# AVIATION DIVISION



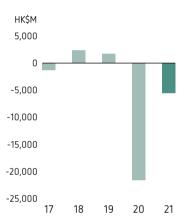


# AVIATION DIVISION

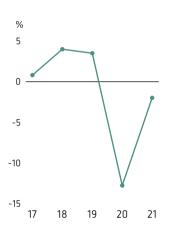
The Aviation Division comprises an associate interest in the Cathay Pacific group and the wholly-owned Hong Kong Aircraft Engineering Company (HAECO) group.

Cathay Pacific group (100% Basis)

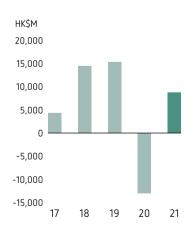




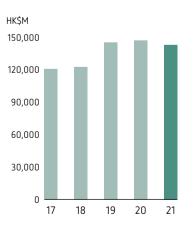
Return on Capital Employed



Net Cash Generated from/ (Used in) Operating Activities



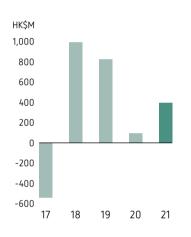
Capital Employed

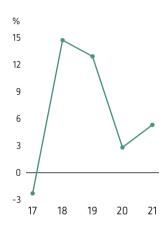


# HAECO group (100% Basis)

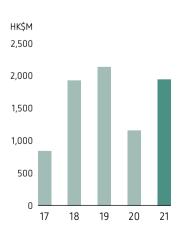
# Profit/(Loss) Attributable to the Shareholders of HAECO

Return on Capital Employed

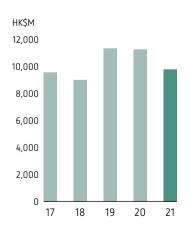




# Net Cash Generated from Operating Activities



Capital Employed



#### The Cathay Pacific group

Cathay Pacific Airways Limited (Cathay Pacific) is listed on The Stock Exchange of Hong Kong Limited. The Cathay Pacific group includes Cathay Pacific, Hong Kong Express Airways Limited (HK Express) and AHK Air Hong Kong Limited (Air Hong Kong) and associate interests in Air China Limited (Air China) and Air China Cargo Co., Ltd. (Air China Cargo). Cathay Pacific also has interests in companies providing flight catering and passenger and ramp handling services, and owns and operates a cargo terminal at Hong Kong International Airport.

Immediately prior to the onset of COVID-19, the Cathay Pacific group's airlines offered scheduled passenger and cargo services to 119 destinations in 35 countries (255 and 54 respectively including codeshare agreements). At 31st December 2021, Cathay Pacific had 193 aircraft and had ordered 37 new aircraft for future delivery.

HK Express is a low-cost airline based in Hong Kong and offers scheduled services within Asia. At 31st December 2021, it had 27 aircraft and had ordered 16 new aircraft for delivery up to 2025.

Air Hong Kong operates express cargo services for DHL Express to 17 Asian cities. At 31st December 2021, Air Hong Kong operated 14 freighters.

Cathay Pacific owns 18.13% of Air China, the national flag carrier and a leading provider of passenger, cargo and other airlinerelated services in the Chinese Mainland. Air China Cargo, in which the Cathay Pacific group owns an equity and an economic interest totalling 24%, is the leading provider of air cargo services in the Chinese Mainland.

Cathay Pacific and its subsidiaries employed more than 21,600 people worldwide (around 80% of them in Hong Kong) at 31st December 2021.

#### The HAECO group

The HAECO group provides aviation maintenance and repair services. Its primary activities are aircraft maintenance and modification work in Hong Kong (by HAECO Hong Kong), in Xiamen (by HAECO Xiamen) and in the USA (by HAECO Americas), and engine overhaul work in Hong Kong (by HAECO's 50% joint venture company, HAESL) and in Xiamen (by Taikoo Engine Services (Xiamen) Company Limited (HES)).

HAECO Americas also manufactures aircraft seats. The HAECO group has other subsidiaries and joint venture companies in the Chinese Mainland, which offer a range of aircraft engineering services, and has a 70% interest in HAECO ITM Limited, an inventory technical management joint venture with Cathay Pacific in Hong Kong.

HAECO is a wholly-owned subsidiary of Swire Pacific.

# STRATEGY

Cathay Pacific's purpose is to move people forward in life, with the vision of becoming one of the world's best service brands, by transforming into a digital leader famous for its strong digital culture and capabilities. The strategies employed by Cathay Pacific in order to achieve these objectives and the strategic objectives of HAECO are these:

- To excel across its four core pillars:
  - · Customer centricity
  - · Safety and operational excellence
  - · High performance team
  - · Productivity and value creation
- Cathay Pacific's new areas of focus where it needs to win in order to excel across its four pillars include:

- · Capitalising on the opportunities presented by the Greater Bay Area as the airline's extended home market and continuing to contribute to the development of Hong Kong International Airport as a leading international aviation and logistics hub.
- · Developing and expanding the newly launched "Cathay" premium travel lifestyle brand.
- · Continuing to grow HK Express as a successful low-cost carrier.
- Further building on Cathay Pacific's digital leadership capabilities.
- Cementing its sustainability leadership position, including committing to achieving net-zero carbon emissions by 2050.
- Developing and strengthening the HAECO brand.
- Increasing the range and depth of aircraft engineering services offered by HAECO.
- Maintaining and enhancing high standards of service to aircraft engineering customers.

#### 2021 PERFORMANCE

# Financial Highlights

	2021 HK\$M	2020 HK\$M
HAECO group		
Revenue	11,464	11,483
Operating profit/(loss)	445	(94)
Attributable profit	394	96
Cathay Pacific group		
Share of post-tax loss from associated companies	(2,487)	(9,742)
Attributable loss	(2,380)	(9,751)

#### Accounting for the Aviation Division

The Group accounts for its associate interest in the Cathay Pacific group using the equity method of accounting. The Group recognises its share of net profit or loss as a single line-item in the consolidated statement of profit or loss. For more information on the results and financial position of the Cathay Pacific group, please refer to the abridged financial statements on pages 210 and 211. The figures of HAECO group and the Cathay Pacific group above do not include Swire Pacific's consolidation adjustments.

# CATHAY PACIFIC GROUP

# Cathay Pacific – 2021 Performance

		2021	2020*	Change
Available tonne kilometres (ATK)	Million	11,354	14,620	-22.3%
Available seat kilometres (ASK)	Million	13,228	34,609	-61.8%
Available cargo tonne kilometres (AFTK)	Million	10,094	11,329	-10.9%
Revenue tonne kilometres (RTK)	Million	8,615	10,220	-15.7%
Passenger revenue	HK\$M	4,346	11,313	-61.6%
Passenger revenue per ASK	HK¢	32.9	32.7	+0.6%
Revenue passenger kilometres (RPK)	Million	4,120	20,079	-79.5%
Revenue passengers carried	′000	717	4,631	-84.5%
Passenger load factor	%	31.1	58.0	-26.9%pt
Passenger yield	HK¢	105.5	56.3	+87.4%
Cargo revenue	HK\$M	32,377	24,573	+31.8%
Cargo revenue per AFTK	HK\$	3.21	2.17	+47.9%
Cargo revenue tonne kilometres (RFTK)	Million	8,220	8,309	-1.1%
Cargo carried	'000 Tonnes	1,333	1,332	+0.1%
Cargo load factor	%	81.4	73.3	+8.1%pt
Cargo yield	HK\$	3.94	2.96	+33.1%
Cost per ATK (with fuel)**	HK\$	3.88	4.14	-6.3%
Cost per ATK (without fuel)**	HK\$	3.32	3.41	-2.6%
Fuel consumption per million RTK	Barrels	1,612	1,708	-5.6%
Fuel consumption per million ATK	Barrels	1,223	1,195	+2.3%
Aircraft utilisation (including parked aircraft)	Hours per day	3.4	4.3	-20.9%
On-time performance	%	86.2	86.7	-0.5%pt
Average age of fleet	Years	10.5	10.1	+0.4 years

<sup>\*</sup> Included Cathay Dragon.

<sup>\*\*</sup> Cost per ATK represents total operating costs, including impairment and restructuring costs, over ATK for the year.

#### 2021 AIRLINE INDUSTRY REVIEW

The unprecedented disruption caused by COVID-19 to the global aviation industry and the subsequent travel and operational restrictions around the world have continued to affect the business of Cathay Pacific severely. Notwithstanding these challenges, the situation did improve as 2021 progressed.

The second half of the year is traditionally stronger than the first half, and this was the case in 2021. The exceptional performance of the cargo business, especially during the second-half peak season, was extremely encouraging. Nevertheless, Cathay Pacific continued to face serious challenges. Despite the considerable improvement in results in the second half of the year, the overall loss for the full year was still substantial.

#### 2021 RESULTS SUMMARY

The Cathay Pacific group's attributable loss on a 100% basis was HK\$5,527 million in 2021, compared with a loss of HK\$21,648 million in 2020. Cathay Pacific reported an attributable loss after tax of HK\$1,728 million (2020: loss of HK\$17,393 million), and the share of losses from subsidiaries and associates was HK\$3,799 million (2020: loss of HK\$4,255 million).

The loss for 2021 included impairment and related charges of HK\$832 million, mainly relating to 12 aircraft that are unlikely to re-enter meaningful economic service before they retire or are returned to lessors, HK\$385 million in restructuring costs and a HK\$210 million gain on the dilution of an associate interest in Air China Cargo. This compared to impairment and related charges of HK\$4,056 million in 2020 relating to 34 aircraft (and to certain airline service subsidiaries' assets) and HK\$2,383 million of restructuring costs. Adjusting for these exceptional items, the Cathay Pacific group's attributable loss was HK\$4,520 million (2020: loss of HK\$15,209 million) and Cathay Pacific's loss was HK\$776 million (2020: loss of HK\$12,195 million).

The introduction of strict quarantine requirements for Hong Kong-based aircrew in February 2021 had a substantial impact on the travel business in particular.

Operational and travel restrictions remained in place throughout the year, and this heavily constrained the ability to operate more flights. Cathay Pacific reduced its flight schedule towards the end of December in response to the latest crew quarantine requirements in Hong Kong, and ended the year operating a considerably smaller amount of its pre-COVID-19 passenger capacity than it had planned.



Cargo performed strongly in 2021 as Cathay Pacific kept the flow of goods to and from Hong Kong moving.

#### **Passenger Services**

#### Cathay Pacific

Comparing 2021 with 2020 as a whole, the operating performance in 2021 was generally weaker, due in large part to the first two months of 2020 being relatively strong ahead of the full impact of COVID-19. Passenger revenue in 2021 was HK\$4,346 million, a decrease of 62% compared to 2020. Revenue passenger kilometres decreased by 79%. Capacity, measured in available seat kilometres, was down by 62%. 717,000 passengers were carried, an average of 1,965 passengers per day, 85% fewer than in 2020. The load factor was 31.1%, compared with 58.0% in 2020.

#### **HK Express**

HK Express reported a loss of HK\$1,978 million for 2021 (2020: loss of HK\$1,723 million). The results were adversely affected by low demand for passenger travel and COVID-19-related travel restrictions and quarantine requirements, including those affecting Hong Kong-based aircrew.

#### Cargo Services

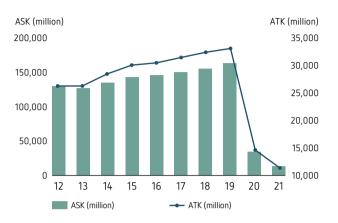
#### Cathay Pacific

The cargo revenue of Cathay Pacific in 2021 was HK\$32,377 million, an increase of 32% compared to 2020. Cargo revenue tonne kilometres decreased by 1%. Capacity, measured by available cargo tonne kilometres, decreased by 11%. Load factor increased by 8.1 percentage points to 81.4%. Yield increased by 33% to HK\$3.94.

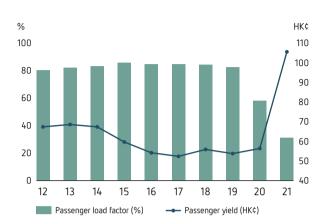
#### Air Hong Kong

Air Hong Kong recorded a profit in 2021, benefitting from strong cargo demand. The all-cargo airline flew extra sectors for Cathay Pacific.

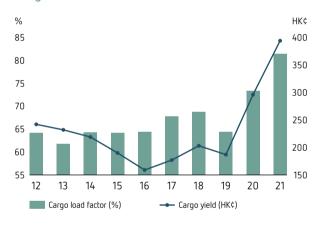
# Capacity – Available Seat Kilometres and Available Tonne Kilometres



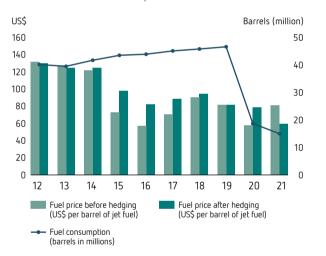
#### Passenger Services Load Factor and Yield



#### Cargo Services Load Factor and Yield



#### Fuel Price and Consumption



#### **Operating Costs**

Cathay Pacific remained focused on effective cash and cost management. Non-fuel costs decreased by 24% to HK\$37,708 million. Total fuel costs for Cathay Pacific (before the effect of fuel hedging) increased by HK\$927 million (or 12%) compared with 2020. This reflected increased fuel prices.

#### Fleet Profile

At 31st December 2021, the total number of aircraft in the Cathay Pacific group's fleet was 234. 74 passenger aircraft (37% of the Cathay Pacific group's passenger fleet) were parked outside Hong Kong.

## Fleet profile\*

Number at 31st December 2021

	31.	at Decembe	1 2021												
		Lea	ased**	-			Orde	rs			Expir	y of ope	erating l	eases*	*
				-	Average			′24 and	•						'27 and
Aircraft type	Owned	Finance	Operating	Total	age	′22	′23	beyond	Total	′22	'23	′24	′25	′26	beyond
Cathay Pacific:															
A320-200	5		2	7	16.6					2 <sup>(a)</sup>					
A321-200	2		3	5	16.7					2 <sup>(b)</sup>	1				
A321-200neo			5	5	0.7	7	4		11						5
A330-300	37	10	4	51	15.2								2	2	
A350-900	19	7	2	28	4.1		2		2						2
A350-1000	10	5		15	2.6	3			3						
747-400ERF	6			6	13.0										
747-8F	3	11		14	8.9										
777-300	17			17	20.2										
777-300ER	25	5	15	45	9.4					4 <sup>(c)</sup>	2	3	2	4	
777-9								21	21						
Total	124	38	31	193	10.9	10	6	21	37	8	3	3	4	6	7
HK Express:															
A320-200			6	6	10.8					1 <sup>(d)</sup>	1	4			
A320-200neo			10	10	2.8										10
A321-200			11	11	4.2								1	2	8
A321-200neo						1	6	9	16						
Total			27	27	5.2	1	6	9	16	1	1	4	1	2	18
Air Hong Kong***:															
A300-600F			9	9	17.6					5	3			1	
A330-243F			2	2	10.0									2	
A330-300P2F			3	3	14.0									3	
Total			14	14	15.8					5	3			6	
Grand total	124	38	72	234	10.5	11	12	30	53	14	7	7	5	14	25

The table does not reflect aircraft movements after 31st December 2021.

<sup>\*\*</sup> Leases previously classified as operating leases are accounted for in a similar manner to finance leases under accounting standards. The majority of operating leases in the above table are within the scope of HKFRS 16.

\*\*\* The nine Airbus A300-600F, two Airbus A330-243F and three Airbus A330-300P2F freighters are considered to be operated by Air Hong Kong, even though the arrangement does not constitute a lease in accordance with HKFRS 16.

<sup>(</sup>a) The operating leases of two Airbus A320-200 aircraft expired in January and February 2022. The aircraft were returned to their lessors.
(b) The operating lease of one Airbus A321-200 aircraft expired in February 2022. The aircraft was returned to its lessor.
(c) The operating lease of one Boeing 777-300ER aircraft expired in January 2022. The aircraft was returned to its lessor.
(d) The operating lease of one Airbus A320-200 aircraft expired in February 2022. The aircraft was returned to its lessor.

#### Air China and Air China Cargo

The Cathay Pacific group's share of Air China's results is based on its financial statements drawn up three months in arrear. Consequently, the 2021 results include Air China's results for the 12 months ended 30th September 2021, adjusted for any significant events or transactions for the period from 1st October 2021 to 31st December 2021.

For the 12 months ended 30th September 2021, Air China was adversely affected by COVID-19. Its financial results were worse than those for the 12 months ended 30th September 2020.

After the dilution in September 2021 of its interest in Air China Cargo (from 34.78% to 24%), the Cathay Pacific group's share of Air China Cargo's results are taken three months in arrear. The 2021 results include Air China Cargo's results for the nine months ended 30th September 2021, adjusted for any significant events or transactions for the period from 1st October 2021 to 31st December 2021.

#### **OUTLOOK**

Cathay Pacific has had an extremely challenging start to 2022. Following the emergence of the Omicron variant, the HKSAR Government tightened the quarantine requirements for Hong Kong-based aircrew, notably those operating cargo flights, and temporarily banned all flights from nine countries, including the UK and the USA, which are major markets for Cathay Pacific. Passengers from high-risk places were banned from transiting through Hong Kong International Airport. All this constrained Cathay Pacific's ability to operate flights as planned. As a result, Cathay Pacific expects to operate about 2% of pre-COVID-19 passenger flight capacity and its cargo flight capacity is likely to remain less than one-third of pre-COVID-19 levels while current restrictions remain in place. Cathay Pacific is trying its best to maintain its passenger and cargo networks as far as possible and will try to increase its cargo capacity as much as practicable.

#### **Augustus Tang**

# HONG KONG AIRCRAFT ENGINEERING COMPANY (HAECO) GROUP

# Financial Highlights

Tillaticial Highlights	2021	2020
	HK\$M	HK\$M
Revenue		
HAECO Hong Kong	2,889	3,092
HAECO Americas	2,056	2,007
HAECO Xiamen	1,951	1,368
HAECO Engine Services (Xiamen)	3,340	3,774
Others	1,228	1,242
	11,464	11,483
Operating profit/(loss)	445	(94)
Attributable profits/(losses)		
HAECO Hong Kong	(204)	(49)
HAECO Americas	67	(167)
HAECO Xiamen	139	20
HAECO Engine Services (Xiamen)	63	113
Share of profits of		
HAESL	274	354
Other subsidiary and joint venture companies	77	99
Attributable profit (excluding non-recurring items)	416	370
Impairment charges in respect of		
Customer relationships and other intangible assets	-	(90)*
Rotable aircraft parts	(22)^	(184)^
Attributable profit	394	96

<sup>\*</sup> representing impairment charges at HAECO Americas. ^representing impairment charges at HAECO ITM.

# Operating Highlights

	2021	2020
Base maintenance manhours sold		
HAECO Hong Kong	Million 2.61	1.92
HAECO Americas	Million 2.81	2.54
HAECO Xiamen	Million 3.38	2.61
Line maintenance movements handled		
HAECO Hong Kong Tho	usand 52	55
Chinese Mainland and overseas Tho	usand 16	20
Engines overhauled		
HAECO Engine Services (Xiamen)	46	67
HAESL	237	263

# 2021 AVIATION MAINTENANCE AND REPAIR INDUSTRY REVIEW

COVID-19 continued to have a significant adverse effect on the aviation industry in 2021. Less aircraft flying means less maintenance and repair of airframes, aircraft engines and components. New virus variants led to more travel restrictions and guarantine requirements in Hong Kong. There has been something of a recovery in the industry. But it differs by region and aircraft type and has had different effects on different HAECO businesses.

#### 2021 RESULTS SUMMARY

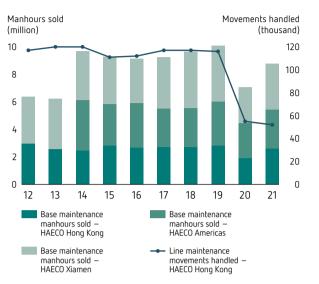
The HAECO group reported an attributable profit of HK\$394 million for 2021 (after taking account of post-tax impairment charges of HK\$22 million in respect of rotable aircraft parts at HAECO ITM). This compares with a profit of HK\$96 million in 2020 (after taking account of post-tax impairment charges of HK\$184 million in respect of rotable aircraft parts at HAECO ITM and of HK\$90 million in respect of intangible assets at HAECO Americas).

Disregarding the impairment charges in both years, the HAECO group's attributable profit for 2021 was HK\$416 million, HK\$46 million higher than the profit in 2020. COVID-19 adversely affected demand for maintenance and repair services (except base maintenance). HAECO Hong Kong, HAECO Americas and HAECO Xiamen performed more base maintenance work, selling 8.80 million base maintenance manhours in 2021, 1.73 million more than in 2020. The recovery in base maintenance work principally reflected the fact that US and European airline customers flew more as travel started to recover from the adverse effects of COVID-19. Engine overhaul volume was much lower at HAESL, which had benefitted from a backlog of engines awaiting maintenance in the first half of 2020, and at HAECO Engine Services (Xiamen) (HES). The impact of COVID-19 on the demand for engine maintenance has lagged behind its impact on the demand for airframe maintenance.

Results were significantly worse at HAECO Hong Kong, HES and HAESL. But this was more than compensated for by better results at HAECO Xiamen and HAECO Americas.

At 31st December 2021, HAECO had outstanding capital commitments of HK\$6,278 million.

# HAECO group - Key Operating Highlights



#### HAECO Hong Kong

HAECO Hong Kong recorded a loss of HK\$204 million in 2021. HK\$155 million more than the loss of HK\$49 million in 2020. Airline customers flew substantially less. Travel restrictions and guarantine requirements in Hong Kong due to COVID-19 continued to affect cross-border travel adversely. This particularly affected line maintenance services, which only recovered slowly later in the year. There was less maintenance work on parked aircraft. The HKSAR Government did not continue its 2020 subsidy scheme in 2021.

In line maintenance, approximately 52,000 aircraft movements were handled in 2021, a decrease of 5% compared with 2020. 2.61 million base maintenance manhours were sold in 2021. 36% more than those sold in 2020, reflecting more demand from US and European airline customers and more work on leased aircraft being returned to lessors.

#### **HAECO** Americas

HAECO Americas recorded a profit of HK\$67 million in 2021, compared to a loss of HK\$257 million in 2020 (including impairment charges of HK\$90 million in respect of intangible assets). Excluding the impairment charges in 2020, HAECO Americas recorded an increase in profit of HK\$234 million compared to 2020. Demand for base maintenance recovered somewhat. The results of the cabin solutions business improved, as costs were significantly reduced following its restructuring. US government financial assistance under the CARES Act and Aviation Manufacturing Jobs Protection Program was received in 2021.

Demand for base maintenance increased by 11% from 2020. 2.81 million manhours were sold in 2021 compared with 2.54 million sold in 2020.

Cabin solutions revenue in 2021 was similar to that in 2020. There was more revenue from seats and less from communication kits and reconfiguration work. Seating spares volume was similar to that in 2020, but less than in pre-COVID-19 years.

#### **HAECO** Xiamen

HAECO Xiamen recorded an attributable profit of HK\$139 million in 2021, HK\$119 million more than the attributable profit of HK\$20 million in 2020.

3.38 million base maintenance manhours were sold in 2021, 30% more than in 2020. This reflected a gradual recovery in demand for base maintenance from the middle of the year and more demand for passenger to freighter conversions. In line maintenance, 7,700 aircraft movements were handled in 2021, 6% less than in 2020.

#### **HAECO Engine Services (Xiamen)**

HES recorded a 44% decrease in profit attributable to HAECO in 2021, to HK\$63 million. HES performed 31 performance restoration workscopes and 15 quick turn workscopes on GE90 aircraft engines in 2021 (compared with 36 performance restoration workscopes and 31 quick turn workscopes in 2020). The reduction in profit in 2021 reflected a significant reduction in demand for the repair and overhaul of GE90 aircraft engines. Airlines continue to defer engine maintenance because of COVID-19's effect on aircraft usage.

#### **HAESL**

HAESL recorded a 23% decrease in profit attributable to HAECO in 2021, to HK\$274 million. The decrease in profit reflected fewer engines being overhauled and a lighter work mix, both due to COVID-19's effect on aircraft usage. Repair and overhaul services were performed on 237 engines, compared with 263 in 2020.

### Other Principal Subsidiary and Joint Venture Companies

HAECO ITM recorded a profit in 2021 as compared to a loss in 2020. This mainly reflected lower impairment charges in respect of the carrying value of rotable aircraft parts. Staff costs and finance charges were lower.

HAECO Landing Gear Services recorded an increase in profit in 2021, reflecting a recovery of demand. It did more work as a result of the reactivation of aircraft which had previously been parked due to COVID-19. HAECO Composite Services recorded a decrease in profit in 2021, due to impact from COVID-19.

#### OUTI OOK

The prospects for the HAECO group's businesses in 2022 are dependent on the aviation industry's recovery from the effects of COVID-19. Demand for base maintenance is expected to continue to recover in Xiamen and the USA while that in Hong Kong will be stable. A shortage of skilled labour in the USA continues to cause challenges. The absence of government financial assistance will result in a lower profit in the USA. The pace of recovery in line maintenance work in Hong Kong depends on the timing of the lifting of travel restrictions. Demand for engine services at HES and HAESL is expected to improve gradually as air traffic recovers. Demand for cabin solutions products is expected to increase.

HAECO Xiamen is starting pre-construction work at the new airport after completing the acquisition of the land in November 2021 on which its premises at the new Xiamen airport will be built. The relocation will be material to HAECO Xiamen's operations from 2026.

#### Frank Walschot