

SECTOR UPDATE

Aviation – Singapore

Embarking On The Recovery Journey

The recovery of the Singapore aviation sector is well on track. The consensus among aviation experts indicates that the sector is likely to recover to the pre-COVID-19 level towards end-24 (FY25 for Singapore-listed players). Among the three aviation plays under our coverage, SIAEC (BUY, Target: S\$2.80) is our top pick to ride the recovery, followed by SATS (BUY, Target: S\$4.65) and SIA (HOLD, Target: S\$4.80). We maintain MARKET WEIGHT on the Singapore aviation sector.

- Singapore aviation sector expected to recover by end-24 (FY25).** International Air Transport Association has forecasted global air travel passenger volume to recover to 103% of the pre-COVID-19 level (2019) by 2024 with APAC tracking slightly behind at 97% of the pre-COVID-19 level. Our conversations with the management of the three listed Singapore aviation companies – Singapore Airlines (SIA), SATS and SIA Engineering Company (SIAEC) – have revealed a similar timeline; the consensus is that the Singapore aviation sector is likely to fully recover by FY25.
- Singapore fully opening its borders, a major push to drive recovery.** Singapore has recently joined a number of its neighbouring countries in lifting most of the restrictions on international travel. From 1 Apr 22, fully vaccinated travellers from all origins can enter Singapore free of quarantine and on-arrival tests. We deem the relaxation as a major positive development for Singapore aviation and expect it to help Singapore move closer towards its goal to restore the passenger volume at Changi Airport to at least 50% of the pre-COVID-19 level in 2022.
- Varying paces of recovery, SIAEC the fastest, followed by SATS.** Due to airlines' proactive capacity re-activation plans (SIA will re-activate a flight as long as the operation is cash-generative), we expect flight activities to recover relatively faster than passenger volume. As such, revenue of businesses directly geared to flight activities, including SIAEC's line maintenance services (about 50% of its pre-COVID-19 revenue) and SATS' ground handling services (30%) should recover faster than revenue of businesses linked to relatively lagged passenger volume, such as SIA's passenger flown revenue (80%) and SATS' inflight catering revenue (40%).
- MCBs, SIA's legacy baggage from COVID-19.** To ensure it can stay afloat and fulfil its significant capital commitment, SIA issued S\$9.7b of mandatory convertible bonds (MCB) at the height of the pandemic. However, these MCBs would turn out to be highly dilutive if they are held to maturity and get converted. We believe MCBs have to be redeemed (and better early than late), before the earnings recovery can deliver meaningful value accretion to SIA's shareholders. The impact of COVID-19 on SIAEC and SATS is largely transient (manifested by goodwill/PPE impairments, one-off in nature).
- Dividend outlook.** We expect SIAEC and SATS (both in net cash positions) to resume dividend payment in FY23 when the two would have returned to positive core net profits (excluding government grants) by our estimates. SIAEC's dividend outlook is further raised by its 77.6% shareholder SIA's cash needs for MCB redemption (likely in early-FY25). As such, we do not rule out the possibility of a special payout by SIAEC by FY24.
- BUY SIAEC and SATS.** SIAEC (top pick) and SATS are our preferred proxies to ride the Singapore aviation sector's recovery.

FIGURE 1: PEER COMPARISON

Company	Rec	Price @ 24 Mar 22 (1cy)	Target Price (1cy)	Upside to TP (%)	Market Cap (US\$m)	PE			P/B			Yield			2022F Net Gearing (%)
						23F (x)	24F (x)	25F (x)	23F (x)	24F (x)	25F (x)	23F (%)	24F (%)	25F (%)	
Singapore Airlines	HOLD	5.40	4.80	(11.2)	11,805	n.a.	47.4	22.0	1.5	1.5	1.5	0.0	0.0	0.0	78.0
SATS	BUY	4.17	4.65	11.4	3,447	54.3	29.5	17.6	2.8	2.7	2.5	1.4	2.6	4.6	(10.4)
SIA Engineering	BUY	2.33	2.80	20.2	1,927	28.5	19.8	14.4	1.5	1.5	1.5	2.6	3.9	5.2	(44.4)
Average						41.4	32.2	18.0	1.9	1.9	1.8	1.3	2.2	3.2	7.7

Source: Bloomberg, UOB Kay Hian

MARKET WEIGHT

(Maintained)

SECTOR PICKS

Company	Ticker	Rec	Share Price	Target Price
SIA Engineering	SIE SP	BUY	2.33	2.80
SATS	SATS SP	BUY	4.17	4.65
Singapore Airlines	SIA SP	HOLD	5.40	4.80

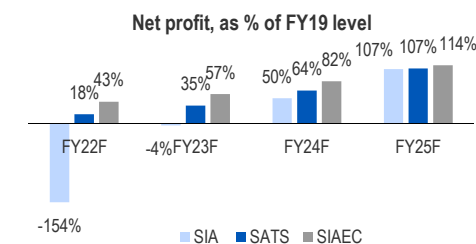
Source: Bloomberg, UOB Kay Hian

KEY NEIGHBOURING COUNTRIES WITH FULL BORDER OPENING OR MAJOR RELAXATION

Countries	% of Changi Airport throughput in 2019	Relaxation/opening up effective from
Malaysia	10.2%	1 Apr 2022
India	~8%	27 Mar 2022
Indonesia	12.2%	21 Mar 2022
Vietnam	4.0%	15 Mar 2022
Australia	~8%	21 Feb 2022
Philippines	4.6%	10 Feb 2022
Thailand	9.9%	1 Feb 2022
Collectively	~57%	

Source: Civil Aviation Authority of Singapore, various media sources

PROJECTED NET PROFIT RECOVERY



Source: UOB Kay Hian

ANALYST(S)

Roy Chen, CFA
+65 6590 6627
roychen@uobkayhian.com

Contents

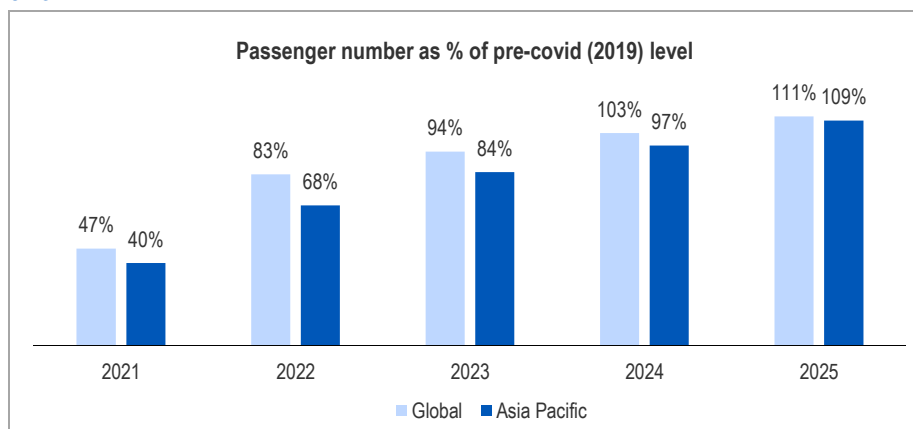
Sector Outlook	3
Investment Highlights For Singapore Aviation Plays.....	4
Recommendations.....	8

This report uses the closing prices of 24 March 2022

Sector Outlook

Global air travel to recover to pre-COVID-19 level by 2024, with APAC tracking slightly behind. Based on the International Air Transport Association's (IATA) latest forecast released on 1 Mar 22, global air traveller numbers are expected to hit 4.0b in 2024, representing 103% of the pre-COVID-19 (2019) level. The pace of recovery for air travel in APAC would track slightly behind the global recovery, as some major source markets like China are expected to lag behind in the global trend of opening up. Having said that, air travel in APAC is still moving in the same direction, with total passenger numbers expected to reach 97% of the pre-COVID-19 (2019) level by 2024 and to rise further to 109% by 2025.

FIGURE 4: GLOBAL AIR TRAVEL TO RECOVER TO PRE-COVID-19 LEVEL BY 2024, APAC TRACKING SLIGHTLY BEHIND



Source: IATA

Singapore fully opening up its border. On 24 Mar 22, the Singapore government announced further relaxation of its COVID-19 measures, including significantly easing its border measures. From 1 Apr 22 onwards, the Vaccinated Travel Lane (VTL) (currently limited to 32 partner countries/regions) will be replaced with the new Vaccinated Travel Framework (VTF) that allows quarantine-free entry for all fully vaccinated travellers whose origins of embarkation are not on the VTF restricted list (no country/region is on this list yet). Under the VTF, the on-arrival COVID-19 test is no longer required; the pre-departure test is kept for now but the requirement will be reviewed again in 2-4 weeks' time.

We view the relaxation as a significant positive development for the Singapore aviation sector and expect it to help restore Changi Airport's passenger volume in 2022 to at least 50% of the pre-COVID-19 level (the goal announced by the Transport Minister in his 9 March parliamentary speech). The move also makes Singapore the latest country to jump on the bandwagon of full border opening up or major relaxation of pandemic measures, joining many of its neighbouring countries (Figure 2).

Russia-Ukraine war has limited direct impacts to Singapore aviation... SIA's service to Moscow was suspended shortly after the outburst of the Russia-Ukraine war, and is only one of the 138 destinations that SIA served before the pandemic broke out. Some flights that previously used Russia's airspace have been re-routed. Although this requires additional mileage, the additional cost would eventually be passed down to customers. SIA has not traversed the Ukraine airspace for years.

...and its indirect impacts via higher fuel prices should not derail sector recovery either. In a normal market, high fuel prices (leading to higher airfares) may have some dampening effect on travel demand. However, given the current market situation where there is strong pent-up travel demand waiting to be released after years of travel restrictions, air passengers could be more desensitised to higher airfares. In addition, SIA's hedge of 40% of projected fuel consumption till mid-23 has also put it in a more comfortable position than many of its Asian peers who do not hedge. Our base case is that the Russia-Ukraine War and the related higher fuel cost would not derail the aviation sector's recovery in Singapore, unless the tension escalates into a bigger regional crisis.

IATA expects air passenger numbers in APAC to recover to 97% of the pre-COVID-19 level by 2024.

FIGURE 2: KEY NEIGHBOURING COUNTRIES WITH FULL BORDER OPENING OR MAJOR RELAXATION

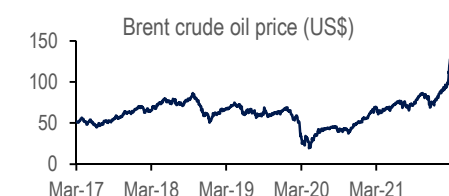
Countries	% of Changi Airport throughput in 2019	Relaxation/opening up effective from
Malaysia	10.2%	1 Apr 2022
India	~8%	27 Mar 2022
Indonesia	12.2%	21 Mar 2022
Vietnam	4.0%	15 Mar 2022
Australia	~8%	21 Feb 2022
Philippines	4.6%	10 Feb 2022
Thailand	9.9%	1 Feb 2022
Collectively	~57%	

Source: Civil Aviation Authority of Singapore, various media sources

The new VTF allows quarantine-free entry into Singapore for vaccinated travelers from almost all countries.

The easing would help Singapore move closer to its goal to restore Changi Airport's passenger volume in 2022 to >50% of the pre-COVID-19 level.

FIGURE 3: FUEL PRICES



Source: Bloomberg

Investment Highlights For Singapore Aviation Plays

All Singapore aviation plays to recover by FY25, though at varying paces. With reference to the latest IATA forecasts and also factoring in forecasts of a 50% passenger volume recovery as guided by the Transport Minister in his parliamentary speech, we have updated our financial projections for the three Singapore aviation companies (Figure 5), plotted as a percentage of their respective pre-COVID-19 levels. Based on our latest projections, net profits of all three Singapore aviation plays would fully recover by FY25, though at varying paces – SIAEC the fastest, followed by SATS, SIA the last.

Fight activities (pax capacity) to recover ahead of pax volume, ... In order to secure and even grow their market shares on the recovery journey, many airlines, including SIA, have adopted a strategy to add or re-activate a route/flight as long as the operation would be cash flow positive. This means that flight activities (pax capacity) would recover earlier than passenger volume.

...leading to faster recovery of SIAEC, followed by SATS. In line with our expectations that flight activities (pax capacity) would rise ahead of pax volume, businesses directly geared to flight activities, such as SIAEC's line maintenance business (about 50% of SIAEC's pre-COVID-19 revenue) and SATS' ground handling business (about 30% of SATS' pre-COVID-19 revenue), should recover faster than those linked to passenger numbers, such as SIA's passenger flown revenue (about 80% of SIA's pre-COVID-19 revenue) and SATS' inflight catering revenue (about 40% of SATS' pre-COVID-19 revenue).

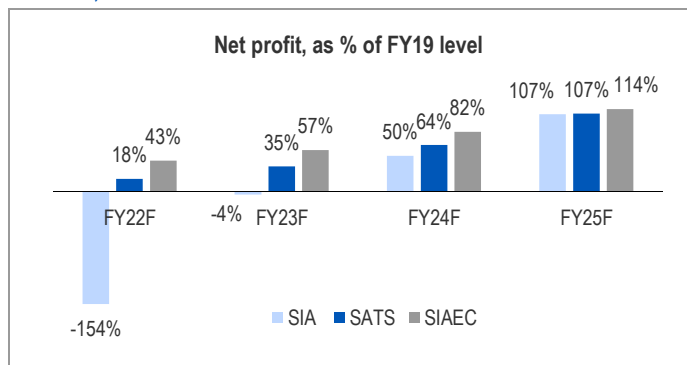
In addition, SIAEC's bottom line recovery is also likely to find support from the brought-forward engine service volume at its engine JVs, as SIAEC is proactively working with airlines and engine OEMs to plan ahead to even out the service schedule in anticipation of the peaking of engine service demand that comes with the sector's full recovery.

Net profits of all three aviation plays are expected to fully recover by FY25.

Flight activities are expected to rise ahead of passenger volume due to airlines' proactive capacity re-activation strategy.

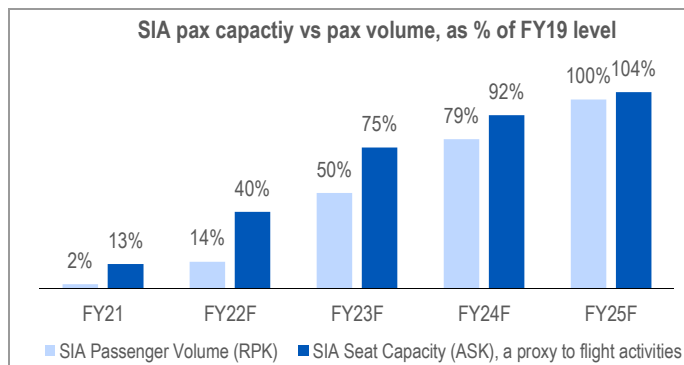
Businesses directly geared to flight activities are expected to recover faster than those linked to passenger numbers.

FIGURE 5: SG AVIATION PLAYS TO RECOVER FULLY BY FY25, SIAEC THE FASTEST, FOLLOWED BY SATS



Source: Company, UOB Kay Hian

FIGURE 6: PAX CAPACITY (FLIGHT ACTIVITIES) TO RECOVER AHEAD OF PAX VOLUME



Source: Company, UOB Kay Hian

Legacy impacts of COVID-19 more long-lasting for SIA due to alteration of its capital structure... We reckon the legacy impacts brought by COVID-19 are more long lasting on SIA than on SATS and SIAEC, given the significant size of SIA's dilutive MCBs, totalling S\$9.7b over two batches (2020 and 2021). Although the MCBs were well-tailored to SIA's needs and provided ample flexibility for SIA to stay afloat and to navigate through the pandemic, the instrument would turn out to be highly dilutive to common shareholders if they are never redeemed but are held to maturity instead (when they would be automatically converted).

By our estimates, the effective conversion prices at maturity (8 Jun 30) would be only S\$2.70 for the 2020 MCBs and S\$2.87 for the 2021 MCBs, based on the respective original amounts raised. (Conversion prices are subject to further downward adjustments if dividends are declared for common shares along the course.) This is compared with SIA's current share price of S\$5.40. Therefore, SIA shareholders should almost always prefer to have the MCBs redeemed than converted

SIA is saddled with the legacy baggage of the costly MCBs issued during the pandemic.

We believe SIA shareholders would prefer the MCBs to be redeemed, rather than converted,

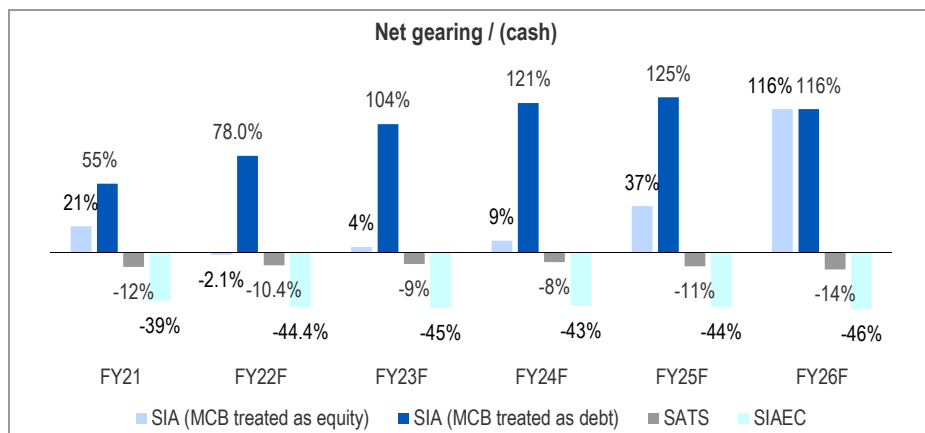
As for redemption, there is an embedded step-up yield to call of 4-6% over the term of the MCBs, meaning the later the redemption, the costlier the MCBs would be. Considering SIA's 3%-ish borrowing cost in normal market conditions, we believe it is in the best interests of SIA's common shareholders for the MCBs to be redeemed at the earliest possible date. However, this also means SIA's earnings recovery provides less accretion for shareholders' value in the medium term (since the priority now is to redeem and pay off the MCBs).

...but largely transient for SATS and SIAEC. The negative impacts on SATS and SIAEC were manifested through impairments of goodwill and property, plant, and equipment (PPE), which are one-off in nature and would not jeopardise the companies' value accretion for shareholders as SATS and SIAEC emerge from the pandemic.

SIA's balance sheet significantly weakened by pandemic but balance sheets of SATS and SIAEC remained strong. Figure 8 shows the net gearing/(cash) positions for the three companies. If MCBs are treated as debt, SIA's net gearing is expected to elevate from the current level of about 68% (as of 30 Sep 21) to the peak of 125% by FY25, due to the combined effects of: a) cost compounding of the MCBs outpacing the earnings recovery, and b) pre-committed capex of S\$16.3b over FY22-25.

On the other hand, SATS and SIAEC have retained strong balance sheets during the pandemic, with respective net cash positions of S\$147m and S\$679m as of 30 Sep 21. The strong balance sheets have allowed SATS and SIAEC to navigate through the pandemic comfortably while even eyeing potential investment opportunities.

FIGURE 8: SATS' AND SIAEC'S BALANCE SHEETS MUCH STRONGER THAN SIA'S



Source: Respective companies, UOB Kay Hian

Dividend outlook – SIAEC the best; no dividend from SIA in the medium term. As alluded earlier, we believe for SIA the redemption of the costly MCBs would be of higher priority than paying dividends to shareholders. Given the significant amount of MCBs outstanding for redemption, we expect no dividend payment by SIA in the medium term.

We expect both SIAEC and SATS to resume dividend payment from FY23, as the two are expected to return to profitability even without government grants. Having said that, we believe the magnitude of dividend recovery could be more meaningful for SIAEC, backed by its: a) faster pace of profitability recovery, and b) stronger net cash position of S\$679m (about 26% of SIAEC's current market cap). In fact, SIA's need to redeem the MCBs at its earliest possible date could have put more pressure on SIAEC to repatriate cash to SIA in the form of dividend (SIA is a 77.6% controlling shareholder of SIAEC). As such, we do not rule out the possibility of some special dividend by SIAEC by FY24.

With reference to their respective historical dividend payout ratios (75-85% for SATS, 75-80% for SIAEC), we project full-year DPS of 6/11/19 S cents for SATS in FY23/24/25, translating to a yield of 1.4%/2.6%/4.6% on SATS' current price of S\$4.17. We project full-year DPS of 6/9/12 S cents for SIAEC in FY23/24/25, translating to a yield of 2.6%/3.9%/5.2% on SIAEC's current price of S\$2.33. Our dividend forecasts for SIAEC have yet to include some possible special dividend by FY24.

... and early, rather than late. The priority is to redeem/pay off MCBs, implying less value accretion and no dividend payment for shareholders in the medium term.

FIGURE 7: STEPPING UP YIELD TO CALL OF MCBs

Yield to call	If redemption occurs
4%	before year 4 from issuance
5%	between year 5-7
6%	after year 7 but before maturity

Source: SIA

SIA's net gearing (with MCBs treated as debt) is expected to climb to 125% by FY25.

SIAEC and SATS have maintained net cash positions during the pandemic.

SIAEC and SATS are likely to resume dividend payment in FY23.

SIAEC's dividend outlook is further boosted by its controlling shareholder SIA's need for cash.

Recommendations

Maintain MARKET WEIGHT on the Singapore aviation sector. We expect positive news flow on air traffic recovery and Singapore's further opening up to keep sentiment towards the aviation sector buoyant in the medium term. However, we caution that SIA, the largest listed proxy to Singapore aviation, has had its valuation run beyond the justified level by traditional valuation metrics.

Re-initiate coverage on SIA, SATS and SIAEC. SIAEC is a BUY with a target price of S\$2.80 (FY23 DCF, WACC: 8.5%, terminal growth: 3.0%). SATS is also a BUY with a target price of S\$4.65 (FY23 DCF, WACC: 7.0%, terminal growth: 3.0%). We recommend a HOLD on SIA with a target price of S\$4.80 (FY25 DCF, WACC: 6.0%, terminal growth: 3.0%).

For more details, please refer to the re-initiation reports on SIA, SATS and SIAEC

FIGURE 10: PEER COMPARISON

Company	Rec	Price @ 24 Mar 22 (lcy)	Target Price (lcy)	Upside to TP (%)	Market Cap (US\$m)	PE			P/B			Yield			2022F Net Gearing (%)
						23F (x)	24F (x)	25F (x)	23F (x)	24F (x)	25F (x)	23F (%)	24F (%)	25F (%)	
Singapore Airlines	HOLD	5.40	4.80	(11.2)	11,805	n.a.	47.4	22.0	1.5	1.5	1.5	0.0	0.0	0.0	78.0
SATS	BUY	4.17	4.65	11.4	3,447	54.3	29.5	17.6	2.8	2.7	2.5	1.4	2.6	4.6	(10.4)
SIA Engineering	BUY	2.33	2.80	20.2	1,927	28.5	19.8	14.4	1.5	1.5	1.5	2.6	3.9	5.2	(44.4)
Average						41.4	32.2	18.0	1.9	1.9	1.8	1.3	2.2	3.2	7.7

Source: Bloomberg, UOB Kay Hian

SIAEC and SATS as preferred proxies to ride the Singapore aviation recovery. SIAEC is our top sector pick, in view of its: a) faster pace of recovery (SIAEC is likely to return to core net profit within the next 1-2 quarters even without government grants), b) stronger balance sheet (net cash position at about 26% of market cap), and c) strong dividend outlook (we expect a meaningful dividend recovery in FY23 while not ruling out the possibility of a special payout by FY24). SIAEC has made good progress in its business developments during the pandemic, including deepening relationships with some of the world's leading engine OEMs. These developments are expected to contribute to SIAEC's growth in the long term. SIAEC is currently trading at 14.4x FY25F PE, which is 2.3SD below its five-year mean of 23.2x in a normal market (FY14-19).

We like SATS for its regional market leadership in inflight catering and aviation gateway services, making it a primary beneficiary of the air traffic recovery in the APAC region. We also applaud the company's efforts to diversify into the non-aviation segment and expect it to become another growth engine for SATS in the longer term. Having said that, we note some of its recent greenfield investments (eg the central kitchen investments in India and Singapore) may take a gestation period of 2-3 years before bearing fruit. SATS would face keener cost pressure from inflation and headcount build-up in the near term, though we expect these cost pressure can be passed down to customers as business conditions for SATS continue to recover. SATS is currently trading at 17.6x FY25F PE, which is 0.8SD below its five-year mean of 19.9x in a normal market (FY14-19).

For SIA, we believe that the significant amount of MCBs have to be redeemed first before SIA's earnings recovery can deliver meaningful value accretion to SIA shareholders. SIA's valuation has run beyond the justified level by traditional valuation metrics. It is currently trading at 1.50x FY23F P/B, an unprecedentedly high level or 4.2SD above its long-term historical mean of 0.79x. This could be due to the market: a) not fully comprehending the impact from the MCBs (and their distortion of SIA's financials), and/or b) trying to speculate on the strong market sentiment from the positive news flow. We have recommended a HOLD on SIA in light of the anticipated buoyant sentiment to the company. However, we highlight that we have applied very favourable assumptions for SIA, with our target price aggressively based on a DCF value three years down the road. Investors are recommended to sell SIA into further share price strength.

Catalysts and risks. Catalysts for the aviation sector include a faster-than-expected pace of global opening up and travel relaxation. Downside risks include possibly more infectious/fatal COVID-19 variants that disrupt the global opening up process or further escalation of the Russia-Ukraine war which may dampen travel sentiment.

FIGURE 9: RATINGS AND TARGET PRICES

Company	Recommendation	Target Price
SIA Engineering	BUY	S\$2.80
SATS	BUY	S\$4.65
Singapore Airlines	HOLD	S\$4.80

Source: UOB Kay Hian

SIAEC is our top sector pick.

We recommend buying SATS to ride the aviation sector's recovery while giving some patience for SATS' non-aviation investments to bear fruit.

Investors should reduce holdings in SIA on share price strength.

Disclosures/Disclaimers

This report is prepared by UOB Kay Hian Private Limited ("UOBKH"), which is a holder of a capital markets services licence and an exempt financial adviser in Singapore.

This report is provided for information only and is not an offer or a solicitation to deal in securities or to enter into any legal relations, nor an advice or a recommendation with respect to such securities.

This report is prepared for general circulation. It does not have regard to the specific investment objectives, financial situation and the particular needs of any recipient hereof. Advice should be sought from a financial adviser regarding the suitability of the investment product, taking into account the specific investment objectives, financial situation or particular needs of any person in receipt of the recommendation, before the person makes a commitment to purchase the investment product.

This report is confidential. This report may not be published, circulated, reproduced or distributed in whole or in part by any recipient of this report to any other person without the prior written consent of UOBKH. This report is not directed to or intended for distribution to or use by any person or any entity who is a citizen or resident of or located in any locality, state, country or any other jurisdiction as UOBKH may determine in its absolute discretion, where the distribution, publication, availability or use of this report would be contrary to applicable law or would subject UOBKH and its connected persons (as defined in the Financial Advisers Act, Chapter 110 of Singapore) to any registration, licensing or other requirements within such jurisdiction.

The information or views in the report ("Information") has been obtained or derived from sources believed by UOBKH to be reliable. However, UOBKH makes no representation as to the accuracy or completeness of such sources or the Information and UOBKH accepts no liability whatsoever for any loss or damage arising from the use of or reliance on the Information. UOBKH and its connected persons may have issued other reports expressing views different from the Information and all views expressed in all reports of UOBKH and its connected persons are subject to change without notice. UOBKH reserves the right to act upon or use the Information at any time, including before its publication herein.

Except as otherwise indicated below, (1) UOBKH, its connected persons and its officers, employees and representatives may, to the extent permitted by law, transact with, perform or provide broking, underwriting, corporate finance-related or other services for or solicit business from, the subject corporation(s) referred to in this report; (2) UOBKH, its connected persons and its officers, employees and representatives may also, to the extent permitted by law, transact with, perform or provide broking or other services for or solicit business from, other persons in respect of dealings in the securities referred to in this report or other investments related thereto; (3) the officers, employees and representatives of UOBKH may also serve on the board of directors or in trustee positions with the subject corporation(s) referred to in this report. (All of the foregoing is hereafter referred to as the "Subject Business"); and (4) UOBKH may otherwise have an interest (including a proprietary interest) in the subject corporation(s) referred to in this report.

As of the date of this report, no analyst responsible for any of the content in this report has any proprietary position or material interest in the securities of the corporation(s) which are referred to in the content they respectively author or are otherwise responsible for.

IMPORTANT DISCLOSURES FOR U.S. PERSONS

This research report was prepared by UOBKH, a company authorized, as noted above, to engage in securities activities in Singapore. UOBKH is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution by UOBKH (whether directly or through its US registered broker dealer affiliate named below) to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"). All US persons that receive this document by way of distribution from or which they regard as being from UOBKH by their acceptance thereof represent and agree that they are a major institutional investor and understand the risks involved in executing transactions in securities.

Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through UOB Kay Hian (U.S.) Inc ("UOBKHUS"), a registered broker-dealer in the United States. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through UOBKH.

UOBKHUS accepts responsibility for the contents of this research report, subject to the terms set out below, to the extent that it is delivered to and intended to be received by a U.S. person other than a major U.S. institutional investor.

The analyst whose name appears in this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA") and may not be an associated person of UOBKHUS and, therefore, may not be subject to applicable restrictions under FINRA Rules on communications with a subject company, public appearances and trading securities held by a research analyst account.

Analyst Certification/Regulation AC

Each research analyst of UOBKH who produced this report hereby certifies that (1) the views expressed in this report accurately reflect his/her personal views about all of the subject corporation(s) and securities in this report; (2) the report was produced independently by him/her; (3) he/she does not carry out, whether for himself/herself or on behalf of UOBKH or any other person, any of the Subject Business involving any of the subject corporation(s) or securities referred to in this report; and (4) he/she has not received and will not receive any compensation that is directly or indirectly related or linked to the recommendations or views expressed in this report or to any sales, trading, dealing or corporate finance advisory services or transaction in respect of the securities in this report. However, the compensation received by each such research analyst is based upon various factors, including UOBKH's total revenues, a portion of which are generated from UOBKH's business of dealing in securities.

Reports are distributed in the respective countries by the respective entities and are subject to the additional restrictions listed in the following table.

General	This report is not intended for distribution, publication to or use by any person or entity who is a citizen or resident of or located in any country or jurisdiction where the distribution, publication or use of this report would be contrary to applicable law or regulation.
Hong Kong	This report is distributed in Hong Kong by UOB Kay Hian (Hong Kong) Limited ("UOBKHHK"), which is regulated by the Securities and Futures Commission of Hong Kong. Neither the analyst(s) preparing this report nor his associate, has trading and financial interest and relevant relationship specified under Para. 16.4 of Code of Conduct in the listed corporation covered in this report. UOBKHHK does not have financial interests and business relationship specified under Para. 16.5 of Code of Conduct with the listed corporation covered in this report. Where the report is distributed in Hong Kong and contains research analyses or reports from a foreign research house, please note: (i) recipients of the analyses or reports are to contact UOBKHHK (and not the relevant foreign research house) in Hong Kong in respect of any matters arising from, or in connection with, the analysis or report; and (ii) to the extent that the analyses or reports are delivered to and intended to be received by any person in Hong Kong who is not a professional investor, or institutional investor, UOBKHHK accepts legal responsibility for the contents of the analyses or reports only to the extent required by law.
Indonesia	This report is distributed in Indonesia by PT UOB Kay Hian Sekuritas, which is regulated by Financial Services Authority of Indonesia ("OJK"). Where the report is distributed in Indonesia and contains research analyses or reports from a foreign research house, please note recipients of the analyses or reports are to contact PT UOBKH (and not the relevant foreign research house) in Indonesia in respect of any matters arising from, or in connection with, the analysis or report.
Malaysia	Where the report is distributed in Malaysia and contains research analyses or reports from a foreign research house, the recipients of the analyses or reports are to contact UOBKHM (and not the relevant foreign research house) in Malaysia, at +603-21471988, in respect of any matters arising from, or in connection with, the analysis or report as UOBKHM is the registered person under CMSA to distribute any research analyses in Malaysia.
Singapore	This report is distributed in Singapore by UOB Kay Hian Private Limited ("UOBKH"), which is a holder of a capital markets services licence and an exempt financial adviser regulated by the Monetary Authority of Singapore. Where the report is distributed in Singapore and contains research analyses or reports from a foreign research house, please note: (i) recipients of the analyses or reports are to contact UOBKH (and not the relevant foreign research house) in Singapore in respect of any matters arising from, or in connection with, the analysis or report; and (ii) to the extent that the analyses or reports are delivered to and intended to be received by any person in Singapore who is not an accredited investor, expert investor or institutional investor, UOBKH accepts legal responsibility for the contents of the analyses or reports only to the extent required by law.
Thailand	This report is distributed in Thailand by UOB Kay Hian Securities (Thailand) Public Company Limited, which is regulated by the Securities and Exchange Commission of Thailand.
United Kingdom	This report is being distributed in the UK by UOB Kay Hian (U.K.) Limited, which is an authorised person in the meaning of the Financial Services and Markets Act and is regulated by The Financial Conduct Authority. Research distributed in the UK is intended only for institutional clients.
United States of America ('U.S.')	This report cannot be distributed into the U.S. or to any U.S. person or entity except in compliance with applicable U.S. laws and regulations. It is being distributed in the U.S. by UOB Kay Hian (US) Inc, which accepts responsibility for its contents. Any U.S. person or entity receiving this report and wishing to effect transactions in any securities referred to in the report should contact UOB Kay Hian (US) Inc. directly.

Copyright 2022, UOB Kay Hian Pte Ltd. All rights reserved.

<http://research.uobkayhian.com>

RCB Regn. No. 197000447W