Europe is highly intra-regional in nature. European travelers constitute the bulk of tourist flows in the region, accounting for over 80 percent of total international tourist arrivals in the region as a whole.⁸

This pattern of tourist flows is in harmony with Linder's Theory, which considers similarities the main driving force for international exchange.⁹ The greatest number of exchanges are likely to occur between similar economies. The evolution of inbound tourism is a result of the conditions created by domestic demand. Consequently, the volume of inbound tourism is greater, and increases faster, between European countries sharing the same economic and social structures. Under these conditions, international tourism demand complements a domestic demand that is already high and steadily growing.¹⁰ The easing of travel restrictions as a result of the full liberalization of travel among EU countries provided further stimulus to intra-regional tourism.

⁸ WTO (1999).

⁹ See Salvado (1995).

¹⁰ See Vellas and Becherel (1995).

Second, the European market is highly segmented featuring numerous destinations with various distinctive tourist attractions. This heterogeneity encourages tourism to shift away from adversely affected places within the region.¹¹

Third, almost 60 percent of total visitors to Europe travel to five countries (France, Spain, the United Kingdom, Austria and Germany) that are ranked among the world's top 15 destinations.¹² The relative stability of the tourism industry and visitors' strong confidence in the safety and security measures protect these economies from notable fluctuations in tourism growth.

Tourism trends in the Americas also reflect reasonable stability due to (i) the overwhelming status of the North American sub-region which absorbs nearly 70 percent of total arrivals to the region, and (ii) the great significance of intra-NAFTA flows with North and West European countries. These two factors outweigh the tourism flow problems in Latin American countries, which are partially due to growing political unrest and criminal activity in some destinations (e.g., extortion, robbery, kidnappings).¹³

In a nutshell, the steady tourism growth in the "developed" sub-regions of Europe and the Americas tends to compensate for the high tourism volatility in the "developing" sub-regions of the globe.¹⁴ Because of this counter-effect, the present distributional pattern of tourist flows provides a plausible explanation of the low volatility of worldwide average tourism growth.

Country Experiences

Tourism volatility is likely to vary from country to country depending on (i) the extent of risk exposure and the responsiveness of tourism-generating markets to adverse occurrences, and (ii) the effectiveness of the mitigation measures. Thus, the issue of

¹¹ The disintegration of Yugoslavia (1991), the Chechen Wars (1994 and 1999), the Kosovo conflict (1999) are examples of occurrences which caused a shift from destinations in Central and Eastern Europe and East of the Mediterranean to the West of the Mediterranean basin (e.g., Spain, France, Italy and Greece).

¹² France still heads the list with 76.5 million arrivals. Spain comes in second with 49.5 million. Italy occupies the fourth position after the United States (39 million). (WTO, 2001a).

¹³ It should be noted, however, that the relative stability of the United States' tourism market has, to some extent, been shaken after the September 11th attacks and the threat of possible terrorist acts in the future.

¹⁴ During the 1990s, the lowest coefficients of variation in tourist real receipts were recorded in Northern, Southern and Western Europe (7 percent) compared to Central and Eastern Europe (53 percent) and Eastern Mediterranean Europe (21 percent). Also, for North America, the coefficient was 11 percent in contrast to 15 percent for the rest of the continent.

volatility should be addressed on a case by case basis. However, in broad terms, the vulnerability of tourism to shocks is certainly perceived more at the local level than at the global and regional levels. Given the high elasticity of substitution among destinations, affected countries are expected to exhibit sudden and sharp reductions in tourism flows.¹⁵ For instance, tourism flows to Greece were lower than expected in 1974 because of the heightened threat of war between Greece and Turkey as a result of Turkey's invasion of Cyprus (Witt, Brooke and Buckley, 1991). In 1995 Croatia experienced a 13 percent decline in tourist arrivals because of the military action to regain authority over its occupied territories (WTO, 1998a; Payne, 2002). Also, Malaysia, Indonesia and Singapore experienced a decrease of nearly 15 percent in flows following the Asian financial crisis in 1997.

Similarly, Turkey faced a drop of 23 percent in inbound tourism in 1999 due to internal political problems and earthquakes; and more recently, Israel's tourism earnings decreased by 42 percent in 2001 as a result of the Palestinian *Intifada* which began in September 2000.

Also, countries close to Afghanistan recorded a sharp decline in tourism traffic during the 2001 conflict, with India reporting the cancellation of some 70 percent of bookings (Di Castri, 2002). The political unrest in Argentina and Venezuela in 2002; the bomb blasts in Indonesia (Bali) and the Philippines (Mindanao Island) in 2002; the current breakdown of law and order in many Eastern bloc countries, and the growing tension between India and Pakistan, are also clear examples of events that could be disastrous for tourism in these destinations.

In this context, the Egyptian case is of particular interest. Figure 5 indicates drastic fluctuations in tourist arrivals compared to real GDP growth. In effect, since the outset of the 1990s, the country has been constantly facing erratic events which have caused a substantial downturn in tourist flows (Figure 6). First, as a result of the Gulf War (1990/91), there was a drop of nearly 15 percent in the number of tourist arrivals and of almost 19 percent in the number of nights spent. Then, in 1993, terrorist acts caused a fall of about 22 and 30 percent, respectively compared to 1992.

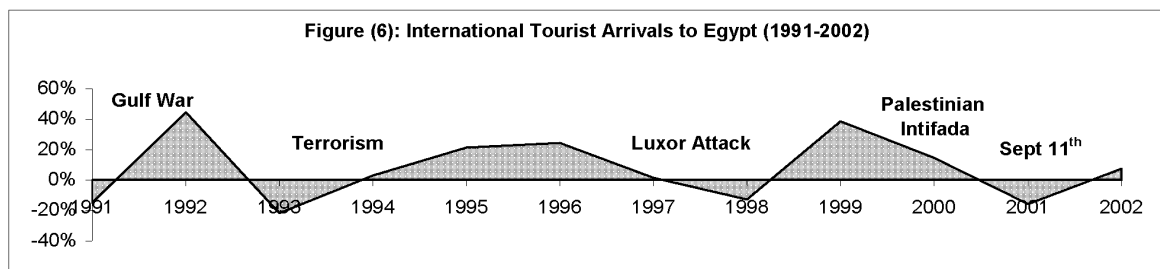
¹⁵ For example, using a multi-level CES model, Rosensweig (1988) found very high elasticities of substitution for intra-Caribbean tourism flows (1.33), for Mexico (1.85), and for Europe (1.7).

Also, due to the Luxor attack (November 1997), tourism fell by nearly 13 percent and receipts by 31 percent in 1998 compared to 1997.

Last but not least are the repercussions of the Palestinian *Intifada* and the September 11th attacks on the United States in 2001. These two events caused a decrease of nearly 16 percent in the number of visitors and 9 percent in tourist nights in Egypt. During the fourth quarter of 2001, in particular, the number of visitors and nights dropped considerably by 41 and 35 percent respectively, compared to same period of 2000 (MOT, 2001).



Sources: MOT (2001), *Tourism in Figure*; IDSC *Monthly Bulletin 2002-2003*; CBE (2002, 2003) *Monthly Statistical Bulletin*, October, March, respectively; and website: www.cbe.org.eg.

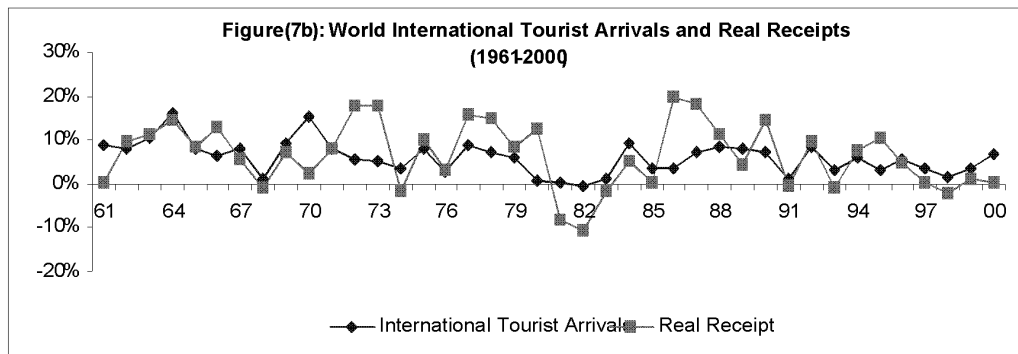
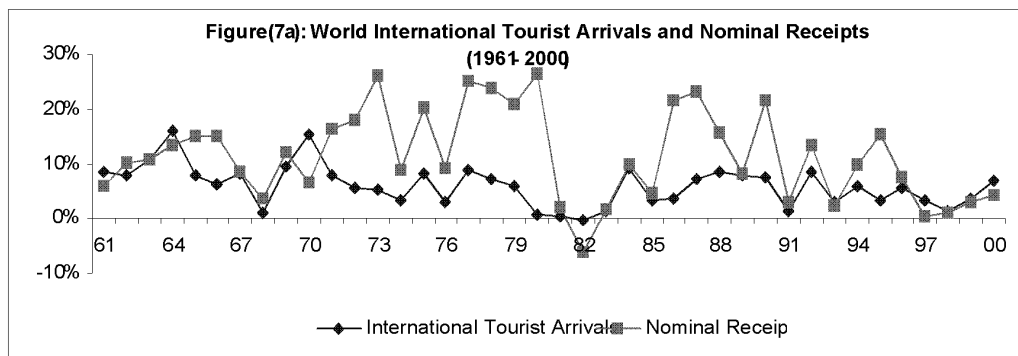


Source: MOT, *Tourism in Figures*, various issues.

The vulnerability of the Egyptian tourism sector to external/internal shocks is further exacerbated by the high concentration of tourism traffic. The four largest tourism-generating countries, namely, Germany, Italy, France and the United Kingdom, account for nearly 50 percent of total arrivals to Egypt (MOT, 2001). Based on past records, these countries have proved to be highly sensitive to irregular events.

Tourism Receipts

When compared to tourism growth, worldwide tourism receipts – whether nominal or real – reveal higher volatility. This can be clearly observed from Figures 7a and 7b. Of particular interest are the years 1982 and 2001 which experienced an absolute decline in the number of international tourist arrivals; the former, as a result of the unfavorable global economic climate and political uncertainties; and the latter, in the aftermath of the September 11th attacks. The number of arrivals dropped by 0.4 and 0.6 percent respectively, but the corresponding decreases in real tourism receipts were more striking totaling 10.6 and 5.2 percent, respectively (WTO, 2002c).



Source: WTO, *Yearbook of Tourism Statistics*, various issues, and *Compendium of Tourism Statistics 1996-2000* (2002 edition).

Volatility differentials are further evidenced by the regional coefficients of variation shown in Table 1 and Figure 8. The Egyptian data also provide supporting evidence (Figure 9). Income fluctuations are more apparent when compared with tourism flows.

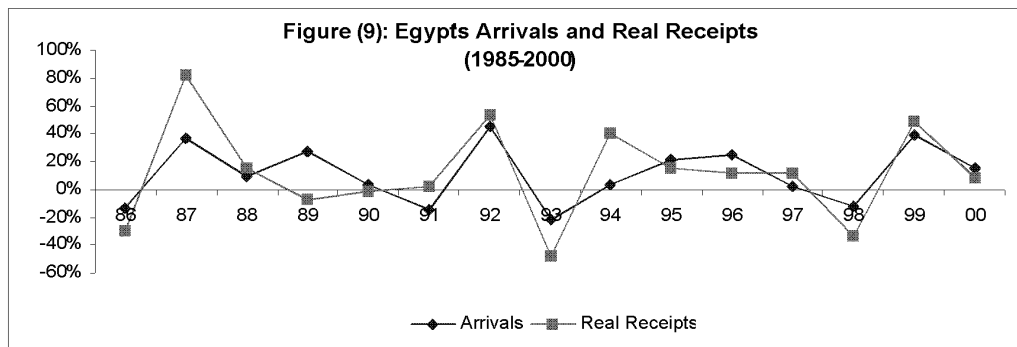
Table 1: World and Regional Coefficients of Variation for Tourist Arrivals and Nominal Receipts, 1960-2001 (%)

	Africa	Americas	East Asia & Pacific	Europe	Middle East	South Asia	World
Tourist Arrivals	112.7	57.2	153.3	56.9	88.3	71.0	65.9
Nominal Receipts	135.2	174.8	304.2	139.3	97.3	104.6	157.4

Sources: Authors' calculations based on WTO data, as follows: (1960-1994): WTO, *Yearbook of Tourism Statistics*, 1998b; (1995-1997): WTO, *Tourism Highlights*, 2000; (1998-2001): WTO, *Tourism Market Trends*, 2002c.



Sources: (1960-1994): WTO, *Yearbook of Tourism Statistics*, 1998b; (1995-1997): WTO, *Tourism Highlights*, 2000; (1998-2001): WTO, *Tourism Market Trends*, 2002c.



Source: MOT (2001).

The underlying causes of such disparities are related to the demand-supply characteristics of international tourism. On the demand side, tourism is highly income elastic because it is a luxury good.¹⁶ Accordingly, tourism demand notably responds to changing economic conditions in source countries. Risk exposure induces visitors to restructure their travel habits favoring a shorter duration of stay, closer and cheaper destinations, fewer tourist trips, and a tighter budget.

¹⁶ Tourism income elasticity of demand is estimated to be in the order of 1.5-2. See, for example, Rosensweig (1988), Maloney & Rogas (2001). For developed countries, the tourism coefficient was as high as 1.5 in 1995, surpassed only by health care and education (1.6), and in contrast to food (0.2) and clothing (0.3) (Di Castri, 2002). Higher elasticity values for tourism demand are provided by Sinclair (1998).

In general, the average expenditure per tourist night tends to fall in the aftermath of any adverse event. The Egyptian case is quite illustrative in this respect. Following the Luxor incident, average tourist expenditure per night dropped from \$140.2 in 1997 to \$127.3 in 1998; and as a result of the Palestinian *Intifada* and September 11th attacks, it fell from \$132.5 in 2000 to \$126 in 2001 and to \$115 in 2002.¹⁷ Such behavioral patterns – based on visitors’ preferences and risk assessment – translates into less tourism outlay with substantial cuts even with the resumption of pre-crisis tourism traffic. The decline in demand leads to a low rate of capacity utilization and thereby exerts a downward pressure on prices independent of changes in factor prices.¹⁸

On the supply side, the tourism industry is highly competitive. It is well-known that tourism is a perishable commodity as unsold hotel rooms or airline seats have no residual value.¹⁹ When events occur that expose visitors to personal risk, fierce “beggar thy neighbor” price competition becomes inevitable.²⁰

To counter heightened safety risks, significant price discounts are often granted by countries’ business sectors (e.g., travel agencies, hotels, aviation companies). This common practice stimulates low-price package tours at times of crisis, thereby curtailing the decline of tourist arrivals. However, this method of activating tourism is unlikely to halt the rapid deterioration of tourism earnings resulting from excessive price cuts and package bargains, not to mention the exclusion of niche markets and high-spending tourists who tend to be risk averters rather than price sensitive.

Despite the relatively high price elasticity of tourism demand,²¹ frequent cut-throat competition by neighboring destinations tends to curtail market shares, especially if practiced in times of disturbing events. The price cuts do not help much

¹⁷ MOT (2001); CBE (March 2003).

¹⁸ Van Dijk and Van Der Stelt-Scheele (1993).

¹⁹ This competition is further intensified by the ongoing technological advances in the supply of services on cross-border basis, such as the global distribution system (GDS), the computer reservation services (CRS), and the electronic reservation service providers (ERSP).

²⁰ Currency devaluation is also considered as a competitive tool for export promotion, including tourism. For instance, the devaluation of the Turkish Lira in February 2001 partly contributed to the slowdown of tourist arrivals in Egypt in the same year.

²¹ Papetheodorou (1999) found the price elasticity coefficient of tourism demand to be greater than 1.0 and increasing over time for the Mediterranean region. See Sinclair (1998).

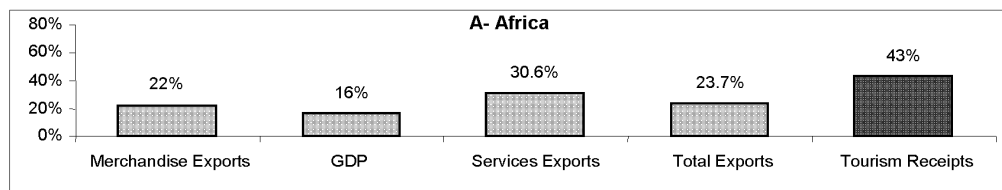
in restoring the tourism market positions of affected countries in terms of earnings. In fact, price wars among competitors suggest a possible kink in the demand curve. Price decreases by one destination are most likely matched by rivals. This explains why perceived demand functions facing tourist attractions are considered by practitioners as less elastic.²²

The Egyptian case is again a good example in this respect. Although the country's market share of tourism receipts in the Middle East dropped from 44.8 percent in 1992 to almost 35 percent in 2002, the lowest shares were recorded in the years following erratic events (33 percent in 1994; 28.9 percent in 1998; and 33.9 percent in 2001).²³ This is partly due to the abuse of rivals' price competitive practices, and the growing significance of "all inclusive" packages which allow large tour operators to enjoy greater bargaining power with local service providers, and to exert such power intensively during crises.

Sectoral Comparison

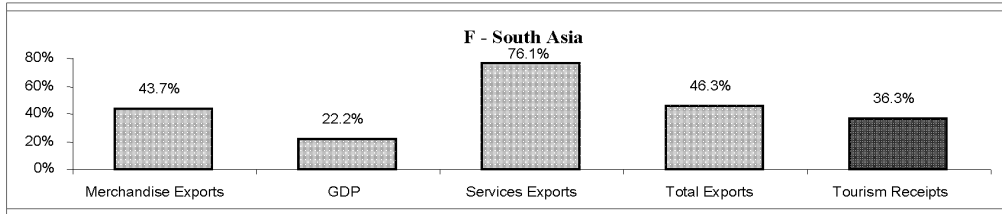
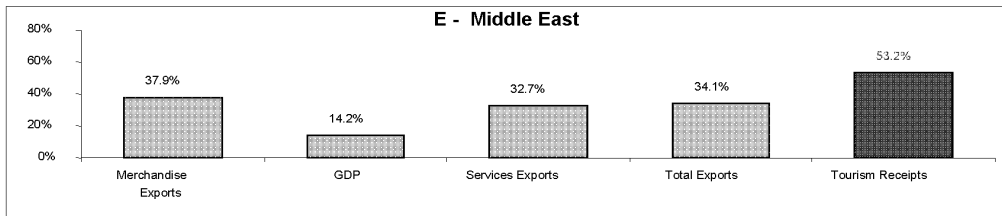
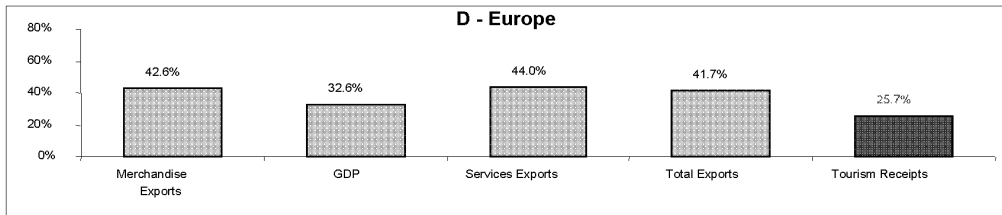
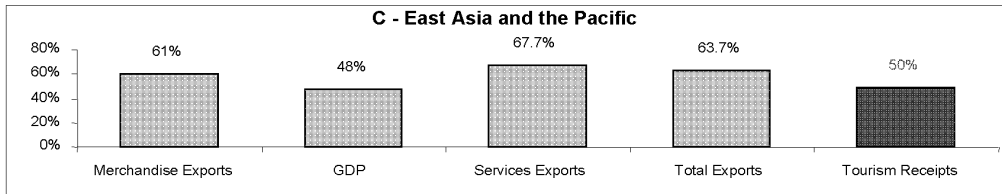
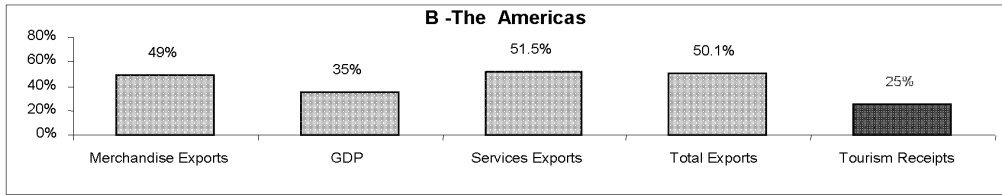
Due to tourism's vulnerability to shocks, there is a general belief that the industry suffers from high volatility in comparison with other sectors. However, there is no concluding evidence on this issue. Empirical findings usually differ depending on the time periods under consideration, the relevance of the incident to selected comparative sectors, and the deflators used to express real values, etc. In view of this information, the findings derived from observations of year-to-year growth fluctuations and the application of dispersion measurements, as displayed in Figure 10, should be treated with some caution. The results are tentative and require further consolidation. In essence, analyses of tourism volatility should be conducted at a more disaggregated level, covering a shorter span of time.

Figure 10: Sectoral Coefficient of Variation, 1980-2000 (Nominal Values)



²² See Rogers (1995). Also, the empirical findings of the World Bank study on tourism demand in the Caribbean region suggest demand elasticities substantially below those previously reported (Maloney and Rojas, 2001)

²³ WTO (2001b, 2002c); and The League of Arab States (2002), *Statistical Bulletin for Tourism in Arab Countries*.



Sources: Authors' calculations based on WTO, *Yearbook of Tourism Statistics*, various issues, and *Compendium of Tourism Statistics 1996-2000* (2002 edition).

From a regional perspective, the findings do not support the claim of high tourism volatility. In some regions, GDP, merchandise and service exports appear to be relatively more volatile in terms of growth when compared to tourism receipts. In Europe and the Americas, tourism seems to be the least volatile sector. In South Asia, East Asia and the Pacific, total exports are much more volatile than tourism; but GDP

fluctuations are relatively less.²⁴ The Middle East and Africa are the two regions where tourism volatility is well pronounced compared to other sectors.

In the Egyptian case, the export instability measures given in Table 2²⁵ tend to support the argument that other foreign-exchange yielding activities could be more vulnerable to external shocks than tourism. This high fragility is quite apparent with respect to raw cotton and agricultural exports, FDI, and oil revenues. Egyptian workers' remittances and Suez Canal dues, however, tend to be less volatile than tourism receipts.

Table 2: Egypt's Export Instability Measures, 1985/86-2000/01

Activity	Export Instability Measures			Volatility Ranking		
	A	B	C	A	B	C
Raw cotton exports	18.03	50.76	163.23	1 st	1 st	2 nd
Agricultural exports (excl. cotton)	5.88	23.11	219.31	2 nd	3 rd	1 st
Petroleum proceeds	4.12	23.96	161.57	4 th	2 nd	3 rd
FDI	5.20	23.03	160.04	3 rd	4 th	4 th
Textiles and clothing exports	2.18	17.79	125.19	5 th	5 th	6 th
Suez Canal dues	0.75	10.44	106.92	7 th	8 th	8 th
Workers remittances	0.69	10.53	118.13	8 th	7 th	7 th
Tourism receipts	1.68	15.35	136.65	6 th	6 th	5 th

Notes: Export instability is measured using the following formula:

$$(*) \quad A = 100 \left\{ \frac{1}{n} \sum \left\{ \frac{(X_t - X_t^*)}{X_t^*} \right\}^2 \right\}^{1/2}$$

$$(*) \quad B = 100/n \sum_{t=1}^n |(X_t - X_t^*)| / X_t^*$$

where X_t = the actual value of receipts in time period (t).
 n = the number of observations in the time series
 X_t^* = the trend value of receipts.

$$(*) \quad C = 100 \times \text{antilog} \sqrt{V}$$

$$\text{and } V = \sum [\log(X_{t+1} / X_t) - M]^2 / n-1$$

where X_{t+1} and X_t = the value of exports in year (t+1) and (t)
 M = the arithmetic mean of $\log X_{t+1} / X_t$
 n = the number of observations
 V = the logarithmic variance of the series.

Source: Authors' calculations based on CBE data.

²⁴ Using standard deviation of export growth rates as a measurement of volatility, Maloney and Rojas (2001) found that in most Caribbean islands, tourism revenues are the least volatile compared to other commodities, namely sugar, coffee, fruits, petroleum and gas. The only exception was the case of Trinidad and Tobago, but with very little volatility differential.

²⁵ See Glezakos (1973); Coppock (1977); Sinclair and Tsegaye (1990) for measures of export instability.

It should be noted, however, that the above ranking is in absolute terms regardless of the relative significance of the foreign earnings of the concerned activities. If the instability values are weighted by contribution in foreign exchange earnings, then tourism receipts will occupy top position in terms of volatility, followed by petroleum earnings, workers' remittances, and Suez Canal dues. In contrast, FDI, textiles, raw cotton and other agricultural exports would appear much less volatile owing to their little significance.

By the same token, if volatility ranking is based on a sector's value-added variations and contribution, the tourism industry would reveal a high degree of stability.²⁶ From these findings, one may conclude that what matters is not the extent of volatility of the industry per se, but the overall economic impact of volatility which depends, basically, on the industry's relative contribution to the economy and the magnitude of its spillover effects.

III. Economic Impacts of a Downturn in Tourism

This section analyses the direct economic impacts of tourism downturns both globally and specifically for Egypt.

Direct Impacts

Direct economic impacts resulting from tourism downturn can be traced by comparing "predicted" developments based on analysis of historical trends with "actual" achievements. The difference between predicted and actual values may be considered a quantitative indicator of the impact of the occurred event's impact on the industry performance, i.e., what tourist arrivals and spending would have been in the absence of the erratic event compared to what really happened.

At the global level, the study applied a trend extrapolation to quantify the adverse impact of five major global events that occurred over the past three decades, namely: the oil price crisis (1974); the escalation of political disturbances and tensions

²⁶ This finding should be considered with some caution, as the Ministry of Planning (MOP) tends to underrate tourism value added. MOP data on sectoral allocation of value added include a lump sum figure for the tourism industry under the label "Restaurants and Hotels". The procedure adopted in deriving tourism value added, however, underestimates the sector's real contribution to GDP, confining it to only 2 percent. Tourism receipts are multiplied by a fixed ratio corresponding to tourism expenditure on accommodation, food and beverages (62 percent), then multiplied by another ratio (53-54 percent) to account for intermediate inputs.

(1982); the Gulf War (1990/91); the Asian financial crisis (1997/98); and the September 11th attacks on the United States (2001).

The results of the analysis presented in Table 3 clearly indicate that (i) tourism is more affected by security and safety concerns than by GDP recession; (ii) the monetary impact of shocks is proportionately greater than the impact on tourist arrivals due to the highly competitive nature of the tourism industry and the strong effect of price cuts in the aftermath of the event; and (iii) the economic impact of shocks to tourism is generally quite substantial, with the foregone opportunity in receipts as high as nearly 25 percent of trend receipts in case of the September 11th attacks.²⁷ The foregone opportunities are a huge economic blow and can cause destabilization in the macroeconomic policy if not prudently and effectively managed.

Table 3: Tourism Foregone Opportunities

Event	Arrivals Foregone as % of Expected Arrivals	Income Foregone as % of Expected Income
First Oil Shock (1974)	None	None
Political Disturbances (1982)	17.0	17.4
Second Gulf War (1990/91)	2.5	1.3
Asian Financial Crisis (1997/98)	1.4	12.1
September 11 th Attacks (2001)	10.1	23.2

Note: See Appendix (A) for trend equations.

Source: WTO, *Yearbook of Tourism Statistics*, various issues, and *Compendium of Tourism Statistics 1996-2000* (2002 edition), and Authors' calculations.

With respect to Egypt, two trend equations were applied based on historical data for the period 1985-2002. The first set of equations (Set A) covers the whole period, while the second (Set B) omits years of irregular incidents. The quantitative impact of the disturbing events in the 1990s and early 2000s on tourist arrivals, nights spent and receipts are shown in Table 4 in terms of foregone opportunities, while the estimated losses as a percentage of the realized figures are represented in Figure 11.

²⁷ It should be noted, however, that the impact of this event did not fully materialize in the year 2001. The 2002 WTO figures are not yet available to allow for a comprehensive assessment of the incidents' repercussions.

Table 4: Egypt's Foregone Opportunities Based on Trend Analysis

	Tourist Arrivals (000)		Nights Spent (000)		Tourism Receipts (\$ million)	
	A	B	A	B	A	B
Gulf War (1990/91)	363.0	737.8	1,716.1	3,653.9	383.9	583.9
Terrorist Attacks (1993)	520.2	1,056.9	5,281.9	8,079.7	967.6	1,167.6
Luxor Incident (1997)	700.7	1,642.1	6,280.9	11,228.7	1,235.4	1,435.4
Palestinian Intifada & Sept. 11th Attacks (2000/01)	682.0	1,366.3	2,254.4	6,492.2	899.7	1,099.7
U.S. attack on Iraq (2003)	2,081.2	3,427.3	12,184.2	19,282	1,462.8	1,592.4

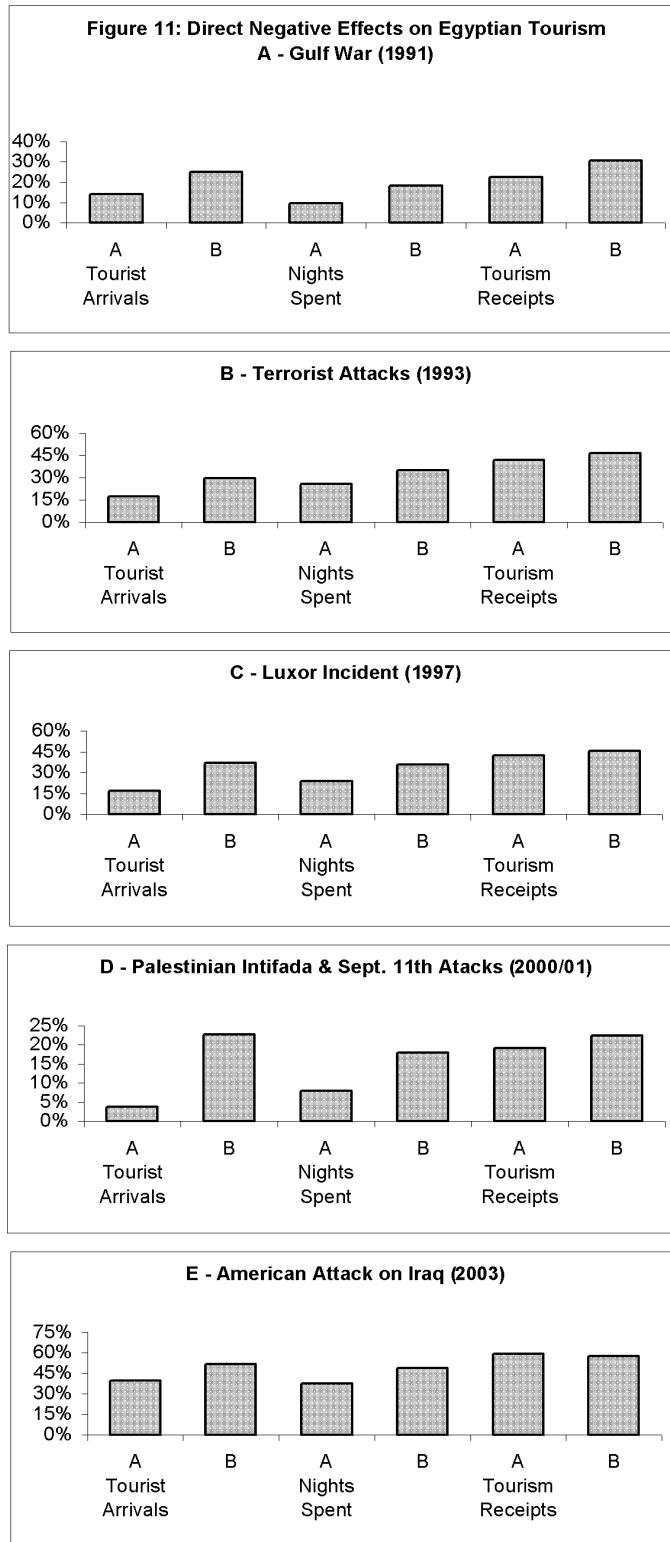
Notes: A = the whole period 1985-2002.

B = excluding years affected by adverse events.

Sources: MOT (various issues), *Tourism in Figures* (1991-2001); *IDSC Monthly Bulletin* (2002-2003); and Authors' calculations.

Consistent with the global trend, the monetary effect of these incidents surpasses the negative effect on both arrivals and nights spent, due to the highly elastic nature of tourism, as mentioned earlier. Moreover, the magnitude of the effects are in general more devastating in the case of Egypt since in some cases the forgone opportunity is almost 40 percent of the values actually realized. This is more evident in the trend analysis of Set B, with the forgone opportunities reaching as high as 50 percent of their realized values.

Also, it is of interest to note that local incidents affect the industry more than regional or global events. In case of the Luxor attack, the drop in the actual arrivals, nights and receipts amounted to 37.2 percent, 35.8 percent and 45.9 percent, respectively, compared to their trend values. Similar impacts were also recorded following the terrorist attacks in 1993. The only exception to this trend, however, is the case of US military action against Iraq, as this international incident outweighed the importance of domestic events. According to the study estimates, such an event could cause Egyptian tourism to suffer a drop of 51.7 percent in actual arrivals, 48.7 percent in tourist nights and 57.6 percent in tourism receipts compared to their trend values.



Sources: Authors' calculations based on MOT, *Tourism in Figures 2001*, and CBE, *Monthly Statistical Bulletin 2002-2003*, and Sakr (2002).

Overall Impacts

The above analysis only captures the direct impact of a negative shock on tourism arrivals and receipts. However, total impacts are expected to be more significant due to the composite nature of tourism. In the case of the Luxor incident, for instance, the total loss was estimated to be slightly over \$2 billion for 1998, of which nearly \$1 billion corresponds to a reduction in foreign visitors' spending and fares (i.e., direct or initial demand impact).²⁸

With respect to the impact of the September 11th attacks on Egyptian tourism, the World Travel and Tourism Council (WTTC) conducted a study which reported a decline of 9.6 percent in total travel and tourism demand in 2002 with a corresponding loss in employment amounting to nearly 230,000 direct and indirect jobs.²⁹

Table 5 provides estimates of the potential overall impact of the current war on Iraq on Egyptian tourism. The findings are based on our assessment of the likely direct impact of this war on tourism flows, nights spent and receipts,³⁰ and the application of a tourism multiplier of 2.64 as estimated by Tohamy and Swinscoe (2000).³¹ The expected reduction in foreign tourism spending in 2003 compared to 2002 is likely to yield an overall loss of approximately \$3.8 billion.

Table 5: Potential Direct Impact of the War on Iraq on Egyptian Tourism, 2003

	Actual			Estimate	% Drop		
	2000	2001	2002	2003	2003/00	2003/02	2003/01
No. of Visitors (million)	5.5	4.65	5.2	3.2	42%	31%	39%
No. of Nights (million)	32.8	29.8	32.7	19.4	41%	35%	41%
Tourism Receipts (\$ billion)	4.3	3.8	3.7	2.25	48%	41%	39%

Sources: Data for years 2000-2002: CAPMAS (2000-2002), *Tourism Statistics Monthly Bulletin*; PINA (2000-2002), *Tourism Arrivals and Nights Monthly Bulletin*; and CBE (2002, 2003) *Monthly Statistical Bulletin* for October, March, respectively. Data for 2003: Sakr (2002).

²⁸ TAPR/WEFA, (1999).

²⁹ According to this study, 70 percent of the variance in 2002 results is attributed to the events of September 11th and the remaining 30 percent to independent recessionary events (WTTC, 2002).

³⁰ The analysis of the direct impact of the Iraqi crisis on Egyptian tourism shows that the number of arrivals and nights are expected to fall considerably by 31 percent and 35 percent respectively, and tourism earnings by 41 percent in 2003, compared to the previous year (Sakr, 2002).

³¹ This study estimates the impact of foreign tourists' spending on overall economic activity in Egypt, taking into account the indirect effects resulting from various rounds of re-spending of tourism revenues in supplying industries, as well as "induced" effects arising from household spending of income generated (directly and indirectly) by foreign tourism.

In a nutshell, the economic impact of the downturn in tourism activity is quite substantial, especially when indirect and secondary effects are taken into account. This stresses the need for developing a mechanism to protect against external shocks in the sector.

IV. How Fast is Tourism Recovery?

The severity of the impact of volatility is positively correlated with the duration of the downturn in tourism activity. Past experiences show, however, the resiliency of the tourism industry as it tends to react quickly to international crises and regain momentum over shorter time periods, in contrast to GDP growth or to other economic activities.

On the global level, the Gulf War (1990/91) and the Kosovo conflict (1999) are good examples. Although these two major conflicts triggered a considerable slowdown in international tourist arrivals, rapid recovery took place in the aftermath of each incident. In 1992, tourism registered an increase of 8.3 percent compared to 1.2 percent during the Gulf War; and in 2000, it rose by 7.4 percent against 3.8 percent the year of the Kosovo conflict. In contrast, the world economic recession persisted for 2-3 years following each event, recording an average annual growth rate of 1.5 and 2.5 percent, respectively (WTO, 2001a). The recent data on tourism performance after the September 11th attacks also reveal a quicker recovery than anticipated despite the continued world recession.

Table 6 provides further supporting evidence from a sectoral perspective, as it indicates the time necessary for some selected sectors to recover to trend values after an external shock. The figures relate to two major events that affected the world economy, namely, the political disturbances of 1982 and the Asian financial crisis of 1997/98. As illustrated in the table, tourism recovers faster than other comparable sectors.³² Furthermore, the recovery period is shorter in the case of economic and financial crises than for security and safety concerns.

³² The number of international tourist arrivals to Asia and the Pacific Region slumped to 88 million in 1998, after reaching 89 million in 1997 and 90 million in 1996. However, by 1999, the region received 98 million visitors with an increase of 10.8 percent, and the number jumped to 112 million in 2000, registering an increase of 14.7 percent. (WTO, 2001a)

Table 6: Time Needed by Different Sectors to Recover to Trend Values after an External Shock

Variable	Political unrest (1982)	Asian Crisis (1997/98)
Tourist Arrivals	1984 (2 years)	1999 (1 year)
Tourism Receipts	1986 (4 years)	2001 (3 years)
GDP	1988 (6 years)	1999 (1 year)
FDI	1986 (4 years)	1998 (0 years)
Oil	---	1999 (1 year)
Total Exports	1988 (6 years)	Not yet
Services Exports	1988 (6 years)	Not yet

Note: See Appendix (A) for trend equations.

Source: Authors' calculations based on World Bank (2002) *World Development Indicators* data.

It is worth noting that the sluggishness of tourism receipts recovery compared to tourist arrivals is due to the “ratchet effect” in the industry,³³ a result of the highly competitive nature of the industry and the high price elasticities. This latter phenomenon is more evident in case of Egypt. Although the tourism industry managed to return to its pre-crisis level and to sustain momentum in terms of tourism arrivals within a short period of time, tourism earnings lagged somewhat behind, revealing the price “stickiness” of the industry. Also, the Egyptian experience emphasizes the importance of domestic factors and incidences in determining not only the performance of the tourism sector, but also the duration of the setback, which tends to be longer than in the case of external or regional events. Following the Gulf War, tourism receipts rebounded after just one year, however, after the Luxor incident, receipts did not fully reach their trend values until 2000.³⁴

What should also be emphasized is that tourism recovery in Egypt took place far faster than was expected in studies assessing the likely impacts of erratic events.³⁵ This observation is illustrated in Table 7, which compares actual achievements with

³³ In the case of tourism, prices are “sticky upward” but move downward very freely. The rapid recovery in tourist arrivals is largely due to significant price cuts as an integral part of tourism marketing strategy. Restoring prices back to their pre-crisis levels would take, however, relatively longer time during which tourism earnings remain below their trend values.

³⁴ It should be noted, however, that the long duration for tourism receipts recovery can not only be attributed to the Luxor incident, as the industry suffered from other blows afterwards (the Asian crisis and the Palestinian *Intifada*).

³⁵ The Luxor incident caused a drop in international arrivals from 3.96 million in 1997 to 3.45 million in 1998; and in the following year, the number of visitors showed an increase of nearly 39 percent, reaching a total of 4.8 million. Also, in case of the Gulf War, the drop in 1991 arrivals was only limited to the first 7 months (Jan.-July); but afterwards the figures revealed an upward trend (MOT, 2001).

USAID (TAPR/WEFA, 1999) and International Monetary Fund (IMF) predictions following the Luxor incident.

Table 7: Egypt's International Tourist Arrivals & Receipts "The Luxor Incident"

Year	Arrivals (000)			Receipts (\$ million)		
	Actual	Estimate		Actual	Estimate	
		TAPR	IMF		TAPR	IMF
1997	3961	3961	3961	3727	3847	3727
1998	3454	3399	2489	2565	2962	2027
1999	4797	3954		3903	3691	
2000	5507	4313		4345	4120	

Sources: MOT (1998, 2000); TAPR/WEFA (1999); IMF (1998).

Also, the World Bank (2001) study on the impact of the September 11th attacks on Egypt's receipts anticipated a \$1.5 billion fall in tourism earnings for the fiscal year 2001/02, however, the actual drop did not exceed \$900 million – only 60 percent of what was expected.

The above analysis indicates that tourism is a resilient industry capable of achieving fast recovery in comparison to GDP growth and trade activities. However, this quick recovery is due to price cuts, which cause sluggish growth of tourism receipts in relation to tourist arrivals. Also, the time needed for tourism recovery is likely to be somewhat prolonged in the case of events relating to security and safety compared to events driven by financial or economic considerations, and for local crises compared to regional or international incidents.

V. Determinants of Egypt's Tourism Fluctuations

To design a policy framework for tourism crisis management one needs to look at the relative significance of variables affecting tourism volatility in Egypt. As discussed above, not all shocks exert the same effect on the tourism industry or last for the same amount of time. To identify the factors that determine the severity of the impact of tourism fluctuations, we constructed an annual frequency model to estimate tourism demand functions for Egypt. The model is used to examine visitors' responsiveness to particular events. Based on the gravity model,³⁶ the fundamental demand function

³⁶ The gravity model has been extensively used in studies of international trade flows (Tinbergen, 1962; Linneman, 1966; Leamer, 1974), and more recently in FDI studies (Nankani, 1979; Wei 1995). In the field of tourism, the model is applied to predict future levels of tourism demand for single or multiple destinations. The usefulness of the gravity model to tourism research has been well established for nearly four decades (See Stephen Smith, 1989).

used in the study takes the following general form:

$$X_t = f(GDP_s, REER_t, D_i, D_r, D_d)$$

Where:

X_t : Inbound Tourism Demand (Host Country)

GDPs: Real Gross Domestic Product (Source Country)

REERT: Real Effective Exchange Rate (Host Country)

D_i : Dummy for international shocks

D_r : Dummy for regional shocks

D_d : Dummy for domestic shocks

The model is estimated by using a time series analysis technique suggested by Johansen's statistical analysis of cointegration vectors (Erdal and Taoglu, 2002). The tourism demand equation is expressed in a functional log-linear form as follows:

$$X_{Egypt} = \beta_0 + \beta_1 \log GDP \text{ source countries} + \beta_2 \log PPP + Dummy 1 + Dummy 2 + Dummy 3$$

The model is conducted on an annual basis for the period 1986-2001. Inbound tourism demand is expressed in terms of visitor arrivals or tourism receipts. The independent variables are (i) the real effective exchange rate, in the PPP form, as a measurement of Egypt's competitiveness; (ii) a weighted average index of the real GDP growth of main tourism generating countries for Egypt;³⁷ (iii) three dummy variables to allow for the impact of one-time events.³⁸ The dummy takes the value of 1.0 for the years accidents occurred that affected tourists' security and safety and the value of zero for the rest of the years. The calculations of the model yield the following two demand functions:

$$Arrivals = 31.4 + 0.56 GDP + 1.67 PPP - 0.19 Dumm1 - 0.21 Dumm2 - 0.29 Dumm3$$

$$Receipts = 16.9 + 0.14 GDP + 1.77 PPP - 0.4 Dumm1 - 0.16 Dumm2 - 0.5 Dumm3$$

³⁷ These are: Italy, France, Germany, United Kingdom, USA and the Arab region as a whole.

³⁸ The global and regional external shocks that affected the perception of safety are mainly the September 11th attacks on the United States and the Gulf War. The internal/domestic shocks relate to the terrorist events that took place in Egypt, namely, the 1993 bomb in Tahrir Square and the attack in the Cairo Hotel, the 1994 machine-gun attack on a Nile cruise ship, and the 1997 attacks on a tourist bus and on tourists in Luxor.

Existing literature suggests a positive relationship between tourism demand and the real GDP of source countries and the depreciation of the real effective exchange rate. A negative relationship is expected between tourism demand and dummies for risk/safety concerns. The ranking of tourism demand determinants is shown in Table 8 based on the value of coefficients of the relevant variables.

Table 8: Ranking of the Determinants of Demand for Tourism in Egypt

	Arrivals	Receipts
Real Effective Exchange Rate	1	1
Domestic Security and Safety	3	2
Regional Security and Safety	4	4
Source Countries GDP	2	5
International Stability	5	3

Source: Authors' calculations based on the results of the estimated demand functions.

It is clear from the results of the model that:

- * As expected, both tourism arrivals and receipts have a positive relation with the GDP in the source countries, as well as with the depreciation in the real effective exchange rate.
- * The most important factor determining the demand for tourism in Egypt is the extent of international competitiveness as expressed by the real effective exchange rate because it displays the biggest coefficient with both arrivals and receipts. This highlights the importance of developing international competitiveness to broaden Egypt's tourism market and capture more tourists and earnings.
- * The relation to the dummies that represent security/safety risks both internationally and locally are negatively correlated reflecting the adverse effect that such events have on tourists' arrivals and receipts in Egypt.
- * The dummies relating to domestic security in Egypt seem more influential than global or regional events affecting security.³⁹

Given the significance of the real effective exchange rate in influencing tourism demand, the study estimated the effect of the recent liberalization of the exchange rate regime in Egypt and of the recent external shock (the war on Iraq).⁴⁰ The results are shown in Table 9. In the absence of an external shock and devaluation,

³⁹As noted earlier, the fall in tourism flows and receipts in the aftermath of internal shocks was more severe compared to the corresponding fall resulting from external shocks.

⁴⁰This resulted in a drop of around 17 percent in the value of the Egyptian pound versus the US dollar to which the pound is pegged.

tourism arrivals and receipts are expected to rise significantly in 2003, reaching 6.87 million visitors and nearly \$5.28 billion, based on the calculations of the study's gravity model. But with the war on Iraq, tourist arrivals and earnings are not expected to exceed 4.2 million and \$2.6 billion, respectively. The opportunities foregone as a result of the war are quite huge (a drop of more than 38 percent in the number of visitors and a 50 percent loss in tourism receipts). However, the situation would probably be worse if the recent exchange rate liberalization had not taken place; the fall in tourist arrivals would have surpassed 46 percent and the loss in receipts would total 57 percent. The analysis clearly shows that there is a strong positive relation between the exchange rate policy and the ability of Egypt to ease the adverse impact of erratic events.

Table 9: Effect of Devaluation on Expected Receipts in 2003 (Different Scenarios)

Scenario	Arrivals (million)			Receipts (US\$ billion)		
	Devaluation	No Devaluation	% Drop	Devaluation	No Devaluation	% Drop
War on Iraq	4.23	2.74	35.2	2.64	1.72	34.8
Expected Values	6.87	5.08	26.1	5.28	4.02	23.9
% Drop	38.4	46.1		50.0	57.2	

Source: Authors' calculations based on the results of the study's gravity model.

VI. Remedial Actions

The need to assess Egypt's tourism recovery strategies stems from the sector's crucial role in the Egyptian economy and the industry's past experience in dealing with successive shocks. Over the past few years the industry has been growing at unprecedented levels and the resulting macroeconomic impacts are becoming stronger. Today, tourism is the top earner of foreign exchange, a major GDP contributor, an important employment provider, and a principal generator of tax revenues.⁴¹ Therefore, any downturn in the tourism industry is cause for great concern.

⁴¹ Today, tourism constitutes the primary source of foreign exchange in Egypt, surpassing workers' remittances, Suez Canal dues, oil revenues and commodity exports. According to the latest CBE figures (October 2002), tourism receipts accounted at present for almost 36 percent of Egypt's non-material (service) export proceeds, and cover nearly 43 percent of the country's trade deficit (See Appendix C). According to an ECES study (Tohamy and Swinscoe, 2000), direct foreign tourists' spending accounts for 4.4 percent of GDP in 1999. If secondary effects are taken into consideration, this share will jump to 11.6 percent. The corresponding value-added contribution of tourism is estimated to be 7.5 percent. In terms of employment, the study estimated the number of direct jobs in the tourism industry corresponding to foreign tourists' spending to be about 1.2 million in 1998/99, in addition to 1.5 million jobs as a result of indirect and induced effects, bringing total employment to 2.7 million – 15 percent of Egypt's overall employment. As for tax revenues, foreign tourists' spending

Although the industry has managed to quickly recover from previous crises in terms of the number of visitors, the adverse repercussions caused by the sluggishness of tourism receipts are quite immense. The resulting slowdown of tourism investment and employment and the dispersion of induced effects across other sectors largely contribute to the exacerbation of the economic recession and the destabilization of fiscal and monetary policies.⁴² Accordingly, the effectiveness of remedial actions on external shocks should be considered in this context.

The relative merits of different policy responses are discussed below. References are made to Egypt's offsetting measures in the aftermath of the September 11th attacks (as illustrated in Appendix D), with some reflections on the recent Iraqi crisis.

The government-endorsed remedial actions are gathered and classified into two major sets. The first set includes policy interventions aimed at restoring the level of tourism demand. It covers issues relating to Egypt's competitiveness as a tourist destination as well as security and safety considerations which are pronounced in the study's estimation of demand function as main determinants of tourism volatility. The second set of actions relates to policy measures for providing support and compensation to affected businesses, and calling for the creation of new risk hedging mechanisms. Based on the following assessment, Table 10 rates the degree of effectiveness of the adopted remedial actions in attaining set objectives.

contributed by LE 3.6 billion in 1998/99, which is equivalent to 5.1 percent of total tax earnings (ECES, 2000; and BSAC, 2002).

⁴² Tourism investments witnessed a notable decline in the past two years following the Palestinian *Intifada* and September 11th attacks. The annual growth rates of hotel capacity which were 13.1 and 21.1 percent in 1999 and 2000, respectively, dropped to 6.3 percent in 2001 and to 5 percent in 2002 (MOT, 2002). The reluctance of commercial banks to secure finance for the construction or completion of hotels and tourist resorts due to the ongoing state of uncertainty has deepened the recession of the tourism business. The employment situation is even worse, as the employers' first reaction to the crisis is to dismiss temporary workers, reduce permanent staff and cut down wages and salaries, in an attempt to minimize losses and overcome the crisis. Preliminary estimates of tourism employment loss in case of war on Iraq amount to 350 thousand workers, accounting for 35 percent of the existing tourism labor force. According to the Ministry of Planning study, the expected decline in tourism receipts in the aftermath of September 11th is likely to reduce the real GDP growth rate by 1.0 percentage point (MOP, 2002).

Table 10: Extent of Effectiveness of Mitigation Measures

Mitigation Measures	Rating
(1) Demand Restoration	
• Security	Very High
• Communications	Very High
• Promotion	High
• Product Diversification	Moderate
• Destination Selectivity	Considerable
• Market Segmentation	High
• Price Cuts / Travel Incentives	Very High
(2) Business Support and Compensation Schemes	Low/Moderate

Source: Authors' rating based on evaluation of effectiveness of mitigation measures.

Demand Restoration

The basic objective of the relevant set of policy measures is to restore visitors' confidence in Egypt as a safe tourist destination, and hence stimulate inbound tourism.

The security component of this package has been quite effective in preventing terrorist acts (following the Luxor incident), and in containing political tensions in reaction to regional and international instability. However, in some cases, increased security measures by law enforcement bodies have been a source of harassment for visitors, particularly when they cause delays or major amendments to travel or tour programs. Moreover, in some instances, extra security precautions have deterred the tourism industry from capturing market opportunities, such as the present inbound tourism demand for long distance Nile cruises (Cairo – Luxor – Aswan), which are not yet allowed to operate despite tour operators' requests, mainly due to safety reasons.

As for communication, the Ministry of Tourism (MOT) has adopted a proactive approach, stressing safety, security and familiarity based on the honest and transparent flow of information with the purpose of maintaining the credibility of the Egyptian tourism industry. By focusing on image building, this effort has largely managed to restore confidence in Egypt's tourist destinations. However, its sustainability may require further support from other governmental bodies, particularly the Ministry of Foreign Affairs and the Ministry of Information. It would

also require strengthening the capacity of the MOT Crisis Management Unit.⁴³

With respect to promotion, the endorsed Tourism Promotion Plan for 2002 has proved to be quite successful in restoring tourism flows and market positions. This was mainly due to (i) government allocation of a large budget for promotion purposes, especially overseas advertising campaigns (\$35 million); (ii) careful analysis and selection of targeted markets and promotion mix, guided by their response to erratic events, and the effectiveness of promotional tools; (iii) emphasis on newly-developed destinations less vulnerable to hazards. The budget for the 2003 promotion plan – as approved by the Supreme Committee for Tourism Promotion – has been almost doubled to a total of \$80 billion in order to meet fierce competition from neighboring countries. The rationale behind intensifying promotional campaigns, despite the recent Iraqi conflict, is that Egypt's disappearance from the international arena at a time when rival destinations are increasing their promotion efforts⁴⁴ will cause a dramatic decline in tourist flows and tourism receipts. Accordingly, the reluctance of the Ministry of Finance to provide the necessary public funds for promotion needs serious reconsideration, especially with the viability and high return of such expenditure.⁴⁵

In the field of product/service diversification, emphasis has been placed on new products/services such as golf, diving, spas, safaris, and ecotourism. Given the small size of these newly-emerging activities in comparison to cultural and beach tourism, their impact in times of crises are not yet felt. However, they deserve increasing attention, as they are generally more resistant to downturns and have expanding demand potential. For instance, the promotion of ecolodges in Siwa Oasis,

⁴³ In dealing with the Iraqi crisis, the media message focused on the following elements:

- Continuous declaration of Egypt's condemnation of all terrorist acts.
- Egypt's support to diplomatic efforts seeking peaceful resolutions of the Iraqi crisis.
- Non-involvement of Egypt in military actions against Iraq; and hence, the safety of its territories.
- Egypt's exemption from war risk insurance expected to be imposed by international insurance companies on the Middle East Region; as well as the continued safety of Egypt's air space for flights despite the war on Iraq.

⁴⁴ Almost all tourist destinations around the world have increased their promotion budget to encounter the effects of September 11th. For example, the UK has allocated an extra £40 million; and France 15 million Euros for marketing. The Dominican Republic added an extra \$25 million to the \$38 million already available for promotion, and Mexico has increased the promotion budget by 50 percent (WTO, 2002a).

⁴⁵ According to WTO data, every \$1 spent on marketing activities in Egypt produces a return of \$129, making Egypt number 6 out of 180 international tourist destinations (MOT, 2000).

Marsa Allam and the Gulf of Aqaba has successfully targeted niche markets (i.e., travelers interested in nature-based tourism).⁴⁶

Also, policy measures seeking to activate tourism flows from Arab countries have been largely effective, but such measures require continuous follow-up to ensure prompt implementation. These policies also need to be supplemented by other courses of action, such as (i) the easing of procedures for real estate ownership; and (ii) the reduction of the high entertainment tax (almost 40 percent), which cause Arab visitors to switch to cheaper destinations that provide tax exemptions and special deals for parties, weddings, honeymoons and other social events.

Also, the focus on newly-emerging markets in Eastern Europe and more recently China and some South and Southeastern Asian countries, together with Arab tourism, has helped sustain the resurgence of Egyptian tourism.⁴⁷

The charter flights incentive program is another policy measure which proved successful in attracting tourism flows to recently developed destinations, and particularly to seriously affected areas (Taba – Nuweiba highway). Owing to the success of this program, it has been extended until mid-October 2003.⁴⁸

Other remedial actions based on price cuts, travel deals and special offers need to be approached with great caution, as tourists generally resist paying higher prices for the same product after the crisis ends. As already noted, this “ratchet effect” is the main reason behind the sluggishness of tourism receipts despite visitors’ recovery. Tourist resorts boast good occupancy rates but at the expense of profitability. In fact, these huge discounts drive down net profits and are an unsustainable long-term policy.

⁴⁶ In the case of Marsa Allam, the number of air passengers jumped from 2,239 in 2001 to 169,600 in 2002 (MCA, 2002). The increase was due to the opening of the new airport and the influx of charter flights and the establishment of a number of ecolodges and nature-based recreational facilities, especially with the proximity of Wadi El-Gemal Natural Reserve.

⁴⁷ In 2002, the number of Arab visitors increased to 1.1 million compared to 972.4 thousand in 2001, accounting for 21.7 percent of total visitors to Egypt compared to 20.9 percent in the previous year. These shares are still considerably low in contrast to the first half of the 1990s which recorded an average share of 38 percent (MOT, 2001, 2002). Due to the Iraqi crisis, tourism marketing efforts are being reoriented, which will likely significantly improve the shares of Arab tourism and non-traditional markets.

⁴⁸ The government approved a fund of 33 million Euros as an incentive to encourage international charter flights bound for destinations other than Cairo and Alexandria. Payments are made from the fund to the agent of the charter company, with the Egyptian government bearing the cost of empty seats of up to 30 percent of the aircraft’s capacity. In the case of Taba, the subsidy was extended recently up to 50 percent. As an immediate result, the number of air passengers increased almost fourfold from 10,821 in 2001 to 40,764 in 2002 (MCA, 2003).

Therefore, a downward price spiral must be resisted as it could impact receipts, investments and product quality.

Egypt should maintain its tourism status and resist being marketed as a cheap mass tourist destination. Avoiding rampant construction in the hotel industry could avert over-supply and price deterioration in high quality destinations (e.g., Sharm El-Sheikh), especially in times of crisis when tourism demand weakens. Pricing policies need to be tailored based on the market position of each destination within the country. In this context, price cuts as a means of boosting demand should be selective depending on the types of activities, quality of services, tourism assets, etc. The discounts should also be limited in duration and implemented only after consultation and coordination with concerned parties.

International competitiveness – which has proved to be a decisive factor for tourism rebounds – could be ensured through means other than price cuts, such as foreign exchange policies. In reality, the devaluation of the Egyptian pound after the recent liberalization of the foreign exchange rate regime, and the appreciation of the euro in relation to the US dollar, are likely to increase Egypt's competitiveness remarkably, especially for Europeans who represent the largest share of international visitors.⁴⁹ The analysis of tourism demand and the impact of currency devaluation on inbound tourism and receipts presented in the previous section tends to substantiate this statement.

Business Support

The elements included in the business support package are quite numerous: loan rescheduling, credit and loan guarantees, tax allowances, and the postponement of due payments of electricity, social insurance funds, and land installments fees.

A number of remarks are worth noting in this respect. First, unfortunately, there is no information on the implementation status of these support and compensation schemes (e.g., disbursements, beneficiaries). The majority of those in the business sector are skeptical about the seriousness of such schemes, their scope, and mechanism of operation. As a result, we were unable to examine the relative effectiveness of the different types of policy responses included in this package.

⁴⁹ Tour operators have been allowed recently to set up their price lists in Euros or in other foreign currency and not necessarily in US dollars as was previously the case.

Second, the mitigation measures proposed by the tourism sector far exceed those of the compensation package announced by the government. Among these proposals are (i) credit facilities in the form of interest rate reduction, and extended grace periods; (ii) tax cuts; (iii) exemption of tourism services from sales tax; (iv) extension of tax holidays to 15 years for tourism resorts outside the Nile Valley; and (v) easy access to soft loans for rehabilitation and modernization of existing hotels and cruise ships. However, due to a tight budget, the government is reluctant to respond to these requests as they might also prompt other industries affected by the crisis to demand equal treatment.

Third, in view of the above and in accordance with international experience, compensation schemes need to be directly related to the activities and destinations that are the most severely affected by the crisis, since the provision of financial support for entities/locations relatively unaffected could prove counterproductive (Blake and Sinclair, 2002). Furthermore, the magnitude of tax incentives or subsidies granted to affected businesses ought to be linked to the extent of their compliance to the sector's policies, especially those related to employment and pricing.

Fourth, market-based hedging strategies offer another path to price shock moderation and risk reduction. Futures contracts between international tour operators and local travel agencies and hotels are financial instruments that could be used to protect against adverse price or exchange rate movements. Unlike commodity markets where price smoothing can be achieved through stock accumulation, hedging tourism revenues risk could be effective with an extensive application of futures contracts provided that pre-determined prices are appropriate to service providers.

The advantage of this hedging mechanism, however, is questionable in cases where international tour operators exert monopsony power over tourist destinations. Also, in times of crisis, resorting to downward price adjustments in contractual arrangements is quite frequent given the weak financial position of domestic service suppliers and their need for quick liquidity to meet obligations. In any case, hedging for more than 3-6 months is not common, particularly in destinations facing frequent hazards and erratic events.

Fifth, there are two policy measures that are of paramount importance and ought to be seriously considered. One falls under the umbrella of the General

Authority for Social Insurance (GASI). It is the provision of unemployment benefits to tourism employees in case they are dismissed in the aftermath of the crisis. This would provide a safeguard for those who are most likely to suffer temporary or permanent loss of employment and income as a result of any downturn.

So far, the employment implications of the September 11th attacks have not been properly dealt with and they are expected to be exacerbated due to the recent Iraqi crisis. Therefore, it is necessary to adopt well-defined and transparent employment policy measures that might extend beyond the unemployment insurance issue.

The second course of action is the establishment of a “Crisis Fund” as a hedging mechanism. This fund could be jointly financed by public entities as well as tourism business associations and international aid donors. It should operate in collaboration with the Export Development Fund for the provision of financial assistance to affected tourism businesses seeking loss compensation and stabilization of employment and price levels.

This fund would keep a central register of all entities that comply with its eligibility criteria, such as sound accounting procedures, management capabilities, compliance with the industry’s regulations, code of ethics, price transparency, etc. It would set up price insurance schemes for service providers, based on comparisons of post and pre-crisis price levels. Disbursements to beneficiaries could be based on members’ contribution to the fund, their market share, business turnover, size of labor force, or expected earnings loss. If properly managed, the fund would provide an operational mechanism for risk hedging, thereby reducing the need for government compensation schemes (and hence public funds) each time a crisis erupts.

Concluding Remarks

The issues raised in this study are of central importance to tourism crisis management. They relate to whether the downturn in tourism activity is sufficiently large and long-lasting to merit mitigation measures, and to the types of policy interventions that ought to be applied.

The analysis assesses the volatility of the tourism industry given its vulnerability to erratic events. Because of the competitive nature of tourism and the

high elasticity of substitution among destinations, this volatility is more severe in terms of tourism receipts than tourist flows, and is more pronounced in regions and destinations with high risk exposure. However, tourism volatility is generally perceived by policymakers as much higher than it actually is, as was proven earlier in its comparison with sectors.

The extent of volatility should be examined not solely in absolute terms but, more importantly, in relation to the sector's contribution to the economy and its secondary effects. As revealed by the study, the economic impacts of tourism downturn are immense, particularly when indirect and secondary effects are taken into consideration. This justifies the need for proper policy actions to mitigate the adverse economic implications of tourism volatility.

The analysis of the duration of tourism downturns reveals the resiliency of the industry; it responds quickly to crises and regains momentum over a relatively short time span. However, this fast recovery is largely due to drastic price cuts which prolong the duration of rebound tourism receipts and aggravate the adverse impacts on the business sector as well as the macroeconomic implications of tourism downturns. As illustrated in the study, tourism receipts are "sticky upward" and are reluctant to bounce back to their pre-crisis levels, albeit faster than most sectors. This calls for continuous monitoring and reviews of the impact of events on tourism business and macroeconomic repercussions. In countries where tourism is one of the economic pillars, it is necessary to develop policy frameworks for crises aversion and crises management and to seek proper means to increase the competitiveness of the industry.

In the case of Egypt, the study indicates the vital importance of the real effective exchange rate in increasing market competitiveness and the strong influential impact of domestic shocks on inbound tourism flows compared to external shocks. It reveals the wide variations in the effectiveness of the different types of policy interventions, reflecting the need to focus on policy actions designed to target specific activities, markets or destinations. Moreover, the study draws attention to (i) the limitation of the market-based hedging strategies; (ii) the urgency of establishing a Crisis Fund as a hedging tool; and (iii) the pressing need for providing an insurance coverage program for tourism sector employees.

Since there is no “one size fits all” approach, it is necessary to tailor policy interventions according to the peculiarities of each country. Therefore, innovative local solutions for combating the repercussions of tourism volatility should be explored.

Appendix (A)**The Global Economy****Trend Line $Y^* = a + bt$**

Event	Arrivals Trend Line	Receipts Trend Line
First Oil Shock (1974)	$Y=52.007+10.119x$ $R^2=98.24\%$	$Y=2.7615+1.6013x$ $R^2=90.21\%$
Political Disturbances (1982)	$Y=148.45+14.259x$ $R^2=98.89\%$	$Y=-1.46+9.2218x$ $R^2=93.00\%$
Second Gulf War (1991)	$Y=241.35+19.444x$ $R^2=93.79\%$	$Y=25.407+18.077x$ $R^2=87.58\%$
Asian Financial Crisis (1997/98)	$Y=477.21+22.76x$ $R^2=99.12\%$	$Y=273.85+29.68x$ $R^2=96.05\%$
September 11th (2001)	$Y=435.52+27.245x$ $R^2=98.38\%$	$Y=253.42+26.325x$ $R^2=96.56\%$

Source: WTO, *Yearbook of Tourism Statistics*, various issues, and *Compendium of Tourism Statistics 1996-2000* (2002 edition), and Authors' calculations.

The Egyptian Case**Trend Line $Y^* = a + b t$**

	Set A	Set B
Tourist Arrivals	$Y = 1E+06 + 225325X$ $R^2 = 89.04\%$	$Y = 808205 + 306268X$ $R^2 = 91.17\%$
Tourism Receipts	$Y = -2E+08 + 3E+08 X$ $R^2 = 90.99\%$	$Y = -4E+08 + 3E+08 X$ $R^2 = 92.79\%$
Tourism Nights	$Y = 9462 + 1212.1 X$ $R^2 = 75.56\%$	$Y = 1642.1 + 8389.8 X$ $R^2 = 79.22\%$

Source: MOT, *Tourism in Figures*, various issues, and *IDSC Monthly Bulletin* 2002; and Authors' calculations.

**Trend Equations for Different Economic Sectors
in Case of the Political Unrest, 1982**

Trend in arrivals	$y = 14.259x + 148.45$ $R^2 = 0.9889$
Trend in receipts	$y = 9.2218x - 1.46$ $R^2 = 0.93$
Trend in GDP	$y = 891536x + 958263$ $R^2 = 0.9809$
Trend in FDI	$y = 5E+06x - 938236$ $R^2 = 0.8664$
Trend in Oil Prices	$y = 1.6548x - 0.9507$ $R^2 = 0.7788$
Trend in Total Exports	$y = 219287x - 293878$ $R^2 = 0.9549$

**Trend Equations for Different Economic Sectors
in Case of the Asian Crisis, 1997/98**

Trend in arrivals	$y = 22.76x + 477.21$ $R^2 = 0.9912$
Trend in receipts	$y = 29.68x + 273.85$ $R^2 = 0.9605$
Trend in GDP	$y = 1E+06x + 2E+07$ $R^2 = 0.904$
Trend in FDI	$y = 6E+07x + 9E+07$ $R^2 = 0.9782$
Trend in Oil Prices	$y = 0.5789x + 13.597$ $R^2 = 0.2995$
Trend in Total Exports	$y = 491620x + 4E+06$ $R^2 = 0.9428$
Trend in Merchandise Exports	$y = 235171x + 1E+06$ $R^2 = 0.9874$
Trend in Services Exports	$y = 9E+07x + 8E+08$ $R^2 = 0.9627$

Appendix (B)**Statistical Tests of the Model Results**

$$\text{Arrivals} = 31.4 + 0.56 \text{ GDP} + 1.67 \text{ PPP} - 0.19 \text{ Dumm1} - 0.21 \text{ Dumm2} - 0.29 \text{ Dumm3}$$

Significance Tests for Arrivals Equation Estimations

R-squared	0.93
Adjusted R-squared	0.90
Durbin-Watson stat	1.18
F-statistic	26.8
F – Statistic Probability	0
Mean dependent variable	14.9
Standard Deviation variable	0.4

Source: Authors' calculations based on data from WDI (2002) and website of Ministry of Foreign Trade (www.economy.gov.eg).

$$\text{Receipts} = 16.9 + 0.14 \text{ GDP} + 1.77 \text{ PPP} - 0.4 \text{ Dumm1} - 0.16 \text{ Dumm2} - 0.5 \text{ Dumm3}$$

Significance Tests for Receipts Equation Estimations

R-squared	0.98
Adjusted R-squared	0.97
Durbin-Watson stat	1.52
F-statistic	93.88
F – Statistic Probability	0
Mean dependent variable	21.27
Standard Deviation variable	0.79

Source: Authors' calculations based on data from WDI (2002) and website of Ministry of Foreign Trade (www.economy.gov.eg).

Notes:

These tests were carried out to examine the statistical significance of the model applied and to detect any deficiencies the model might encompass that would overshadow its statistical credibility.

The study tested for the success of the regression using the R^2 in its plain form and then after being adjusted for degrees of freedom. The values in both cases were very near the one value, which indicates that the regression fits perfectly; accordingly, the regression is successful.

The study also tested for the autocorrelation using the Durbin Watson correlation. There was strong evidence of positive serial correlation as the value of the Durbin Watson was less than 2. It is worth noting that the study is fully aware of the merits of the Q-statistic and the Breusch-Godfrey LM test for serial correlation, which

are both superior to the Durbin-Watson test. However, these two tests depend on large sample tests for auto-correlated disturbances which is not the case with the sample in our study.

The study measured the hypothesis that all the coefficients in the regression are zero (except the intercept or constant) using the F-statistic. The F-statistic exceeded the critical level of 2.7 indicating that the probability is at least 95 percent that one or more of the three variables tested (GDP, PPP and the dummies) is non-zero. The probability of the F-statistic being zero enables us to carry out the F test with statistical significance.

Appendix (C)

Principal Sources of Foreign Exchange Earnings (US\$ million)

	1997/98		1998/99		1999/2000		2000/01		2001/02	
	value	(%)	value	(%)	value	(%)	value	(%)	value	(%)
Total	12034	100	11788	100	15322	100	15259	100	13741	100
Tourism receipts	2941	24.4	3235	27.4	4314	28.2	4317	28.3	3423	24.9
Workers remittances	3660	30.4	3303	28.0	3747	24.5	2973	19.5	2930	21.3
Suez Canal dues	1777	14.8	1771	15.0	1781	11.6	1843	12.1	1820	13.2
Petroleum exports	1728	14.4	1000	8.5	2273	14.8	2632	17.3	1904	13.9
Commodity export proceeds	1928	16.0	2479	21.1	3207	20.9	3494	22.9	3664	26.7
Agriculture	246	2.0	541	4.6	320	2.1	307	2.0	268	2.0
Manufacturing	1685	14.0	1938	16.5	2887	18.8	3187	20.9	3396	24.7

Sources: CBE (2002, 2003), *Monthly Statistical Bulletin*, October, March, respectively; MOT (various issues), *Tourism in Figures* (1997-2001); IDSC *Monthly Bulletin* (2002-2003).

Tourism Impact on the Balance of Payments (US\$ million)

	1997/98	1998/99	1999/2000	2000/01	2001/02
Trade deficit	11771	12563	11474	9354	8001
Tourism receipts	2941	3235	4314	4317	3423
Tourism coverage ratio (%)	25.0	25.8	37.6	46.2	42.8
Services receipts	10455	11026	11420	11696	9617
% share of tourism receipts	28.1	29.3	37.8	36.9	35.6
Current account receipts	15584	15460	22487	22517	20334
% share of tourism receipts	18.9	20.9	19.2	19.2	16.8

Sources: CBE (2002, 2003), *Monthly Statistical Bulletin*, October, March, respectively; Sakr (1999, 2002).

Net Tourism Balance (US\$ million)

	1996/97	1997/98	1998/99	1999/2000	2000/01	2001/02
Travel Receipts	3646	2941	3235	4314	4317	3423
Travel Expenditure	1333	1307	1104	1028	1054	1166
Net Travel Account	2313	1634	2131	3286	3263	2257
Net Account of goods and services	-4027	-7079	-6593	-5850	-3775	-4082
Net Travel/Total Travel Receipts (%)	63.4	55.6	65.9	76.3	75.6	65.9

Sources: CBE (2002, 2003), *Monthly Statistical Bulletin*, October, March, respectively; MOT (various issues), *Tourism in Figures* (1997-2001) and IDSC *Monthly Bulletin* (2002-2003).

Appendix (D)

Egypt's Mitigation Measures Following the September 11th Attacks on the US

1. Demand Restoration Policy Measures

Security

- Extra investment in security equipment (e.g., electronic inspection devices, electronic security gates, magnetic keys, surveillance cameras, reinforced cockpit doors).
- Extra security measures at airports, airlines, museums, hotels, tourist sites and facilities.
- Extensive safety measures for package tour visitors by law enforcement bodies.
- Improvement in international intelligence gathering.

Communication

- Proactive approach based on honest and transparent flow of information.
- Extensive media communications and public relations.
- Quick responses to events and inquiries (e.g., flash interviews, news letters, press releases).
- Focus on image building.
- Messages increasing public awareness of security improvements.

Promotion

- Allocation of large budgets to overseas promotion.
- Adoption of promotion mix in favor of public relations, familiarization trips and television advertisement.
- Maintain presence in main international travel fairs (e.g. ITB [Berlin]; FITUR [Madrid]).
- Massive advertising campaigns in traditional markets.
- Active participation in WTO meetings (e.g., Tourism Recovery Committee Meetings).
- Easing of frontier formalities.
- Focus promotion activities on markets less vulnerable to crises (e.g., Russia, East European countries).
- Emphasis on intra-regional and domestic tourism as a "partial" substitute for traditional markets affected by the crisis.

Product Diversification

- Focus on non-traditional products/services (e.g., eco-tourism, golf, diving, health and spa tourism, conventions and incentive tourism) through media communication, publication of pamphlets, brochures, workshops and seminars; and through the provision of additional investment incentives.
- Inclusion of new tourism agenda events (e.g., festivals, contests, trade fairs).

Destination Selectivity

- Promotion of new prospective destinations (e.g., Marsa Allam) in geographical area perceived by visitors as much safer locations.
- Promotion of specific destinations for niche markets which are less sensitive to crises (e.g., Siwa Oasis for eco-tourism).

Market Segmentation

- Boost Arab tourism (e.g., easing entry procedures).
- Target local markets.
- Refocus marketing on Russia and East European countries.
- Strengthen marketing efforts in China as new prospective market (e.g., direct air flights by the national carrier, open a tourism office in Peking).
- Loosen entry-visa requirements for Italy and Germany first then all EU countries.

Price Cuts and Travel Incentives

- Charter flights support program.
- Special offers (through tripartite arrangements).
- Reduction of Egypt Air prices on domestic flights (foreigners 40 percent; Egyptians 15 percent) for a certain period (six months).
- Postpone the scheduled increase in entrance fees at archeological sites.
- Cheap all-inclusive package holidays for East European visitors.

2. Business Support Compensation Policy Measures

- 2.1 Financial support to the national air carrier (i.e., loan guarantees by the government).
- 2.2 Non-interest bearing monthly loans up to LE100 million to tourism projects through state banks for a period of five months.
- 2.3 Reschedule and postpone the due payments of social insurance funds, electricity and telecommunication bills on tourism establishments without imposing any late payment charges or interest.
- 2.4 Postpone land installment payments for tourism projects in various destinations and offer exemptions from late payment charges or interest.

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