

APEX 泰鼎

Sam Wu, CSO



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Company Profile

Founded: 2001.09.27

Listed: 2011.10.18 in OTC

2015.09.08 in TSE

Capital: NTD1.89Bn (as of Mar., 2020)

Market Cap: NTD8.9Bn (as of Mar., 2020)

Chairman: Woody Wang

CEO: Bill Chou

Products: Printed Circuit Boards

Ground Area: 148,680 M² in Samutsakorn

Apex 1: 35,000 M², Apex 2: 105,000 M²

Apex S: 8,680 M² (obtained in 2020)

Employees: 6,687 (as of March, 2020)

Physical Lab: R&D Center, in-house testing Lab in 2019





Production Capacity: (monthly)



Plant	Dec. 31 2019	Jan. 1, 2020	Apr. 1, 2020	Jul. 1, 2020	Future
APEX 1	250,000 m ²	250,000 m ²	280,000m ²	280,000m ²	280,000m ²
APEX 2	250,000m ²	250,000m ²	250,000m ²	300,000m ²	300,000m ²
APEX S	n. a.	100,000m ²	100,000m ²	170,000m ²	170,000m ²
APEX 3	n. a.	n. a.	n. a.	n. a.	250,000m ²
	500,000m ²	600,000m ²	630,000m ²	750,000m ²	1,000,000m ²



APEX 3 Expansion Plan: Jan., 2020 to Q3, 2021



■ Apex 2 Phase 1 = 18,095 m²
111m(L) x 163m(W)
Capacity: 340,000 m²/Month
MP Q3 '2020

■ Apex 3 Phase 2 = 7,920 m²
120m(L) x 66m(W)
Capacity: 250,000 m²/Month
MP 2021: Automotive + HDI

■ TBC: Future plan



Advantages



Excellent Management

- ◆ Centralized sale and procurement



Integrated Total Solution

- ◆ All manufacturing processes in-house



Cost Control

- ◆ Efficient cost control



Map of Thailand showing the distribution of major industries by province. The map is color-coded by region: North (blue), Northeast (orange), Central (green), East (red), South (purple), and South-East (brown). Lines connect specific provinces to text boxes listing major industries and their percentages. For example, Bangkok is connected to Hitachi (refrigerators, 67%), Sharp (air conditioning, 35%), and Seagate (HDD, 42.0%). Other provinces like Nakhon Ratchasima, Chiang Mai, and Phuket are also connected to various industries like LCD TVs, motorcycles, and air conditioning units. A legend at the bottom right explains the notation: () represents the percentage of production in Thailand relative to global production, and red text indicates important industries.

Legend: () represents the percentage of production in Thailand relative to global production. Red text indicates important industries.

Major Industries and Provinces:

- Bangkok:** Hitachi/冰箱(67%)/洗衣機(30%) Bangrak; Sharp/冷氣(35%)/冰箱(33%)/洗衣機(28%) Bangrak; Seagate/HDD Korat (42.0%); Seagate/HDD Teparuk (42.0%); Honda/電動機車 Lat Krabang (10%); Toshiba/冷氣(80%)/冰箱(73%)/洗衣機(22%) 乍都節; Daikin/冷氣 chonburi (34%); 三菱電機/冷氣(63%)/冰箱(73%) chonburi; Yamaha/電動機車 Bangsao(10%); Suzuki/電動機車 Bangsao(5%); 宗申/電動機車 Bangsao(10%); Nikon/數位單眼 Sathorn (84%); Pioneer/car audio Huaykwang (39%); Fujitsu/car audio(20%), 冷氣(44%) Klongtoey; 船井/Lcd tv(36%) Nakhon Ratchasima; 三星/LCD TV(6%)/冰箱(13%)/洗衣機(14%) 空提縣; LG/LCD TV /洗衣機(12%) 空堤縣; WD/HDD Navanakorn(47.1%); Electrolux/洗衣機(23%) Bangrak; Kawasaki/電動機車 才華光(28%); Panasonic/Car Audio(15%)/冰箱(21%)/洗衣機(9.5%) Huaykwang; ORION/LCD TV Korat (100%); 華碩/數位單眼 Sathorn (84%); Sony/car audio(78%), 數位單眼(88%) Huaykwang (78%); 三星/LCD TV(6%)/冰箱(13%)/洗衣機(14%) 空提縣; LG/LCD TV /洗衣機(12%) 空堤縣;
- Chiang Mai:** 三星/LCD TV(6%)/冰箱(13%)/洗衣機(14%) 空提縣; LG/LCD TV /洗衣機(12%) 空堤縣;
- Phuket:** 三星/LCD TV(6%)/冰箱(13%)/洗衣機(14%) 空提縣; LG/LCD TV /洗衣機(12%) 空堤縣;
- Other Provinces:** 三星/LCD TV(6%)/冰箱(13%)/洗衣機(14%) 空提縣; LG/LCD TV /洗衣機(12%) 空堤縣;

Advantages

近年國際大廠布局以汽車為主

Schaeffler

設廠位置:春武里府
設廠內容:2016年投資2.4億美元生產汽車變速器零組件，供貨給Honda、Mitsubishi、GM、Toyota等車廠

愛知製鋼

設廠位置:春武里府
設廠內容:投資2億美元設廠，生產變速箱，供貨給Toyota、Hino、JATH等汽車廠商

DENSO

設廠位置:春武里府
設廠內容:2017年投資7,000萬美元建置電動馬達零組件產線，供貨給Nissan、Honda、Mitsubishi、Toyota等車廠

Continental

設廠位置:羅勇府
設廠內容:2017年投資3億美元，預訂2019年開始生產汽車輪胎



產業科技國際策略發展所 資料來源：產科國際所機械組

No. 1 Capacity in Thailand

泰國電路板廠主要集中在曼谷週邊

泰國電路板廠商生產據點分佈

依利安達

- 主要產品:硬板
- 主要應用市場:汽車
- 每月產能8.4萬平方米

MEKTEC

- 主要產品:軟板
- 主要應用市場:硬碟、汽車

競億

- 主要產品:硬板
- 主要應用市場:汽車
- 每月產能10.5萬平方米

泰鼎

- 主要產品:硬板
- 主要應用市場:硬碟、消費性電子、汽車
- 2017擴產後每月45萬平方米

協峰銘版

- 主要產品:硬板
- 主要應用市場:家電

Canon

- 主要產品:硬板
- 主要應用市場:辦公設備

YKC

- 主要產品:硬板
- 主要應用市場:家電

KCE

- 主要產品:硬板
- 主要應用市場:汽車
- 每月產能28萬平方米

CMK

- 主要產品:硬板
- 主要應用市場:汽車
- 每月產能10萬平方米

Fujikura

- 主要產品:軟板
- 主要應用市場:硬碟、汽車

敬鵬

- 主要產品:硬板
- 主要應用市場:汽車
- 每月產能18萬平方米

KYODEN

- 主要產品:硬板
- 主要應用市場:汽車、家電



產業科技國際策略發展所 資料來源: NTI;TPCA;工研院產科國際所



Global Presence



Valuable Customers





World-Class PCB Partners

2019 TV PCB
Global Share
(43/223Mset)



2019 STB PCB
Global Share
(40/240Mset)



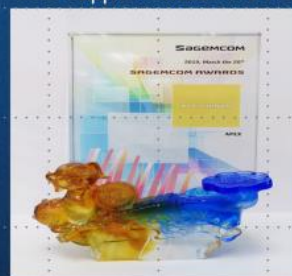
2019 Printer PCB
Global Share
(26/94Mset)



Samsung VD
VD Global Partner in 2019



Sagemcom
Best Supplier Awards in 2019



Canon Hi-Tech
Best Supplier Awards in 2019



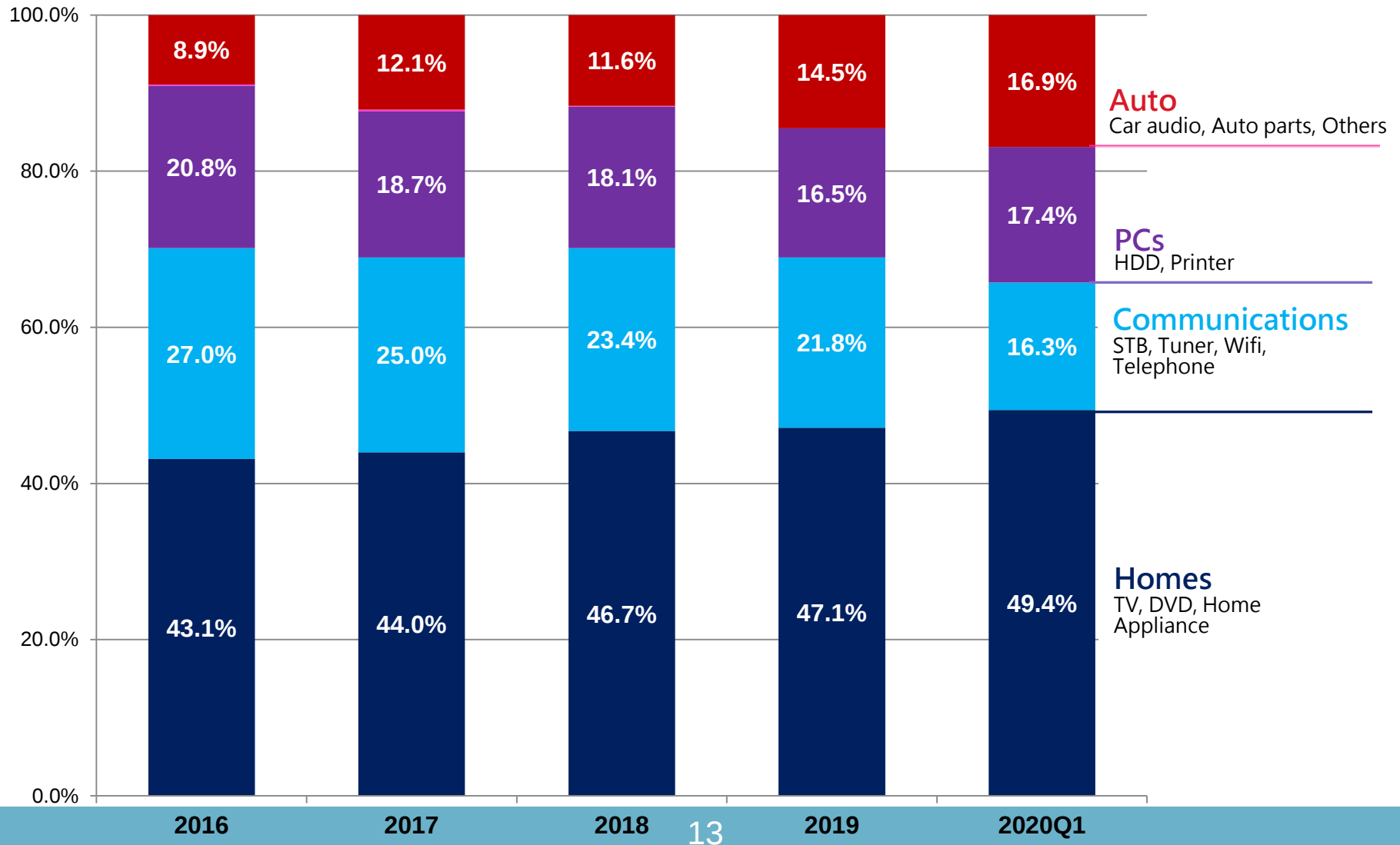


Best Supplier Awards



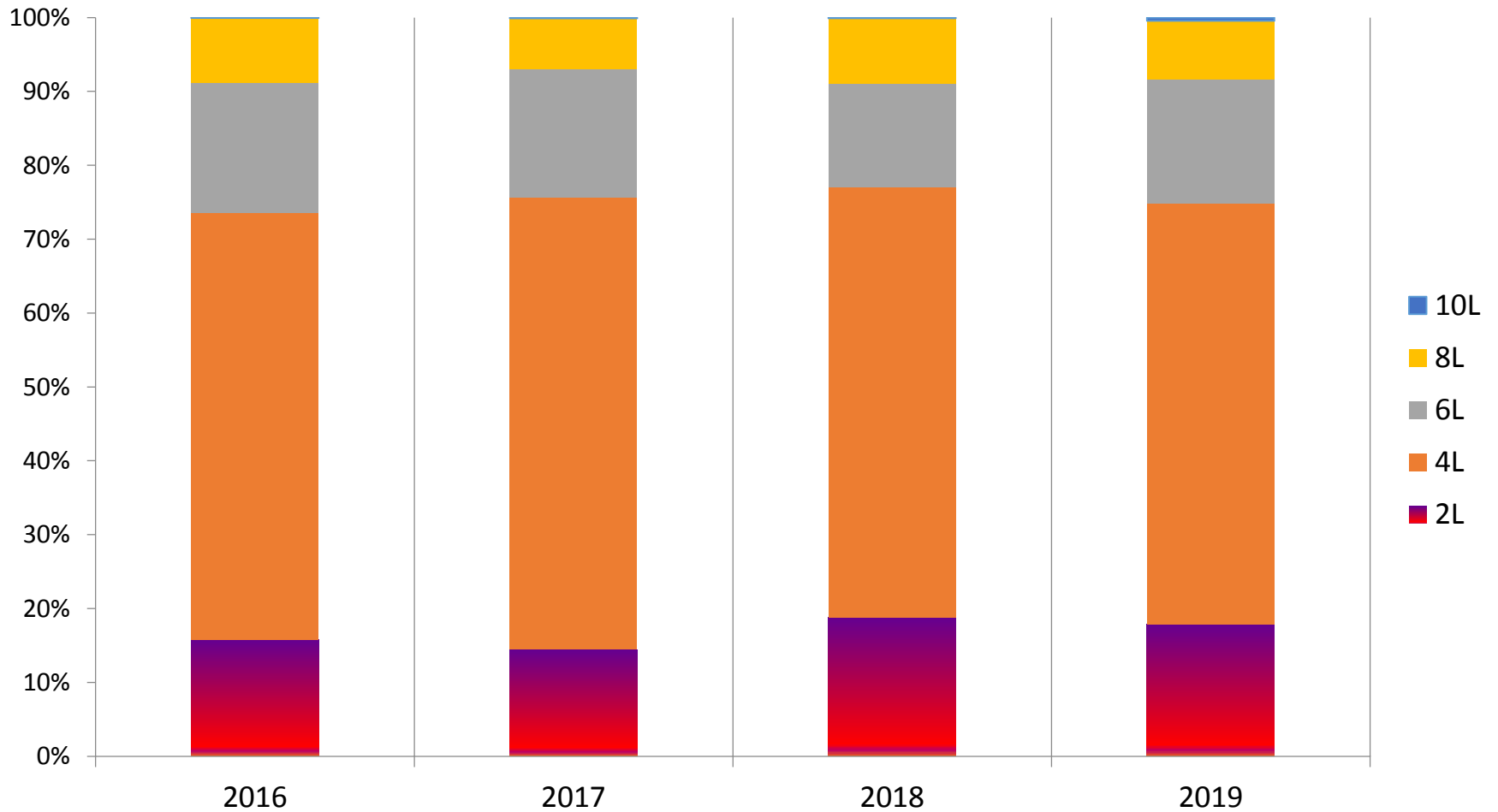


End Products



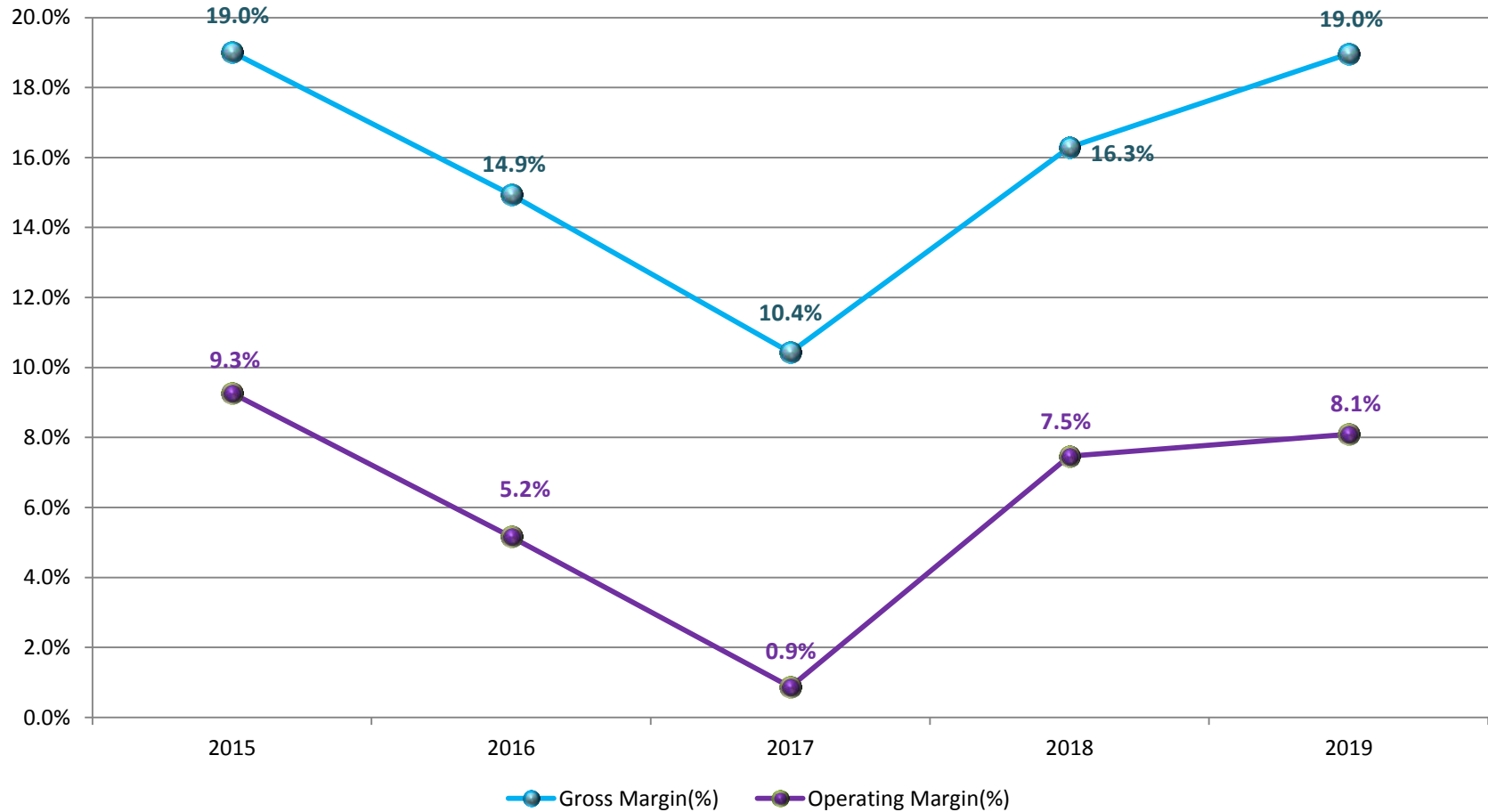


Layer Count



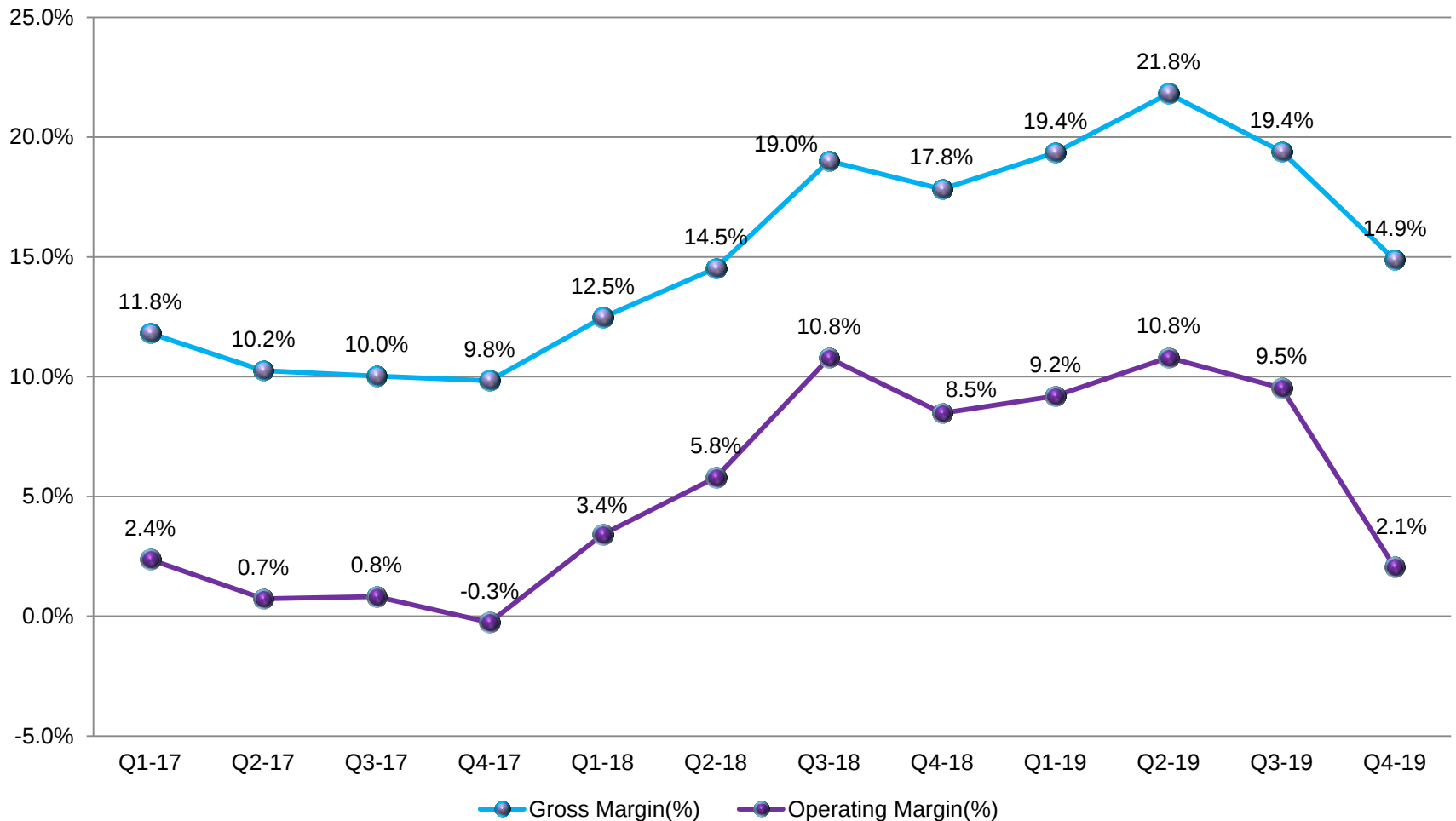


Gross & Operating Margin:



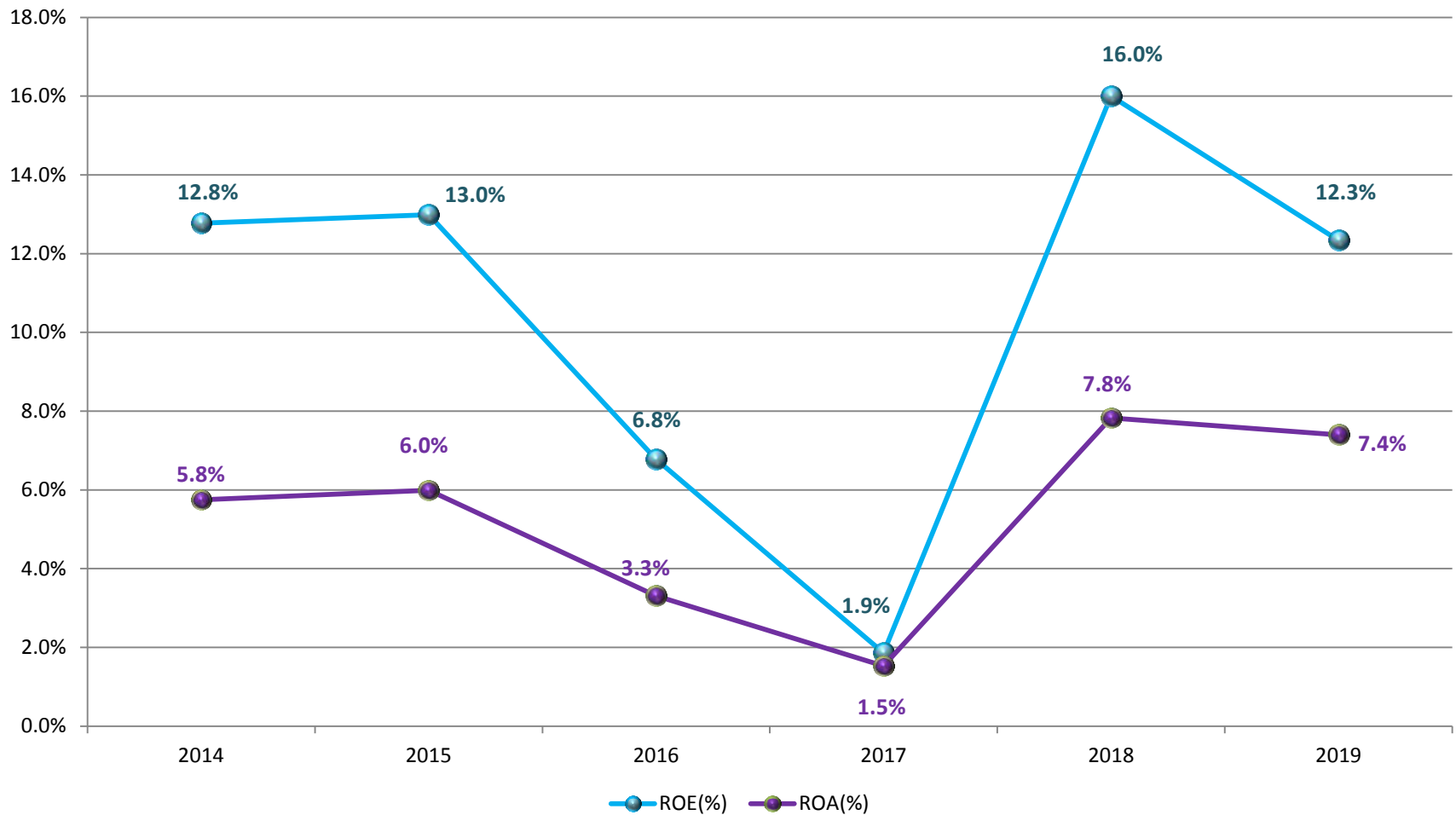


Gross & Operating Margin:



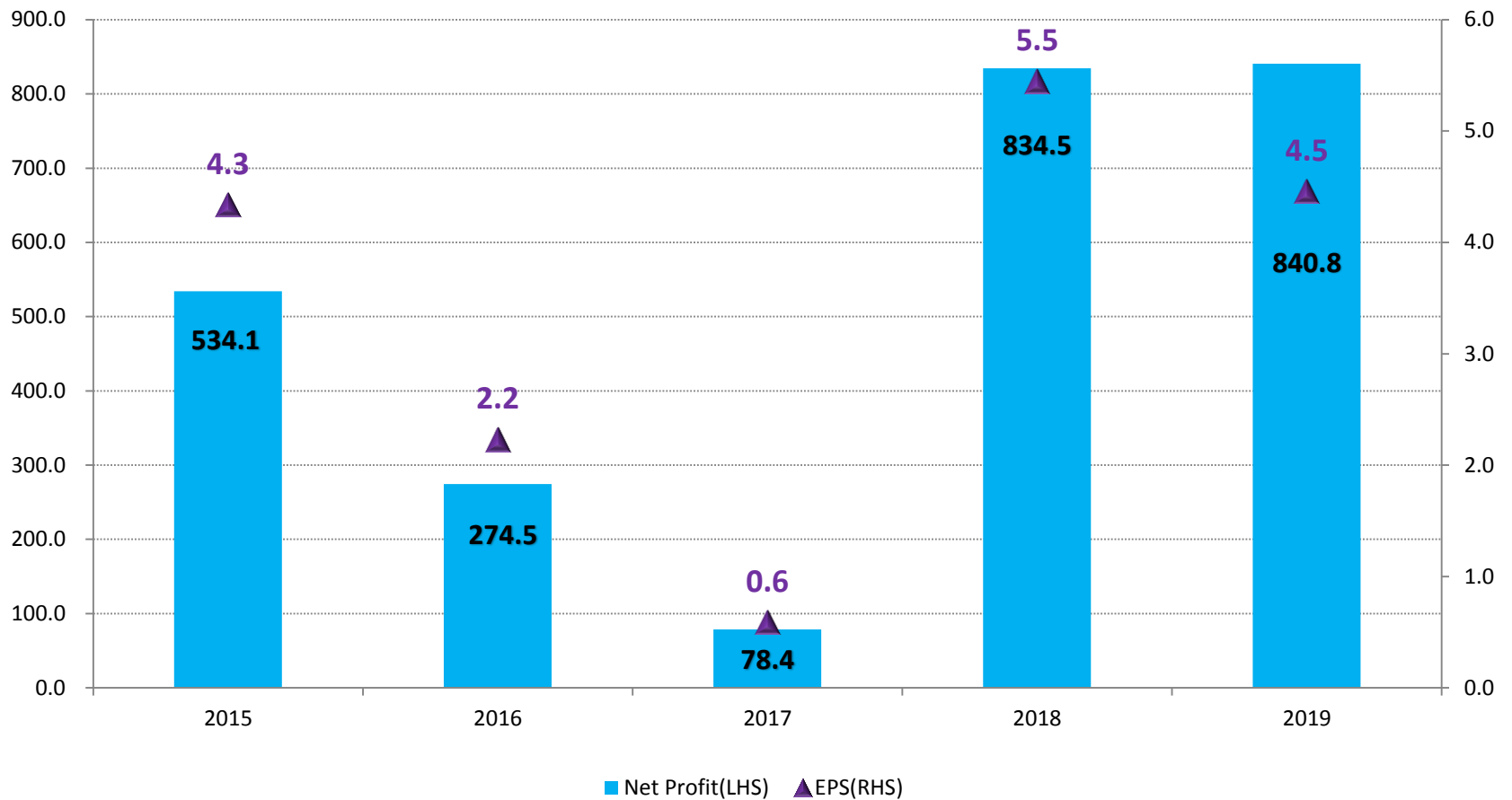


ROE and ROA:





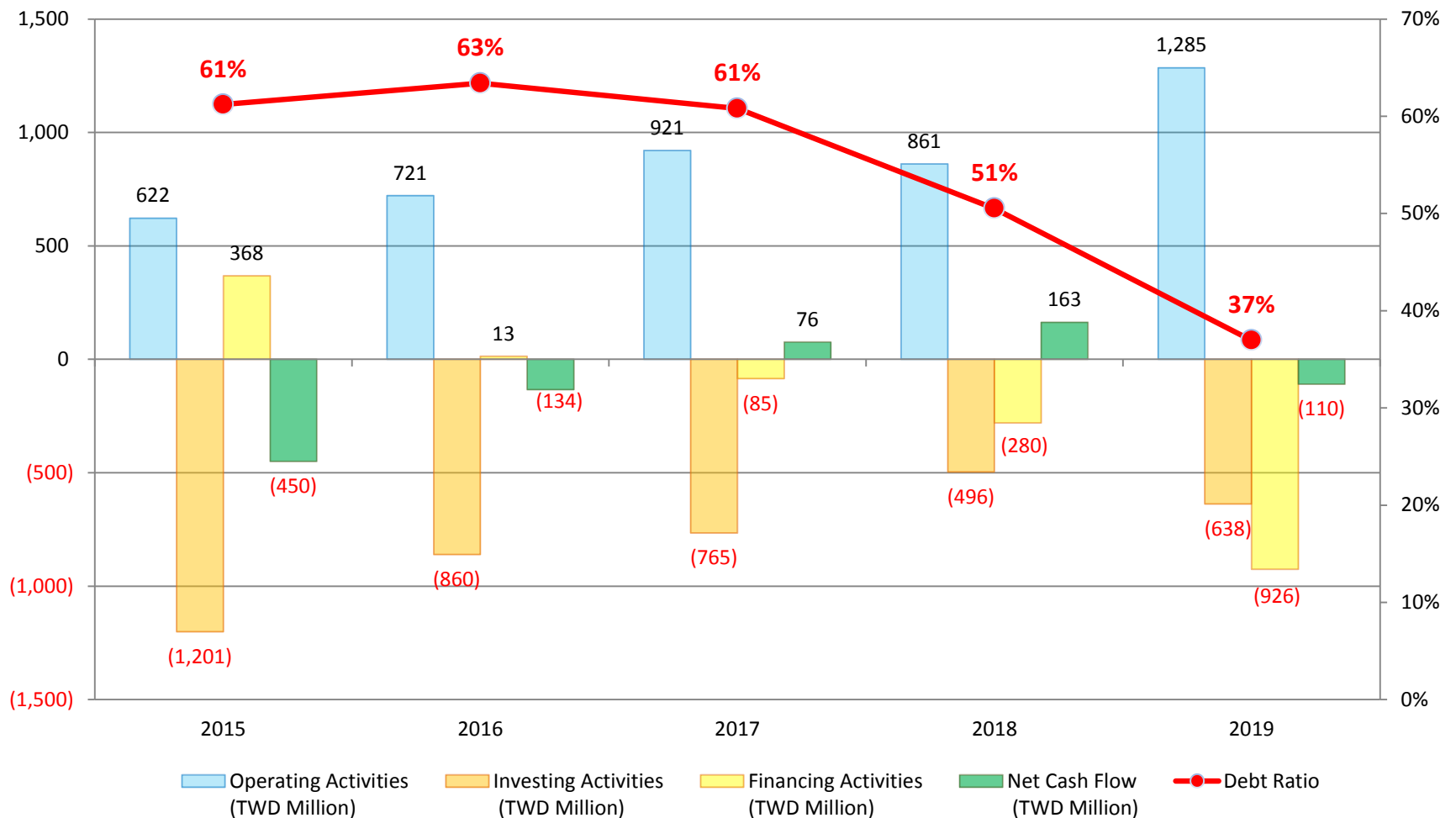
Net Profit and EPS



*Based on weighted shares of 185.5 million as of 2019



Improving Cash flow and Financial Structure





Dividend Policy

Year	Cash Dividend	Stock Dividend	EPS	AGM Date
2019	3.00*	-	4.46	June 5
2018	2.46	-	5.45	June 5
2017	0.00	-	0.59	June 15
2016	0.78	0.32	2.23	June 15
2015	2.50	-	4.34	June 15
2014	2.50	-	4.06	June 2
2013	1.85	-	3.70	June 25

*Based on fully-diluted shares



Apex Fighting Covid-19

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全國宵禁將於2020年4月3日開始

從周五開始，泰國政府禁止採取一切措施遏制冠狀病毒的傳播，禁止泰國所有人從周五晚上10點至凌晨4點出門。

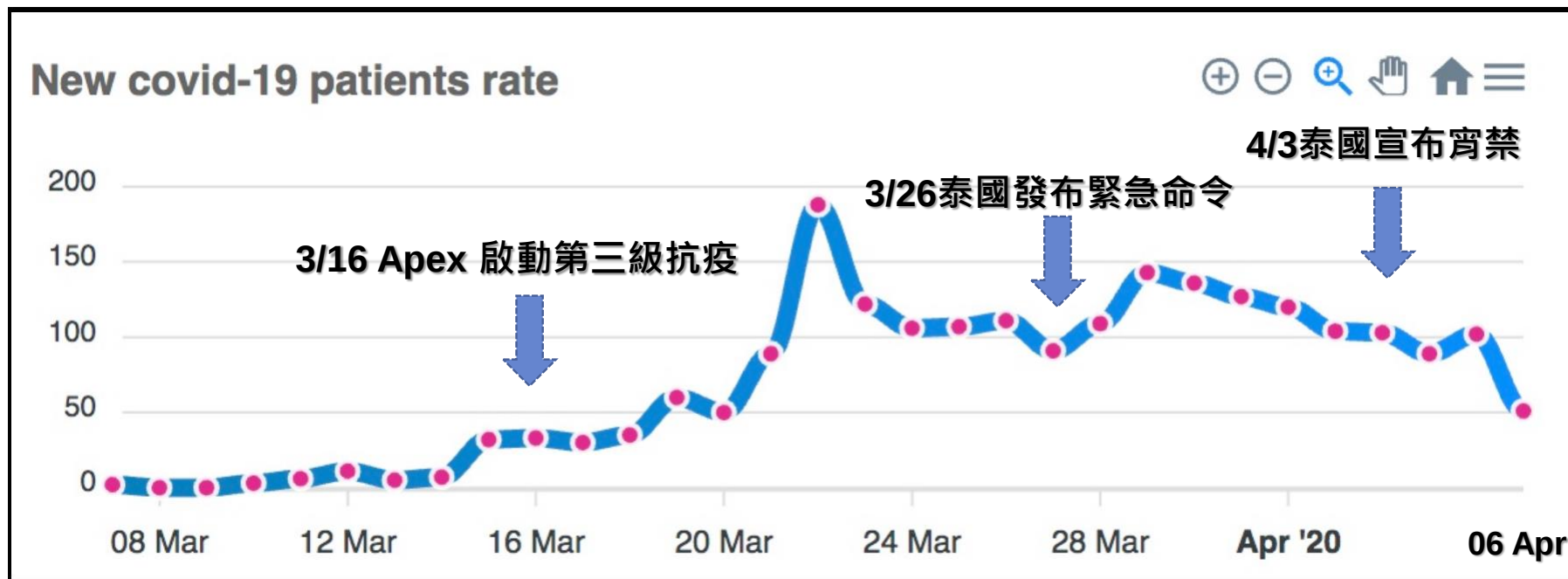
總理巴育星期四晚上宣布了宵禁。

豁免宵禁的有醫療和銀行人員，以及處理消費品，農產品，藥品，醫療用品和設備，報紙，汽油，郵政包裹或進出口產品的物流工人。也允許人們移動到隔離區。

其他豁免包括工作正常夜班的人員，或攜帶說明目的的必要文件進出機場的人員，或按公告或命令工作的人員以及因緊急情況而離開房屋的人員。

違反將導致不超過兩年的監禁和/或不超過40,000泰銖的罰款

截至4/6泰國Covid-19每日確診人數(4/6: 51人, 4/7: 38人)



資料來源: Bangkok Post



Confirmed Cases in Thailand: 2,220, Samutsakorn: 16

COVID-19 Over view status

Up to Date : 6 Apr 2020

Date	In Thailand				In Samutsakorn			
	Infected	Accu. Infected	Recover	Accu.Recover	Infected	Accu. Infected	Recover	Accu.Recover
Jan - Feb	42	42		28	0	0	0	1
1-Mar	0	42	2	30	0	0	0	0
2-Mar	1	43	1	31	0	0	0	0
3-Mar	0	43	0	31	0	0	0	0
4-Mar	0	43	0	31	0	0	0	0
5-Mar	4	47	0	31	0	0	0	0
6-Mar	1	48	0	31	0	0	0	0
7-Mar	2	50	0	31	0	0	0	0
Avg. of week 1	1	NA	0	NA	0	NA	NA	NA
8-Mar	0	50	2	33	0	0	0	0
9-Mar	0	50	0	33	0	0	0	0
10-Mar	3	53	0	33	0	0	0	0
11-Mar	6	59	1	34	0	0	0	0
12-Mar	11	70	1	35	0	0	0	0
13-Mar	5	75	0	35	0	0	0	0
14-Mar	7	82	0	35	0	0	0	0
Avg. of week 2	5	NA	1	NA	0	NA	NA	NA
15-Mar	32	114	2	37	0	0	0	0
16-Mar	33	147	1	38	0	0	0	0
17-Mar	30	177	3	41	0	0	0	0
18-Mar	35	212	1	42	0	0	0	0
19-Mar	60	272	0	42	0	0	0	0
20-Mar	50	322	1	43	0	0	0	0
21-Mar	89	411	1	44	2	2	0	1
Avg. of week 3	47	NA	1	NA	0.3	NA	NA	NA
22-Mar	188	599	1	45	2	4	0	0
23-Mar	122	721	7	52	0	4	0	0
24-Mar	106	827	5	57	1	5	0	0
25-Mar	107	934	13	70	3	8	0	0
26-Mar	111	1045	18	88	0	8	0	0
27-Mar	91	1136	9	97	0	8	0	0
28-Mar	109	1245	3	100	2	10	0	0
Avg. of week 4	119	NA	8	NA	1.1	NA	NA	NA
29-Mar	143	1388	11	111	1	11	0	0
30-Mar	136	1524	16	127	1	12	2	2
31-Mar	127	1651	215	342	0	12	0	2
1-Apr	120	1771	74	416	2	14	1	3
2-Apr	104	1875	89	505	1	15	0	3
3-Apr	103	1978	76	581	1	16	0	3
4-Apr	89	2067	31	612	0	16	1	4
Avg. of week 5	117	NA	73	NA	0.9	NA	0.6	NA
5-Apr	102	2169	62	674	0	16	0	4
6-Apr	51	2220	119	793	0	16	0	4



APEX Against Covid-19

Phase 1 : Started 24 Jan 2020

- 1) Announcement of Covid-19 precautionary measures follow "Ministry of Public Health" information to all employees.
- 2) Monitor and body temperature check, proper face mask usage and hand washing method
- 3) Install the alcohol-based hand washing points in public areas in factory
- 4) Abnormal case action
- 5) Set up Emergency Responsibility Team
- 6) Stock for Covid-19 preventive equipments to cover 3 months usage
- 7) Daily Reporting to management team



APEX Against Covid-19: Phase 1



1) Announcement of Covid-19 precautionary measures follow "Ministry of Public Health" information to all employees.



2) Temperature card tracking for all employees who come from aboard country, properly hand-washing and face mask regulation for 14 days period.



3) Install the alcohol-based hand washing points in public areas in factory



4) Abnormal case action



5) Set up Emergency Responsibility team



6) Stock for Covid-19 preventive equipments to cover 3 months usage

Carson Virus Preventive Policy Result Report @ Apex 1 and Apex 2

Date	Type	Plan R.T	Actual	Remark
01/05/2020	Hand Washing	81	81	0
	Temperature	0	0	0
	Temperature (Normal)	81	81	0
	Temperature (Abnormal)	0	0	0
01/05/2020	Temperature (Normal)	81	81	0
	Temperature (Abnormal)	0	0	0
	Temperature (Normal)	81	81	0
	Temperature (Abnormal)	0	0	0
Total		76	76	0

7) Daily reporting to management team

All process action cover
 - Apex 1: SamutSakhon Industrial Estate
 - Apex 2: Sin-Sakhon Industrial Estate
 - Apex 3: Shye Feng Enterprise





APEX Against Covid-19

Phase 2 : Started 05 Mar 2020

- 1) Announcement to strengthen the company precautionary measure and control in the 2nd stage of Covid-19 to all employees.
- 2) The visitors/vendors must show the medical certificate issued by the physician to before entering the company.
- 3) The visitors/vendors must fill in the interview form of Covid-19.
- 4) Temperature card tracking for all employees and visitors who come from abroad country and properly hand-washing, face mask regulation for 14 days period.
- 5) Safety Department to conduct random audit (5,000THB fine if violation).
- 6) Set the canteen controlled area for Chinese vendors.
- 7) Set the controlled area for the visitors and install additional alcohol-based hand washing points.



Against Covid-19: Phase 2



1) Announcement to strengthen the company precautionary measure and control in the 2nd stage of Covid-19 to all employees



2) The visitors/vendors/employees must show the medical certificate tested for Covid-19 before entering the company.



3) The visitors/vendors must fill in the interview form of Covid-19.



4) Temperature card tracking for all employees and visitors who come from abroad country and proper hand-washing , face mask regulation for 14 days period.



5) Safety Department randomly conduct the audit(5,000THB fine if violation).



6) Set the canteen controlled area for Chinese vendors.



7) Set the controlled area for the visitors and install additional alcohol-based hand washing points.

All process action cover
 - Apex 1: SamutSakhon Industrial Estate
 - Apex 2: Sin-Sakhon Industrial Estate
 - Apex S: Shye Feng Enterprise



APEX Against Covid-19: Phase 2





Against Covid-19:

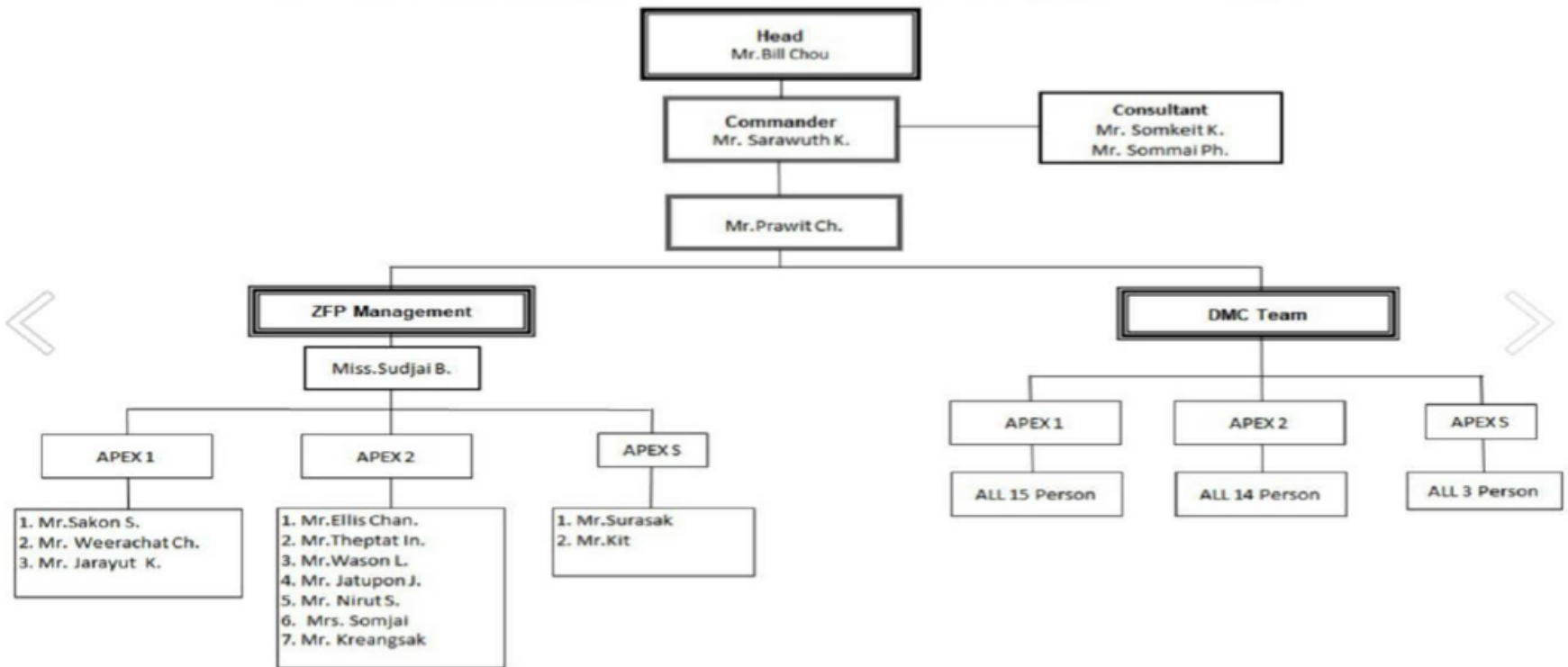
Phase 2.5 : Started 16 Mar 2020

- 1) Announcement to strengthen the company precautionary measure and control in the 2.5nd stage of Covid-19 to all employees
- 2) The visitors/vendors/employees must bring the medical certificate tested for Covid-19 to show before entering the company.
- 3) Temperature card tracking for all employees and Vendors who come from abroad country in the production line, proper hand-washing and face mask regulation for 20 days period.
- 4) Temporary yellow card for visitors/vendors to stay in the control area (do not go to the production line).
- 5) Set the Apex Protect Covid-19 (APC-19) committee to be responsible for Covid-19 preventive activity.



APEX Against Covid-19: Phase 2.5

APEX Protect Covid-19 (APC-19) Committee Organization Chart



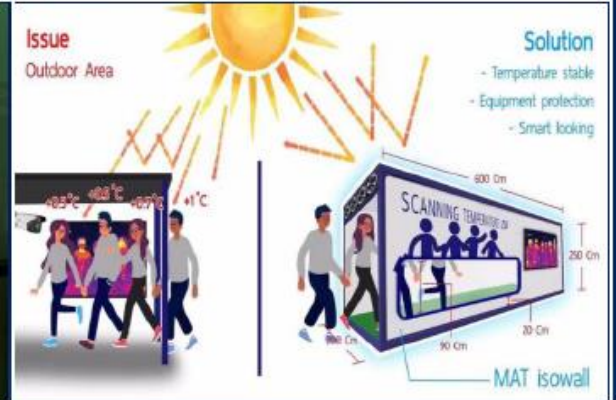


APEX Against Covid-19: Phase 2.5





APEX Against Covid-19: Phase 2.5

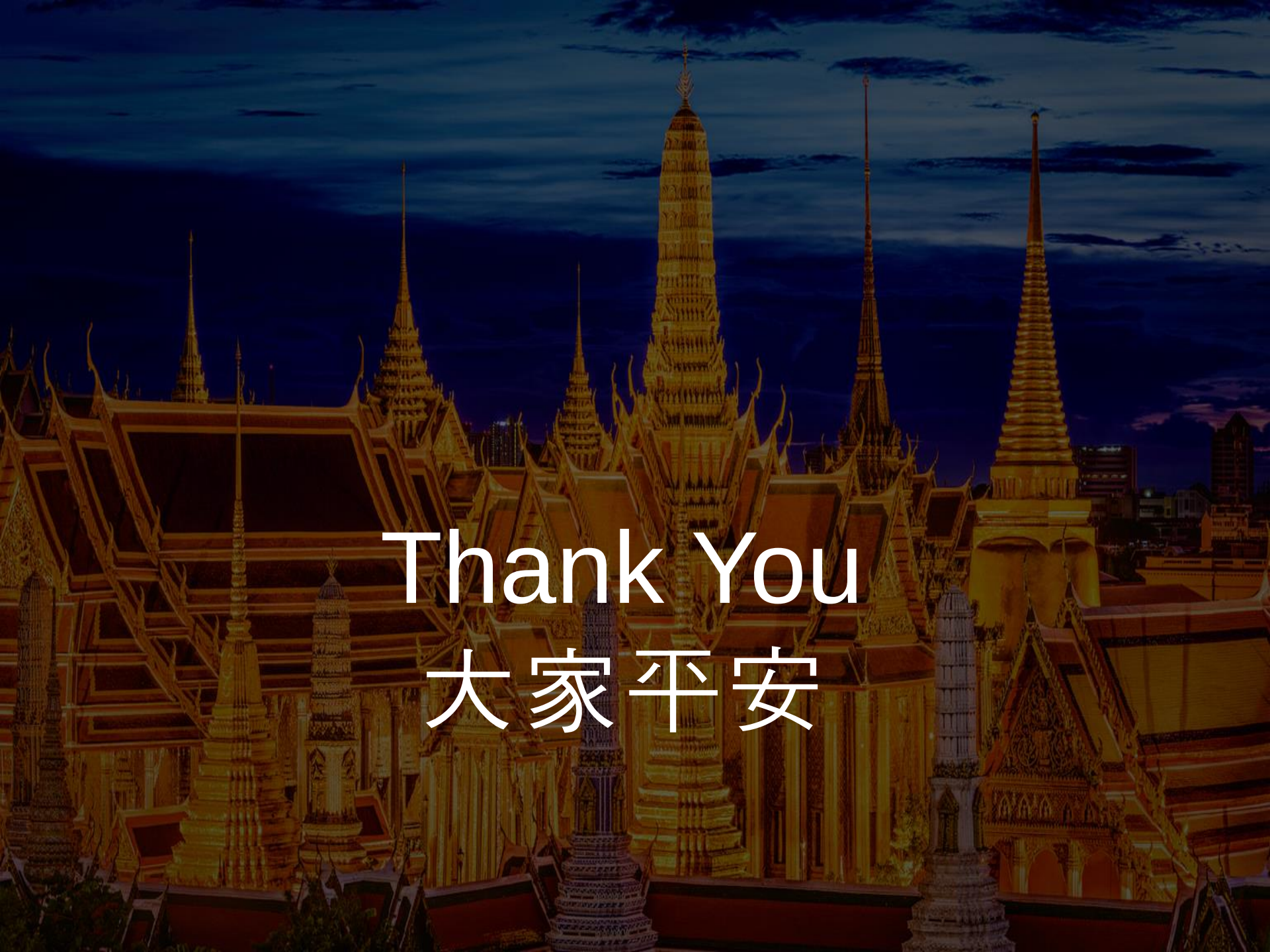




Against Covid-19: Phase 2.5

Apex will protect all of our employees including their families (6,500 + 21,500 pieces).





Thank You
大家平安