ECONOMIC AND POLITICAL INSTABILITY AFFECTING THE ATTRACTIVENESS OF SELECTED AIR TRAVEL DESTINATIONS CLOSE TO CONTINENTAL EUROPE FROM 2000 TO 2019

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ABSTRACT

Tourism by air travel is an important economic activity that generates and transfers wealth, improving the economics of specific air travel destinations. This article investigates how economic and political instability affected the attractiveness of tourism of European travelers to Mediterranean and Atlantic Islands *versus* Egyptian and Turkish coasts from 2000 to 2019 by computing yearly airport patronage of Spanish (Baleares and the Canaries) and Greek islands which face increasing competition from resorts on the shores of Egypt and Turkey. Yearly throughput of airports within these countries were computed: 3 airports at Baleares, 6 at the Canaries in Spain, 8 at the Greek Islands, 3 in Egypt (Red Sea and the Sinai) and 5 airports at Turkish by the Mediterranean and Aegean Seas along the period. Growth trends differ in stability and pace, with acceptable R^2 regression indexes on the 2000-2009, 2010-2019, and 2000-2019 periods. Poorer R^2 values were found when the bundle of airports faced economic instability and further poorer when subject to political instability, as it was the case of Egypt and Turkey within the 2010-2019 periods. All destinations were mildly affected by economic downturn after the 2008 global financial crisis but emerging tourism destination groups at Egypt's Red Sea and Sinai and Turkey's Mediterranean and Aegean coasts have suffered more dramatically from local political instability events in recent years. However, as the former has not fully recovered its growth trend falling further behind the European offshore destinations after a terrorist attack destroyed an aircraft leaving one of its resorts in 2015, the latter has quickly recovered as a popular tourism destination within short flights from central Europe. Hence, the evidence computed shows that political instability and terrorism outweighed the effects of economic downturn in these air travel destinations, although this may be reversible, as observed in Turkey.

Keywords: Air Travel, Tourism, Economic Instability, Political Instability, Passengers Movements.

1. INTRODUCTION

International tourism has a very strong relationship with air travel. It locally generates and geographically transfers wealth, improving specific places' economics through tourism industry subsectors such as accommodation, food and beverage, passenger transport, travel agencies and other related support services.

Local and regional economies boost from tourism activities. This implies transfer of expenditures from places of origin to places of destination of tourists as the choice of travelling on vacation is resource-dependent: upon limited resource availability one choses to travel rather than consume other goods or services (e.g., buy a new car, refurbish one's house). This happens in domestic travelling as well as on international ones, and the latter involves checks and balances of inbound and outbound expenditures.

It is important for many countries to receive tourists whose expenditures are on strong international currencies (e.g., Euros, United States Dollars). Countries with consolidated tourism destinations receive more foreign tourists than their population travel abroad. This is very important for countries with beach resorts which form economic clusters that may become wealthier regions within the rest of the country.

In this context, tourism destinations compete against each other (both locally and regionally *versus* internationally), and local or national crises events may drive tourists away to other destinations, resulting a vicious cycle for destinations being avoided by tourists and a virtuous cycle on selected destinations.

Air travel is the most frequent mode of transportation and access to many countries, either because of their geography (being land-locked, island-states etc.) but mostly because the ability of air travel to compress space by reducing travel time, thus leaving longer periods for the tourists at their destination of choice.

It is intuitive that tourism destinations depend on economic and social stability. One rarely chose to travel on vacation to places in unrest, with violent conflicts, such as civil war.

In moments of economic crisis, the choice of travelling for tourism vacations may be cancelled or postponed, either because the crisis is affecting the traveler and the country of origin, the country of destination or both. On the other hand, economic crisis can lead to social unrest and uprisings that by its turn will drive tourists away. Social uprisings may lead to political crisis and may involve instability events like coup attempts, protesting, riots, terrorism, and other forms of violence outbreaks. All of them are likely to diminish tourism activities in the countries or places where such events occur.

However intuitive the stability *versus* tourism relation may be, there is little if any metrics on specific destination clusters, regions, territories etc., as international data from United Nations World Tourism Organization (WTO) is generally aggregated by country, not opened by specific destination bundles within countries.

By selecting specific types of destinations within similar characteristics and travel time from a certain region, the evaluation of the effects of economic crisis and resulting social and political unrests may be extremely useful for determining better policies and planning of tourism by countries' and/or local authorities.

The objectives of this article are two-fold: on one hand it assesses the use of airports yearly passengers' throughput of selected bundles of airports on tourism destinations as a metric of consequence of economic and/or political instability events; on the other hand, it tries to compare the impact of economic instability with the impact of political instability in a sample formed by airports serving tourists' destinations outside but rather close in travel time flights from continental Europe.

Hence this article investigates how economic and political instability affected the attractiveness of tourism of European travelers to some Mediterranean and Atlantic Islands *versus* Egyptian and Turkish coasts from 2000 to 2019 by computing yearly airport patronage of Spanish (Baleares and the Canaries) and Greek islands which face increasing competition from resorts on the shores of Egypt and Turkey.

2. THE IMPORTANCE OF TOURISM AND AIR TRAVEL

Tourism and air travel are important economic sectors with very intense interface and common interests (Lyle, 2005). Air travel sector is regulated by the International Civil

Aviation Organization (ICAO) and organized by International Air Travel Association (IATA), while tourism is represented by United Nations World Tourism Organization (WTO) and by the World Tourism and Travel Council (WTTC).

Tourists are defined by the WTO as overnight visitors staying on another country from one night to one year. Visitors staying in a country not spending a night in it are defined as excursionists (same-day visitors, either in connection flights or in cruise ships). Visitors staying longer than one year may be considered immigrants or expatriates, depending on each countries' immigration policies (WTO, 2022).

Prior to the SARS-Cov-2 pandemic tourism was responsible for 10.4% of the world's Gross Domestic Product (GDP) with US$ 9.17 trillion, and generated 334 million jobs worldwide, corresponding to 10.6% of worldwide formal jobs. The pandemic reduced tourism activity in 50% worldwide: in 2020, 62 million tourism-related jobs were lost. The recovery in 2021 was modest but expected to rebound in 2022 and 2023 if the former employees decide to return to the vacant positions. Domestic tourism diminished less than international tourism (WTTC, 2021).

In many countries, most inbound tourists' arrivals are by the means of air travel rather than by land or water. Land-locked countries can rarely be accessed by water (exceptions are like the Peruvian-Bolivian border on the Titicaca Lake and river cruise ships like in the Donau River in central Europe). Land-locked countries well connected by rail lines and roads like Switzerland and Austria may be accessed by land, but island countries like Iceland and the Seychelles are generally accessed by air travel by their visitors. Countries accessible by land, water and air are predominantly accessed by air travel, thus air travel and international tourism show strong positive relationship (WTO, 2022).

The origins of tourism travel involved royal families and aristocracy members searching for healthy destinations. Along 18th and 19th centuries only a minority (higher clergy, judges, parliament members, higher military rank officers, university heads, protégé artists such writers and painters, as well as high income businessmen, bankers, and traders) had access to leisure travel and/or activities, heading a pyramid-like chart where less privileged bourgeois, artisans, and agricultural and manufacturing workers were set apart by a hermetic cultural barrier (Boyer, 2003).

Within time (especially after World War I and along 20th century), wealthier people became able to spend money travelling to the same exclusive destination that once received only members of royal families, changing the acceptance driver from aristocratic rank to the ability to afford services, breaking the strong cultural barrier that separated the bourgeois from the aristocracy. Symbols of exclusiveness were no longer reached only by royal families, rather the strata setting tourism destination examples became cinema and theatre artists, well succeeded writers, painters and sculptors of international reputation (Boyer, 2003).

Mass tourism had a strong relation with industrial revolution (Lefèbvre, 1991, p. 58) as "the perimeter of the Mediterranean [was transformed] into a leisure-oriented space for industrialized Europe", thus creating a "non-work" space for vacations as well as for convalescence, rest and retirement, in search of "ecological virtues such as an immediate access to sun and sea and a close juxtaposition of urban centres and temporary accommodation (hotels, villas etc.)". While tourism produces different kinds of space where wealthier people spend their money, it also contributes to the economy by creating jobs in accommodation, food and beverage, passenger transport, travel agencies and other related support services forming clusters of economic activities as a new, emerging economic sector (Boyer, 2003).

The chase for sun, light, sea, warm weather etc., can be summarized as a different gaze, put as a way of viewing (or framing) of a natural or anthropic scene or location through a particular social lens, following the definition of a desire to gaze upon what is different or unusual (Urry J. , 1996). In this sense, tourism includes both leisure and business travel. Simultaneously, there are no longer strict barriers put by most national borders to hamper the expansion of global capitalism or leisure travel: from the crisis of Nation-States a hegemonic domination of global capitalism raised within the context of globalization (Jessop, 2000). At the same time, global cities become origin and destination of international travel without the previously mandatory

intermediation of Nation-State (Purcell, 2007; Friedmann & Wolff, 1982).

Air travel is a means of physically moving people experiencing time compressing space (Knowles, 2006), thus "shrinking" the world (Allen & Hamnett, 1995). Aviation and airports replaced the role of transcontinental connection that up to 18th century belonged to ships and ports and in continental scale to railways (19th century) and roads (20th century). Airports and air travel became the new interface of global and local scales. Large cities became metropolises and their airports followed the logic of providing physical connections among city-regions (Cwerner, 2009; Addie, 2014).

The study of Global City Networks (GCN) is limited as border entry data by city and or region are hardly available on the same methodological basis of national data (WTO, 2022). Travel data differ from origin-destination when there is use of hubs within GCN networks (*e.g*., a traveler from Nashville, Tennessee who flies to New York to than to Paris and visit the Valle de La Loire has his or her international travel record from New York to Paris rather than from Nashville to, say, Amboise, at the Loire Valley, in France) (Derruder, Van Nuffel, & Witlox, F., 2009).

This broader redefinition of geography by technological travel paradigm has placed air travel as a key element of international travel as well as of global and regional connection – not to say national, in countries with continental dimensions (Urry J. , 2009).

For the WTO, the natural interdependence between aviation and tourism can be fostered by institutional arrangements capable of generating mutual and symbiotic benefits for both sectors, since most international tourists travel fly to their destinations (Lyle, 2005). But such symbiosis is not unlimited: analyzing the demand for leisure air travel in the United Kingdom, Graham (2000) identified limits on the ability and willingness to travel of package tour consumers (market supply maturity), as well as restrictions due to congestion and lack of capacity at airports and airspace control (saturation of supply). The author identified evidence of decreasing growth rates in the British international tourism market, with income commitment limits and demand elasticities between 1970 and 1998 – strictly speaking, still at the beginning of the Low Cost Carriers (LCC) raising importance in the British and European aviation markets (Calder, 2003).

Airports reconfigure geography as a means of bringing places closer to each other, becoming metastable structures where global capital connects new origins and destinations (Fuller & Harley, R., 2004). Airports also generate environmental and social impacts that transcend their physical limits, opposing diffuse economic benefits to the regions they serve (Button & Taylor, S., 2000; Brueckner, 2003; Florida, Mellande, & Holderson, 2015) to the negative externalities on neighboring communities (Schipper, Rietveld, & Nijkamp, 2001); (HCN, 1999), which contribute for the footprint of impacts of tourism (Sinclair, 1998).

By the times of Nation-State hegemony airports were national gateways; as the importance of Nation-States retracted towards the raising importance of city-regions, larger airports became hubs, and the others were their feeding spokes. With the intense growth of aviation over the past decades, simultaneously to the emergence of rise of LCC (Calder, 2003), the hub-and-spoke arrangements started to provide room for direct "tunnel" connections from several origins to destinations without using the hub (Graham & Marvin, 2001).

As put by Boyer (2003) after Lefèbvre (1991), tourism evolved and leisure travel destinations hosting visitors created clusters of specific types of new kinds of economic activities. Such activities derive from a setting or juxtaposition of places and landscapes, both natural (beaches, mountains, fields) and anthropic (ancient cultures' ruins, monumental areas, and historical heritage places) such as the Pyramids around the Cairo, the Blue Mosque in Istanbul, the Acropolis in Athens etc. These are "heritage tourism destinations" (connected to human geography), which mix business with tourism travel. The focus of this paper is non-heritage destinations, such as sea beaches with warm weather attracting European tourists (connected to environmental geography), where there is an undeniable dominance of leisure travelers – in this case, within a few hours' flights from central Europe instead of long-haul flights to places such as Bali, Tahiti, Maldives Seychelles etc. The purpose is to avoid the potential confusion of types of air travel within

aeromobilities, such as business travel and combined business and leisure travel that is generally attracted by larger, globalized and network-connected global cities (Friedmann & Wolff, 1982), leaving leisure travel for a more dedicated type of tourism where spaces become consumable commodities (Cater., 1995).

Despite the criticism on the lack of sustainability of air travel and on the local impact of tourism, the association of air travel and tourism is very important in economic terms (WTTC, 2021). It is intuitive that safety and security is a key factor for any tourism destination: tourists will rarely feel comfortable in places where unrests of any kind are ongoing. Leisure tourists are probably risk-adverse.

It is assumed that economic and political crises will hamper pure leisure and combined business-leisure travel more than business travel. By the same token, safety is intrinsic to air travel and security is a key factor for tourism, generating a virtuous circle for destinations labeled as safe as well as a vicious circle on those perceived as unsafe, reproducing the saying by Gunnar Myrdal: "nothing succeeds like success; nothing fails like failure" (Barber, 2008).

Besides safety and security on the tourist destination, safety of air travel on the travel to and from tourist destinations is of utmost importance. So, factors generating economic instability may (but not necessarily does) lead to political instability, and political instability may (but again not necessarily will) lead to violent unrests such as street riots and terrorism.

Chomsky (2002, p. 102) defines terrorism as "the calculated use of violence to reach political, religious or ideological objectives either by intimidation, coercion or by instilling fear". Geismar (1981) considers terrorism an alternative found by radicals either when the reigning political regime becomes unbearable or when ordinary means of acting politically become inoperative.

In cases in which economic instability led to political instability and then to violent civil unrest and even terrorism, it is envisioned that tourism destinations will suffer by diminishing attractiveness, temporarily or permanently. As most of tourism destination data is aggregated by countries (WTO, 2022); (WTTC, 2021), this paper identified a selection of destinies of travelers driven basically by leisure within few hours of air travel flight from central Europe apart from peripheral continental on the Mediterranean shores such as Algarve in Portugal, Southern Spain's Costa del Sol and Costa Brava, France's Côte D'Azur, Costa Esmeralda in Italy and the like.

3. METHODOLOGY

This paper selected tourism destinations that are (i) basically accessed by air travel; (ii) visited by tourists looking for environmental geography landscapes (beach resorts) rather than human geography (heritage places); (iii) within few hours' time flights from central Europe rather than long haul flights to more remote destinations.

The sample consists of bundles of airports serving specific destinations in Spain, Greece, Turkey and Egypt. The number of inbound tourists on a yearly basis arriving at these countries is not split from gross national totals. Hence, they mix the numbers of landscape and heritage tourism destinations such as Madrid and Barcelona, in Spain, Athens in Greece, Istanbul and Cappadocia in Turkey, and Cairo and the Nile in Egypt with the number of tourists visiting beach resorts in these countries, which receive direct flights from central Europe more often than from their countries' capitals.

Per capita Gross Domestic Product (GDP) were surveyed yearly from 2000 to 2019 for these four countries, both in absolute values as well as plotting the evolution trends along this period, benchmarking the year 2000 as a reference. Based on that, the effects of several events were evaluated on this data, such as the terrorist attacks to New York and Washington of September 11, 2001, the global financial crisis of 2008, and their aftermaths on these countries' economy in the following years. The relative growth of *per capita* GDP based on the smallest figure available were also computed to allow seeing the proportions among these countries in 2000, 2009 and 2019 (respectively beginning of the analytical period, its mid-point – right after the world financial crisis – and the last year of the analytical period).

Profiles of tourist access for 2010 and 2019 were identified considering the number of yearly visitors, the percentage of access by air

and on vacation (leisure), plus the percentage of tourism in these countries' GDP, in order to evaluate the dependency of their tourism sectors in their economies.

As a direct indicator of the number of tourists visiting these specific resort locations, the yearly throughput of airports within these countries were computed as follows:

- 3 airports at Baleares Islands (Ibiza, Palma-Mallorca, and Menorca) in Spain;
- 6 airports at the Spanish Canaries Islands (Fuerteventura, La Palma, Gran Canaria-Las Palmas, Lanzarote, Tenerife Sur-Reina Sofia and Tenerife-Los Rodeos);
- 8 at the Greek Islands (Heraklion-Nikos Kazantzakis, and Chania-Daskalogiannis, in Crete, Rhodes-Diagoras, Kos-Hyppocrates, Corfu-Ioannis Kapodistrias, Santorini-Thira, Zakinthos-Dionysius Solomos and Mykonos);
- 3 airports serving Egyptian shore resorts (Hurghada and Marsa Alam on the Red Sea and Sharm-El-Sheik at the Sinai); and
- 5 airports at Turkish by the Mediterranean (Antalya and Adana-Sakirpasa) and by the Aegean Sea (Dalaman, Milas-Bodrum, and Izmir-Adnan Menderes).

Continental Spanish airports such as Madrid, Barcelona and others were not included on the sample (as they are driven by business and heritage tourism), the same happening with Athens and Thessaloniki in Greece, Cairo in Egypt, and Istanbul and Ankara, in Turkey. Although cities like Izmir in Turkey and Heraklion in Greece are large and generate business and non-pure leisure travels, these are important tourism destinations, and thus they were included in the sample.

Regarding alternative Mediterranean Islands, Malta was not included on the sample because of its diversified economy with a large free port and fiscal benefits for businesses other than tourism, and Cyprus was not included due to its undefined configuration since the 1974 war which partially destroyed Nicosia airport – the Island has tourism resorts accessible through Lárnaca and Pafos airports on the Greek side, and the Ercan airport on the Turkish (unrecognized) side.

Passenger movement data was computed along time by the author based on AENA's yearly reports for Spain (www.aena.es), the Hellenic Civil Aviation Authority for Greece (www.aia.gr), Turkish Ministry of Transport and Infrastructure (www.dhmi.gov.tr), and Egyptian Holding Company for Airports and Air Navigation (www.ehcaan.com).

Yearly passenger movements of the 25 eligible airports were bundled into the 5 groups (Spain-Baleares, Spain-Canarias, Greek Islands, Turkey Shores and Egyptian Shores) and computed along the period from 2000 to 2019, avoiding the effects of the SARS-Cov-2 pandemic from 2020 onwards, but including both economic and political crises affecting these countries and regions. Apart from passengers x time plots, growth trends were analyzed prior to the 2008-2009 world financial crisis and after it, verifying R^2 regression indexes on the 2000-2009 and for the 2010-2019 periods, comparing the R^2 of linear, exponential and logarithm regression from dispersions in MS Excel®.

These trends were plotted and tabled to allow visual yet simple analysis to identify which specific instability events indeed affected the performance of these tourism destinations in terms of passengers' throughput as an indicator of tourism visitors.

4. RESULTS

The sample countries' economies suffered differently the effects of the aftermath of September 11, 2001, terrorist attacks, the 2008 global financial crisis, and other financial and economic crises afterwards. Yearly *per capita* GDP of these countries in current US$ are shown on Table 1 while Figure 1 shows the relative trend from the year 2000.

Spain's and Greece's economies did not suffer on the aftermath of the September 11, 2001, attacks in the United States, but Turkey's and Egypt's did, although both recovered momentarily (Turkey's in 3 years; Egypt's in 6-7 years).

The world financial crisis of 2008, on the other hand, affected Spanish and Greek economies severely and permanently, indicating that the pre-crisis growth was not sustainable. Overspending in the pre-crisis years punished their economies as inserted in the Euro zone, without the ability to devaluate their currency. Turkey suffered a reduction of its *per capita* GDP for 2 years, and then recovered its

economic growth trend until 2012, when its economy started diminishing the *per capita* GDP until reaching the same level of 2009 in 2019. Egypt, which has a lowest *per capita* economic output within the sample, kept growing its *per capita* income until 2015, experiencing a very sharp drop from 2016 to 2017, with slow recovery since then.

Table 1 *Per Capita* GDP Evolution of Spain, Greece, Turkey, and Egypt, 2000-2019, in Current US$

Year	Spain	Greece	Turkey	Egypt
2000	14.750	12.073	4.337	1.450
2001	15.369	12.549	3.143	1.378
2002	17.107	14.178	3.688	1.191
2003	21.511	18.518	4.760	1.102
2004	24.907	21.995	6.102	1.062
2005	26.429	22.560	7.456	1.186
2006	28.389	24.822	8.102	1.397
2007	32.591	28.864	9.792	1.667
2008	35.511	32.128	10.941	2.045
2009	32.170	29.829	9.103	2.331
2010	30.532	26.717	10.743	2.646
2011	31.678	25.484	11.421	2.792
2012	28.323	21.913	11.756	3.230
2013	29.068	21.788	12.615	3.263
2014	29.501	21.167	12.158	3.390
2015	25.742	18.084	11.006	3.563
2016	26.523	17.924	10.895	3.520
2017	28.170	18.582	10.590	2.444
2018	30.365	19.757	9.454	2.537
2019	29.554	19.134	9.122	3.019

Source: (The World Bank, 2022).

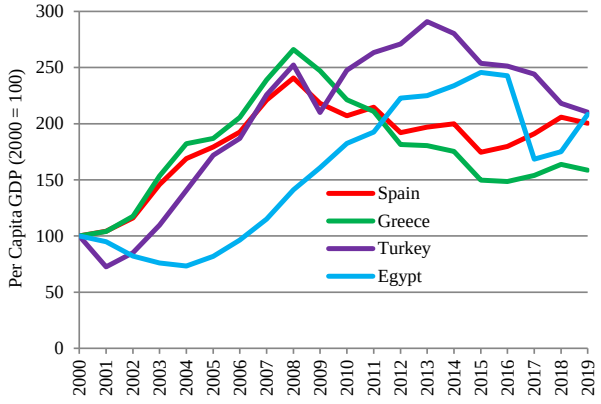


Figure 1 *Per Capita* GDP Evolution for Spain, Greece, Turkey, and Egypt, 2000-2019 (2000 = 100)
Source: based on (The World Bank, 2022).

It is interesting to observe that, in the year 2000, Turkey's *per capita* income was triple of that of Egypt, Greece's was 8 times larger, and Spain's was 10.17 times larger. Table 2 *Per Capita* GDP Ratio of Spain, Greece, Turkey in 2000, 2009 and 2019, related to Egypt in 2000 (= 1.00)shows such ratio also for 2009 and 2019. While Egypt ended up with a *per capita* GDP that was the double of that of its own in 2000 and Turkey experienced a somewhat similar performance, Greece and Spain reached their pike next to the world financial crisis and, although diminishing their indicators for 2019, they are still better off than Turkey and far better than Egypt.

Table 2 *Per Capita* GDP Ratio of Spain, Greece, Turkey in 2000, 2009 and 2019, related to Egypt in 2000 (= 1.00)

Year	Spain	Greece	Turkey	Egypt
2000	10.17	8.33	2.99	1.00
2009	22.19	20.57	6.28	1.61
2019	20.38	13.20	6.29	2.08

Spain's and Greece's economic downturn since the 2008 world financial crisis did not trigger bad enough political instability to worsen their ongoing years. Greece experienced riots and violent street protesting, but faced political renovation with further economic drawbacks, while Spain experienced increased unemployment particularly among youngsters, but these countries' institutions were able to keep their balance along the recent years of the study period. Turkey's economic instabilities were not enough to challenge its political condition, although there was an attempt of military *coup d'état* in 2016 (which was overthrown by the established regime). Egypt, on the other hand, experienced severe political instability from 2011 onwards due to the Arab Spring, when the former regime was driven out of power. Although Egypt was able to protect its *per capita* GDP for some more years, it is by far the poorer and most tourism-dependent country in the sample, and it experienced a severe economic downturn from 2016 to 2017, after a terrorist attack bombed an airplane flying from its Sinai's resort, killing all 224 people on board (ASN, 2022). Table 3 shows these countries' tourism profile in terms of total tourism arrivals (overnight visitors, in millions), how much of that, percentwise, is by air, how much of the total, also percentwise of the total, is on leisure vacation, and how much of these countries'

GDP for the years 2010 and 2019 was generated by tourism.

Table 3 Spain, Greece, Turkey, and Egypt Tourism Profiles, 2010 and 2019

Country	2010 WTO Profile				2019 WTO Profile			
	Total Arrivals	By Air (%)	Vacation (%)	% of GDP	Total Arrivals	By Air (%)	Vacation (%)	% of GDP
Spain	52.0 M	77.0	82.6	10.3	83.0 M	82.3	87.3	12.3
Greece	15.0 M	70.9	N.A.	4.6	32.0 M	66.1	N.A.	11.0
Turkey	31.5 M	70.0	71.9	3.4	50.5 M	77.0	75.7	5.6
Egypt	14.0 M	85.6	98.3	6.0	12.6 M	86.9	97.8	4.5

Source: (WTO, 2022). N.A. = Not Available.

Such data show that Spain is by far the country that receives more tourists, with a strong dependence of air travel and very concentrated on leisure vacation. Therefore, tourism increased its share of the GDP by two percent points of the total from 2010 to 2019. As its *per capita* GDP stayed stable from 2010 to 2019 (see Table 1 above), it is fair to say that tourism by air travel on leisure vacation gained economic importance in that period.

Greece's tourism industry practically doubled its economic impact from 2010 to 2019, both in terms of total arrivals and even further in terms of percentage of the GDP. Air travel access remains important, but land and sea access increased their shares of importance. Data on the importance of leisure vacation on this country's profile was not available (N.A.) on the WTO country's profile.

Turkey became a major tourism market by increasing nearly 20 million yearly tourists' arrivals from 2010 to 2019. Air travel gained importance upon land and sea access, while the proportion of non-leisure or non-vacationers among visitors (from 28.1% in 2010 down to 24.3% in 2019) and the relatively low portion of the GDP coming from tourism (despite its increase in the decade) shows a robust and more diversified economy.

Egypt, on the contrary, is the only country in the sample that diminished its yearly tourists' arrivals. It shows extreme dependence on air travel and on leisure travelers on vacation. Due to this sectorial downturn, the participation of tourism in the country's GDP diminished in 2019 as compared to 2010.

Figure 2 illustrates the evolution of passengers' yearly patronage of the five bundles of airports (Spain's Baleares and Canaries Islands; Egypt Sea resorts, Turkish Shores, and Greek Islands), with data from their national aviation and/or airport authorities compiled throughout time by the author.

As a direct, isolated effect of the 2008 world financial crisis, the passengers' throughput processed in the airports of Spain's Canaries Islands suffered more than that of the Baleares', taking 3 years to recover, both showing slow growth trends along the second half of the period of analysis. Contrary to the effect of the economic crisis upon Greece, the number of passengers on the airports of the Greek Islands was relatively flat along the first half of the period and grew slowly on the second half of the period, possibly growing slower than the major hub airports of the country, such as Athens and Thessaloniki (not shown on the plot).

The evolution of the passengers' throughput of Egyptian and Turkish airports of the sample was quite different.

In the case of Turkey, the growth trend was quite impressive along the period, and the impact of the attempt of *coup d'état* of 2016 was followed by a recovery that may not have been fast, but was certainly impressive, as 2 years later the number of passengers. As a result, within the sample, Turkish resorts' airports now respond for the lion's share of passengers, outnumbering the Spanish and Greek destinations (which were busier or alike in 2000). Turkish resort airports surpassed the 2 bundles of Spanish airports in 2009 and even with the political crisis of 2016, the resulting numbers recovered strongly in recent years, configuring these destinations as important players in this market.

The Egyptian case is a clearer example that political instability can hamper the growth and the success of tourism destination. First, the slow growth trend clearly ceased after the Arab Spring of 2011, with oscillations of the number

of passengers in these resort airports in the following years. On October 31, 2015, an Airbus A321 of a Russian operator leaving Sharm-El-Sheik was destroyed by the explosion of a bomb aboard, claiming 224 lives, crashing at the central Sinai (ASN, 2022).

This event was far more devastating in terms of driving air travelers away from Egyptian beach resorts in the following years, with the numbers slowing recovering to the lower than pre–Arab Spring levels within 3 years' time, when the world tourism market was struck by the SARS-Cov-2 pandemic.

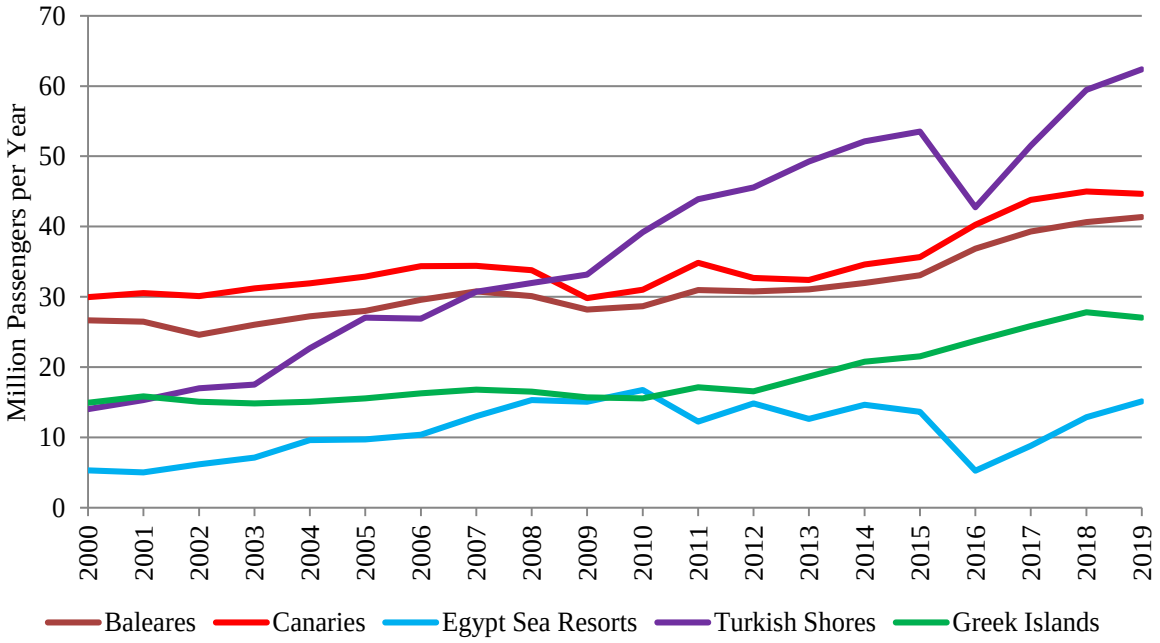


Figure 2 Yearly Passengers Throughput on the Sample Airports Bundles

Table 4 summarizes the R^2 of regression for curves of the bundles above, for 2000-2009, 2010-2019 and for the entire 2000-2019 period, highlighting in bold the best-fit values for stronger adjustment of the various trend curves.

Table 4 : R^2 of Passengers' Curves of the Airport Bundles, Best Fit Equation and Fit Quality

	Bundles	Exponential	Linear	Logarithm	Best fit Equation	Fit Quality
2000-2009	Baleares	0.5091	0.5911	0.5911	y = 0.4932x - 960.9 / y = 988.67ln(x) - 7489.2	Poor
	Canaries	0.2712	0.2782	0.2785	y = 643.49ln(x) - 4860.6	Very Poor
	Egypt Resorts	**0.9607**	0.9555	0.9554	**$y = 1E\text{-}116e^{0.1343x}$**	**Good**
	Turkish Shores	0.9447	0.9663	**0.9664**	**y = 4742.7ln(x) - 36036**	**Good**
	Greek Islands	0.4365	0.4362	0.4362	$y = 5E\text{-}08e^{0.0097x}$	Poor
2010-2019	**Baleares**	**0.9394**	0.9235	0.9232	**$y = 3E\text{-}36e^{0.0423x}$**	**Good**
	Canaries	**0.8780**	0.8601	0.8599	**$y = 2E\text{-}37e^{0.0438x}$**	**Acceptable**
	Egypt Resorts	0.1326	0.1191	0.1193	$y = 2E+32e^{0.036x}$	Very Poor
	Turkish Shores	0.6773	0.6714	0.6713	$y = 1E\text{-}33e^{0.0395x}$	Poor
	Greek Islands	**0.9638**	0.9650	0.9649	**$y = 1E\text{-}59e^{0.0689x}$**	**Good**
2000-2019	**Baleares**	**0.8531**	0.8218	0.8211	**$y = 2E\text{-}19e^{0.0233x}$**	**Acceptable**
	Canaries	0.6827	0.6533	0.6524	$y = 4E\text{-}15e^{0.0128x}$	Poor
	Egypt Resorts	0.2134	0.2616	0.2623	$y = 4E\text{-}30e^{0.0349x}$	Very Poor
	Turkish Shores	0.9057	0.9531	**0.9532**	**y = 5065.4ln(x) - 38489**	**Good**
	Greek Islands	**0.8184**	0.7954	0.7584	**$y = 2E\text{-}27e^{0.032x}$**	**Acceptable**

During the first half of the period study (2000-2009), the oscillation of yearly values of passengers on Spanish and Greek airports' bundles was intense, and only the bundles of Turkish and Egyptian airports yielded good regression values for exponential and logarithm trends.

On the second half of the period study (2010-2019), the regression values are acceptable for the bundle of airports of the Canary Islands and good for the Baleares and for the Greek Islands, but the effects of political instability on Turkey and mostly Egypt prevent any trend to be reasonably adjusted: the values show intense dispersion, leading to poor and very poor regressions.

Considering all the 20 years' period (2000-2019) the Baleares Greek Islands yielded acceptable values of R^2 for exponential growth trend, while the logarithm curve adjusted for the bundle of Turkish Shore airports was good. The overall adjustment for the curves of patronage of the Canaries Islands and the Egypt Resorts are poor and very poor, respectively – the former because of economic effects after the 2008 world financial crisis and the latter because of the political instabilities following the Arab Spring and then the October 2015 aircraft bombing at the Sinai.

5. CONCLUSIONS

The locales identified are all sea-front resorts within Mediterranean Islands of Greece and Spain and Atlantic Islands of the latter, as well as the Mediterranean e and Aegean Sea shores of Turkey and Red Sea and Sinai Peninsula for Egypt.

Instead of the number of inbound tourists, the passenger patronage of the airports serving these bundles of tourism destination was employed as metrics to investigate the effects of events of economic and social instability from 2000 to 2019 to determine whether they indeed affect the number of tourists in a temporary or permanent way, as well as to determine if the effects of political instability are stronger than those of economic instability.

All destinations were mildly or not at all affected by the economic downturn after the 2008 global financial crisis except for the Canaries Islands, which yielded poor overall regressions. On the other hand, emerging tourism destination groups at Egypt's Red Sea and Sinai and Turkey's Mediterranean and Aegean coasts have suffered more dramatically from local political instabilities in recent years.

However, as the former has not fully recovered its growth trend falling further behind the European off-shore destinations, the latter has quickly recovered as a popular tourism destination within 3-hours flight range from central Europe. Over the past decade, Turkish shores have become one of the most popular tourism destinations for central European air travelers, and although it suffered after the failed *coup d'état* of 2016, it quickly recovered the attractiveness for tourists in the following years.

Hence, the evidence computed shows that political instability and more specifically terrorism outweighed the effects of economic downturn in these air travel destinations, although this may be reversible, as observed in Turkey. Evidence from these bundles of airports of tourism destinations within a few hours flight from central Europe shows that a terrorist attack bombing of an aircraft had a stronger and longer lasting effect on passengers' choice than political instability, as well as that the outbreaks of political instabilities in Egypt and Turkey had a stronger effect than that of the world financial crisis of 2008 at Spanish and Greek off-shore tourism destinations.

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