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MEASURING THE EFFECTS OF POLITICAL UNREST ON THE TOURIST INDUSTRY: THE CASE OF CYPRUS

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> No. 8 - May 1995 ISSN 1024-6282

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MEASURING THE EFFECTS OF POLITICAL UNREST ON THE TOURIST INDUSTRY: THE CASE OF CYPRUS

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The objective of this paper is to determine how political events, such as the Turkish Invasion of Cyprus, the Lebanese Conflict, and the Gulf War, affected the growth of tourism in Cyprus. The paper, by using four regression models, proves that political instabilities in Cyprus and/or neighboring countries had detrimental effect on the tourism of Cyprus.

During the last two decades the tourist industry in Cyprus experienced an exceptionally high rate of growth. This rapid growth of tourism since the middle of 1970 has contributed substantial economic benefits to the island's economy. Many observers have contributed the growth of tourism in Cyprus to several geo-political, demographic and socio-economic factors. Some of these factors are:

- 1. The climate and natural beauties of the island;
- 2. The beautiful and well developed sandy beaches and the clear blue water of Mediterranean Sea;
- 3. The archaeological treasures that depict the four thousand history of Cyprus;
- 4. The friendly services provided by the modern hotels at reasonable prices and the low overall cost of living in the country;
- 5. The entrepreneurship of the Cypriot businessmen and the developed infrastructure, topped with the advanced telecommunication services;
- 6. The recent relative political stability and its country's low crime rate;
- 7. The genuine hospitality of Cypriots and their welcoming attitude toward foreigners.

It is the purpose of this paper to determine, examine and analyze the growth of tourism in Cyprus and to show how the political events such as the Turkish invasion of Cyprus, the Lebanese conflict and the Gulf war affected the tourism in Cyprus. This study will also show the growth of the demand for tourism in Cyprus and the supply of tourist facilities in the island. The economic effects of tourism on the Cyprus GDP, employment and foreign exchange will also be presented.

CYPRUS IN BRIEF

Cyprus is located in Eastern Mediterranean covering an area of 3,572 square miles and is ranked as the third largest island in Mediterranean. In the northern part of Cyprus stands the narrow Kyrenia range, a steep range of limestone mountains that border the northern coast-line and reaches a height of 3,357 feet. The ruins of famous castles that dominate the rocky Kyrenia mountains were erected to repel invaders from the north and were built on the remains of earlier Byzantine castle during the Lusignan Dynasty. St. Hilarion, above the town of Kyrenia, is the most beautiful, the most impressive structure, and affords a superb, panoramic view. Other castles are Buffavento, Kantara, and Kyrenia, and the abbey of Bellapais near Kyrenia, an impressive monument that proudly beautifies the Kyrenia mountains.

To the southwest of the island is the Troodos range, an extensive mountain massif, covered with pine, dwarf oak, cypress, and cedar. It rises to a height of 6,403 feet at Mount Olympus. Between the two ranges lies the fertile plain of the Mesaoria stretching from the sea at Famagusta to Morphou bay. The pine-tree covered mountains of the Troodos range provide picturesque scenery and make its resort areas internationally famous. Some of the villages that became famous as a result of these resort facilities and their luxurious hotels are Kakopetria, Prodromos, Troodos, Platres, Pedhoulas, and Kalopanayiotis. They are resorts to which the local people and tourists escape to avoid the dry hot summer weather that dominates the low land of Cyprus. Several monasteries are found in remote mountainous area. They stand as a monument to the religious character and tradition of the Cypriots. The social values, the historic background and the Greek heritage are reflected in the religious aspects of life in Cyprus which for years dominated the people's attitudes, desires, and achievements. It is this religious dedication and zeal that produced these historic monasteries. Kykko monastery in the Paphos mountains is the most famous and the wealthiest of all. Other monasteries built in the twelfth century are Machairas on the Troodos range and St. Neophytos and Chrysoroyatissa in the Paphos district. The Stavrovouni monastery established, according to tradition, by St. Helen during the fourth century, is considered the oldest monastery in Cyprus.

With the exception of Nicosia, the capital of Cyprus, all the major towns are located near the sea and each one has a port. In the twentieth century, Nicosia has been experiencing rapid growth of population and expansion of area. The old city is surrounded by a circular defensive wall built originally by the Lusignans and remodeled by the Venetians. Narrow streets and lanes and small squares form the layout of the town within the walls. The many impressive churches with their high steeples add a different flavor to the monotonous lineup of houses. The city outside the walls stands in complete contrast to modern houses, apartment and office buildings, wide roads and green lawns. Nicosia is an administrative as well as a trading center of the island and has number of growing industries.

Famagusta, known as the Miami of Cyprus, was a growing trading, industrial and sea resort town. Today Famagusta is a ghost town under the Turkish occupation. At the foot of the rocky Kyrenia hills and on the northern coast of the island, is one of the most picturesque towns of Cyprus. Kyrenia is another major resort town that is presently under Turkish occupation. The white stone houses surrounding Kyrenia's harbor, its medieval castle and the mountains towering behind it, make Kyrenia one of the most beautiful towns of Cyprus. Limassol, Larnaca and Paphos, the latter claimed to be the birthplace of Aphrodite, are the other three major cities under the rule of the Republic of Cyprus. Since 1974, tourism flourished in these three cities and other areas as later tables in this paper will show. These towns, villages, mountains sea resorts, monasteries and churches, the walls and the castles reflect the four thousand year old history of Cyprus and unveil the socio-cultural trends that dominated life in Cyprus.

Cyprus became independent from British rule in 1960 and it was a unified country until July 1974, when Turkey invaded Cyprus and occupied the northern part of the island, estimated to be 37 percent of the country's land area. The Greek Cypriots are residing in the southern part of the island. The Cyprus *de jure* population is estimated to be 709,000 of which 577,000 reside in areas controlled by the official government of the Republic of Cyprus. By ethnic groups the population of Cyprus is made up of Greek Cypriots with just under 80 percent. Turkish Cypriots, with the rest under 20 percent and Maronites and Armenians totalling a few percentage points of the total population.

Unfortunately, the 1974 Turkish invasion had a detrimental effect on the tourism in Cyprus. The island was divided into two zones with no freedom of movement between the two zones. The highly developed tourist regions of Famagusta and Kyrenia, which before the 1974 Turkish invasion had 64 percent of the bed capacity and about 40 percent of the restaurants and bars, are located in the Turkish occupied area. Thus it caused substantial problems for the tourist sector in the Greek zone in the early days after the Turkish occupation. This paper refers to the development and effects of tourism in the southern part of Cyprus which is under the control of the Republic of Cyprus.

THE GROWTH OF TOURISM IN CYPRUS

In 1992 international tourism movements increased by 4.5% reaching 475.6 million tourists. Foreign exchange receipts also showed an increase of 6.7% reaching \$278.7 billion. Europe continued to attract the

largest share of international tourist arrivals. Southern Europe attracted 31.8% of international tourist arrivals in Europe. The tourist sector in Cyprus recovered from the effects of the 1991 Gulf War and in 1992 tourist arrivals in Cyprus increased to an exceptionally high number of tourists, 1,991,000, an increase of 43.7% compared to 1991. The tourist arrivals in Cyprus increased from 126,580 tourists in 1970 to 1,991,000 in 1992, a fantastic increase of 1570%.

The growth of tourist, excursionists and total visitor arrivals is shown in Table 1 and the growth of tourism in Graphs 1 and 2. It is evident from the tables as well as from the graphs that the outstanding growth of tourism in Cyprus was interrupted and even declined during the periods 1974-1975; 1977 and 1991. These years relate to three political incidents in the area, one of which was directly related to Cyprus. The Turkish invasion of Cyprus in July 1974, the Lebanese conflict, which was heated in 1976-1977 and the Gulf War in January 1991. All these political unrests and military actions affected directly and indirectly the tourism in Mediterranean, especially that of Cyprus.

YEAR	Tourists	Excursionists	Total
1970	126,580	109,013	235,593
1971	178,598	129,301	307,899
1972	228,300	177,500	405,800
1973	264,066	168,770	432,836
1974	150,478	81,262	231,740
1975	47,084	32,345	79,429
1976	180,206	34,489	214,695
1977	178,185	74,503	252,688
1978	213,819	75,107	288,926
1979	294,047	63,934	357,981
1980	348,530	54,890	403,420
1981	423,563	74,495	498,058
1982	530,600	76,277	606,877
1983	599,796	115,701	715,497
1984	665,882	160,871	826,453
1985	769,727	151,845	921,575
1986	827,937	158,592	986,529
1987	948,551	208,421	1,156,972
1988	1,111,818	199,773	1,311,591
1989	1,377,636	162,390	1,540,026
1990	1,561,479	114,377	1,675,856
1991	1,385,129	88,083	1,473,212
1992	1,991,000	126,415	2,117,415

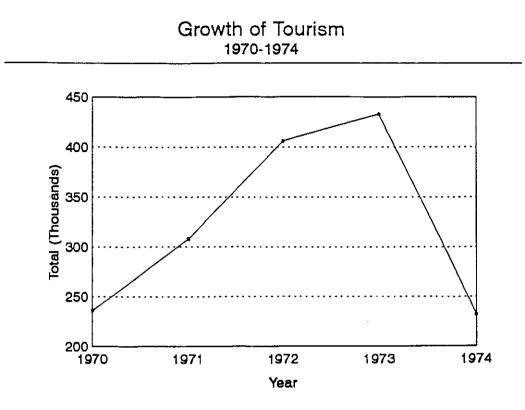
TABLE 1 VISITORS ARRIVALS IN CYPRUS 1970-1992

Source: Cyprus Tourism Organization; Annual Report, 1971-1992, Nicosia, Cyprus.

MEASURING THE EFFECTS OF POLITICAL INSTABILITIES ON TOURISM IN CYPRUS

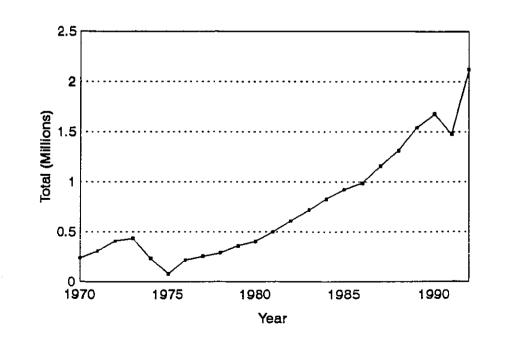
Regression models were developed to determine the effects of Turkish invasion, Lebanese conflict, and Gulf war on tourism in Cyprus.







Growth of Tourism 1970-1992



The total number of tourists is chosen as the dependent variable. Two models were selected to analyze the effects of political disturbances in Cyprus and those in neighboring countries on the tourist industry of Cyprus. These models differ in the definition of the dummy variables that are supposed to reflect the political events. The first model uses the time variable to represent the trend and three dummy variables: $D_1 = INVI$ takes value of 1 for years 1974 and 1975 and 0 otherwise. This dummy reflects the effect of the Turkish invasion. $D_2 = LEBI$ takes the value 1 for years 1976-1992 to reflect the effect of Gulf war on Cyprus tourist industry. The second model differs in the definition of the dummies. D_1 now is 1 for years 1974-1992 and 0 otherwise. Since the island is still divided due to the Turkish invasion, it was attempted to capture the effect of this event through out the period compared to only year 1974-1975, which were the years of the most acute effect. D_2 for the second model is 1 for years 1976-1982. It was assumed that the Israeli invasion of Lebanon was the end point of the Lebanese conflict because that the invasion had a "pacification effect" in the area. Finally D_3 for the second model is 1 for 1991 and 1992 and 0 otherwise.

The results for both models are startling and very significant R^2 95%. The models also reveal a very positive trend, t = +16.9, for the growth of tourism in Cyprus. Some of the reasons for such a positive growth of tourism in Cyprus, were discussed earlier in the paper.

The Turkish invasion had a significant negative effect on the tourist industry. For both models, D_l is negative and very significant of the 1% level. From Model 1, it can be derived that due to Turkish invasion Cyprus tourism lost on the average 526,921 tourists annually. The Lebanese conflict effect on Cyprus tourism was an empirical issue since apriori considerations implied both a positive and a negative effect on the tourist industry. Positive because of redirecting tourist flow towards Cyprus and away from Lebanon. Negative because of the potential for trouble in the region, such as terrorism. The empirical evidence is clearly negative from Model 1 and somewhat negative from Model 2. Finally, the Gulf War exerted an insignificant influence as far as the overall average effects are concerned.

Parameter Estimates												
		Parameter	Standard T for	HO:								
Variable	DF	Estimate	Error	Parameter=0	Prob > T							
INTERCEP	1	64720	65095.803938	0.994	0.3333							
YEAR	1	112325	6622.8262074	16.960	0.0001							
INV1	1	-526921	110836.53846	-4.754	0.0002							
LEB1	1	-833288	106471.71573	-7.826	0.0001							
GULF1 R ² 0.9589	1	-229362	138817.93668	-1.652	0.1158							

MODEL 1 THE EFFECIS OF POLITICAL DISTURBANCES ON THE TOURISM OF CYPRUS 1970-1992*

*Annual Data

MODEL 2 THE EFFECTS OF POLITICAL DISTURBANCES OF THE TOURISM OF CYPRUS 1970-1992*

		Parameter Estimates									
		Parameter	Standard T	for HO:							
Variable	DF	Estimate	Error	Parameter=0	Prob > T						
INTERCEP	1	125849	69713.03690	54 1.805	0.0878						
YEAR	1	87873	7516.743150	56 11.690	0.0001						
INV1	1	-493458	125119.2198	36 -3.944	0.0010						
LEB1	1	-137794	74272.09602	29 -1.855	0.0800						
GULF1	1	185771	118360.530	15 1.570	0.1339						
R ² 0.9533	-										

*Annual Data

In addition, the growth rate of tourism in Cyprus was estimated. To do so, the logarithm of the tourism variable (dependent) was regressed on the time variable. The model without the dummies (Model 3) reflect the growth rate of tourism as it has been influenced by the adverse internal and external political events. This growth rate of tourism was estimated to be 10.7%. When the dummies are included (Model 4) the coefficient of the time variable is the underlying percentage growth of tourism. Since the negative effects are captured by the dummies, the growth rate estimated, reflects the growth that would have been in the absence of the political instabilities. This rate of growth was estimated to be 14.5%. The derivation of the percentage growth rate is shown in a footnote¹.

MODEL 3 ESTIMATED GROWTH RATES OF TOURISM OF CYPRUS 1970-1992*

Parameter Estimates											
]	Parameter	Standard T	for HO:							
Variable	DF	Estimate	Error	Parameter=0	Prob > T						
INTERCEP	1	11.928437	0.17521591	68.079	0.0001						
YEAR R ² 0.7708	1	0.107390	0.01277893	8.404	0.0001						

*Annual Data

Parameter Estimates													
Parameter Standard T for HO:													
Variable	DF	Estimate	Error	Parameter=0	Prob > T								
INTERCEP	1	12.363499	0.11187783	110.509	0.0001								
YEAR	1	0.144512	0.01138241	12.696	0.0001								
INV1	1	-1.340321	0.19049079	-7.036	0.0001								
LEB1	1	-1.014480	0.18298913	-5.544	0.0001								
GULF1 R ² 0.9443	1	-0.325334	0.23858142	-1.364	0.1895								

MODEL 4 ESTIMATED GROWTH RATE OF TOURISM OF CYPRUS 1970-1992*

*Annual Data

¹Tour = $a e^{\beta t}$ <u>d Tour</u> = $\beta a e^{\beta t} = \beta$ Tour <u>dt</u> <u>dt</u> <u>d Tour/dt</u> = <u> β Tour</u> = β <u>Tour</u> Tour

REGIONALISM OF TOURISM IN CYPRUS

Another indication of the effects that military invasion or a political conflict have on tourism is the growth of the supply of number of hotels and beds at different regions in Cyprus. Table 2 shows the regionalism of tourism in Cyprus from 1971-1992 by reporting the number of hotels and beds by region and year from 1971 to 1992. In 1974 about 64% bed capacity and 55% of hotels in Cyprus were located in Famagusta and Kyrenia which are now in the Turkish occupied area. After the Turkish invasion the tourism industry was in a chaotic situation by losing more than one half of its hotels and bed capacity to the occupied zone. However, as a result of a visionary, sound, aggressive, well developed and managed Tourism Plan, the government of the Republic of Cyprus with the assistance of the private sector developed the tourist industry to unparallel levels.

Most of the growth of tourism after the invasion was in Ayia Napa/Paralimni area located a few miles south of occupied city of Famagusta, which before the invasion boosted about 50% of bed capacity in Cyprus. The development of Ayia Napa/Paralimni was a natural extension of Famagusta's reputation, as the metropolis of Cyprus tourism, and for exploiting the beautiful sandy beaches and clear waters of the east coast of Cyprus. Today, Ayia Napa/Paralimni shares 31% of the total hotel capacity and 23% of the total hotels in Cyprus. The Tourism growth also exploded in the cities of Larnaca, Limassol and Paphos. Tourism developed in these towns because in addition to their advanced infrastructure, natural beauty, extended beaches and historical monuments, they provide a feel of security by locating away from the "greenline" separating the Greek and Turkish controlled areas.

ECONOMIC EFFECIS OF TOURISM ON CYPRUS ECONOMY

Although the economic effects of tourism on the economy of Cyprus is beyond the purpose of this paper the authors will show the overall effects of tourism on different sectors of the economy to indicate further the economic consequences of political instabilities.

		Turkish	Invasion	
	1973	1974	1975	1992
T-t-l Bassiste Tourism Of million	23.8	13.9	5.4	694.00
Total Receipts Tourism C£ million	14.2	8.3	3.8	39.95
Tourism Receipts/Total Foreign Currency %	7.2	6.5	2.1	23.05
Tourism Receipts/GDP %	18.1	12.0	3.5	45.05
Tourism Receipts/Exports Good & Services %	41.6	26.8	10,3	168.20
Tourism Receipts/Exports of Goods %		13.3	6.3	53.70
Tourism Receipts/Invisible Earnings %	24.4	2.1	.9	13.70
Tourism Employment/Total Employment %	1.45	2.1		

MODEL 5 SUMMARY OF THE SECTORAL ECONOMIC EFFECTS OF POLITICAL INSTABILITIES IN CYPRUS CAUSED BY CHANGES IN TOURIST INDUSTRY

It is evident from the above model that tourism industry is very vital to the Cyprus economy and that any international economic or political instability will have a very influential effect on the sectoral and overall performance of the Cyprus economy.

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TABLE 2 REGIONALISM OF TOURISM IN CYPRUS, 1971-1974 Number of Hotels and Bods								
T 1	Daabaa	Minada		A				

Year	-	/renia els/B e ds		nagusta els/Beds		naca s/Beds		nassol Is/Beds		phos ls/Beds		cosia ls/Beds		Resorts Is/Beds		Napa Is/Beds	Para Hot e ls		-	Fotal
1971	10	779	28	2545	1	66	14	1011	3	117	27	2134	58	2761			-	-	141	9,413
1974	24	1882	40	6471	2	283	10	1212	3	280	19	1855	18	1067			-	-	116	13,050
1975					1	57	10	967	4	309	16	1354	16	1067	1	126	-	-	47	3,880
1976					4	203	11	1308	4	324	16	1444	16	1076	1	326	-	-	52	4,681
1977					4	249	11	1408	5	441	18	1565	16	1076	1	326	-	-	55	5,065
1978					6	495	12	1486	6	754	18	1555	16	1056	3	686	3	686	61	6,032
1979					8	894	17	2541	9	958	19	1555	15	1013	3	898	3	898	70	7,858
1980					9	967	19	2782	10	1146	19	1607	15	1049			3	1020	75	7,571
1981					14	1626	23	3312	11	1326	21	1912	16	1111	3	875	3	692	91	10,854
1982					15	1963	27	3935	12	1489	23	2152	19	1215	4	1152	3	690	103	12,596
1983					19	2502	30	4447	13	1528	21	2096	20	1241	9	2045	3	690	115	14,549
1984					22	3082	32	4652	15	1750	21	2121	19	1098	11	2734	3	803	123	16,244
1985					24	3292	32	4678	18	2583	18	1986	19	1099	14	3441	4	1117	129	18,196
1986		-+			26	3568	36	5204	21	2825	20	2093	20	1181	14	3525	5	1217	142	19,586
1987					25	3623	39	6085	23	3028	20	2093	19	1149	15	3829	7	1750	148	21,557
1988					26	3636	39	6185	26	3934	21	2138	21	1202	21	4412	8	1798	162	23,305
1989					31	4016	41	6837	28	4792	21	2138	21	1272	23	5087	9	1978	174	26,120
1990					34	4566	44	7484	33	5870	19	2073	18	1198	25	5424	12	2934	185	29,549
1991					35	4659	46	8529	38	701 0	19	1973	19	1221	28	6139	13	3341	198	32,872
1992					35	4677	48	9505	44	8443	17	185 3	20	1383	33	7230	16	4522	213	37,613

Source: Cyprus Tourism Organization; Annual Report, 1971-1992, Nicosia, Cyprus.

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TOURISM DENSITY; CONTACT RATIO AND SOCIAL CARRYING CAPACITY OF TOURISM IN CYPRUS

The change in the regional growth of tourism in Cyprus due to the Turkish invasion, has influenced also the social behavior and values of certain segments of Cyprus population. In Ayia Napa for example, the influx of large numbers of tourists has influenced social behavior and values and caused certain amount of antagonism. This type of resentment was explained by Bryden (1973) as follows:

"there may be a relationship between tourism density, expressed in the annual numbers of tourists as a proportion of the population... and the growth of resentment towards tourists...The inference here is that tourism density...is an indicator of the degree of confrontation between tourists and indigence and that this confrontation give rise to resentment of tourists."

The above relationship of tourism density is often used to measure the social carrying capacity which according to Mathieson and Wall (1982) is defined as "host peoples' levels of tolerance for the presence and behavior of tourists". The tourism density is estimated as the ratio of tourist population to local population. An alternative measure to tourism density is the contact ratio which is defined by Andronikou (1979) as the inverse of tourism density, that is the ratio of local population to tourist population. Andronikou estimated the annual average contact ratio of Ayia Napa in 1985 as 3.0. The contact ratio in big cities was higher. In Limassol it was 19.15, Larnaca 24.4, and Paphos 17.7. According to Witt (1991) the extreme concentration of tourists result in a modification of social attitudes among young people, especially towards sexual behavior. Witt states that a high concentration of tourists introduces "foreign ideologies and ways of life into societies that have not been exposed to tourist lifestyles." The close and continued contact of Cypriot youth with young foreign tourists has resulted in them adopting different sets of values on morality, style of dressing, and so on, in comparison with prevailing traditional attitudes, and as a result the bonds of closely knit families are in some cases being loosened.

SUMMARY

In short, political instabilities in Cyprus or in neighboring countries had a detrimental effect on the tourism of Cyprus. This study used four regression models. The first two models regressed the total number of tourists to Turkish invasion (INV), Lebanese conflict (LEB), and Gulf war (GULF). The models differed in the definition of the dummy variables that are supposed to reflect the political instabilities. The results for both models are showing high negative T-values with very significant R². It shows that Turkish invasion caused on the average a loss of 526,921 tourists annually. The effect of Lebanese conflict implied both a positive and a negative effect on the tourist industry. The Gulf war exerted an insignificant effect on the overall average growth of tourism. Models 3 and 4 regressed the logarithm of the tourism variable on the time variable to estimate the growth rate of tourism in Cyprus with and without political instabilities. It was estimated that the average growth rate of tourism in Cyprus was negatively affected by the internal and external political instabilities. The growth rate of tourism in Cyprus was estimated to be 10.7%, but it could have been 14.5% in the absence of political instabilities. This macro effect influenced at times negatively several sectors of the economy such as foreign exchange receipts, gross domestic product, and employment. The regional changes of tourism caused by the Turkish invasion has altered the tourism density in Cyprus and thus its social carrying capacity. In regions such as Ayia Napa/Paralimni, the influx of large numbers of tourists has affected the social behavior and values of natives and caused an antagonism toward tourists. For a country such as Cyprus that tourism is very vital to its economic growth (23% of GDP; 40% of foreign currency; 168% of exports of goods; 54% of invisible earnings; and 14% of total employment) any political disturbance that will affect negatively tourism, it will have detrimental effects on the country's economy.

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