

March 15, 2018 08:00 AM GMT

Cathay Pacific Airways

Recovery On Track; Raise PT to HK\$15.34

Stock Rating
Equal-weight

Industry View
In-Line

Price Target
HK\$15.34

We raise our earnings estimates and PT after Cathay's better-than-expected results in 2H17, as we expect the positive momentum to be sustained in 2018-19 driven by further business turnaround.

WHAT'S CHANGED

Cathay Pacific Airways (0293.HK)	From	To
Price Target	HK\$13.95	HK\$15.34

Positive 2H17 results: Cathay's 2H17 results returned to profit of HK\$792mn, after a significant net loss of HK\$2bn in 1H17. This was mainly driven by a 19% surge in cargo revenues, which saw an 11.3% YoY recovery in yield, and robust cargo volumes (RFTK: +9% YoY). In addition, thanks to management's execution of its business transformation programme, unit costs (ex-fuel costs) remained flat.

Raising 2018-19e earnings: Given better-than-expected earnings performance in 2H17, we raise our 2018-19 net profit forecasts by 10% and 2% to HK\$1.28bn and HK\$4.08bn, and introduce a 2019e net profit of HK\$4bn, supported by: 1) further recovery in passenger and cargo yields, 2) less fuel hedging losses amid increasing crude oil prices and 3) more contributions from Air China (18.13% owned by Cathay Pacific).

Remain EW: We raise our price target to HK\$15.34 from HK\$13.95, to reflect our increased earnings forecasts, but we remain EW given limited 10% upside potential from the current share price. Cathay's stock price has rallied 14% YTD (vs. +5% for the Hang Seng Index). We believe the market has factored in the business turnaround potential, while uncertainties remain on the outlook for export demand growth. More importantly, we are still concerned about: 1) Cathay's strategic position as a Hong Kong-based transit-driven carrier facing intense competition from other countries/regions, and 2) potential traffic diversions after the launch of Guangzhou-Shenzhen-Hong Kong Express Rail Link in 3Q18.

Potential risks: Upside: 1) Stronger-than-expected profit turnaround; 2) Recovery in premium travel and potential stabilization or recovery in cargo demand; Downside: 1) Sustained yield pressure led by market competitions; 2) Exogenous events.

MORGAN STANLEY ASIA LIMITED+

Edward H Xu, CFA

EQUITY ANALYST

Edward.Xu@morganstanley.com +852 2239-1521

JunYi Yu

RESEARCH ASSOCIATE

JunYi.Yu@morganstanley.com +852 2239-7817

Grace Li

RESEARCH ASSOCIATE

Grace.Li@morganstanley.com +852 3963-2843

Qianlei Fan, CFA

EQUITY ANALYST

Qianlei.Fan@morganstanley.com +852 2239-1875

Cathay Pacific Airways (0293.HK, 293 HK)

Hong Kong/China Transportation & Infrastructure / Hong Kong

Stock Rating	Equal-weight
Industry View	In-Line
Price target	HK\$15.34
Up/downside to price target (%)	11
Shr price, close (Mar 14, 2018)	HK\$13.78
52-Week Range	HK\$14.22-10.20
Sh out, dil, curr (mn)	3,934
Mkt cap, curr (mn)	HK\$54,208
EV, curr (mn)	HK\$114,222
Avg daily trading value (mn)	HK\$85

Fiscal Year Ending	12/17	12/18e	12/19e	12/20e
ModelWare EPS (HK\$)	(0.38)	0.32	1.04	1.01
Prior ModelWare EPS (HK\$)	(0.49)	0.29	1.02	-
Consensus EPS (HK\$)§	(0.56)	0.19	0.87	-
Revenue, net (HK\$ mn)	97,284	105,228	107,303	111,373
EBITDA (HK\$ mn)	10,291	13,957	17,684	18,308
ModelWare net inc (HK\$ mn)	(1,503)	1,281	4,084	4,003
P/E	NM	42.4	13.3	13.6
P/BV	0.7	0.8	0.8	0.7
RNOA (%)	0.7	2.7	4.7	4.6
ROE (%)	(2.6)	2.0	6.2	5.8
EV/EBITDA	10.5	8.8	7.2	7.7
Leverage (EOP) (%)	93.3	103.2	106.1	117.4

Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare framework

§ = Consensus data is provided by Thomson Reuters Estimates
e = Morgan Stanley Research estimates

Morgan Stanley does and seeks to do business with companies covered in Morgan Stanley Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Morgan Stanley Research. Investors should consider Morgan Stanley Research as only a single factor in making their investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report.

+ = Analysts employed by non-U.S. affiliates are not registered with FINRA, may not be associated persons of the member and may not be subject to NASD/NYSE restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

CPA: Financial Summary

Exhibit 1: CPA: Financial Summary, 2015-20E

Profit and Loss Statement (Year end - Dec 31)

(In HK\$mil)	2015	2016	2017	2018E	2019E	2020E
Passenger revenue	73,047	66,926	66,408	72,507	73,748	76,662
Cargo revenue	23,122	20,063	23,903	26,298	27,005	27,914
Other revenue	6,173	5,762	6,973	6,422	6,549	6,797
Total Revenue	102,342	92,751	97,284	105,228	107,303	111,373
Labor	18,990	19,770	19,962	19,172	19,747	20,339
Fuel	32,968	27,953	31,112	33,958	30,752	31,787
Depre/Amort	8,859	8,550	9,354	9,890	10,202	10,511
Operating leases	4,334	4,458	5,286	5,815	6,396	7,036
Other expenses	30,527	32,545	33,849	35,349	36,558	37,892
Total Operating Exp	95,678	93,276	99,563	104,184	103,655	107,566
Operating Profit	6,664	(525)	(2,279)	1,044	3,647	3,808
Net interest inc/(exp)	(1,164)	(1,301)	(1,761)	(2,156)	(2,649)	(3,059)
Other inc/(exp)	1,965	2,049	2,630	3,023	3,834	3,989
Pre-tax profit	7,465	223	(580)	1,911	4,833	4,738
Taxation	1,157	497	308	296	749	734
Minority interest	308	301	371	334	0	0
Net profit	6,000	(575)	(1,259)	1,281	4,084	4,003
EBITDA	17,488	10,074	9,705	13,957	17,684	18,308
EBITDAR	21,822	14,532	14,991	19,772	24,080	25,344
Adj for C EPS (HK\$)	1.53	(0.15)	(0.32)	0.33	1.04	1.02
ModelWare EPS (HK\$)	1.53	(0.15)	(0.38)	0.32 e	1.04 e	1.01 e

Balance Sheet

(In HK\$mil)	2015	2016	2017	2018E	2019E	2020E
Net fixed assets	100,552	106,456	111,182	117,928	123,171	136,186
Long-term investments	27,947	27,902	32,212	34,388	37,132	39,984
Intangible assets	10,606	10,934	11,221	11,674	12,044	12,414
Other non-current assets	497	737	928	928	928	928
Total Non-Curr Assets	139,602	146,029	155,543	164,917	173,275	189,512
Cash	12,727	15,173	10,941	7,970	7,155	6,868
Other assets	7,920	5,117	8,153	8,153	8,153	8,153
Non-cash assets	12,578	11,102	13,741	14,810	15,062	15,633
Total Current Assets	33,225	31,392	32,835	30,933	30,371	30,654
Current borrowings	13,782	11,263	8,888	12,509	13,259	15,059
Other current liabilities	35,995	32,829	32,390	33,830	33,665	34,883
Total Curr Liabilities	49,777	44,092	41,278	46,339	46,924	49,942
Net Assets	123,050	133,330	147,101	149,513	156,722	170,225
Long-term debt	49,867	58,906	69,506	70,885	75,135	85,335
Other long-term liabilities	25,116	18,897	16,322	16,322	16,322	16,322
Shareholders equity	47,927	55,365	61,101	62,151	65,265	68,567
Minority interests	140	161	171	154	0	0
Capital Employed	123,050	133,330	147,101	149,513	156,722	170,225

Cash Flow Statement

(In HK\$mil)	2015	2016	2017	2018E	2019E	2020E
Pre-tax profit	7,465	223	(580)	1,911	4,833	4,738
Depreciation	8,859	8,550	9,354	9,890	10,202	10,511
Profit asset sales	(159)	40	(546)	(50)	(50)	(50)
Tax paid	(469)	(750)	(308)	(296)	(749)	(734)
Other non-cash items	(813)	(265)	(1,841)	(2,116)	(2,684)	(2,793)
Gross Cash Flow	14,883	7,798	6,079	9,339	11,552	11,672
Capex	(13,179)	(14,886)	(15,931)	(18,013)	(15,916)	(23,996)
Working capital adj	1,112	(1,690)	(3,743)	371	(417)	647
Free Cash Flow	2,816	(8,778)	(13,595)	(8,303)	(4,781)	(11,677)
Sale fixed assets/invmts	(1,814)	4,805	1,524	975	150	150
Share issues	0	0	0	0	0	0
Purchase invmts/subsids	0	(60)	(60)	(60)	(214)	(60)
Share repurchases	0	0	0	0	0	0
Dividends paid	(2,329)	(1,447)	(326)	(582)	(970)	(701)
Net borrowings/repay	(1,826)	6,777	8,225	5,000	5,000	12,000
Others	149	1,149	0	0	0	0
Net Cash Flow	(3,004)	2,446	(4,232)	(2,971)	(815)	(288)
Beginning Cash	15,731	12,727	15,173	10,941	7,970	7,155
Ending Cash	12,727	15,173	10,941	7,970	7,155	6,868

Source: Company Data, Morgan Stanley Research (E) estimates

Ratio Analysis

	2015	2016	2017	2018E	2019E	2020E
Growth (%)						
Passenger revenue	(3.5)	(8.4)	(0.8)	9.2	1.7	4.0
Cargo revenue	(9.0)	(13.2)	19.1	10.0	2.7	3.4
Total revenue	(3.4)	(9.4)	4.9	8.2	2.0	3.8
Operating profit	50.3	n.m.	n.m.	(145.8)	249.2	4.4
Pretax profit	84.4	(97.0)	(360.1)	NM	152.9	(2.0)
Net profit	90.5	(109.6)	NM	NM	218.8	(2.0)
EBITDA	29.1	(42.4)	(3.7)	43.8	26.7	3.5
EBITDAR	23.1	(33.4)	3.2	31.9	21.8	5.3
Adj for C EPS	90.5	(109.6)	NM	NM	218.8	(2.0)
ModelWare EPS	90.5	(109.6)	161.4	(185.0)	218.8	(2.0)
Margins (%)						
EBITDA margin	17.1	10.9	10.0	13.3	16.5	16.4
EBITDAR margin	21.3	15.7	15.4	18.8	22.4	22.8
Operating margin	6.5	(0.6)	(2.3)	1.0	3.4	3.4
Net profit margin	5.9	(0.6)	(1.3)	1.2	3.8	3.6
Return (%)						
ModelWare ROE	11.3%	(1.2%)	(2.6%)	2.0% e	6.2% e	5.8% e
ModelWare RNOA	17.3%	1.4%	0.7%	2.7% e	4.7% e	4.6% e
Gearing (%)						
Net Debt/Equity	88.2%	87.1%	93.3%	103.2% e	106.1% e	117.4% e
Long-term Debt/Equity	104.0	106.4	113.8	114.1	115.1	124.5
Total Debt/Equity	132.8	126.7	128.3	134.2	135.4	146.4
Net Interest Coverage	7.4	1.2	0.2	1.9	2.8	2.5

Operational Analysis

	2015	2016	2017	2018E	2019E	2020E
Pax Capacity (mil ASKs)	142,680	146,086	150,138	156,594	162,858	171,001
Pax Traffic (mil RPKs)	122,330	123,478	126,663	133,105	138,429	145,351
Pax Load Factor (%)	85.7	84.5	84.4	85.0	85.0	85.0
Pax Yield (HK\$/RPK)	0.60	0.54	0.52	0.54	0.53	0.53
Cargo Capacity (mil AFTKs)	16,481	16,572	17,163	17,849	18,206	18,570
Cargo Traffic (mil RFTKs)	10,586	10,675	11,633	12,227	12,471	12,813
Cargo Load Factor (%)	64.2	64.4	67.8	68.5	68.5	69.0
Cargo Yield (HK\$/RFTK)	1.90	1.62	1.81	1.91	1.93	1.95
Overall Capacity (mil ATKs)	30,048	30,462	31,439	32,759	33,712	34,851
Overall Traffic (mil RTKs)	22,019	22,215	23,471	24,666	25,409	26,398
Unit Cost (HK\$/ATK)	3.14	3.02	3.12	3.14	3.03	3.04

Growth (%)

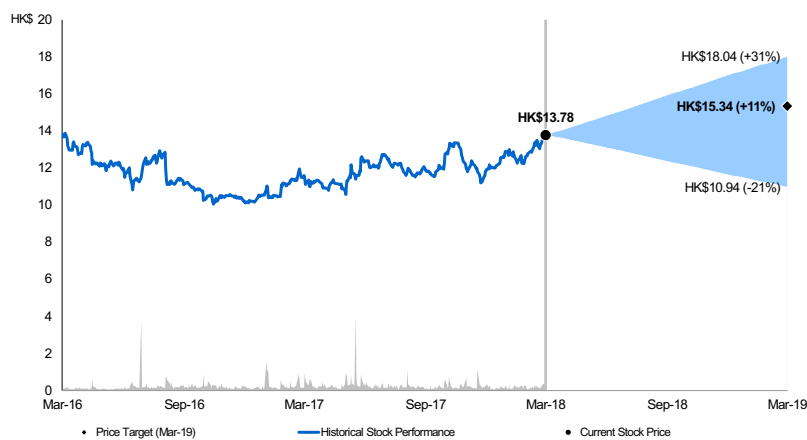
Pax Capacity	5.9	2.4	2.8	4.3	4.0	5.0
Pax Traffic	9.0	0.9	2.6	5.1	4.0	5.0
Pax Load Factor	2.9	(1.4)	(0.2)	0.8	0.0	0.0
Pax Yield	(11.5)	(9.2)	(3.3)	3.9	(2.2)	(1.0)
Pax Traffic	9.0	0.9	2.6	5.1	4.0	5.0
Pax Load Factor	2.9	(1.4)	(0.2)	0.8	0.0	0.0
Pax Yield	(11.5)	(9.2)	(3.3)	3.9	(2.2)	(1.0)
Cargo Capacity	5.4	0.6	3.6	4.0	2.0	2.0
Cargo Traffic	5.4	0.8	9.0	5.1	2.0	2.7
Cargo Yield	(15.5)	(14.7)	11.3	6.0	1.0	1.0
Overall Capacity	5.7	1.4	3.2	4.2	2.9	3.4
Overall Traffic	7.2	0.9	5.7	5.1	3.0	3.9
Unit Cost	5.5	(3.8)	3.4	0.4	(3.3)	0.4

Valuation

	2015	2016	2017	2018E	2019E	2020E
P/E (Basic, rep't)	8.8	NM	NM	42.4	13.3	13.6
P/BV (Basic, rep't)	1.1	0.7	0.7	0.8	0.8	0.7
EV/EBITDA (Basic, rep't)	5.5	9.0	10.5	8.8	7.2	7.7
Dividend Yield (Basic, rep't) (%)	4.0	0.5	0.4	0.8	2.6	2.6

Risk-Reward Snapshot: Cathay Pacific Airways (0293.HK, HK\$12.64, EW, PT HK\$15.34)

Benefiting from Air China's earnings improvement, but strategic position is still a major concern



Source: Thomson Reuters, Morgan Stanley Research

Price Target **HK\$15.34**

EV/EBITDA multiples, probability-weighted bull (20%), bear (10%), and base case (70%) scenarios.

Bull **HK\$18.04**

1.1x 2018e base case P/BV

Yield recovery: Better-than-expected yield (+3%) with improving pax and cargo traffic demand, and higher load factors (PLF +2pt; FLF +2pt).

Base **HK\$15.20**

1.0x 2018e base case P/BV

Slight pick up in traffic growth; Yield improvement in 2018: For 2018-20e, ASK grows at 4.3%, 4.0% and 5.0% p.a., respectively; RPK to increase by 5.1%, 4.0% and 5.0% p.a., respectively; passenger yield rose 3.9% in 2018, followed by 2.2% and 1% declines over 2019-20e. Higher Brent Prices at US\$65-72.50/bbl in 2018-20e

Bear **HK\$10.94**

0.7x 2018e base case P/BV

Yield plunge: Further 5% yield weakness led by demand contraction and currency weakness from CPA's exposures to GBP, AUD, EUR, etc.

Investment Thesis

- Considering the strong performance in 2H17, less hedging loss and significant earnings contribution from its associate - Air China (18.13% owned by Cathay Pacific) – we raise our 2018-19e net profit by 2-10%. Our revised earnings are 107% and 19% above consensus in 2018-19, respectively, but 8% below consensus in 2020e.
- Nevertheless, we are still concerned about Cathay's strategic position as a Hong Kong-based transit-driven carrier facing intense competition from other countries/regions and potential traffic diversion from Guangzhou-Shenzhen-Hong Kong Express Rail Link.
- We maintain our EW rating on CPA and raise our PT by 10% to HK\$15.34, which implies 11% upside potential. Current valuation implies 8.8x 2018eEV/EBITDA, in-line with its historical mean from 2009.

Key Value Drivers

- Passenger yield and volumes;
- Cargo yield and volumes;
- Jet fuel price.

Key Upside Risks

- Sooner-than-expected profit turnaround;
- Recovery in premium travel and potential stabilization or recovery in cargo demand.

Key Downside Risks

- Sustained weakness in demand and yields;
- Exogenous events (e.g., wars, natural disasters, epidemics, etc.).

Analysis of 2017 Earning Results

Cathay reported a net loss of HK\$2bn in 1H17, but in 2H17 its profit turned around to HK\$792mn.

Strong revenue growth in 2H17: 2017 saw 4.9% YoY revenue growth, which implied acceleration in 2H17 (+9.3% YoY, vs. 0.4% YoY in 1H17). This was mainly driven by a further recovery in the cargo business (+25.7% YoY in 2H17, vs. +11.7% YoY in 1H17) and improvement in catering, recoveries and other services (+28.5% YoY in 2H17 vs. 13.4% YoY in 1H17).

Flat unit cost excluding fuel costs: 2017 booked a significant fuel loss of HK\$6.4bn. However, unit cost per ATK (excl. fuel cost and before exceptional items) held flat, which could be attributable to the successful execution of the company's three-year transformation program. Specifically, unit staff costs and unit route operating costs dropped 2.2% and 1.6%, respectively, while unit aircraft maintenance and unit depreciation and operating leases grew 6.4% and 14.9%, respectively.

Significant contribution from investment income: Associates' income contributed HK\$2.63bn in 2017, representing 28.4% YoY growth, thanks to earnings improvement at Air China and other associates (i.e. AHK Air Hong Kong Limited, Asia Miles Limited).

Dividend in line: Despite the net loss in 2017, the company declared a full-year DPS of HK\$0.05, in line with our estimate.

Exhibit 2: 2017 Financial Results

(HK\$ mn)	2017	2016	% Chg	2H17	2H16	%Chg	1H17	1H16	%Chg
Operating Revenue									
Passenger & Exc Baggage	66,408	66,926	-0.8%	34,303	33,513	2.4%	32,105	33,413	-3.9%
Freight & Mail	23,903	20,063	19.1%	13,388	10,648	25.7%	10,515	9,415	11.7%
Other	6,973	5,762	21.0%	3,735	2,907	28.5%	3,238	2,855	13.4%
Total Oper. Rev.	97,284	92,751	4.9%	51,426	47,068	9.3%	45,858	45,683	0.4%
Operating Expenses									
Salaries	19,962	19,770	1.0%	10,117	9,903	2.2%	9,845	9,867	-0.2%
Depreciation	8,824	8,035	9.8%	4,542	4,148	9.5%	4,282	3,887	10.2%
Operating Leases	5,286	4,458	18.6%	2,869	2,309	24.3%	2,417	2,149	12.5%
Route Operating Costs	15,225	14,985	1.6%	7,918	7,609	4.1%	7,307	7,376	-0.9%
Aircraft Fuel	31,112	27,953	11.3%	16,175	14,694	10.1%	14,937	13,259	12.7%
Maintenance	9,607	8,856	8.5%	5,146	4,686	9.8%	4,461	4,170	7.0%
Commissions	681	700	-2.7%	361	329	9.7%	320	371	-13.7%
BRortization - Goodwill & Intangible	530	515	2.9%	276	272	1.5%	254	243	4.5%
Others	8,336	8,004	4.1%	3,767	4,307	-12.5%	4,569	3,697	23.6%
Total Oper. Exp.	99,563	93,276	6.7%	51,171	48,257	6.0%	48,392	45,019	7.5%
Operating Income	(2,279)	(525)	334.1%	255	(1,189)	nm	(2,534)	664	nm
<i>Operating Margin</i>	-2.3%	-0.6%	-1.8ppt	0.5%	-2.5%	3.0ppt	-5.5%	1.5%	-7.0ppt
Non-operating Items									
Net Int Inc. (Exp.)	(1,761)	(1,301)	35.4%	(947)	(694)	36.5%	(814)	(607)	34.1%
Profit on Sale of Inv	586	-	nm	-	-	n.m.	586	-	n.m.
Exceptional Item	244	-	nm	-	-	n.m.	244	-	n.m.
Assoc Co Inc (Air China)	2,630	2,049	28.4%	2,097	1,366	53.5%	533	683	-22.0%
Pretax Income	(580)	223	-360.1%	1,405	(517)	nm	(1,985)	740	nm
Taxes	308	497	-38.0%	392	260	50.8%	(84)	237	-135.4%
Profit/(loss) after tax and before M.I.	(888)	(274)	224.1%	1,013	(777)	nm	(1,901)	503	nm
Minority Interests	371	301	23.3%	221	151	46.4%	150	150	0.0%
Net Income	(1,259)	(575)	119.0%	792	(928)	nm	(2,051)	353	nm
<i>Net Margin</i>	-1.3%	-0.6%	-0.7ppt	1.5%	-2.0%	3.5ppt	-4.5%	0.8%	-5.2ppt

Source: Company Data, Morgan Stanley Research

Business Turnaround set to Continue; Raising PT & Earnings

Raise PT to HK\$15.34 Maintain EW

We are raising our PT by 10% to HK\$15.34 based on revised earnings assumptions, implying 11% upside potential. While we are impressed with the company's better-than-expected performance in turning the business around, we are still concerned about its long-term strategic position and uncertainties led by the expected launch of Guangzhou-Shenzhen-Hong Kong HSR services in 3Q18. Therefore, we maintain our EW rating.

Exhibit 3: CPA: Morgan Stanley Estimates vs. Consensus

Year to Dec 31		2018E	2019E	2020E
CPA (0293.HK)				
MS estimates	HKD mn	1,281	4,084	4,003
Consensus estimates	HKD mn	620	3,444	4,369
% variance		106.7%	18.6%	-8.4%

Source: Thomson Reuters Consensus, Morgan Stanley Research (E) estimates

We raise our 2018e and 2019e net earnings to HK\$1.28bn and HK\$4.08bn, and introduce 2019e with a net profit of HK\$4bn, mainly thanks to further improvement in cargo and passenger revenues and significant earnings contribution from its associate – Air China. Our estimates are 107% and 19% above consensus in 2018-19e, respectively, but 8% below consensus in 2020e.

We continue to value CPA shares using a scenario weighted-average approach. We maintain our probability weightings for bull (20%), base (70%) and bear (10%) cases. The higher bull than bear case weighting reflects our expectation that CPA's earnings will recover gradually over in the next few years.

We continue to use EV/EBITDA multiples to value airlines in an earnings recovery phase, but we cross-check that against implied P/BV multiples vs. historical means.

Base Case: 70% weighting (unchanged)

Exhibit 4: CPA: Probability-weighted Price Target

HK\$	Val.	Prob.	Prob-wt Val	P/BV
Bull case	18.04	20%	3.61	1.1
Base case	15.20	70%	10.64	1.0
Bear case	10.94	10%	1.09	0.7
Price target		100%	15.34	1.0

Source: Morgan Stanley Research

Scenario Value: HK\$15.20 from HK\$14.12

We lower our forward EV/EBITDA multiple to 9.7x from 10x previously, as we think a small discount is appropriate to reflect the greater contribution from non-core investment income. In addition, we cross check that with P/B multiples, which implies a 2018e P/B of 1.0x, the same as our previous assumption at 1.0x.

We assume capacity growth at 4.3%, 4.0% and 5.0% for 2017-19e, with PLF remaining stable at 85%. We also assume 3.9%, -2.2% and -1% change in passenger yield in 2017-19e, to account for changes in fuel surcharges.

Bull Case: 20% weighting (unchanged)

Scenario Value: HK\$18.40 from HK\$15.83

Our bull-case scenario value reflects better-than-expected yield (+3%) and higher load factors (PLF +2pt; FLF +2pt), led by improving pax and cargo traffic demand. Our bull-case value implies 10.5x EV/EBITDA on our 2018 estimate, which is unchanged.

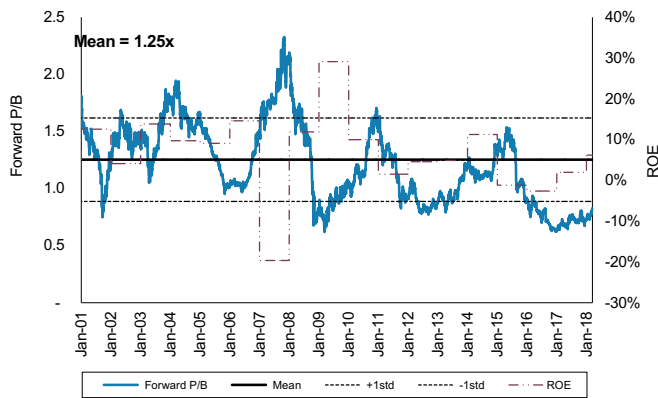
Bear Case: 10% weighting (unchanged)

Scenario Value: HK\$10.94 from HK\$8.99

Our bear-case scenario value assumes further 5% yield weakness led by demand contraction and currency weakness from CPA's exposures to GBP, AUD, EUR, etc. It also implies 8.5x EV/EBITDA, in line with the historical average since 2012. As we cross-check with an implied 0.6x P/BV multiple, we see limited downside risk in our bear case value.

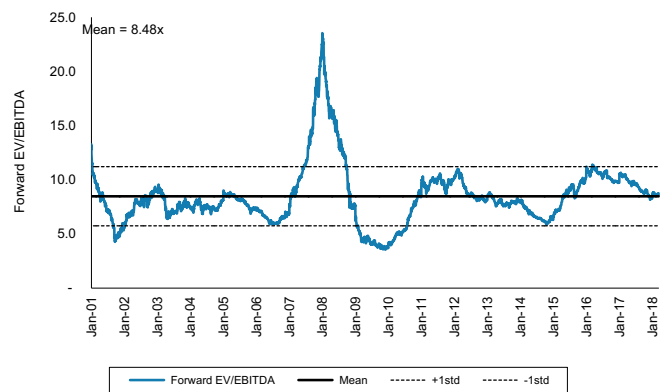
Our bear, bull and base case values increase by 22%, 14% and 8%, respectively. Specifically, although our EV changes are the same as the value changes for EBITDA multiplied by EV/EBITDA (4%/4%/1% for bear/ bull/base cases), we assume the same net debt and minority interest under all scenarios. Therefore, this sees our calculated market cap change by 22%/14%/8%, respectively, which in turn is reflected in our bear/bull/base cases.

Exhibit 5: CPA: Forward P/BV, Jan 2001 to Now



Source: Bloomberg, company data, Morgan Stanley Research

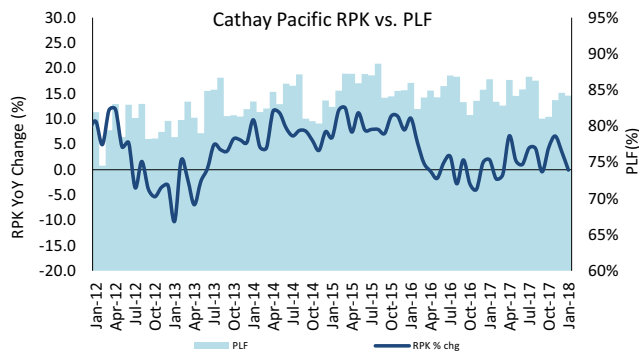
Exhibit 6: CPA: Forward EV/EBITDA, Jan 2001 to Now



Source: Bloomberg, company data, Morgan Stanley Research

Exhibit 7: CPA: RPK and PLF, Jan,2012-Now

graph

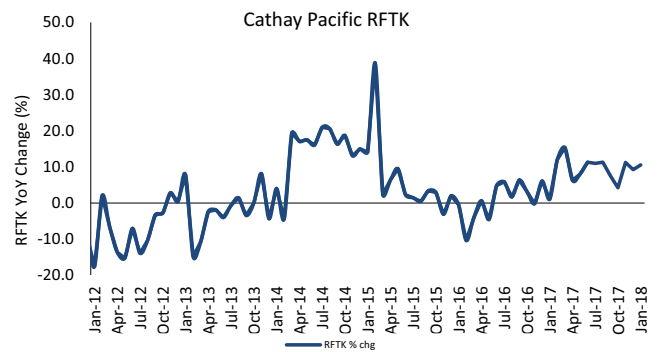


Page 1

Source: Company data, Morgan Stanley Research

Exhibit 8: CPA: RFTK and RFTK change, Jan,2012-Now

graph



Page 1

Source: Company data, Morgan Stanley Research

Exhibit 9: CPA: New vs. Old Estimates, 2018-19

HK\$ mn	2018E			2019E		
	New Est	Old Est	% Diff	New Est	Old Est	% Diff
Operating Revenue						
Passenger & Exc Baggage	72,507	69,537	4.3%	73,748	73,041	1.0%
Freight & Mail	26,298	23,090	13.9%	27,005	24,017	12.4%
Other	6,422	6,021	6.7%	6,549	6,309	3.8%
Total Oper. Rev.	105,228	98,647	6.7%	107,303	103,367	3.8%
Operating Expenses						
Salaries	19,172	18,161	5.6%	19,747	18,706	5.6%
Depreciation	9,365	9,229	1.5%	9,677	9,506	1.8%
Operating Leases	5,815	5,394	7.8%	6,396	5,934	7.8%
Route Operating Costs	16,023	15,991	0.2%	16,654	16,623	0.2%
Aircraft Fuel	33,958	29,568	14.8%	30,752	28,347	8.5%
Maintenance	10,111	9,638	4.9%	10,509	10,018	4.9%
Commissions	798	765	4.3%	811	803	1.0%
Amortization - Goodwill & Intangible	525	525	0.0%	525	525	0.0%
Others	8,418	7,892	6.7%	8,584	8,269	3.8%
Total Oper. Exp.	104,184	97,163	7.2%	103,655	98,731	5.0%
Operating Income	1,044	1,485	-29.6%	3,647	4,636	-21.3%
<i>Operating Margin</i>	<i>1.0%</i>	<i>1.5%</i>	<i>-51.2%</i>	<i>3.4%</i>	<i>4.5%</i>	<i>-24.2%</i>
EBITDA	13,957	13,459	3.7%	17,684	17,100	3.4%
Non-operating Items						
Net Int Inc. (Exp.)	(2,156)	(1,976)	9.1%	(2,649)	(2,310)	14.7%
Forex Gain (Loss)	0	0	NM	0	0	NM
Profit on Sale of Inv	0	0	na	0	0	na
Exceptional Item	0	0	na	0	0	na
Assoc Co Inc (Air China)	3,023	2,221	36.1%	3,834	2,433	57.6%
Pretax Income	1,911	1,729	10.5%	4,833	4,758	1.6%
Taxes	296	268	10.5%	749	737	1.6%
Minority Interests	334	298	12.1%	0	0	n.m.
Net Income	1,281	1,163	10.1%	4,084	4,021	1.6%
<i>Net Margin</i>	<i>1.2%</i>	<i>1.2%</i>	<i>.0ppt</i>	<i>3.8%</i>	<i>3.9%</i>	<i>-2.2%</i>

Source: Morgan Stanley Research (E) estimates

Airlines: Valuation Comparisons

Exhibit 10: Airlines: Valuation Comparisons

Company	CURR	Last px 3/12/18	Target Price	MS Rating	Mkt Cap (LC Mn)	Mkt Cap (USD Mn)	Share Price Perf.				52-wk		P/E (x)			P/BV (x)		
							1-mo	3-mo	12-mo	YTD	High	Low	17E	18E	19E	17E	18E	19E
Chinese Airlines																		
Air China-H	HKD	11.60	13.30	O	216,623	27,643	13%	43%	105%	22%	12.86	5.63	10.9	10.5	7.5	1.3	1.4	1.2
CEA-H	HKD	6.66	7.85	O	124,429	15,878	15%	46%	62%	17%	7.43	3.75	10.3	10.4	6.8	1.2	1.2	1.0
CSA-H	HKD	10.26	11.55	O	131,549	16,787	19%	42%	116%	27%	11.00	4.72	10.4	13.1	8.5	1.3	1.5	1.3
Air China-A	CNY	13.27	12.21	E	174,940	27,643	10%	23%	67%	8%	14.58	7.85	17.1	14.9	10.7	2.0	2.0	1.7
CEA-A	CNY	7.69	8.15	E	100,486	15,878	4%	3%	7%	-6%	8.85	6.42	17.8	14.8	9.7	2.1	1.8	1.5
CSA-A	CNY	11.83	12.36	E	106,236	16,787	9%	6%	54%	-1%	12.95	7.45	18.5	18.7	12.2	2.4	2.1	1.9
Spring Airlines	CNY	34.26	48.70	O	27,428	4,334	8%	-9%	-8%	-8%	41.84	30.01	24.1	19.0	12.6	3.5	2.3	2.0
Cathay Pacific Airways	HKD	13.92	15.34	E	54,759	6,988	14%	24%	20%	15%	13.92	10.20	NM	47.2	13.7	0.9	1.0	1.0
Foreign FSCs																		
Singapore Airlines	SGD	11.16	12.11	O	13,192	10,021	4%	6%	13%	5%	11.50	9.66	15.7	19.0	16.8	1.0	0.9	0.9
Japan Airlines	JPY	4,243	4,900	O	1,494,763	14,000	7%	-1%	16%	-4%	4,504	3,225	10.7	9.6	10.8	1.4	1.3	1.2
ANA Holdings	JPY	4,224	3,800	U	1,479,373	13,856	0%	-9%	25%	-10%	4,783	3,220	11.7	11.5	11.1	1.4	1.3	1.2
Korean Air Lines Co Ltd	KRW	33,850	40,000	E	3,210,500	3,016	-6%	7%	20%	0%	39,500	27,600	3.8	12.2	3.5	1.1	1.0	0.8
Air France-KLM	EUR	9	13	E	4,006	4,929	-12%	-26%	25%	-31%	14.65	6.88	NM	4.8	4.3	1.1	0.9	0.7
Delta Air Lines, Inc.	USD	56	64	O	40,788	40,788	11%	5%	19%	0%	60.79	43.81	9.6	7.8	7.0	2.9	2.5	2.2
American Airlines Group Inc	USD	56.07	59.00	E	27,569	27,569	16%	10%	29%	8%	59.08	39.21	7.7	7.0	6.7	6.8	4.5	3.2
Median												10.2	9.6	7.0	1.4	1.3	1.2	
Foreign LCCs																		
Air Asia	MYR	4.08	4.00	O	13,656	3,492	-1%	27%	42%	22%	4.75	2.74	7.6	8.3	7.8	1.3	1.4	1.2
easyJet	GBP	1,563	1,880.00	O	620,511	8,592	-1%	7%	60%	7%	1,699	942	14.9	12.5	11.1	1.7	2.0	1.9
Ryanair	EUR	16	20.00	O	20,340	25,028	3%	-9%	13%	7%	20	14	13.6	13.3	12.5	4.1	3.7	3.1
Southwest Airlines	USD	59.70	74.00	O	36,738	36,738	8%	-6%	6%	-9%	66.98	49.76	16.8	10.6	8.6	3.9	3.4	3.2
Median												14.3	11.6	9.8	2.8	2.7	2.5	
Median - Total												11.7	12.2	9.7	1.4	1.5	1.3	

Company	ROE (%)			EV/EBITDA (x)			EV/EBITDAR (x)			Dividend Yield (%)			RPK YoY Growth (%)			Net Gearing (%)		
	17E	18E	19E	17E	18E	19E	17E	18E	19E	17E	18E	19E	17E	18E	19E	17E	18E	19E
Chinese Airlines																		
Air China-H	14%	14%	17%	8.3	7.2	5.4	9.8	8.3	6.8	2.1	2.2	3.1	6.6	9.0	6.3	95%	80%	63%
CEA-H	13%	13%	17%	9.8	8.6	6.3	9.6	8.4	6.4	0.0	0.0	0.0	9.2	11.1	10.7	231%	209%	182%
CSA-H	14%	13%	16%	8.6	7.8	5.6	8.2	6.8	4.8	1.9	1.5	2.3	11.8	11.2	8.0	68%	73%	59%
Air China-A	14%	14%	17%	8.3	7.2	5.4	9.8	8.3	6.8	0.0	0.0	0.0	6.6	9.0	6.3	95%	80%	63%
CEA-A	13%	13%	17%	9.8	8.6	6.3	9.6	8.4	6.4	0.0	0.0	0.0	9.2	11.1	10.7	231%	209%	182%
CSA-A	14%	13%	16%	8.6	7.8	5.6	8.2	6.8	4.8	1.1	1.0	1.6	11.8	11.2	8.0	68%	73%	59%
Spring Airlines	16%	15%	17%	16.7	10.8	7.8	16.0	13.2	9.4	0.4	0.5	0.8	23.4	12.0	15.8	52%	25%	28%
Cathay Pacific Airways	-3%	2%	7%	11.9	9.6	8.3	11.3	7.8	6.2	0.4	0.7	2.6	2.5	5.1	4.0	110%	127%	142%
Foreign FSCs																		
Singapore Airlines	6%	5%	5%	4.5	5.5	6.0	3.7	3.5	3.2	3.2	2.6	3.0	3.1	0.4	0.4	0%	23%	41%
Japan Airlines	13%	12%	10%	4.9	4.6	4.5	4.8	4.3	4.2	2.6	2.7	2.8	na	na	na	5%	6%	7%
ANA Holdings	14%	11%	10%	5.7	5.6	5.6	5.5	5.2	5.0	1.4	1.7	1.9	6.4	3.4	8.0	55%	58%	56%
Korean Air Lines Co Ltd	35%	8%	24%	7.2	7.4	6.1	7.6	7.7	6.6	0.7	0.7	na	na	na	438%	411%	308%	
Air France-KLM	-12%	24%	22%	3.1	2.3	1.8	2.4	2.4	2.2	0.0	0.0	4.3	3.5	na	81%	52%	25%	
Delta Air Lines, Inc.	27%	28%	27%	6.2	6.2	5.5	6.2	6.4	6.2	1.8	2.2	2.5	na	na	na	441%	324%	152%
American Airlines Group Inc	56%	63%	47%	5.2	5.2	4.9	5.4	5.5	5.3	0.9	0.9	1.0	na	na	na	394%	224%	156%
Median	14%	12%	22%	5.2	5.5	5.5	5.4	5.2	5.0	1.4	1.7	1.9				81%	58%	56%
Foreign LCCs																		
Air Asia	22%	17%	17%	6.2	6.8	5.2	7.8	7.5	6.8	6.0	4.9	1.9	8.4	7.4	10.0	89%	66%	34%
easyJet	11%	13%	17%	6.6	7.4	6.5	8.4	7.2	6.4	3.4	3.1	4.4	10.0	5.8	6.0	2%	9%	5%
Ryanair	33%	30%	27%	8.8	8.7	8.0	9.9	9.1	8.7	0.0	0.0	0.0	13.8	8.6	6.1	8%	3%	1%
Southwest Airlines	22%	29%	34%	7.4	5.7	4.7	6.8	6.1	5.6	0.7	0.9	1.0	na	na	na	13%	14%	16%
Median	22%	23%	22%	7.0	7.1	5.9	8.1	7.3	6.6	2.0	2.0	1.5				11%	11%	11%
Median - Total	14%	13%	17%	7.4	7.2	5.6	8.2	7.2	6.2	0.9	0.9	1.6				81%	73%	59%

Source: Note: Prices as of March 12, 2018; Past performance is no guarantee of future results. Results shown do not include transaction costs. Source: Thomson Reuters, Morgan Stanley Research; E = Morgan Stanley Research Estimates, NM=Not Meaningful, na/NA=Not Available.

Disclosure Section

The information and opinions in Morgan Stanley Research were prepared or are disseminated by Morgan Stanley Asia Limited (which accepts the responsibility for its contents) and/or Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research), and/or Morgan Stanley Taiwan Limited and/or Morgan Stanley & Co International plc, Seoul Branch, and/or Morgan Stanley Australia Limited (A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents), and/or Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents), and/or Morgan Stanley India Company Private Limited, regulated by the Securities and Exchange Board of India ("SEBI") and holder of licenses as a Research Analyst (SEBI Registration No. INH000001105); Stock Broker (BSE Registration No. INB011054237 and NSE Registration No. INB/INF231054231), Merchant Banker (SEBI Registration No. INM000011203), and depository participant with National Securities Depository Limited (SEBI Registration No. IN-DP-NSDL-372-2014) which accepts the responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research, and/or PT. Morgan Stanley Sekuritas Indonesia and their affiliates (collectively, "Morgan Stanley").

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/researchdisclosures, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.

For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Qianlei Fan, CFA; Edward H Xu, CFA.

Unless otherwise stated, the individuals listed on the cover page of this report are research analysts.

Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at www.morganstanley.com/institutional/research/conflictolicies.

Important US Regulatory Disclosures on Subject Companies

As of February 28, 2018, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in Morgan Stanley Research: Shenzhen Airport Company, Sinotrans Limited, ZTO Express.

Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of BOC Aviation, China Eastern Airlines, S.F. Holding Co Ltd, Shenzhen International Holdings, TravelSky Technology.

Within the last 12 months, Morgan Stanley has received compensation for investment banking services from BOC Aviation, **Cathay Pacific Airways**, Shenzhen International Holdings.

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from Air China Limited, Beijing Capital Int'l Airport, BOC Aviation, **Cathay Pacific Airways**, China Eastern Airlines, China Merchants Port Holdings, China Southern Airlines, COSCO Shipping Holdings Ltd, COSCO SHIPPING Ports Limited, Hutchison Port Holdings Trust, Kerry Logistics Network, Orient Overseas Int'l Limited, Pacific Basin Shipping, Shanghai International Port Group Co Ltd, Shenzhen International Holdings, SITC International Holdings Company, TravelSky Technology.

Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from BOC Aviation, **Cathay Pacific Airways**, Orient Overseas Int'l Limited, Pacific Basin Shipping, Shenzhen International Holdings, ZTO Express.

Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: Air China Limited, Beijing Capital Int'l Airport, BOC Aviation, **Cathay Pacific Airways**, China Eastern Airlines, China Merchants Port Holdings, China Southern Airlines, COSCO Shipping Holdings Ltd, COSCO SHIPPING Ports Limited, Hutchison Port Holdings Trust, Kerry Logistics Network, Orient Overseas Int'l Limited, Pacific Basin Shipping, S.F. Holding Co Ltd, Shanghai International Port Group Co Ltd, Shenzhen International Holdings, SITC International Holdings Company, TravelSky Technology.

Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following company: Air China Limited, BOC Aviation, **Cathay Pacific Airways**, Orient Overseas Int'l Limited, Pacific Basin Shipping, Shenzhen International Holdings, ZTO Express.

The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

Global Stock Ratings Distribution

(as of February 28, 2018)

The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm.

For disclosure purposes only (in accordance with NASD and NYSE requirements), we include the category headings of Buy, Hold, and Sell alongside our

ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
Overweight/Buy	1175	37%	315	41%	27%	555	39%
Equal-weight/Hold	1369	43%	357	47%	26%	643	45%
Not-Rated/Hold	53	2%	5	1%	9%	7	0%
Underweight/Sell	552	18%	87	11%	16%	222	16%
TOTAL	3,149		764			1427	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Stock Price, Price Target and Rating History (See Rating Definitions)

Cathay Pacific Airways (0293.HK) - As of 3/14/18 in HKD
Industry : Hong Kong/China Transportation & Infrastructure



Stock Rating History: 3/1/15 : E/I; 6/27/16 : U/I; 11/10/16 : E/I

Price Target History: 12/16/14 : 17.32; 3/4/15 : 16.21; 3/19/15 : 18.22; 6/24/15 : 19.32; 8/18/15 : 17.03; 1/21/16 : 14.33; 6/27/16 : 9.7; 11/10/16 : 9.43; 4/18/17 : 11.63; 8/18/17 : 10.88; 1/11/18 : 13.95

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target --- No Price Target Assigned (NA)
 Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) ■
 Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Ratings/Industry View
 Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)
 Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers

Important disclosures regarding the relationship between the companies that are the subject of Morgan Stanley Research and Morgan Stanley Smith Barney LLC or Morgan Stanley or any of their affiliates, are available on the Morgan Stanley Wealth Management disclosure website at www.morganstanley.com/online/researchdisclosures. For Morgan Stanley specific disclosures, you may refer to www.morganstanley.com/researchdisclosures.

Each Morgan Stanley Equity Research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval is conducted by the same person who reviews the Equity Research report on behalf of Morgan Stanley. This could create a conflict of interest.

Other Important Disclosures

Morgan Stanley & Co. International PLC and its affiliates have a significant financial interest in the debt securities of BOC Aviation, Shanghai International Port Group Co Ltd.

Morgan Stanley Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. In addition, certain Research publications are intended to be updated on a regular periodic basis (weekly/monthly/quarterly/annual) and will ordinarily be updated with that frequency, unless the Research Analyst and Research Management determine that a different publication schedule is appropriate based on current conditions. Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Matrix at <http://www.morganstanley.com/matrix>.

Morgan Stanley Research is provided to our clients through our proprietary research portal on Matrix and also distributed electronically by Morgan Stanley to clients. Certain, but not all, Morgan Stanley Research products are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience. For access to all available Morgan Stanley Research, please contact your sales representative or go to Matrix at <http://www.morganstanley.com/matrix>.

Any access and/or use of Morgan Stanley Research is subject to Morgan Stanley's Terms of Use (<http://www.morganstanley.com/terms.html>). By accessing and/or using Morgan Stanley Research, you are indicating that you have read and agree to be bound by our Terms of Use (<http://www.morganstanley.com/terms.html>). In addition you consent to Morgan Stanley processing your personal data and using cookies in accordance with our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html), including for the purposes of setting your preferences and to collect readership data so that we can deliver better and more personalized service and products to you. To find out more information about how Morgan Stanley processes personal data, how we use cookies and how to reject cookies see our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html).

If you do not agree to our Terms of Use and/or if you do not wish to provide your consent to Morgan Stanley processing your personal data or using cookies please do not access our research.

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's

circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

The "Important US Regulatory Disclosures on Subject Companies" section in Morgan Stanley Research lists all companies mentioned where Morgan Stanley owns 1% or more of a class of common equity securities of the companies. For all other companies mentioned in Morgan Stanley Research, Morgan Stanley may have an investment of less than 1% in securities/instruments or derivatives of securities/instruments of companies and may trade them in ways different from those discussed in Morgan Stanley Research. Employees of Morgan Stanley not involved in the preparation of Morgan Stanley Research may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned and may trade them in ways different from those discussed in Morgan Stanley Research. Derivatives may be issued by Morgan Stanley or associated persons.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley Research personnel may participate in company events such as site visits and are generally prohibited from accepting payment by the company of associated expenses unless pre-approved by authorized members of Research management.

Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.

To our readers based in Taiwan or trading in Taiwan securities/instruments: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Any non-customer reader within the scope of Article 7-1 of the Taiwan Stock Exchange Recommendation Regulations accessing and/or receiving Morgan Stanley Research is not permitted to provide Morgan Stanley Research to any third party (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities regarding Morgan Stanley Research which may create or give the appearance of creating a conflict of interest. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments.

Certain information in Morgan Stanley Research was sourced by employees of the Shanghai Representative Office of Morgan Stanley Asia Limited for the use of Morgan Stanley Asia Limited.

Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only.

Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A.; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V. which is regulated by Comisión Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Morgan Stanley Asia International Limited, Hong Kong Branch; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Morgan Stanley Asia International Limited, Singapore Branch (Registration number T11FC0207F); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited; in Indonesia by PT. Morgan Stanley Sekuritas Indonesia; in Canada by Morgan Stanley Canada Limited, which has approved of and takes responsibility for its contents in Canada; in Germany by Morgan Stanley Bank AG, Frankfurt am Main and Morgan Stanley Private Wealth Management Limited, Niederlassung Deutschland, regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin); in Spain by Morgan Stanley, S.V., S.A., a Morgan Stanley group company, which is supervised by the Spanish Securities Markets Commission (CNMV) and states that Morgan Stanley Research has been written and distributed in accordance with the rules of conduct applicable to financial research as established under Spanish regulations; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulatory Authority and regulated by the Financial Conduct Authority and the Prudential Regulatory Authority, disseminates in the UK research that it has prepared, and approves solely for the purposes of section 21 of the Financial Services and Markets Act 2000, research which has been prepared by any of its affiliates. RMB Morgan Stanley Proprietary Limited is a member of the JSE Limited and regulated by the Financial Services Board in South Africa. RMB Morgan Stanley Proprietary Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited. The information in Morgan Stanley Research is being disseminated by Morgan Stanley Saudi Arabia, regulated by the Capital Market Authority in the Kingdom of Saudi Arabia, and is directed at Sophisticated investors only.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA), and is directed at Professional Clients only, as defined by the DFSA. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria to be a Professional Client.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.

As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided exclusively to persons based on their risk and income preferences by the authorized firms.

Comments and recommendations stated here are general in nature. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations. The trademarks and service marks contained in Morgan Stanley Research are the property of their respective owners. Third-party data providers make no warranties or representations relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P. Morgan Stanley Research, or any portion thereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.

INDUSTRY COVERAGE: Hong Kong/China Transportation & Infrastructure

COMPANY (TICKER)	RATING (AS OF)	PRICE* (03/14/2018)
Edward H Xu, CFA		
Air China Limited (601111.SS)	E (01/11/2018)	Rmb13.06
Air China Limited (0753.HK)	O (01/11/2018)	HK\$11.38
BOC Aviation (2588.HK)	O (07/05/2016)	HK\$43.55
Cathay Pacific Airways (0293.HK)	E (11/10/2016)	HK\$13.78
China Eastern Airlines (600115.SS)	E (01/11/2018)	Rmb7.47
China Eastern Airlines (0670.HK)	O (01/11/2018)	HK\$6.51
China Southern Airlines (600029.SS)	E (01/11/2018)	Rmb11.39
China Southern Airlines (1055.HK)	O (01/11/2018)	HK\$10.20
Daqin Railway Co. Ltd. (601006.SS)	O (08/29/2016)	Rmb9.00
Guangshen Railway (0525.HK)	O (02/08/2018)	HK\$5.10
Guangshen Railway (601333.SS)	O (02/08/2018)	Rmb4.79
Kerry Logistics Network (0636.HK)	O (03/27/2017)	HK\$10.80
S.F. Holding Co Ltd (002352.SZ)	E (01/22/2018)	Rmb52.00
Shenzhen International Holdings (0152.HK)	O (05/27/2014)	HK\$15.50
Sinotrans Air Transportation Development (600270.SS)	O (02/23/2016)	Rmb17.28
Sinotrans Limited (0598.HK)	O (05/27/2014)	HK\$4.77
SITC International Holdings Company (1308.HK)	E (08/21/2017)	HK\$8.50
Spring Airlines (601021.SS)	O (08/31/2015)	Rmb34.04
TravelSky Technology (0696.HK)	E (04/20/2017)	HK\$26.05
ZTO Express (ZTO.N)	O (11/21/2016)	US\$15.23
Qianlei Fan, CFA		
Beijing Capital Int'l Airport (0694.HK)	E (12/17/2013)	HK\$11.18
China Merchants Port Holdings (0144.HK)	E (12/07/2017)	HK\$18.30
COSCO SHIPPING Energy Transportation (1138.HK)	E (10/18/2016)	HK\$4.34
COSCO SHIPPING Energy Transportation (600026.SS)	U (10/18/2016)	Rmb5.72
COSCO Shipping Holdings Ltd (601919.SS)	U (10/26/2017)	Rmb6.28
COSCO Shipping Holdings Ltd (1919.HK)	E (02/22/2017)	HK\$4.24
COSCO SHIPPING Ports Limited (1199.HK)	U (12/07/2017)	HK\$7.21
Guangzhou Baiyun Int'l Airport (600004.SS)	E (08/29/2017)	Rmb15.94
Hutchison Port Holdings Trust (HPHT.SI)	U (10/26/2017)	US\$0.34
Orient Overseas Int'l Limited (0316.HK)	E (07/18/2017)	HK\$73.45
Pacific Basin Shipping (2343.HK)	O (10/18/2016)	HK\$2.27
Shanghai International Airport (600009.SS)	O (08/28/2015)	Rmb49.84
Shanghai International Port Group Co Ltd (600018.SS)	E (12/07/2017)	Rmb7.41
Shenzhen Airport Company (000089.SZ)	O (01/27/2016)	Rmb8.61

Stock Ratings are subject to change. Please see latest research for each company.

* Historical prices are not split adjusted.