We forecast SATS to continue posting solid earnings and topping the expectations in the market this coming year backed by four key drivers: 1) Improved efficiency through technological initiatives, process optimization and continuous employee training 2) Successful business expansion in the region with strong upswing momentum in China, India and Japan 3) Long-term partnership with Singapore Airlines and Changi Airport 4) Fast profitability turnaround by its China subsidiary. Backed by these key drivers, we project SATS will realize higher growth in both domestic and overseas operations in 2020.

SATS has proven to be resilient and adaptive to unexpected events in the market. Earlier this year, its business was affected by the grounding of B737 Max and the suspension of Jet Airways India. SATS is also facing near-term headwinds from a slowdown in air cargo arising from trade tensions between US and China. Nevertheless, the company remains unfazed and focused in searching for new opportunities and investments while improving efficiency and reducing overhead.

Looking beyond Singapore for long-term growth
SATS is investing for long-term growth in overseas markets with SGD1bil capital expenditure commitment over the next three years. The company has entered two joint ventures with Beijing Daxing International Airport, the world’s largest single-terminal airport. Its investments and gestation may need investor patience in the short term.
1. BACKGROUND

1.1 Introduction to SATS

SATS was incorporated in 1972 as a wholly-owned subsidiary of Singapore Airlines (SIA). SATS was listed on the Singapore Exchange Mainboard in May 2000 and was divested from SIA in September 2009. SATS is the leading provider of gateway services and food solutions in the region, with FY19 revenue of SGD1.8bil, and market cap of SGD5.6bil.

1.2 Business model

Today, SATS’s core operating businesses are food solutions and gateway services, and it is the dominant player at Changi Airport with approximately 80% market share. Through its various acquisitions and subsidiaries, SATS has diversified into the institutional catering business, began operating a cruise terminal, and expanded geographically to provide aviation services at various locations around the Asia and the Middle East.

- Food Solutions: “Food solutions” comprises in-flight catering, food logistics, industrial catering as well as chilled and frozen food manufacturing, and airline linen and laundry. SATS is the main in-flight caterer at Changi Airport and served 85% of all flights. It operates in-flight catering kitchens at Changi Airport, serving both mainline airline carriers (e.g., Singapore airline, Korean airline) and LCCs (e.g., Jetstar, Scoot). The kitchens had produced 167 million meals in 2019, gone up more than 8 times compared to 2000.

- Gateway Services: SATS is the main Gateway services provider at Changi Airport and it handled around 80% of all flights. The Gateway services offered at Changi Airport by SATS includes cabin handling (delivering meals, cabin cleaning, waste removal), apron services: ramp handling (loading, unloading, sorting of baggage, cargo and mail), passenger services (check-in facilities, transit lounge, unaccompanied minors, wheelchair passengers) and security (passenger screening, airport security). SATS served over 50 airlines, more than 623 thousands flights and 126 million passengers during 2019.
Through its various acquisitions and subsidiaries, SATS have expanded their business portfolio and regional footprint. In 2010, SATS acquired Japan Airline’s entire stake of TFK Corporation. SATS now owns 50.7% of TFK (with voting rights of 53.8%). TFK is the leading in-flight caterer at Narita International Airport and Haneda Airport in Japan.

In this year, SATS also acquired 50% of China food company, Nanjing Weizhou food company. Nanjing Weizhou Food company is a major producer of frozen food, ambient meal and food component to aviation company. Through this acquisition, the company is expected to have access to strong aviation customer to grow and strengthen their position in the Chinese aviation market outside of their existing locations at Beijing, Daxing, Tianjin and Shenyang airport.
2. Business Outlook

The airport service industry is expected to grow at a CAGR of 4.2% from 2018 to 2023. The future of the global airport service industry is promising, with the major growth drivers in rising air passenger traffic, opening of new airports, and expansion of new domestic and regional routes in the aviation market.

2.1 Japan and Tokyo Olympics 2020

On 21 August 2019, United States and Japan had agreed to increase the daytime services for 2 dozen flights daily, through the US-Japan Open Skies Agreement. This will boost arrivals by 28% from last year to an expected passenger inflow of 40 million to Japan in 2020. SATS through its subsidiary firm, SATS Investments Pte Ltd, had acquired TFK Corporation with a 59.4% stake. TFK Corporation is a food services company that operates in both Narita and Haneda airports and provides inflight catering to passengers. With the surge in inflight catering meals to meet the passenger traffic growth for Tokyo 2020 and beyond, the revenue is expected to grow at a projected value of 8% YOY.

In addition, the steady growth is poised to continue as official figures had showed a record 31.19 million foreign travellers to Japan in 2018 with expected number of visitors between 40 and 50 million after 2020.

2.2 China

In anticipation for the opening of the world’s largest airport terminal, Beijing Daxing International Airport in 2019, SATS entered into two joint ventures providing essential services. The first JV is a 40% stake with Capital Airports Holding Company (CAH) under the company name Beijing
CAH SATS Aviation Services Co., Ltd, to provide ground and cargo handling and other related services. The second JV is a 10 per cent stake with both CAH and Juneyao Airlines to set up a catering company named Beijing Daxing International Airport Inflight Catering Ltd, to offer inflight catering and other related services at Beijing Daxing International Airport.

Additionally, SATS completed their purchase of a key food supplier under the company name, SATS (Kunshan) Food Co., Ltd. This is an important acquisition as the company supplies to airports in Northern China which has significant growth potential for key industries such as petrochemicals, software and aircraft.

These strategic JVs and acquisitions in key locations are expected to facilitate SATS’ drive to increase their top line in China, the 2nd biggest economy in the world.

2.3 India

The highlight for SATS In India is the commencement of the 18 years long term cargo handling agreement starting from 2018 under the company name, Mumbai Cargo Service Center Airport Private Limited.

This is an important joint venture as it enables SATS to tap onto the fastest growing economic centre of India.

2.4 Singapore

In SATS home base, the company ink a 5 years contract with SIA with an option to extend for a further five years, encompassing inflight catering and cabin handling, passenger and ramp handling, cargo handling, aircraft interior cleaning, aviation security and laundry services. The new contract will also include the provision of aviation security services for Scoot.

This continuation of the cooperation with SIA is particularly important with the long term growth in its home market, which is well supported by Changi Airport's plan to double annual terminal passenger handling capacity to 135m passengers by around 2025.

2.5 Technological Initiatives

SATS had invested heavily in technological initiatives to improve service and productivity which is around 9.6% of the total expenditure in Financial Year 2018/2019. Below are details of initiatives implemented in the operational services in SATS.

Food Services

It had captured waste streams in the kitchens and this was done by using special converters to turn waste to energy in the form of refuse-derived fuel. In addition, by reducing the movement of people and equipment in the production floor, efficiency and overhead costs can be decreased. SATS had used digital twin technology to enhance resource planning and knowledge management using simulation and real time data. For example, AISATS had used automated exterior aircraft cleaning in Indira Gandhi International Airport to reduce water usage and cut down processing time from six to two hours. The kitchen facility had implemented an automated rice line which can produce approximately 4,000 portions of rice in an hour. Moreover, the auto-fryers had capacity to cook around 120 kg of rice or noodles in an hour. SATS had invested in shelf-life extension technologies such as FreshTech line to extend freshness of the meals without destroying the nutritional value and taste. The improvement in
productivity was also applied in China SATS’ Beijing Airport Inflight Kitchen which had automated several cuttings, slicing and pressing processes in the kitchen and increased efficiency by as much as eight times.

Gateway Services
In Malaysia, SATS subsidiary company, GTR, had launched first digital airport control centre in Kuala Lumpur International Airport that is able to turn a plane around in twenty-five minutes. AISATS in Bengaluru had launched a cargo app which extracts information on movement of cargo from SATS COSYS to facilitate cargo tracking and also provide real time information on flight schedules, airway bills, shipment tracking and e-Delivery order status. With the growth in eCommerce and to reduce delivery time through pre-clearance, SATS had added eFulfilment services to digital cargo platform and integrated it with customs authorities at a cargo’s end destination. Finally, SATS introduced an RFID-enabled tracking system that allow airlines, shippers, and consignees to track the delivery of high-value and express cargo in real-time from the origin to destination airport in Singapore, China, India and Indonesia.

3. Financial Analysis

3.1 Financial Structure
As the chart below shows, SATS has maintained a low debt leverage over the years. As of 25th October 2019, its net D/E ratio is as low as 6% and current ratio is as high as 1.88. For comparison, Servair, one of its competitors, has D/E ratio at 5.25 and current ratio at 0.85. Such conservative financial structure ensures the company’s sustainability under the current uncertain macroeconomic environment.

Figure 4: SATS Assets

Source: SATS
3.2 Revenue and Profitability

SATS generated S$1,828 million revenue and S$248 million gross profit in FY 2018. Its profitability has been improved significantly in last few years. The 8-year CAGR of net profit is 5.45%. It is of interest to identify how the improvement on profit margin is achieved.

To answer that question, we check on the company’s expenditure composition, which shows that staff cost is the largest component of overall expenditure, at 55.3%. It is within expectation, since food processing is a major part of the company’s business, and it is a labour-intensive industry.
Since employment cost is the largest expenditure, we choose to measure the company’s productivity by checking value added per employment cost, which stands for the return that company earns for a dollar that it spends on employment.

As the graph below shows, both net profit margin and the value added per employment cost have been on the upswing in recent years, and there is a strong correlation between them. It indicates that rising profit margin is driven by higher productivity, which is an indication of organic business growth.

![Figure 7: Value added per $ employment cost](source:SATS)
3.3 Financial Ratios

3.3.1 Profitability

Profitability measures the company’s ability to generate revenue relative to its assets and operating expenses and show how well the company had used the existing assets to generate profit for the shareholders.

There was a decrease in Return on Assets (ROA) from 2017 to 2019. 2018 Annual Report showed that the company had added S$6.944 mil Property, Plant and Equipment (PPE) in Year 2017/2018 and there was an increase in accrual for additions of PPE in Year 2018/2019 which resulted in decrease in current assets.

Although revenue had increased from 2017/2018 to 2018/2019, expenses had also increased by around 5% and most of the increase in expenses were contributed by staff costs, cost of raw materials and company premise and utilities expenses. This resulted in a decreased in the net income margin in 2019.
The company had increased the dividend payout to shareholders from 2017 to 2019 which showed a steady rise and reflects a healthy and mature business.

3.3.2 Liquidity

Liquidity reflects the degree which the asset can be converted to cash. The current ratio is between 1.8 to 2.2 which showed that the company is capable to pay off its short-term obligation.
The total debt/equity had decreased gradually over the year which showed that it had reduced the use of debt to finance the growth of the company.

![Figure 12: Total Debt/Equity](image)

**4. Valuation and Recommendation**

**4.1 Discounted Cash Flow (DCF)**

Earnings per Share (EPS) has been growing at the rate of 6.6% annually since 2014. Based on DCF method, we forecast the market valuation of SATS to be SGD6.9bil. The target share price will then be SGD6.16 per share based on 1.124B of outstanding shares as of March 2019. Future cash flow is assumed to grow at the rate of 6.6% for the next 6 years while terminal value growth rate at 2.9% based on the past 10 years EPS growth. Weighted Average Cost of Capital (WACC) is assumed to be 6.8% considering SATS beta at 0.87, the equity risk premium of 6% and risk-free rate of 1.7% in Singapore.

**4.2 Dividend Discount Model (DDM)**

Dividend payout has increased for the past 5 years at the Compound Annual Growth Rate (CAGR) of 10.4%. Payout ratio is high at 74.5% hence the anticipated growth rate will be around 3.85% using ROE x plowback ratio (15.1% x 25.5%). Based on DDM, we estimate the present value of this dividend perpetuity to be around SGD6.10 per share.

**4.3 Comparables (P/E, P/B, P/S)**

EPS of SATS is SGD0.223, the revenue per share SGD1.66 and the book value per share SGD1.53. The valuations based on P/E, P/B and P/S multiples are SGD6.93, SGD4.94 and SGD15.42 respectively. SATS is underpriced as compared to similar companies in East Asia, Southeast Asia and Oceania.
4.4 Valuation Comparison

The above figure lists the ranges of the predicted prices using different valuation methods. The price ranges from different methods overlapped between SGD5.60 – SGD6.00 with a mean value of SGD5.80, which indicates a strong consistence and confidence in our valuation.

4.5 Sensitivity Analysis

The sensitivity analysis on the share price of SATS was conducted by varying the WACC in the range of 5.2% to 8.5% and the growth rate in 2019 to 2025 in the range of 2.9% to 10.4%. The growth gate of the company after 2026 was fixed at 2.9% to determine the terminal value in 2025, since our valuation model shows the share price is less sensitive the 2026 onwards growth rate than the chosen two factors. As shown above, the share price decreases monotonically by approximately 50% when the WACC increases from 5.2% to 8.5%. On the other hand, the share price increases by 50% when the growth rate of the company from 2019 to 2025 increases from 2.9% to 10.4%. In the worst case with a WACC of 8.5% and a growth rate of 2.9%, the share price is SGD3.60. In contrast, the predicted price goes up to SGD12.60 when the WACC decreases to 5.2% and the growth rate increases to 10.4%.
4.6 Technical Analysis

Candlestick chart for the period Oct 2014 to Oct 2019

4.6 (a) Long term analysis
1. Based on the technical chart from Oct ’14 to Oct ’19, share price of SATS has been well supported by the 200 days simple moving average.

2. In addition, both the 50 and 200 days simple moving average is upwards flowing, indicating that upward momentum is more likely than downward momentum in the longer term.

4.6 (b) Medium term analysis

Close up view

- Rapid Downside movement
- Bullish candle

Refer to 4.6 (b) for medium term analysis

Low point at point (A) = 4.75
1. Rapid downside movement was observed before 5 August 2019 followed by a break of the low point (A) on 5 August 2019
2. On 13 August 2019, a bullish candle bar was observed. In combination with the prior rapid downside movement, this bullish candle indicates the completion of short selling momentum and reversal into an upward momentum.

**Summary**: With the higher probability of long term upside momentum indicated by the Simple Moving Averages and the reversal to upward momentum in the medium term, it is likely that the price of SATS will increase in the coming months.

5. **Risks**

Market risk for TFK Japan is due to potential overcapacity risks from other food service companies and is a risk that is material to the company. There will be currency risk as SATS derived its revenue from overseas markets. Loss of traffic market share is due to competition of airport operations in other regional countries. The ongoing trade war with China and US would impact the cargo volume passing through the gateway services in Singapore.

![Risk Matrix](image-url)
Sources:
5. SATS-Annual-Report-2018-19
7. https://www.sats.com.sg/Media/NewsContent/3Apr19-Completion%20of%20Acquisition%20of%20SATS%20Yihai%20Kerry%20Kunshan%20Food%20Co%20Ltd.pdf