China Aviation Oil (Singapore)

Demand of jet fuel driven by the air traffic on the upswing

SINGAPORE | OIL & GAS | INITIATION

- Aims to become a global top-tier integrated transportation fuels provider.
- Seeking long-term growth through M&A in synergistic and strategic oil-related businesses.
- Burgeoning “One belt, One Road” initiative most likely to benefit cross-border aviation transportation, where China Aviation Oil (CAO) sees and intends to tap on the potential lucrative opportunities from the initiative.
- We initiate coverage on CAO with Accumulate rating and DCF valuation of S$0.92.

Investment Thesis

Global aviation transportation remains solid, driven by robust traffic growth. The global net increment of airplanes deliveries amounts to around 20,000 from 2015 to 2034 (average 1,000/year) and the CAGR of air traffic is forecast to average 4.75% during the same period.

Buoyant domestic civil aviation traffic is immune to sluggish economy in China. Since 2011, China’s GDP growth has been dropping and is expected to remain at a single digit growth rate going forward. However, the air traffic growth rate maintained at 10% per annum over the past 2 years, and is projected to stay at the current growth rate till 2030.

Gap between airlines traffic in US and China is narrowing, foreshadowing the potential room for China to develop. Both air traffic and infrastructure development in US outnumbered those in China significantly, where China is expected catching up with the US eventually, boosting the demand from aviation traffic.

Oil supply glut continues, but spread may narrow. The oil rout started in 3Q14 and exacerbated in 2015, causing crude oil prices to plunge from more than US$100 over to a 10-year low of US$26 in Jan-16. The recent rebound in oil prices could be signs that prices are stabilising.

Peer comparison

Given its unique market position where it can exclusively distribute and supply jet fuel in China, as well as CAO’s state-owned background, we assume that there are no direct peers to CAO. However, the following companies listed below are the closest peers to CAO.

<table>
<thead>
<tr>
<th>Company</th>
<th>Bloomberg Ticker</th>
<th>Mkt Cap (SGD mn)</th>
<th>EV     (SGD mn)</th>
<th>EV/EBITDA TTM</th>
<th>P/E</th>
<th>P/B</th>
<th>Net D/E (%)</th>
<th>ROA (%)</th>
<th>ROE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAO SP Equity</td>
<td>CAO SP</td>
<td>683.2</td>
<td>441.6</td>
<td>11.2</td>
<td>8.1</td>
<td>0.8</td>
<td>Net Cash</td>
<td>3.8</td>
<td>5.6</td>
</tr>
<tr>
<td>INT US</td>
<td>World Fuel Services Corp</td>
<td>4,615.0</td>
<td>4,887.8</td>
<td>9.4</td>
<td>17.5</td>
<td>1.8</td>
<td>9.9</td>
<td>4.0</td>
<td>9.9</td>
</tr>
<tr>
<td>JPN</td>
<td>San-Ai Oil Co Ltd</td>
<td>756.1</td>
<td>677.2</td>
<td>5.3</td>
<td>10.5</td>
<td>0.8</td>
<td>Net Cash</td>
<td>3.0</td>
<td>7.9</td>
</tr>
<tr>
<td>HK</td>
<td>China Petroleum &amp; Chemical Corp</td>
<td>115,002.7</td>
<td>183,002.1</td>
<td>5.5</td>
<td>22.8</td>
<td>0.7</td>
<td>50.1</td>
<td>1.5</td>
<td>3.4</td>
</tr>
<tr>
<td>HK</td>
<td>PetroChina Co Ltd</td>
<td>284,206.9</td>
<td>419,383.6</td>
<td>5.2</td>
<td>18.6</td>
<td>0.7</td>
<td>35.1</td>
<td>1.8</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Source: Bloomberg, Phillip Securities Research (Singapore) Estimates

Price vs. STI

Source: Bloomberg, PSR

Valuation Method

DCF (cost of equity 7.5%, terminal growth 1%)
**Investment Actions**

CAO’s jet fuel supply business and oil related investments are exposed to the prospects of domestic and overseas air transportation, where demand for its products and services is estimated based on this industry’s trend. We initiate coverage on CAO with an Accumulate rating and DCF valuation of S$0.92.

**Company Background**

China Aviation Oil (Singapore) Corporation Ltd (CAO) is the largest physical jet fuel trader in Asia Pacific and the only imported jet fuel supplier to the civil aviation sector in People’s Republic of China (PRC). It is primarily engaged in three segments of business, namely jet fuel supply and trading, trading of other oil related products (aviation gas, gasoil, fuel oil and petrochemicals), and investments in oil-related assets. The total trading volume of oil in China has grown at a CAGR of 21.7% between FY11 and FY15 to 20.2m from 9.2m tonnes.

**The Group, along with 4 wholly-owned subsidiaries,** China Aviation Oil (Hong Kong) Company limited (CAOHK), North American Fuel Corporation (NAFCO), China Aviation Oil (Europe) limited (CAOE), and CAOT Pte Ltd (CAOT), has internalised the supply and trading business as well as expanded the group’s network across North America, Europe, and Middle East.

**The investment assets comprise 4 associate and 1 JV companies,** Shanghai Pudong International Airport Aviation Fuel Supply Company Ltd (SPIA), China National Aviation Fuel TSN-PEK Pipeline Transportation Corporation ltd (TSN-PEKCL) China Aviation Oil Xinyuan Petrochemicals Co., ltd (Xinyuan), and Oilhub Korea Yeosu Co., ltd (OKYC), and CNAF Hong Kong Refuelling Limited (CNAF HKR). Over the past 5 years, these assets have positively contributed over US$40mn per year to CAO, making up approximately 70% of CAO’s net profit.

**Businesses of investment assets**

<table>
<thead>
<tr>
<th>Associates and JVs</th>
<th>Business area</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPIA</td>
<td>Own and operate all the refuelling facilities, and provide jet fuel distribution and refuelling services.</td>
</tr>
<tr>
<td>TSN-PEKCL</td>
<td>Own a multi-oil product pipeline connecting Tianjin Nairjiang terminal with Beijing Capital International Airport and Tianjin Binhai International Airport, and transporting jet fuel to both airports.</td>
</tr>
<tr>
<td>Xinyuan</td>
<td>Own storage tanks and trade jet fuel and other oil products.</td>
</tr>
<tr>
<td>OKYC</td>
<td>Develop and operate of storage tank for crude oil and oil products.</td>
</tr>
<tr>
<td>CNAF HKR</td>
<td>Provide in-flight fuelling services at Hong Kong International Airport.</td>
</tr>
</tbody>
</table>

Source: Company, PSR

**Investment Thesis**

**Global aviation transportation remains solid, driven by robust traffic growth.** There are two dimensions to evaluate global aviation transport activities. Firstly, aircraft deliveries are measured by the new airplane deliveries in the duopoly market dominated by Airbus and Boeing, and air transport demand, which is mainly driven by the civil aviation activities such as passenger traffic and cargo freight. According to Airbus Global Market Forecast 2015 (GMF) and Boeing Current Market Outlook 2015 (CMO), the number of new air aircraft deliveries are expected to be between 32,585 and 38,050 between 2015 and 2034, along with 13,135 and 17,510 aircrafts to be retired from use due to age. Therefore the net increment to the number of additional aircrafts between the same period is 19,450 and 20,540. Asia Pacific currently owns the largest pie in terms of new aircraft deliveries, followed by Europe and North America, where they belong to the larger and highly populated economies of the world.
Steady growth on air traffic. Given that the distance between regions and countries is constant, as well as the exploration activities of new airline among spots are limited, this means that air traffic demand is driven by the frequencies of flights. Generally, revenue per passenger kilometre (RPK), measures passenger traffic, and freight tonne kilometre (FTK), measures cargo freight, are the two main transport indicators to be concerned of. Referring to Figure 3, in the past decade (2006 to 2015), the average growth rates of RTK (5.63%) and FTK (2.98%) are above average global GDP growth (2.56%). Meanwhile, according to GMF and CMO, the annual CAGRs of air traffic during the period from 2015 to 2034 are projected to be 4.6% and 4.9% respectively.
Aviation transport market is far from saturation. Air traffic is seeing booming prospects due to the fact that air travel is the most efficient way among all travel options. Notwithstanding the expenditure per capita is still more costly than other transportation tools such as railways, vehicles, and vessels, however, the improving energy consumption efficiency, affordability to flight tickets, and convenience will make air travel even more attractive.
Sluggish economy in China. Since 2014, China has entered into a new era of moderate growth in terms of GDP. The driving powers from export and domestic investments are weathering, resulting in economic restructuring and transformation initiated by the new governors. Moreover, the unfavourable external economic conditions such as low price levels of commodities, currency devaluation in peripheral emerging countries, and low growth of world economy, are factors that pose challenges to the business environment in China. Therefore, various sectors are undergoing a tough period.

Civil aviation traffic is almost immune. However, the civil aviation is one of the very few sectors that stands out and enjoys a substantial counter-cycle growth. Referring to Figure 6, in the past decade, RPK maintained at a double digit annual growth, ranging from 11% to 20%, except the plunge to 3% during global financial crisis in 2008, whilst the FTK growth fluctuated significantly but stabilised at 10% in 2014 and 2015. Over the next two decades, China’s domestic market is assumed to be the largest domestic air travel market worldwide. The 20-year forecast annual growth rates of RPK and FTK are 6.6% and 7%, respectively in China.

Figure 6. China RPK, FTK, and GDP growth

![Graph showing GDP, RPK, and FTK growth from 2006 to 2015](image_url)

Source: Civil Aviation Administration of China (CAAC), National Bureau of Statistics of China, PSR

Figure 7. World traffic varies by market

![Graph showing world traffic by market with annual growth](image_url)

Source: Boeing CMO 2015, PSR

Referring to Figure 8 to 11, the further breakdown of RPK and FTK in China shows that RPK, whose main driver comes from domestic air travel traffic, which remains on an upward trend, whilst FTK, which is dominated by international routes traffic, has been ascending since 2012 and peaked in 2015.
Figure 8. Passenger traffic of Civil Aviation, China

Source: CAAC, PSR

Figure 9. Freight traffic of Civil Aviation, China

Source: CAAC, PSR

Figure 10. RPK, China

Source: CAAC, PSR

Figure 11. FTK, China

Source: CAAC, PSR
**Gap between airlines traffic in US and China is narrowing.** The management from CAO suggested that US aviation market is the benchmark for China aviation development going forward. Nowadays, the US aviation industry is the biggest globally in terms of traffic flows, not only because US is the most open market worldwide, but also it has the most well-established infrastructure nationwide. According to the Bureau of Transportation Statistics (BTS), as of 2014, total number of aircrafts carrying passengers or cargo in US is approximately 7,000. By contrast, according to CAAC, the number is much lesser, where it was recorded at 4,168 in China. Thus, there is still a long way for China to improve its facilities quantitatively. China has been increasingly opening its market to the world, so it is reasonable to foresee that the two nation’s traffic gap will eventually narrow. Referring to Figure 12 and 13; there is more room for China to grow in both passenger and cargo freight volumes.

**Figure 12. RPK, China & US**

![Figure 12. RPK, China & US](image)

Source: CAAC, BTS, PSR

**Oil supply glut continues, but spread may narrow.** According to OPEC World Oil Outlook 2015 (WOO), the trigger of the rout in oil market in the second half of 2014 till now was due to the excess supply of crude oil. The mid-term forecast showed that the supply glut peaked in 2015 and would gradually diminish afterwards, but the equilibrium in supply and demand will not be restored until 2020. Therefore, the price of middle distillates and other oil products remain low accordingly. The EIA Short-term Energy Outlook (STEO) in March 2016 has forecast that average Brent crude oil prices to be US$34/bbl and US$40/bbl in 2016 and 2017 respectively, while the forecast for West Texas Intermediate (WTI) crude oil prices are expected to average the same as Brent in 2016 and 2017, amounting to US$35/bbl. Referring to Figure 15, both the prices of Brent and WTI crude oil slumped from more than US$100/bbl in Sep 2014 before bottoming at US$30/bbl in Jan-16. Prices have begun to stabilise at the US$40/bbl territory. Correspondingly, the Bloomberg Singapore Jet Kerosene Price rebounded from below US$40/bbl in in Jan 2016 to around US$48/bbl recently.

**Figure 13. FTK, China & US**

![Figure 13. FTK, China & US](image)

Source: CAAC, BTS, PSR
Oil demand is trending up in the aviation sector while China outperforms other regions. WOO 2015 forecasts that the demand for oil would gradually grow from 5.5 mn barrels of oil equivalent per day (mboe/d) to 8.4 mboe/d, where the gain is mainly from developing countries (DCs). (referring to Figure 16). A further geographic breakdown by regions shows that China stands out among its other peers in Asia, followed by OPEC, and OECD Europe. Thus, CAO is likely to be a major beneficiary from the strong demand of jet fuel in the next 25 years.

### Investment Merits

**Figure 14. World crude oil supply and demand gap**

![World crude oil supply and demand gap](image)

*Source: WOO 2015, PSR*

**Figure 15. Brent, WTI, and Singapore Jet Kerosene price trend**

![Brent, WTI, and Singapore Jet Kerosene price trend](image)

*Source: Bloomberg, PSR*

**Investment Merits**

Oil demand is trending up in the aviation sector while China outperforms other regions. WOO 2015 forecasts that the demand for oil would gradually grow from 5.5 mn barrels of oil equivalent per day (mboe/d) to 8.4 mboe/d, where the gain is mainly from developing countries (DCs). (referring to Figure 16). A further geographic breakdown by regions shows that China stands out among its other peers in Asia, followed by OPEC, and OECD Europe. Thus, CAO is likely to be a major beneficiary from the strong demand of jet fuel in the next 25 years.

**Figure 16. Oil demand in aviation sector**

![Oil demand in aviation sector](image)

*Source: WOO 2015, PSR*
**Figure 17. Geographic breakdown of aviation oil demand, 2014 to 2040**

![Geographic breakdown of aviation oil demand, 2014 to 2040](image)

*Source: WOO 2015, PSR*

**Strong advantage to be the only jet fuel importer into China and adoption of a “cost plus” model.** CAO exclusively imports jet fuel to domestic airlines and airports in China. Currently, the group’s jet fuel supply network extends to 15 international airports within the nation, including major gateways such as Beijing Capital International Airport, Shanghai Pudong International Airport, and Guangzhou Baiyun International Airport. CAO’s parent company, China National Aviation Fuel Group Corporation (CNAF), is a state-owned enterprise and the largest aviation transportation logistics services provider in China. The services provided by the parent include aviation fuel distribution, storage, and refuelling services. Figure 18 shows the business relationship between CNAF and CAO. Since CNAF and CAO exclusively operate and manage the whole aviation fuel supply chain, CAO will continue to enjoy its strong market position (being the only player) and capture the opportunity of substantial demand for jet fuel in domestic market.

**Figure 18. Business correlation between CNAF and CAO**

![Business correlation between CNAF and CAO](image)

*Source: Company, PSR*

**Fuel price doesn’t matter, but “cost-plus” does.** CAO is not subjected to the volatility of jet fuel price, which is positively related to the movement in international oil prices such as the US Brent and WTI. This is because its business model involves earning the spread between the procurement cost and selling price. The profit model is a pass-through system, and CAO’s margin is based on dollars per barrel rather than percentage of costs. However, the model is specifically applicable for domestic jet fuel supply in China, while it does not apply when it is supplying to overseas airports and other oil products trading. CAO profits by providing value-added logistics services. In FY06 and FY07, jet fuel imports into China made up of the group’s entire revenue share, as such we can easily estimate the margin of “cost-plus”. The profit model enables CAO to generate positively resilient gross profit which is dependent on the trading volume, and on the condition that the group manages its trading
risk appropriately.

**Enhancement of diversification and internationalisation.** CAO’s strategic goal is to be a top-tier worldwide transport fuels provider. Since 2008, CAO has been internationalizing its jet fuel supply operations to cover beyond China. In 2009, CAO diversified its oil product mix by continuously introducing other oil products to trade. Referring to Figure 19, the geographic breakdown of revenue from FY08 to FY15 show that CAO continues to optimize its client base globally. Although China is still the biggest market for the group, the percentage of its contributions is trending down to nearly 50%, and meanwhile overseas exposure has continued to grow. There is no doubt that CAO has been focused on improving the capability on supply chain management and marketing efforts. The increasing penetration into overseas market will put favour on the brand eventually and reduces the risk from the demand side effectively. Once CAO is able to achieve a strong standing in its global market position and is able to maintain the supply channels on a long-term basis, and this will lead to reinforced bargaining power.

**Figure 19. Revenue breakdown, FY08 to FY15**

CAO aims to achieve a revenue mix where one third of total revenue contribution should come from other oil product segment by 2020. Since FY11 the trading volume of other oil related products has been ramping up, and volume maintained even during the plunge of oil price in FY15. Going forward, CAO has established gas oil trading operations in FY12 and started to supply aviation gas in FY14. Nevertheless, CAO marked to market its positions in order to reduce losses resulting from the market turn around. In 3Q14, it suspended petrochemicals trading, due to weak market demand and backwardation, and was ready to restart trading once the market improved. With a stringent risk management, CAO is building up a more mature trading model on these fragmented oil products.
The diversification of product mix benefits CAO at the top line and the resilience during a market shortfall, as each distillate has its own underlying demand drivers, and outperformance of each single product is likely to offset the underperformance of another and vice versa. The portfolio as a whole buffers the effects of oil price volatility and helps to stabilize profitability.

**Figure 20. Revenue and trading volume from product mix**

![Graph showing revenue and trading volume from product mix from FY09 to FY15.](image)

*Source: Company, PSR*

**Key propellants: investment in oil-related assets.** CAO’s long-term strategy is the integration of the transport fuel value chain, including procurement, delivery, storage, and fuelling. As of Dec 2015, the investments in oil-related fields comprised 4 associate and 1 joint venture companies, SPIA, TSN-PEKCL, Xinyuan, OKYC and CNAF HKR. CAO has been vertically integrating the downstream sectors such as transportation, storage, and down to the end customers. The complement of the downstream channels optimizes the synergies among the Group as a whole. The share of profits from associates and JVs sustained at more than US$40mn over the past 5 years per annum, which is a major driver of the group’s net profit.

**Figure 21. Share profits from associates and JVs**

![Graph showing share profits from associates and JVs from FY11 to FY15.](image)

*Source: Company, PSR*

**SPIA is the primary profit generator among the asset portfolio,** as it is at the supply chain end point, where the largest surplus can be captured within the value chain. Moreover, Shanghai Pudong International Airport is the second largest airport in China in respect to total traffic volume, which is the key driver of the business. Referring to Figure 22, the passenger traffic reached the peak of over 60m in 2015, and the uptrend is still expected to carry on along with the rebound in freight traffic in 2013. The upcoming catalyst that will significantly boost passenger traffic is the opening of Shanghai Disney Park in mid-2016, as well as the businesses gearing up for the Shanghai Free-trade Zone. At the end of 2015, the airport began to build up the world’s biggest satellite terminal, which is expected to commence operations in 2019, and by then the capabilities to handle traffic volume could reach more than 80mn per annum. Besides, the 5th runway is scheduled to be a part of the
city’s 13th five-year plan. In nutshell/short, the preparation of SPIA to serve a larger passenger capacity is likely to be a positive prospect.

**Figure 22, SPIA traffic volume**

![SPIA traffic volume chart](chart)

*Source: Company, PSR*

**TSN-PEKCL**, the transport volume is competing with the supply from Sinopec Beijing Yanshan, however, profit contribution has been stable.

**Xinyuan**, the challenges in the petrochemicals sector continues to linger. As China economy is undergoing a moderate growth period, it may be a challenge to bag new storage contracts amid the weak economic environment.

**OKYC**, the tank storage leasing activities are positively correlated to oil supply. As the supply glut continues to loom, it will strengthen its profitability. However, the translated share of profit is subjected to FX volatility and the underlying costs in hedging. According to the management from CAO, one of the synergies from OKYC is cost savings. For example, when catering to urgent jet fuel calls from US, it is more cost-effective to deliver from South Korea than Singapore.

**CANF HKR**, it is commanding 15% of market share in terms of refueling volume in Hong Kong. The management expects to be marginally loss making in both 2016 and 2017 before turning profitable in 2018.

**How Do We View?**

**Good opportunities for M&A. CAO reserved sufficient cash on hand in the past 10 years**, Referring to Figure 23, in FY14 and FY15, the group has zero debt which underpins the availability of a war chest for potential merger and acquisition opportunities. The rout in the oil market has reshuffled the whole industry, driving out participants who have failed to sustain operations, consequently leaving undervalued assets and facilities globally. As such, this poses as both a challenge to the existing operations at CAO and an opportunity to pick up undervalued assets.

**The milestone year is coming.** Whether it can take a big leap from the current flattened organic growth depends on whether the group can successfully generate substantial inorganic growth through synergistic investments amid value chain integration. For FY16 outlook, the management guided the M&A move targets at aviation related assets such as air hub, international airport, airspace, pipeline network, and other infrastructures.

**Benefiting from “One Belt, One Road”**. Referring to Figure 24, CAO also highlighted the “One Belt, One Road” initiative is a boon for seeking potential acquisitions. Generally, it is difficult to breach into mature air hubs in developed cities, because the well-established supply system and the intact facilities are held by the major market players. However, the initiative spans across 3 continents in Eurasia, whereby most emerging economies are in demand for the development of infrastructures such as roads, railways, ports, and airports. Accordingly, CAO sees the entry barrier of investment in oil related field or jet fuel supply business is getting lower, raising the probabilities of penetration.
Investment Risks
Here we list the key risks to CAO's business operations.

<table>
<thead>
<tr>
<th>Risk factors</th>
<th>Remarks</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business risk</td>
<td>1. Unmatched supply and demand dynamics</td>
<td>1. “Back-to-back” model, which is that CAO only conducts procurement after securing the downstream supply contracts; 2. The exclusivity of jet fuel importing to China won’t be impacted, since the availability of supply facilities is the barrier which is very high. Besides, the sole import license is granted by the government, keeping the private participants from entering the market; 3. CAO is expanding the global deployment and maintaining quality of delivery regarding oil grade and timing in order to build up good reputation and trust in the market.</td>
</tr>
<tr>
<td></td>
<td>2. Competition</td>
<td></td>
</tr>
<tr>
<td>Market risk</td>
<td>1. Oil price volatility</td>
<td>1. 90% of the trading volumes are back by physical trading, and the rest 10% paper trading is a yield enhancement which aligns with physical trading’s ramp up; 2. VaR testing, use value at risk modeling to evaluate the probability of potential losses; 3. Limit order, each trader’s order book is locked in a limited amount; 4. Stop loss, once the losses hit the level set up by CAO, the account was halted to trade; 5. When market turns around to backwardation, CAO suspends trading until contango is back again.</td>
</tr>
<tr>
<td></td>
<td>2. Market turns around</td>
<td></td>
</tr>
<tr>
<td>Credit risk</td>
<td>1. Counterparty defaults</td>
<td>1. Scrutinize the credit rating and cancel the businesses with those credit ratings fail to meet CAO’s criteria.</td>
</tr>
</tbody>
</table>

Valuation Methodology: Discounted Cash Flow (DCF)
Since CAO is forecast to generate positive operating cash flows and bears zero or minimal debt onwards, we believe that the discounted cash flow model using free cash flow to
equity (FCFE) as a basis of valuation is an appropriate method to value CAO.

The major impact on FCFE is from working capital changes. Due to the back-to-back order for its trading business, CAO holds low level of inventories, which will lead to larger amounts of receivables and payables compared to most other businesses. Over the past 5 years, the days of sales outstanding (DSO) and days of payables outstanding (DPO) were trending downward to 13.7 and 10.1 in FY15 respectively.

However, we think the days will rebound and fluctuate within 30 days, which are the maximum days of credit that CAO grants to customers. Therefore FCFE is expected to normalise to an average level in FY16 and drop in FY17 and FY18 consecutively. The terminal value is based on the cash flow level in FY16.

### Discounted Cash Flow

<table>
<thead>
<tr>
<th>(US$mn)</th>
<th>FY16e</th>
<th>FY17e</th>
<th>FY18e</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCFE</td>
<td>45.921</td>
<td>4.075</td>
<td>9.114</td>
</tr>
<tr>
<td>PV of FCFE</td>
<td>42.700</td>
<td>3.523</td>
<td>7.328</td>
</tr>
<tr>
<td>Terminal value</td>
<td></td>
<td>708.933</td>
<td></td>
</tr>
<tr>
<td>PV of terminal value</td>
<td></td>
<td>569.992</td>
<td></td>
</tr>
<tr>
<td><strong>Target price (S$)</strong></td>
<td><strong>0.92</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Assumptions

- Cost of equity: 7.5%
- Sustainable growth rate: 1.0%

*Source: PSR*
## Financials

### Statement of Total Return and Distribution Statement

<table>
<thead>
<tr>
<th>Y/E Dec, USD mn</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16e</th>
<th>FY17e</th>
<th>FY18e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>17,061</td>
<td>8,977</td>
<td>7,971</td>
<td>9,797</td>
<td>11,246</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>(17,034)</td>
<td>(8,942)</td>
<td>(7,932)</td>
<td>(9,754)</td>
<td>(11,201)</td>
</tr>
<tr>
<td>Gross profit</td>
<td>27.4</td>
<td>35.4</td>
<td>39.5</td>
<td>43.6</td>
<td>44.5</td>
</tr>
<tr>
<td>Operating profit</td>
<td>10.9</td>
<td>22.3</td>
<td>28.6</td>
<td>30.2</td>
<td>29.2</td>
</tr>
<tr>
<td>Finance costs</td>
<td>(3.1)</td>
<td>(1.0)</td>
<td>(0.8)</td>
<td>(0.8)</td>
<td>(0.8)</td>
</tr>
<tr>
<td>Associates &amp; JVs</td>
<td>43.2</td>
<td>42.3</td>
<td>45.0</td>
<td>48.9</td>
<td>52.8</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>51.0</td>
<td>63.6</td>
<td>72.8</td>
<td>78.3</td>
<td>81.2</td>
</tr>
<tr>
<td>Tax expense</td>
<td>(1.9)</td>
<td>(2.3)</td>
<td>(2.3)</td>
<td>(2.5)</td>
<td>(2.4)</td>
</tr>
<tr>
<td>Net profit</td>
<td>49.2</td>
<td>61.3</td>
<td>70.5</td>
<td>75.8</td>
<td>78.9</td>
</tr>
<tr>
<td>Net profit, adj.</td>
<td>49.2</td>
<td>61.3</td>
<td>70.5</td>
<td>75.8</td>
<td>78.9</td>
</tr>
</tbody>
</table>

### Balance Sheet

<table>
<thead>
<tr>
<th>Y/E Dec, USD mn</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16e</th>
<th>FY17e</th>
<th>FY18e</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP&amp;E</td>
<td>6.8</td>
<td>6.2</td>
<td>5.6</td>
<td>5.1</td>
<td>4.5</td>
</tr>
<tr>
<td>Intangibles</td>
<td>2.4</td>
<td>1.8</td>
<td>1.3</td>
<td>0.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Associates &amp; JVs</td>
<td>270.1</td>
<td>262.6</td>
<td>260.1</td>
<td>260.1</td>
<td>260.1</td>
</tr>
<tr>
<td>Others</td>
<td>7.6</td>
<td>7.6</td>
<td>7.6</td>
<td>7.6</td>
<td>7.6</td>
</tr>
<tr>
<td>Total non-current assets</td>
<td>286.9</td>
<td>281.3</td>
<td>274.6</td>
<td>273.6</td>
<td>272.5</td>
</tr>
<tr>
<td>Inventories</td>
<td>38.1</td>
<td>56.8</td>
<td>61.0</td>
<td>69.7</td>
<td>74.7</td>
</tr>
<tr>
<td>Receivables</td>
<td>959.4</td>
<td>337.5</td>
<td>414.9</td>
<td>644.2</td>
<td>893.5</td>
</tr>
<tr>
<td>Cash</td>
<td>94.3</td>
<td>170.5</td>
<td>231.3</td>
<td>258.3</td>
<td>292.4</td>
</tr>
<tr>
<td>Total current assets</td>
<td>1,092</td>
<td>565</td>
<td>707</td>
<td>972</td>
<td>1,261</td>
</tr>
<tr>
<td>Total Assets</td>
<td>1,379</td>
<td>846</td>
<td>982</td>
<td>1,246</td>
<td>1,533</td>
</tr>
</tbody>
</table>

| LIABILITIES      |      |      |       |       |       |
| Others           | 6.2  | 6.2  | 6.2   | 6.2   | 6.2   |
| Total non-current liabilities | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 |
| Payables         | 818.9| 246.9| 347.9 | 561.7 | 797.9 |
| Loans and borrowings | -  | -  | -  | -  | -  |
| Others           | 0.0  | 0.3  | -    | -    | -    |
| Total current liabilities | 819.0 | 247.3 | 347.9 | 561.7 | 797.9 |
| Total Liabilities | 825.2 | 253.4 | 354.0 | 567.8 | 804.1 |

| EQUITY           |      |      |       |       |       |
| Share capital    | 215.6| 215.6| 215.6 | 215.6 | 215.6 |
| Reserves         | 337.9| 377.1| 412.2 | 462.3 | 513.4 |
| Total equity     | 553.5| 592.6| 627.8 | 677.9 | 729.0 |

### Valuation Ratios

<table>
<thead>
<tr>
<th>Y/E Dec, USD mn</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16e</th>
<th>FY17e</th>
<th>FY18e</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/E (x)</td>
<td>11.7</td>
<td>10.0</td>
<td>11.2</td>
<td>10.4</td>
<td>10.0</td>
</tr>
<tr>
<td>P/B (x)</td>
<td>1.0</td>
<td>1.0</td>
<td>1.3</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>EV/EBITDA (x)</td>
<td>38.8</td>
<td>18.4</td>
<td>18.4</td>
<td>16.7</td>
<td>16.1</td>
</tr>
<tr>
<td>Dividend yield (%)</td>
<td>3%</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>

### Growth & Margins (%)

<table>
<thead>
<tr>
<th>Y/E Dec, USD mn</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16e</th>
<th>FY17e</th>
<th>FY18e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>9.6%</td>
<td>-47.4%</td>
<td>-11.2%</td>
<td>22.9%</td>
<td>14.8%</td>
</tr>
<tr>
<td>Gross profit</td>
<td>-47.8%</td>
<td>29.4%</td>
<td>11.4%</td>
<td>10.3%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Operating profit</td>
<td>-65.1%</td>
<td>104.8%</td>
<td>28.1%</td>
<td>5.6%</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Net profit</td>
<td>-30.0%</td>
<td>24.7%</td>
<td>15.0%</td>
<td>7.6%</td>
<td>4.0%</td>
</tr>
<tr>
<td>GP</td>
<td>0.2%</td>
<td>0.4%</td>
<td>0.5%</td>
<td>0.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td>OP</td>
<td>0.1%</td>
<td>0.2%</td>
<td>0.4%</td>
<td>0.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>NP</td>
<td>0.3%</td>
<td>0.7%</td>
<td>0.9%</td>
<td>0.8%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

### Key Ratios

<table>
<thead>
<tr>
<th>Y/E Dec, USD mn</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16e</th>
<th>FY17e</th>
<th>FY18e</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE (%)</td>
<td>8.9%</td>
<td>10.3%</td>
<td>11.2%</td>
<td>11.2%</td>
<td>10.8%</td>
</tr>
<tr>
<td>ROS (%)</td>
<td>3.6%</td>
<td>7.2%</td>
<td>7.2%</td>
<td>6.1%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Net debt (net cash)</td>
<td>(94)</td>
<td>(171)</td>
<td>(231)</td>
<td>(258)</td>
<td>(292)</td>
</tr>
<tr>
<td>Net gearing (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>
Ratings History

Source: Bloomberg, PSR

PSR Rating System

<table>
<thead>
<tr>
<th>Total Returns</th>
<th>Recommendation</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; +20%</td>
<td>Buy</td>
<td>1</td>
</tr>
<tr>
<td>+5% to +20%</td>
<td>Accumulate</td>
<td>2</td>
</tr>
<tr>
<td>-5% to +5%</td>
<td>Neutral</td>
<td>3</td>
</tr>
<tr>
<td>-5% to -20%</td>
<td>Reduce</td>
<td>4</td>
</tr>
<tr>
<td>&lt; -20%</td>
<td>Sell</td>
<td>5</td>
</tr>
</tbody>
</table>

Remarks

We do not base our recommendations entirely on the above quantitative return bands. We consider qualitative factors like (but not limited to) a stock's risk reward profile, market sentiment, recent rate of share price appreciation, presence or absence of stock price catalysts, and speculative undertones surrounding the stock, before making our final recommendation.
CHINA AVIATION OIL

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