

Table 1 Tourists coming to Taiwan from 1981 to 2016 (by origin tourism countries)

Unit: person %

Year	Asia	%	Americas	%	Europe	%	Oceania	%	Africa	%	Others	%	In total
1981	720,072	83.72	76,120	8.85	32,836	3.82	8,265	0.96	9,893	1.15	6,618	0.77	860,073
1986	824,447	86.86	76,906	8.10	17,337	1.83	6,745	0.71	2,709	0.29	17,767	1.87	949,198
1991	751,308	90.91	46,852	5.67	14,260	1.73	4,227	0.51	2,033	0.25	5,626	0.68	826,441
1996	812,984	89.88	53,252	5.89	21,186	2.34	5,775	0.64	1,053	0.12	8,284	0.92	904,489
2001	879,845	88.79	73,848	7.45	18,409	1.86	6,758	0.68	893	0.09	9,821	0.99	990,874
2002	922,784	89.71	77,834	7.57	18,960	1.84	7,711	0.75	893	0.09	453	0.04	1,028,635
2003	618,078	88.90	55,006	7.91	14,590	2.10	6,370	0.92	745	0.11	488	0.07	695,277
2004	902,797	87.50	91,167	8.84	24,299	2.36	12,500	1.21	793	0.08	157	0.02	1,031,713
2005	1,242,751	89.95	96,780	7.00	25,724	1.86	14,475	1.05	763	0.06	1,144	0.08	1,381,637
2006	1,358,781	89.97	107,000	7.09	29,496	1.95	14,076	0.93	727	0.05	127	0.01	1,510,207
2007	1,475,396	89.50	117,172	7.11	35,738	2.17	19,483	1.18	657	0.04	61	0.00	1,648,507
2008	1,574,236	88.68	127,495	7.18	48,098	2.71	24,535	1.38	809	0.05	56	0.00	1,775,229
2009	2,078,123	90.42	136,224	5.93	56,237	2.45	26,970	1.17	699	0.03	81	0.00	2,298,334
2010	3,014,703	92.87	146,687	4.52	53,687	1.65	30,083	0.93	781	0.02	64	0.00	3,246,005
2011	3,410,477	93.85	136,442	3.75	54,539	1.50	31,326	0.86	976	0.03	96	0.00	3,633,856
2012	4,432,417	94.76	145,520	3.11	61,545	1.32	36,830	0.79	952	0.02	66	0.00	4,677,330
2013	5,222,063	95.31	151,411	2.76	65,908	1.20	38,575	0.70	909	0.02	233	0.00	5,479,099
2014	6,886,203	95.75	180,818	2.51	80,020	1.11	43,757	0.61	1,131	0.02	166	0.00	7,192,095
2015	7,191,874	95.82	190,298	2.54	82,632	1.10	39,232	0.52	1137	0.02	284	0.00	7,505,457
2016	7,192,696	95.13	225,176	2.97	98,803	1.30	42,555	0.56	1178	0.02	345	0.00	7,560,753

Source: Organised from years of “Monthly Tourism Statistics”, Tourism Bureau, MOTC.

Table 2 Tourists coming to Taiwan from 1981 to 2016 (Based on area)

Unit: Person

Year	Mainland China	Japan	Hong Kong	Malaysia	Singapore	Korea	America
1981	--	532,359	9,591	52,166	37,897	14,788	66,568
1986	--	585,143	122,075	39,613	25,623	10,661	68,878
1991	--	594,281	40,365	10,600	16,375	69,957	41,598
1996	--	605,673	87,890	16,504	21,117	58,283	45,568
2001	--	575,613	87,034	15,730	18,205	35,026	45,519
2002	--	497,928	113,093	12,681	18,330	6,842	48,678
2003	--	481,544	148,211	12,355	16,410	10,604	49,407
2004	--	527,074	177,983	12,728	16,511	12,145	58,838
2005	--	590,786	220,711	15,906	21,637	12,650	60,232
2006	--	587,170	237,402	21,090	29,053	11,593	62,464
2007	--	323,375	187,270	25,250	23,367	21,471	43,819
2008	--	460,231	259,887	40,504	42,733	47,481	73,229
2009	--	677,937	276,153	52,993	82,221	67,354	77,133
2010	--	721,351	274,222	59,295	98,383	77,254	86,239
2011	--	737,638	321,405	82,017	115,322	102,233	92,724
2012	63,790	674,506	426,890	95,538	121,286	124,216	97,854

2013	539,106	662,644	538,474	107,414	121,988	64,794	103,557
2014	1,228,086	701,561	560,082	209,930	157,046	99,241	111,093
2015	1,290,933	902,733	553,757	230,368	214,113	133,793	101,673
2016	2,019,757	1,037,067	612,826	262,935	243,034	158,205	106,843
1981	2,263,635	1,019,113	1,009,862	307,755	273,245	241,440	111,016
1986	3,393,346	1,195,340	1,174,567	339,110	278,919	390,768	131,714
1991	3,437,425	1,187,552	1,308,290	321,270	290,180	508,226	143,140
1996	2,845,547	1,379,233	1,397,233	339,710	292,240	693,224	166,044

Source: The same as Table 1.

Table 3 Estimated Results of X-13ARIMA Model for Tourism Seasonality of Tourists Coming to Taiwan

Variable	Hong Kong		Japan		Korea		Singapore		Malaysia		Thailand		United		All	
	coeff icien	t value	coeff icien	t value	coeff icien	t value	coeff icien	t value	coeff icien	t value	coeff icien	t value	coeff icien	t value	coeff icien	t value
AR(1)					-0.45								0.18	3.54*		
MA(1)	0.79		0.65		0.47		0.67	10.92*	0.76	15.88*	0.70	14.72*	0.74	15.06*	0.35	3.37*
SAR(1)	0.99		-0.19		-0.55											
SMA(1)			0.62		-0.26		0.70	12.01*	0.58		0.75	14.12*	0.61	9.63*	0.65	15.02*
SMA(2)					0.50				0.55							
Outliers																
2002.Dec									0.64	5.91*						
2002.Sep					-0.68	-4.42*										
2002.Feb																
2002.Mar													0.35	4.15*		
2003.Apr	-1.10	-6.83*	-1.34	-13.26*	-1.75	-10.96*	-2.66	-20.00*	-2.59	-14.55*	-1.88	-8.72*	-0.66	-6.12*	-1.19	-14.1*
2003.Aug													0.45	5.11*	0.43	5.90*
2003.Sep									0.55	4.25*						
2003.Jun			-0.82	-7.58*									1.26	4.90*	-0.47	-5.52*
2003.Jul	2.87	17.77*	1.74	17.84*	1.72	11.55*	1.88	15.71*	1.18	8.49*	1.74	9.94*	-0.67	-8.68*	1.18	11.94*
2003.May	1.50	5.69*	-2.34	-22.02*	-1.12	-6.67*	-3.55	-26.88*	-4.17	-31.50*	-1.21	-5.15*	-1.99	-19.63*	1.26	4.90*
2003.Nov					0.59	4.34*										
2004.Mar							-0.57	-4.91*								
2004.Jan			-0.41	-4.52*												
2009.Apr															0.30	4.51*
2009.Feb					-0.69	-5.13*			-0.62	-5.37*						
2009.Jun									-0.55	-4.80*					-0.25	-4.73*
2012. Oct	-1.47	-10.76*														
2012.Dec	0.50	4.84*														
Ljung-Box O	25.8		24.1		30.2		12.3		29.3		15.2		18.4		21.8	
Q	5		3		6		5		8		8		9		1	
Q	0.52		0.57		0.42		0.36		0.86		0.65		0.45		0.43	

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Q2	0.57	0.61	0.42	0.34	0.59	0.64	0.46	0.47
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Note:\* The table content is below the 5% significant level, and the coefficient of zero is abandoned as null hypothesis.