

Singapore Market Focus

Spotlight on Technology

Refer to important disclosures at the end of this report

DBS Group Research . Equity

24 Jan 2020

Recovery intact

- Recovery in the semiconductor sector panning out as expected, recent data points confirm our bullish view
- Anticipated rebound in memory chips to provide further upside for semiconductors
- Recovery in semiconductors benefitting the whole technology value chain, including component makers, software, packaging
- More upside to +2SD valuations for pure semiconductor plays – AEM (BUY, TP: S\$2.38), UMS (BUY; TP raised to S\$1.16). No change in TPs for diversified plays - Frencken (BUY; TP: S\$1.06), Fu Yu (BUY; TP: S\$0.35)

Recent data points confirm our bullish view on semiconductor sector. Recent data points for the semiconductor industry reinforces our view back in October last year of a turnaround in this sector. The semiconductor shipment and billing data continued to charge higher, while inventory de-stocking continues.

Anticipated rebound in memory chips to provide further upside for semiconductors. Memory prices slumped in 2018/2019 as supply outpaced demand but in recent months, prices have been stabilising. A recovery in prices and demand would support further upside for the semiconductor sector. New technologies (5G, artificial intelligence, virtual reality, augmented reality) and new demand are expected to drive the growth for memory chips.

Recovery in semiconductor benefitting the whole technology value chain. A recovery in the upstream semiconductor segment should filter down to other segments in the mid to downstream space – electronic components (e.g. display, capacitors), software and electronic packaging, driven by new technologies and new demand.

More upside to +2SD valuations for pure semiconductor plays. In terms of valuation for the upstream semiconductor players AEM and UMS, given the expectation of a continued recovery in the semiconductor space and anticipated upturn in the mid-down stream segment, we expect the stocks forward PE to re-rate to +2.0 SD on FY20F earnings. During the last semiconductor upcycle in 2017/2018, the PE valuations shot beyond the +2SD level. Thus, we believe +2SD is a fair valuation peg. We have maintained our TP for AEM at S\$2.38, and raised UMS to S\$1.16.

Maintain earnings forecasts and valuation methodology for Frencken and Fu Yu. No change in Frencken's TP of S\$1.06, which is pegged to 10x FY20F PE, a 20% discount peg to peers' average given Frencken's smaller scale. Fu Yu's TP of S\$0.35 is pegged to FY2020F forward PE of 16.0x (+1SD).

STI : 3,234.56

Analyst

Lee Keng LING +65 6682 3703
leekeng@dbs.com

Singapore Research Team
equityresearch@dbs.com

Key Indices

	Current	% Chng
FS STI Index	3,234.56	-0.6%
FS Small Cap	357.11	-0.3%
SGD Curncy	1.35	-0.1%
Daily Volume	2,189	
Daily Turnover	1,412	
Daily Turnover	1,048	

Source: Bloomberg Finance L.P.

Market Key Data

(%)	EPS Gth	Div Yield
2019E	0.4	4.0
2020F	8.5	4.2
2021F	7.6	4.3

(x)	PER	EV/EBITDA
2019E	15.2	15.1
2020F	14.0	13.7
2021F	13.0	12.7

STOCKS

	Price S\$	Mkt Cap US\$m	12-mth Target S\$	Performance (%)		
				3 mth	12 mth	Rating
AEM Hldgs	2.05	410	2.38	52.1	123.0	BUY
Frencken Grp	0.91	286	1.06	34.1	120.2	BUY
Fu Yu Corp	0.28	154	0.35	25.0	31.0	BUY
UMS Hldgs	0.98	390	1.16	44.7	64.5	BUY

Source: DBS Bank, Bloomberg Finance L.P.

Closing price as of 23 Jan 2020



Live more, Bank less

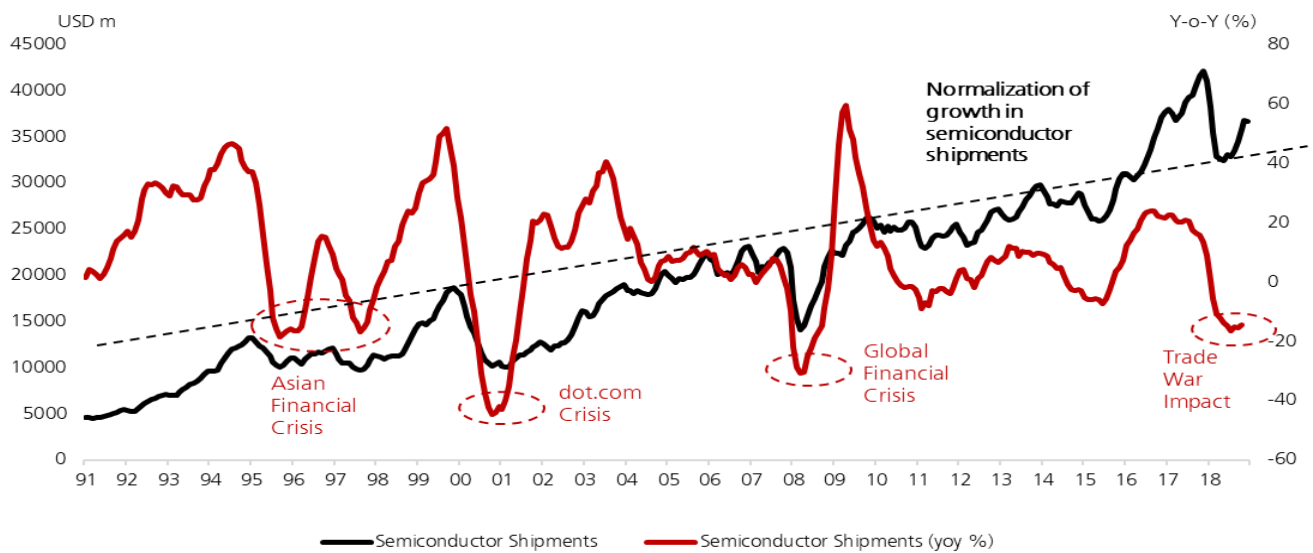
Recent data points confirm our bullish view on semiconductor

We turned positive on the semiconductor sector in October last year, on the back of a resumption of growth in semiconductor equipment sales in 2020. Major new growth drivers are emerging from new technologies (Internet of Things, Big Data, Artificial Intelligence) and 5G, driving demand in the semiconductor industry. The recovery in semiconductor is driven by: 1) Adoption of new technologies; 2) New products, including speech recognition devices, wearables and 3-D printing; and 3) Product enhancements for mobile phones, technology nodes (e.g. from 14 nanometer to 10 nanometer and below).

Since then, the data points for the semiconductor industry are showing a more convincing recovery trend heading into 2020. The semiconductor shipment and billing data continue to charge higher, while inventory de-stocking continues.

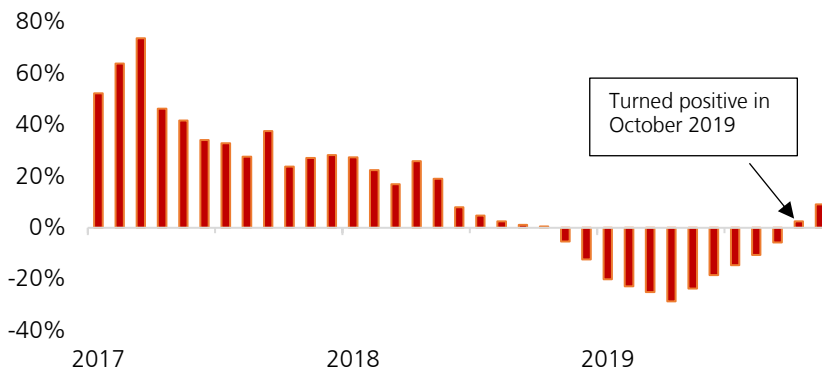
The y-o-y change for manufacturers' billings for North America started to turn positive in October 2019, after 11 consecutive months of decline, and continued to show positive results in November, according to data from SEMI.

Global semiconductor shipments and y-o-y growth



Source: CEIC (WSTS), DBS Bank

Semiconductor Equipment Billing for North America

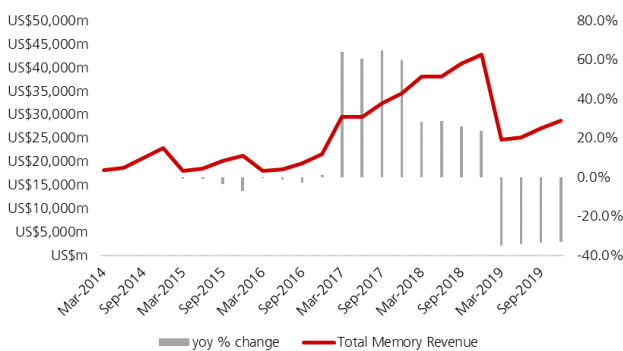


Source: Bloomberg Finance L.P., SEMI

Memory chips to rebound, supporting further upside for semiconductors

Foundries, which basically manufacture semiconductor equipment, saw a rebound in 2H2019. The memory chip market is set to turnaround next. The DRAM market peaked in 2018. But global trade issues and a weakness in smartphone and PC demand caused the DRAM market to stumble in 2019. New technologies and new demand are expected to drive the growth for memory chips. The momentum will increase as 5G connectivity, artificial intelligence, deep learning, and virtual reality in mobile, data center and cloud-computer servers, automotive, and industrial markets are expected to drive demand higher.

Total Memory revenue improving

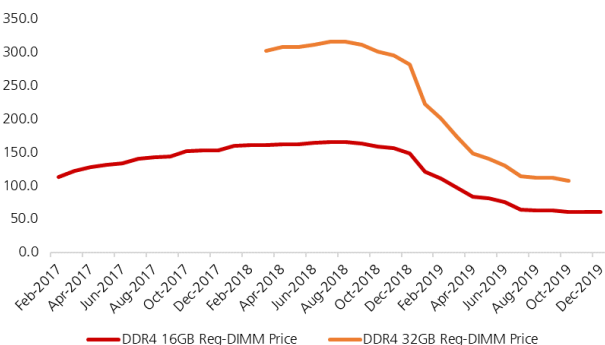


Source Bloomberg Finance L.P.; DBS Bank

Memory prices stabilising

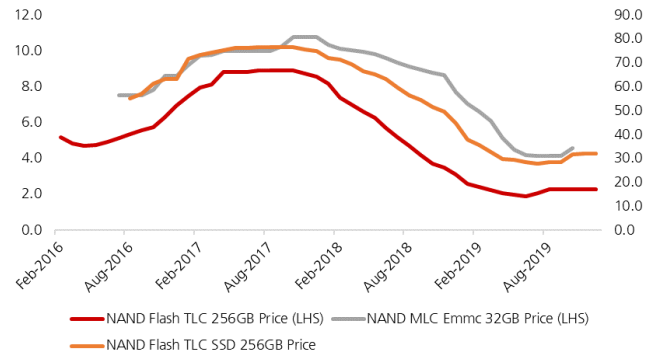
Memory prices slumped in 2018/2019 as supply outpaced demand but in recent months, prices are stabilising. A recovery in prices and demand would support further upside for the semiconductor sector.

DRAM price (USD)



Source Bloomberg Finance L.P.; Inspectrum Tech Inc Server, DBS Bank

NAND prices (USD)



Source Bloomberg Finance L.P.; Inspectrum Tech Inc Server, DBS Bank

New technologies to drive demand in the whole technology value chain

Besides the recovery in the semiconductor sector which is in the upstream space, other segments in the mid to downstream are also seeing improvements, driven by new technologies and new demand. In the **Operating System** ecosystem, the emphasis is now on more advanced technologies and security, and on improving the user experience with AI. The role of **display** in the IT industry is also expanding, amid an uptick in OLED adoption. The expansion in the **mobility** segment, e.g. autonomous driving, should create new markets. The **image sensor** market is growing on the back of the adoption of triple-lens camera set-ups in smartphones.

Post Jewels of Technology conference notes

We recently hosted **AEM, Frencken, UMS** and **Fu Yu** in our Jewels of Technology conference. Response was

overwhelming, with about 40 institutional investors attending this event.

Below were the key questions from the audience, and response from the management.

AEM

Management: Mr Chok Yean Hung, CEO;
Mr Chandran Nair, Group President;
Mr Soh Wai Kong, VP of Finance and HR

1) Details of system level tests (SLTs)

The traditional automatic test equipment (ATE) approach is expensive and a problem arises when technology nodes shrink, and number of transistors increases exponentially. SLT handlers minimise the cost of tests while ensuring a high level of quality.

cash cow (traditional ATE method). They have positioned SLTs as "a solution to address mission-critical issues, but it will cost more".

2) HDMT vs AMPS

Both are relatively similar, but the High Density Modular Test (HDMT) is customised for its key customer while the Asynchronous Modular Parallel Smart (AMPS) platform is for more general customers.

5) Does AEM test memory chips for its key customer?

No. It tests only the logic chips made by its key customer. However, Mu-TEST's customizable low-cost tester has the capability to do so.

3) What kind of chips use 'SLT' approach?

Approximately 60-70% of AEM's key customers' revenue utilise AEM equipment. All the advanced processing/devices are tested via this method, and everything that is tested inhouse goes through AEM.

6) Key customer's initiatives?

Key customer's rate of equipment purchase is "higher than anything else". Its key customer is moving from sample system-level testing to population system-level testing. Total addressable market (TAM) has increased from US\$60-70bn to US\$220bn.

4) Why are your competitors (Teradyne, Advantest, Astronics) not adopting SLTs?

They have mentioned moving into this area but are still 'half-hearted' as they are afraid it will cannibalise their

7) What about other customers such as AMD?

Only developed AMPS, in early 2018, which is quite recent. AMPS is a test handler that is similar to the HDMT, except that it is catered a generic machine for commercial purposes. Furthermore, AEM has to be careful because of its relationship with its key customer.

Frencken

Management: Mr Dennis Au, President

1) Outlook for the semiconductor segment

Revenue generated from this segment for the 9-month period to September 2019 was lower y-o-y but the Group rolled out a lot of new product initiatives (NPIs) in 2019 for both back and front end semiconductor customers. More customers were from the front end (e.g. foundries, logics), which generates better margins, as compared to back end customers (e.g. packaging). Prototypes were shipped to these customers for testing.

2) A turnaround in the auto segment?

Frencken is engineering a turnaround in the automotive segment rather than being dependent on the market. Frencken is only a small player in this space, hence there are no economies of scale. It can only focus on taking more value-add jobs to enhance margins.

3) Difference in margins for Europe vs Asia

In Europe, the projects are higher in value, with a focus on design and automation. Frencken also partners with

its customers on the design of the products. In Asia, Frencken mainly manufactures the products. Thus, margins in Europe are higher than in Asia.

4) Fluctuation in gross profit margins (within the 14% to 16% range)

There are many factors affecting margins, especially when the Group has exposure to a wide variety of industries and business segments. Over the years, Frencken has been trying to improve operational efficiencies, and dealing with customers efficiently and effectively.

5) Competition with customers?

Frencken does not compete directly with its customers. Its strategy is to focus on areas that are core to Frencken, and critical to customers. Most of its customers are leaders in their respective industries. Activities outsourced to Frencken are essential in the running of the business but not core, and usually only form a small portion of their customers' activities. Thus, there is no direct competition between Frencken and its customers.

6) Strategy to counter US-China trade war

Frencken is moving towards regional manufacturing. It is exploring a local-for-local model. Essentially, it would manufacture its products in different locations for different markets, e.g. products to be manufactured in China for the Chinese market only due to the trade war, especially for semiconductor products.

7) M&A activities

Frencken is exploring both organic and inorganic growth in order to achieve sustainable growth ahead. A war chest is important to take advantage of opportunities and as a buffer against adverse events during uncertain times.

8) Divestment of the Mechatronics division?

Less likely to divest as this division is growing and there is not enough capacity. Furthermore, some of its customers have contracts in place, thus not easy to divest this business.

UMS

Management: Mr Stanley Loh, CFO

1) UMS has acquired stakes in JEP Holding, Starke, Kalf Engineering and All Star Fortress, which are diversified industries. Why not vertical expansion?

UMS can tap on Starke, which is a non-ferrous metal alloy specialist, to acquire materials required for the manufacturing of the Endura system. UMS manufactures almost everything required for the system in-house. This is considered a vertical expansion and would lead to cost savings for UMS.

2) Market share for UMS

For the Endura system, UMS is the main supplier for AMAT, and supplies about 70% of AMAT's total requirement. AMAT has been UMS's key customer since 2009. About 90% of UMS's revenues are attributable to AMAT.

For components, there is more competition from other players, including China and Taiwan companies.

3) Why does AMAT choose UMS over other bigger players?

AMAT first approached UMS back in 2009 as UMS's competitive strength is in providing deep and integrated

engineering capabilities, which is critical in the manufacturing of the Endura system. Being a one-stop service provider, UMS can have better control over quality and at a shorter lead time. Besides, UMS can also provide good service for AMAT which other bigger players may not be able to match given their scale and diversification.

4) What is the nature of the contract with AMAT?

UMS signed a 3-year contract with AMAT for the Endura system model, with minor tweaks in technical aspects along the way. The contract is subject to renewal at the end of the 3-year period. The ASP trend is generally down, as the Group adopts a cost-plus model.

5) Turnaround time for orders to delivery

UMS works on different mode, including the forecast system, whereby AMAT will provide indicative orders about three to six months ahead. Upon receiving actual orders, UMS will assemble the various parts and ship to the customer. UMS also relies on the consignment method for some of its products including consumable components.

6) Orderbook visibility

UMS has about six months of orderbook visibility for the Endura system. AMAT would generally award about 70% of the market share for the Endura system to UMS. For the Components segment, orderbook visibility is about three months.

7) UMS has a lot of capacity at its Penang plant. If space is not a concern, why no further expansion in business?

Though AMAT has no right to stop UMS from taking on other new customers, this could dilute UMS's entrenched relationship with AMAT, especially if the new customer is a direct competitor of AMAT. It is also difficult to penetrate the Japanese market, as they generally prefer to work with the Japanese. There are also not many players in this space. Furthermore, UMS has no intention to expand market share at the expense of lower margins.

8) Breakdown of segments and margins

About 50:50 revenue breakdown for Components and Contract Manufacturing (Endura). The GP margin for Components segment ranges from 20% to 70%, and competition for this segment is stiffer. Margins for the Contract Manufacturing division is about 30%. Overall, the blended GP margin for the Group is about 50% to 60%. Moving forward, Manufacturing margins could be slightly lower given the competitive landscape especially for the Components segment but this may be offset by operational efficiencies.

9) Is UMS involved in any R&D?

No, as UMS's strength is in manufacturing, and not in innovation. Furthermore, UMS does not have its own product line. UMS would need to explore this inorganically to beef up its R&D capabilities.

10) Dividend policy

UMS paid an average of 6 Scts p.a. over the last five years prior to FY18. DPS fell to 4.5 Scts in FY18, mainly due to an increase in inventory level and the JEP acquisition. Cashflow is recovering now, and UMS has not set a minimum cash level target before dividend payout.

11) Outlook for semiconductors

Various industry reports are forecasting mid to long term growth, and the uptrend is expected to stay. The growth is propelled by the deployment of 5G technology, rapid and growing adoption of AI continues to spur demand for chip manufacturing, driving the semiconductor industry. At the company level, industry leaders like TSMC and AMAT are increasing capex on expectations of a better outlook.

12) M&A activity

UMS continues to be on the lookout for M&A targets, with a focus on design capabilities which UMS lacks, but not limited to the semiconductor space only.

Fu Yu Corporation

Management: Mr Elson Hew, CEO;
Ms Hee Siew Fong, CFO

1) Why did the landlord want to terminate the lease (in Shanghai)?

The landowner wanted to redevelop the land. Fu Yu previously owned the land but sold it off. It owns the land that the Dongguan and Suzhou factories (two largest factories) are sitting on. With the termination of the lease, Fu Yu sees this as an opportunity to streamline its operations.

2) Where do you see gross and operating margins heading?

It depends on the product mix and is difficult to predict. Margins are highly dependent on volume –lower volume products have higher margins.

3) Utilisation rate

The average utilisation rate is c.60% while the maximum is about 80%.

4) Valuation of 5 Tuas

As part of the renewal agreement with Jurong Town Corporation (JTC) to renew the lease of its premises at 7 Tuas Drive 1 and 9 Tuas Drive 1, it is required to sell its premises at 5 Tuas Drive 1. Management has indicated that the valuation will be higher than net book value as the properties are recorded at cost on the balance sheet. However, they have yet to source for buyers and have no quotations.

5) Raw materials

Raw materials (resin) are priced at cost-plus. More than 50% of COGS is from raw materials. Payables are 100 days as Fu Yu's end customer negotiates the contract on their behalf.

6) Geographical operations

Tax rate is higher than the Singapore headline corporate tax rate of 17% as the tax rates in China and Malaysia are higher. In terms of profitability, Singapore is the most profitable, followed by Malaysia, and then China.

7) Customers

Fu Yu's top customer is in printing and imaging. Its top customer accounts for less than 30% of its revenue and its top 10 customers account for c.70%.

8) Impact from the US-China trade war

Fu Yu has not experienced any large impact yet. However, it has begun to receive more enquiries from its Malaysia factory. This is possibly due to manufacturers looking to diversify their geographical exposure risk.

9) Metal injection moulding

Only for its automotive products. The raw material used is a mixture of metal powder and resin. It is currently a relatively small base but is growing. There is less competition in this space and is a European customer.

Valuation

More upside to +2SD valuations for pure semiconductor plays. In terms of valuation for the upstream semiconductor players AEM and UMS, given the expectation of a continued recovery in the semiconductor space and anticipated recovery in the mid-down stream segment, we expect the stocks' forward PE to re-rate further to +2.0 SD on FY20F earnings. During the last semiconductor upcycle in 2016/2017, the PE valuations shot beyond the +2SD level. The semiconductor market is now larger and less volatile than before, due to growth and diversification of demand drivers, spanning consumer and enterprise end markets. Thus, we believe a +2SD is a fair valuation peg.

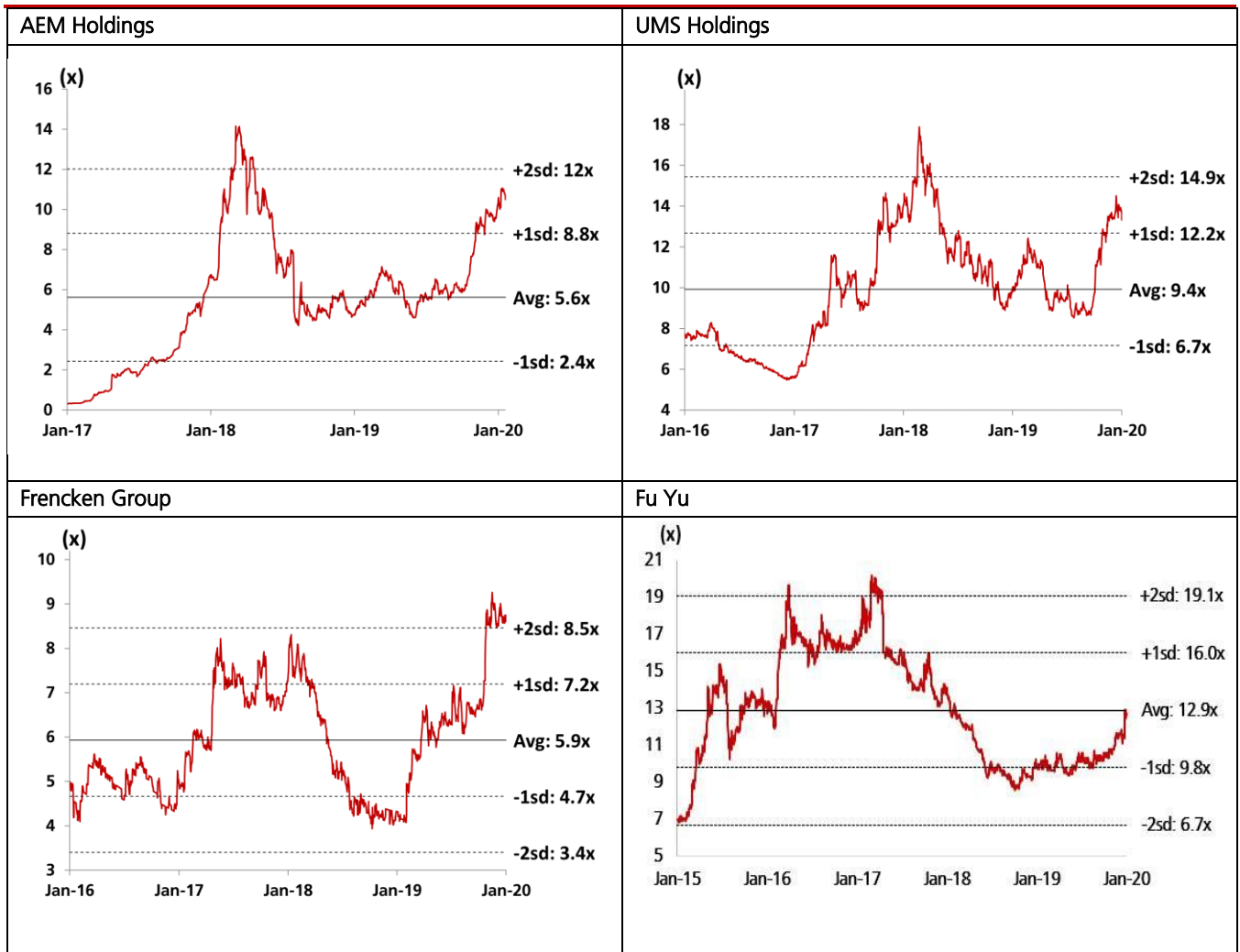
For **AEM**, no change in earnings and TP of S\$2.38, which is at +2SD on FY20F earnings, and well below its industry peers' FY20F PE of 17.8x. This valuation peg is also at a 26% discount to its 2-year high achieved during the peak of the previous semiconductor cycle in 2018.

For **UMS**, though we are maintaining our earnings forecasts, our TP valuation peg is raised to +2SD of 14.9x on FY20F earnings, up from 14x previously, which was pegged to smaller peers' average. Despite a higher valuation peg, it is still at a 26% discount to the previous peak in 2018, displaying the same trend as AEM. TP is raised accordingly to S\$1.16, from S\$1.08.

Maintain earnings forecasts and valuation methodology for Frencken and Fu Yu. The more diversified plays like Frencken and Fu Yu are beneficiaries of a recovery in the entire technology value chain. Frencken has c.20% of revenue exposure to the semiconductor industry while Fu Yu is a manufacturer of high precision plastic parts and moulds.

No change in earnings forecasts for both Frencken and Fu Yu. The TP of Frencken is maintained at S\$1.06, which is pegged to 10x FY20F PE, a 20% discount to peers' average given Frencken's smaller scale. Fu Yu's TP of S\$0.35 is pegged to FY2020F forward PE of 16.0x (+1SD).

Forward PE valuation chart



Source: DBS Bank, Bloomberg Finance L.P.

Peers comparison table

Bloomberg Ticker	Company Name	Market Data		Financial Data				Valuation			
		Primary Exchange	Market Cap (US\$m)	Sales (US\$m)	Net Profit (US\$m)	Net Profit Margin (%)	Debt (US\$m)	EV/EBITDA FY19F	EV/EBITDA FY20F	P/E FY19F	P/E FY20F
Non-Memory Manufacturers (Logic/Processors)											
INTC US Equity	Intel Corp	NASDAQ GS	272,875.5	70,848.0	21,053.0	29.7%	26,359.0	8.8x	8.4x	13.6x	13.4x
AVGO US Equity	Broadcom Inc	NASDAQ GS	124,461.3	22,597.0	2,724.0	12.1%	32,798.0	11.6x	11.2x	13.6x	12.4x
QCOM US Equity	QUALCOMM Inc	NASDAQ GS	106,157.3	24,273.0	4,386.0	18.1%	15,933.0	16.0x	11.8x	22.4x	15.2x
NVDA US Equity	NVIDIA Corp	NASDAQ GS	153,030.6	11,716.0	4,141.0	35.3%	1,988.0	42.0x	31.6x	44.9x	34.4x
AMD US Equity	Advanced Micro Devices Inc	NASDAQ GS	57,273.9	6,475.0	337.0	5.2%	1,250.0	55.0x	35.7x	82.8x	46.8x
STM IM Equity	STMicroelectronics NV	Brsaitaliana	25,603.8	9,664.0	1,287.0	13.3%	1,910.0	11.4x	9.6x	25.9x	20.5x
Average			123,233.7	24,262.2	5,654.7	19.0%	13,373.0	24.1x	18.0x	33.9x	23.8x
Memory Manufacturers (NAND, DRAM)											
000660 KS Equit	SK Hynix Inc	Korea SE	62,166.4	36,771.7	14,128.7	38.4%	4,743.5	7.0x	5.1x	29.5x	14.3x
MU US Equity	Micron Technology Inc	NASDAQ GS	65,730.4	23,406.0	6,313.0	27.0%	5,851.0	7.8x	5.0x	25.1x	11.0x
2408 TT Equity	Nanya Technology Corp	Taiwan	8,727.5	1,674.4	317.7	19.0%	0.0	8.0x	6.2x	19.2x	13.9x
Average			45,541.4	20,617.3	6,919.8	28.1%	3,531.5	7.6x	5.4x	24.6x	13.1x
Foundries											
2330 TT Equity	Taiwan Semiconductor Manufacturing Co Ltd	Taiwan	287,798.4	34,634.9	11,176.0	32.3%	5,864.8	10.0x	9.0x	19.3x	17.2x
005930 KS Equit	Samsung Electronics Co Ltd	Korea SE	313,749.2	197,020.4	39,904.5	20.3%	13,172.0	4.3x	3.5x	13.9x	10.0x
UMC US Equity	United Microelectronics Corp	New York	6,237.3	5,020.0	234.7	4.7%	2,787.1	3.8x	3.5x	24.0x	18.2x
SMICY US Equity	Semiconductor Manufacturing International Co	OTC US	10,309.8	3,360.0	134.1	4.0%	3,426.2	N/A	N/A	N/A	N/A
TSEM US Equity	Tower Semiconductor Ltd	NASDAQ GS	2,647.8	1,304.0	135.6	10.4%	267.5	7.4x	6.6x	24.2x	18.7x
Average			124,148.5	48,267.9	10,317.0	14.3%	5,103.5	6.4x	5.6x	20.3x	16.0x
Semiconductor Equipment/Service Providers (Foreign)											
AMAT US Equity	Applied Materials Inc	NASDAQ GS	58,488.4	14,608.0	2,706.0	18.5%	5,313.0	13.5x	11.6x	17.1x	14.6x
ASML US Equity	ASML Holding NV	NASDAQ GS	126,101.7	13,232.3	2,902.0	21.9%	3,490.3	24.8x	20.6x	31.2x	25.5x
TER US Equity	Teradyne Inc	NASDAQ GS	12,332.0	2,295.0	479.2	20.9%	380.0	15.6x	13.9x	22.9x	19.3x
COHU US Equity	Cohu Inc	NASDAQ GS	1,014.7	451.8	-32.2	-7.1%	352.8	21.0x	13.2x	178.2x	23.7x
3711 TT Equity	ASE Technology Holding Co Ltd	Taiwan	11,400.9	12,316.4	838.4	6.8%	6,473.7	7.1x	6.3x	20.3x	13.7x
6857 JP Equity	Advantest Corp	Tokyo	11,973.6	2,547.8	514.1	20.2%	0.0	20.4x	16.7x	31.6x	25.2x
8035 JP Equity	Tokyo Electron Ltd	Tokyo	37,992.3	11,530.0	2,239.1	19.4%	0.0	14.5x	12.3x	22.9x	19.5x
Average			37,043.4	8,140.2	1,378.1	14.4%	2,287.1	16.7x	13.5x	46.3x	20.2x
Semiconductor Equipment/Service Providers (Singapore)											
UMSH SP Equity	UMS Holdings Ltd	Singapore	397.8	94.9	31.9	33.7%	14.9	12.5x	10.7x	15.8x	13.2x
AEM SP Equity	AEM Holdings Ltd	Singapore	422.6	194.5	24.8	12.8%	0.2	7.9x	6.5x	12.0x	10.5x
AVIT SP Equity	Avi-Tech Electronics Ltd	Singapore	52.6	24.6	3.4	13.8%	0.1	8.5x	6.9x	14.7x	11.6x
MMH SP Equity	Micro-Mechanics Holdings Ltd	Singapore	195.9	44.2	9.5	21.5%	0.0	9.8x	9.2x	18.1x	16.5x
FRKN SP Equity	Frencken Group Ltd	Singapore	289.8	464.0	22.3	4.8%	50.4	5.6x	5.2x	9.6x	8.7x
Average			271.7	164.4	18.4	17.3%	13.1	8.9x	7.7x	14.0x	12.1x
End Electronic Goods Producers (Singapore)											
FUYU SP Equity	Fu Yu Corp Ltd	Singapore	159.1	146.6	8.8	6.0%	0.0	5.7x	5.2x	15.8x	15.0x
HIP SP Equity	Hi-P International Ltd	Singapore	890.0	1,039.6	74.9	7.2%	124.1	5.9x	5.3x	14.2x	12.4x
SUNN SP Equity	Sunningdale Tech Ltd	Singapore	186.5	538.9	22.1	4.1%	80.5	6.8x	5.7x	29.1x	15.2x
SPE SP Equity	Spindex Industries Ltd	Singapore	95.8	114.1	11.2	9.8%	0.2	N/A	N/A	N/A	N/A
VMS SP Equity	Venture Corp Ltd	Singapore	3,541.2	2,583.0	274.4	10.6%	1.3	9.0x	8.8x	13.5x	13.0x
VALUE SP Equity	Valuetronics Holdings Ltd	Singapore	256.5	360.7	25.4	7.1%	0.0	3.8x	3.6x	10.3x	10.2x
Average			854.8	797.2	69.5	7.5%	34.3	6.2x	5.7x	16.6x	13.2x

Source: Bloomberg Finance L.P., DBS Bank

Company Profiles

Singapore Company Guide

AEM Holdings Ltd

Version 1 | Bloomberg: AEM SP | Reuters: AEM.SI

Refer to important disclosures at the end of this report

DBS Group Research . Equity

24 Jan 2020

BUY

Last Traded Price (23 Jan 2020): S\$2.05 (STI : 3,234.56)

Price Target 12-mth: S\$2.38 (16% upside)

Analyst

Lee Keng LING +65 6682 3703 leekeng@dbs.com
Singapore Research Team equityresearch@dbs.com..

Price Relative



Forecasts and Valuation

FY Dec (S\$m)	2018A	2019F	2020F	2021F
Revenue	262	308	361	394
EBITDA	41.6	60.6	69.3	76.6
Pre-tax Profit	40.0	56.3	64.2	69.8
Net Profit	33.5	46.7	53.3	57.9
Net Pft (Pre Ex.)	33.5	46.7	53.3	57.9
Net Pft Gth (Pre-ex) (%)	4.1	39.4	14.1	8.8
EPS (S cts)	12.4	17.3	19.7	21.5
EPS Pre Ex. (S cts)	12.4	17.3	19.7	21.5
EPS Gth Pre Ex (%)	(75)	39	14	9
Diluted EPS (S cts)	12.4	17.3	19.7	21.5
Net DPS (S cts)	3.41	4.33	4.94	5.37
BV Per Share (S cts)	33.3	46.2	61.0	77.1
PE (X)	16.5	11.8	10.4	9.5
PE Pre Ex. (X)	16.5	11.8	10.4	9.5
P/Cash Flow (X)	16.2	15.4	10.3	8.7
EV/EBITDA (X)	11.8	7.9	6.4	5.3
Net Div Yield (%)	1.7	2.1	2.4	2.6
P/Book Value (X)	6.2	4.4	3.4	2.7
Net Debt/Equity (X)	CASH	CASH	CASH	CASH
ROAE (%)	45.5	43.6	36.9	31.1
Earnings Rev (%)		0	0	0
Consensus EPS (S cts)		16.5	19.8	21.0
Other Broker Recs:		B: 4	S: 0	H: 0

Source of all data on this page: Company, DBS Bank, Bloomberg Finance L.P

Re-rating catalysts intact

Semiconductor recovery playing out; maintain BUY and TP of S\$2.38, pegged to +2 SD of its 2-year historical average. Recent data points and news surrounding the semiconductor industry reaffirm our view that the recovery is playing out. Although AEM's share price has increased to an all-time high and is trading at 10.4x FY2020F's earnings, we have noticed that AEM's forward PE closely tracks the semiconductor equipment billings, and remain bullish that the recovery will drive a re-rating of its forward PE upwards to 12.1x FY2020F earnings. We continue to believe that its key customer's requirement of more test handlers, a structural increase in test times, and a diversification of revenue through new projects and customers will drive AEM's growth.

Where we differ: We are more bullish on AEM's earnings in FY2020F/21F and believe an uptick in equipment billings should drive a re-rating in its forward PE.

Potential catalysts: Stronger semiconductor equipment billings, increased sales guidance, acquisitions, new revenue streams.

Valuation:

Maintain BUY and TP of S\$2.38, pegged to 12.1x FY2020F PE, +2 SD to its 2-year historical average. It is currently trading at 10.4x FY2020F earnings, which is below its peers, Teradyne and Advantest, who are trading at 22.9x and 31.6x FY2020F earnings. We are expecting a further re-rating of its forward PE upwards on the back of a recovery in the semiconductor cycle.

Key Risks to Our View:

Single-customer concentration risk, escalation or continued protraction of geopolitical events, and FX risk.

At A Glance

Issued Capital (m shrs)	270
Mkt. Cap (S\$m/US\$m)	553 / 410
Major Shareholders (%)	
Standard Life Aberdeen	7.7
Toh Ban Leng	7.6
Morgan Stanley	7.0
Free Float (%)	72.7
3m Avg. Daily Val (US\$m)	9.8
GIC Industry : Information Technology / Technology Hardware &	



DBS
Live more, Bank less

AEM Holdings Ltd

CRITICAL DATA POINTS TO WATCH

Critical Factors

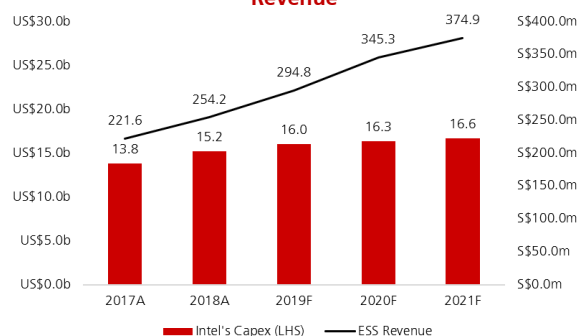
Intel's capital expenditure guidance. AEM supplies test handlers as well as provides diversified services to facilitate back-end testing of Intel's semiconductors. More than 90% of its revenue is currently derived from its key customer, Intel, and is captured in Intel's capex. Most of its revenue from Intel is classified under revenue from its 'Equipment Systems Solutions (ESS)'. Intel aims to spend c.20% of its revenue on R&D, which we believe will increase along with the upturn in the semiconductor cycle and its fast-growing total addressable market (TAM) as it shifts towards a data-centric focused business.

US semiconductor equipment billings. AEM's 12-month rolling forward PE correlates closely to the 3-month rolling US semiconductor equipment billings. SEMI and semiconductor market research firms (VLSI Research, IDC, WSTS) are projecting a recovery in the semiconductor industry in 2020. We are also positive on the industry and are expecting the equipment billings to trend upwards on the back of the development of 5G and advanced devices. We believe this will continue to drive a re-rating of AEM's forward PE.

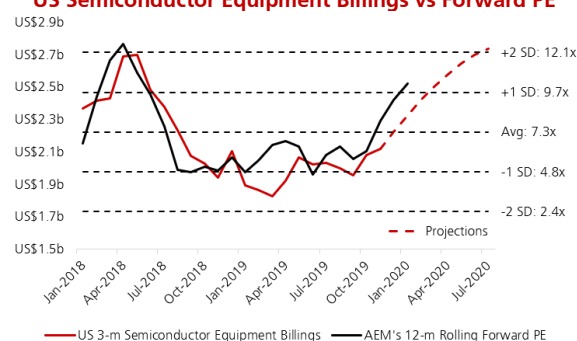
AEM's sales mix. AEM's Consumables and Services generally have slightly higher margins as compared to Tools and Machines. In 9M19, AEM's gross profit margin increased to 37.1%, from 34.0% in FY2018 largely due to a shift in revenue mix. As of 3Q19, Intel has sufficient test handlers from AEM to meet its existing production capacity. However, in Intel's 3Q19 earnings call, it guided that it will be increasing the production capacities of its 14-nm and 10-nm chips by 25% each in 2020. We believe Intel will continue to procure more test handlers from AEM, allowing it to maintain its gross profit margin.

Inventory levels of top chip makers as well as equipment suppliers in the US. Inventory levels of chip makers and equipment suppliers are a function of anticipated demand and current demand. Chip makers and equipment suppliers have built up their inventory levels ahead of the anticipated recovery in the semiconductor cycle. As the US-China trade situation improved from aggressive tariffs to a standstill to a trade deal, inventory levels fell in 3Q19. This is likely due to an overall recovery in the sector as well as an uplift in business activity following the slight easing of the US-China trade war. We believe inventory levels will decline slightly or remain at the same level as demand for chips picks up.

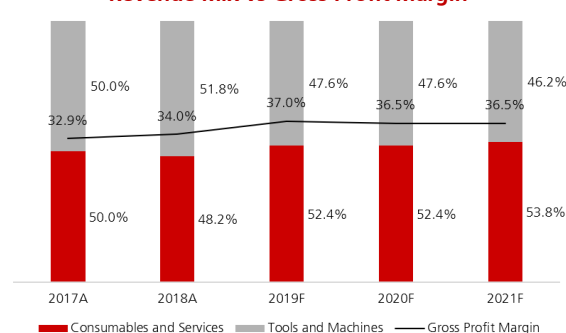
Intel's Capital Expenditure vs Equipment Systems Solutions Revenue



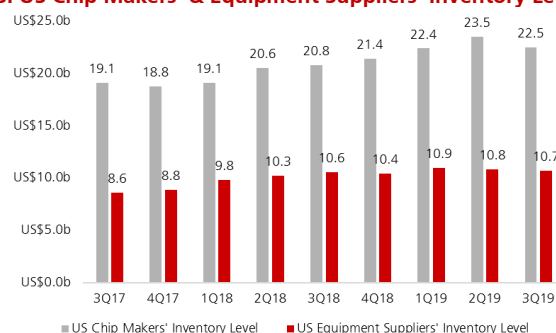
US Semiconductor Equipment Billings vs Forward PE



Revenue Mix vs Gross Profit Margin



BI US Chip Makers' & Equipment Suppliers' Inventory Levels



Source: Company, DBS Bank

AEM Holdings Ltd

Balance Sheet:

Net cash position with no debt. As of 3Q19, AEM has a cash balance of S\$64.8m and no borrowings. In the last five years, AEM had close to negligible debt levels and has been financing its operations and acquisitions through its own cashflow. It is currently on the lookout for potential acquisitions that could create synergies with its existing business.

High return on equity. AEM was able to achieve a high ROE of 73.1% and 45.5% in FY2017 and FY2018, respectively. This is higher than its industry peers such as Advantest, with a ROE of 28.7%.

Share Price Drivers:

US 3-month semiconductor billings. AEM's share price and forward PE correlate closely to the US 3-month semiconductor billings. We believe that the current recovery and end-demand led by 5G and advanced devices will drive semiconductor billings and re-rate AEM's forward PE.

Order book and sales guidance. Management provides guidance on its revenue which is estimated from its order book. In FY2018, AEM raised its sales guidance four times, which resulted in its share price increasing by an average of 4.0% on each of the days of the announcement.

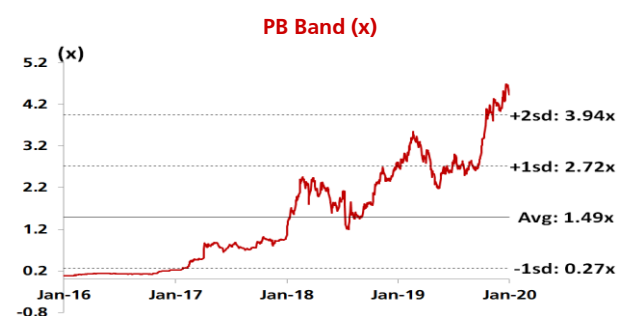
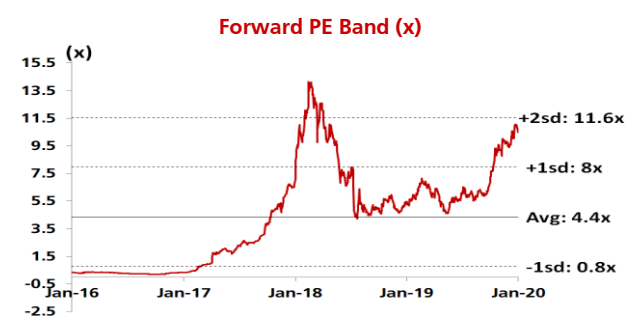
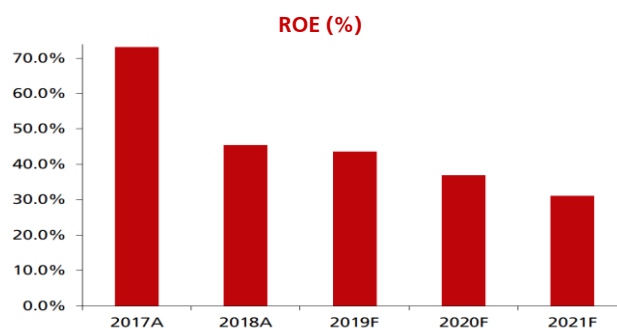
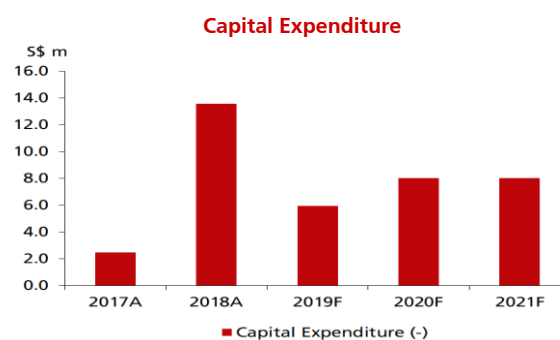
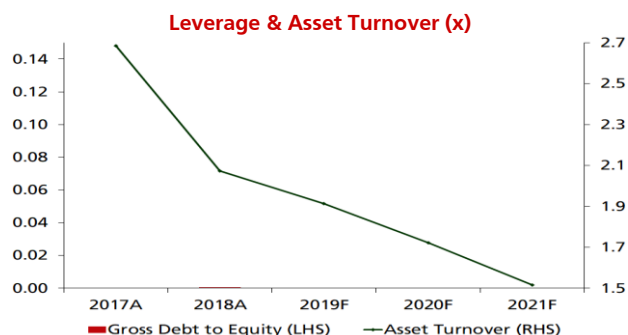
Key Risks:

Single-customer concentration risk. Around 90% of AEM's revenue is derived from Intel. Of which, c.50% of its revenue is from the sale of its equipment, which is lumpy in nature and dependent on Intel's need to replace existing machines or increase its production capacity.

Re-escalation of the US-China trade war. The US-China trade war weighed heavily on the global manufacturing cycle, reducing the demand for semiconductor-end products as well as disrupting the supply chain. A re-escalation of the trade war could hamper the recovery of the semiconductor industry.

Company Background

AEM is a solutions provider for the back-end testing of the semiconductor manufacturing process. It works closely with its key customer, Intel, to design, engineer, and manufacture the test handlers. AEM then provides field support and post-sales replacements.



Source: Company, DBS Bank

AEM Holdings Ltd
Income Statement (\$5m)

FY Dec	2017A	2018A	2019F	2020F	2021F
Revenue	222	262	308	361	394
Cost of Goods Sold	(149)	(173)	(194)	(229)	(250)
Gross Profit	73.0	89.1	114	132	144
Other Opng (Exp)/Inc	(35.4)	(49.4)	(58.1)	(68.1)	(74.4)
Operating Profit	37.6	39.8	56.0	63.8	69.4
Other Non Opg (Exp)/Inc	0.0	0.0	0.0	0.0	0.0
Associates & JV Inc	(0.1)	0.0	0.0	0.0	0.0
Net Interest (Exp)/Inc	0.04	0.26	0.26	0.39	0.39
Exceptional Gain/(Loss)	0.0	0.0	0.0	0.0	0.0
Pre-tax Profit	37.5	40.0	56.3	64.2	69.8
Tax	(5.4)	(6.5)	(9.6)	(10.9)	(11.9)
Minority Interest	0.0	0.0	0.0	0.0	0.0
Preference Dividend	0.0	0.0	0.0	0.0	0.0
Net Profit	32.2	33.5	46.7	53.3	57.9
Net Profit before Except.	32.2	33.5	46.7	53.3	57.9
EBITDA	38.2	41.6	60.6	69.3	76.6
Growth					
Revenue Gth (%)	216.0	18.4	17.6	17.2	9.0
EBITDA Gth (%)	449.5	8.9	45.7	14.4	10.6
Opg Profit Gth (%)	474.5	5.7	40.9	13.9	8.8
Net Profit Gth (Pre-ex) (%)	575.3	4.1	39.4	14.1	8.8
Margins & Ratio					
Gross Margins (%)	32.9	34.0	37.0	36.5	36.5
Opg Profit Margin (%)	17.0	15.2	18.2	17.6	17.6
Net Profit Margin (%)	14.5	12.8	15.1	14.7	14.7
ROAE (%)	73.1	45.5	43.6	36.9	31.1
ROA (%)	39.0	26.5	29.0	25.4	22.3
ROCE (%)	72.4	44.7	42.6	36.3	30.8
Div Payout Ratio (%)	24.9	27.4	25.0	25.0	25.0
Net Interest Cover (x)	NM	NM	NM	NM	NM

Source: Company, DBS Bank

Quarterly / Interim Income Statement (\$5m)

FY Dec	2Q2018	3Q2018	4Q2018	1Q2019	2Q2019
Revenue	72.7	84.7	39.4	52.7	97.9
Cost of Goods Sold	(49.8)	(57.5)	(22.8)	(32.6)	(62.8)
Gross Profit	22.9	27.2	16.6	20.2	35.2
Other Oper. (Exp)/Inc	(11.4)	(13.5)	(12.2)	(12.3)	(16.3)
Operating Profit	11.5	13.7	4.35	7.82	18.9
Other Non Opg (Exp)/Inc	0.0	0.0	0.0	0.0	0.0
Associates & JV Inc	0.0	0.0	0.25	0.09	0.05
Net Interest (Exp)/Inc	0.04	0.07	0.09	0.08	0.07
Exceptional Gain/(Loss)	0.0	0.0	0.0	0.0	0.0
Pre-tax Profit	11.5	13.8	4.68	7.98	19.0
Tax	(2.0)	(2.4)	(0.3)	(1.4)	(3.3)
Minority Interest	0.0	0.0	0.0	0.0	0.0
Net Profit	9.50	11.4	4.39	6.60	15.7
Net profit bef Except.	9.50	11.4	4.39	6.60	15.7
EBITDA	11.5	13.7	4.59	7.91	18.9
Growth					
Revenue Gth (%)	10.7	16.5	(53.5)	34.0	85.7
EBITDA Gth (%)	15.3	19.2	(66.4)	72.1	139.3
Opg Profit Gth (%)	13.4	19.1	(68.2)	79.8	141.4
Net Profit Gth (Pre-ex) (%)	15.5	19.9	(61.4)	50.2	138.1
Margins					
Gross Margins (%)	31.5	32.1	42.1	38.2	35.9
Opg Profit Margins (%)	15.8	16.2	11.0	14.8	19.3
Net Profit Margins (%)	13.1	13.5	11.2	12.5	16.0

Due to a reduction in orders from its key customer

AEM Holdings Ltd
Balance Sheet (\$\$m)

FY Dec	2017A	2018A	2019F	2020F	2021F
Net Fixed Assets	3.62	5.73	5.26	6.89	6.93
Invts in Associates & JVs	4.13	4.15	4.15	4.15	4.15
Other LT Assets	3.45	17.8	19.6	20.4	21.2
Cash & ST Invts	46.1	58.9	77.2	109	150
Inventory	35.8	27.4	40.0	47.4	51.6
Debtors	23.6	18.0	35.2	41.3	46.6
Other Current Assets	0.0	4.49	4.49	4.49	4.49
Total Assets	117	136	186	234	285
ST Debt	0.01	0.0	0.0	0.0	0.0
Creditor	52.2	33.1	45.3	52.2	59.1
Other Current Liab	6.04	10.6	12.9	14.2	15.2
LT Debt	0.0	0.05	0.0	0.0	0.0
Other LT Liabilities	0.59	3.21	3.21	3.21	3.21
Shareholder's Equity	57.8	89.5	125	164	208
Minority Interests	0.0	0.0	0.0	0.0	0.0
Total Cap. & Liab.	117	136	186	234	285
Non-Cash Wkg. Capital	1.10	6.22	21.6	26.8	28.5
Net Cash/(Debt)	46.1	58.8	77.2	109	150
Debtors Turn (avg days)	34.0	28.9	31.4	38.6	40.7
Creditors Turn (avg days)	85.1	90.9	75.3	79.4	83.6
Inventory Turn (avg days)	65.7	67.4	64.9	71.2	74.3
Asset Turnover (x)	2.7	2.1	1.9	1.7	1.5
Current Ratio (x)	1.8	2.5	2.7	3.1	3.4
Quick Ratio (x)	1.2	1.8	1.9	2.3	2.7
Net Debt/Equity (X)	CASH	CASH	CASH	CASH	CASH
Net Debt/Equity ex MI (X)	CASH	CASH	CASH	CASH	CASH
Capex to Debt (%)	34,971.4	27,632.7	N/A	N/A	N/A
Z-Score (X)	NA	NA	NA	NA	NA

Source: Company, DBS Bank

Cash Flow Statement (\$\$m)

FY Dec	2017A	2018A	2019F	2020F	2021F
Pre-Tax Profit	37.5	40.0	56.3	64.2	69.8
Dep. & Amort.	0.70	1.87	4.56	5.52	7.22
Tax Paid	(0.3)	(5.2)	(7.3)	(9.6)	(10.9)
Assoc. & JV Inc/(loss)	0.11	0.04	0.0	0.0	0.0
Chg in Wkg.Cap.	10.1	(4.7)	(17.7)	(6.5)	(2.6)
Other Operating CF	1.74	2.02	0.0	0.0	0.0
Net Operating CF	49.9	34.1	35.9	53.6	63.5
Capital Exp.(net)	(2.5)	(13.5)	(5.9)	(8.0)	(8.0)
Other Invts.(net)	0.0	0.0	0.0	0.0	0.0
Invts in Assoc. & JV	0.0	0.0	0.0	0.0	0.0
Div from Assoc & JV	0.0	0.0	0.0	0.0	0.0
Other Investing CF	0.07	0.30	0.0	0.0	0.0
Net Investing CF	(2.4)	(13.2)	(5.9)	(8.0)	(8.0)
Div Paid	(4.5)	(8.4)	(11.7)	(13.3)	(14.5)
Chg in Gross Debt	(0.1)	(0.3)	(0.1)	0.0	0.0
Capital Issues	0.15	0.63	0.0	0.0	0.0
Other Financing CF	(2.0)	(1.2)	0.0	0.0	0.0
Net Financing CF	(6.4)	(9.2)	(11.7)	(13.3)	(14.5)
Currency Adjustments	(1.4)	1.17	0.0	0.0	0.0
Chg in Cash	39.8	12.8	18.3	32.3	41.0
Opg CFPS (S cts)	60.7	14.4	19.9	22.3	24.5
Free CFPS (S cts)	72.4	7.64	11.1	16.9	20.6

Source: Company, DBS Bank

AEM Holdings Ltd

Target Price & Ratings History



S.No.	Date of Report	Closing Price	12-mth Target Price	Rating
1:	29 Nov 19	1.80	2.38	BUY

Note: Share price and Target price are adjusted for corporate actions.

Source: DBS Bank

Analyst: Lee Keng LING

Singapore Research Team

DBS Bank recommendations are based on an Absolute Total Return* Rating system, defined as follows:

STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)

BUY (>15% total return over the next 12 months for small caps, >10% for large caps)

HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)

SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

**Share price appreciation + dividends*

Completed Date: 23 Jan 2020 18:04:56 (SGT)

Dissemination Date: 23 Jan 2020 18:14:10 (SGT)

Sources for all charts and tables are DBS Bank unless otherwise specified.

GENERAL DISCLOSURE/DISCLAIMER

This report is prepared by DBS Bank Ltd. This report is solely intended for the clients of DBS Bank Ltd, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS Bank Ltd.

The research set out in this report is based on information obtained from sources believed to be reliable, but we (which collectively refers to DBS Bank Ltd, its respective connected and associated corporations, affiliates and their respective directors, officers, employees and agents (collectively, the "DBS Group")) have not conducted due diligence on any of the companies, verified any information or sources or taken into account any other factors which we may consider to be relevant or appropriate in preparing the research. Accordingly, we do not make any representation or warranty as to the accuracy, completeness or correctness of the research set out in this report. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained in this document does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This document is for the information of addressees only and is not to be taken in substitution for the exercise of judgement by addressees, who should obtain separate independent legal or financial advice. The DBS Group accepts no liability whatsoever for any direct, indirect and/or consequential loss (including any claims for loss of profit) arising from any use of and/or reliance upon this document and/or further communication given in relation to this document. This document is not to be construed as an offer or a solicitation of an offer to buy or sell any securities. The DBS Group, along with its affiliates and/or persons associated with any of them may from time to time have interests in the securities mentioned in this document. The DBS Group, may have positions in, and may effect transactions in securities mentioned herein and may also perform or seek to perform broking, investment banking and other banking services for these companies.

Any valuations, opinions, estimates, forecasts, ratings or risk assessments herein constitutes a judgment as of the date of this report, and there can be no assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments. The information in this document is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed, it may not contain all material information concerning the company (or companies) referred to in this report and the DBS Group is under no obligation to update the information in this report.

This publication has not been reviewed or authorized by any regulatory authority in Singapore, Hong Kong or elsewhere. There is no planned schedule or frequency for updating research publication relating to any issuer.

The valuations, opinions, estimates, forecasts, ratings or risk assessments described in this report were based upon a number of estimates and assumptions and are inherently subject to significant uncertainties and contingencies. It can be expected that one or more of the estimates on which the valuations, opinions, estimates, forecasts, ratings or risk assessments were based will not materialize or will vary significantly from actual results. Therefore, the inclusion of the valuations, opinions, estimates, forecasts, ratings or risk assessments described herein IS NOT TO BE RELIED UPON as a representation and/or warranty by the DBS Group (and/or any persons associated with the aforesaid entities), that:

- (a) such valuations, opinions, estimates, forecasts, ratings or risk assessments or their underlying assumptions will be achieved, and
- (b) there is any assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments stated therein.

Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets. Any assumptions made in this report that refers to commodities, are for the purposes of making forecasts for the company (or companies) mentioned herein. They are not to be construed as recommendations to trade in the physical commodity or in the futures contract relating to the commodity referred to in this report.

DBSVUSA, a US-registered broker-dealer, does not have its own investment banking or research department, has not participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months and does not engage in market-making.

ANALYST CERTIFICATION

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible for the content of this research report, in part or in whole, certifies that he or his associate¹ does not serve as an officer of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant) and the research analyst(s) primarily responsible for the content of this research report or his associate does not have financial interests² in relation to an issuer or a new listing applicant that the analyst reviews. DBS Group has procedures in place to eliminate, avoid and manage any potential conflicts of interests that may arise in connection with the production of research reports. The research analyst(s) responsible for this report operates as part of a separate and independent team to the investment banking function of the DBS Group and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of DBS Group's compensation to any specific investment banking function of the DBS Group.

COMPANY-SPECIFIC / REGULATORY DISCLOSURES

1. DBS Bank Ltd, DBS HK, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS") or their subsidiaries and/or other affiliates do not have a proprietary position in the securities recommended in this report as of 31 Dec 2019.
2. Neither DBS Bank Ltd nor DBS HK market makes in equity securities of the issuer(s) or company(ies) mentioned in this Research Report.

Compensation for investment banking services:

3. DBSVUSA does not have its own investment banking or research department, nor has it participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months. Any US persons wishing to obtain further information, including any clarification on disclosures in this disclaimer, or to effect a transaction in any security discussed in this document should contact DBSVUSA exclusively.

Disclosure of previous investment recommendation produced:

4. DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed in the first page of this report to view previous investment recommendations published by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates in the preceding 12 months.

¹ An associate is defined as (i) the spouse, or any minor child (natural or adopted) or minor step-child, of the analyst; (ii) the trustee of a trust of which the analyst, his spouse, minor child (natural or adopted) or minor step-child, is a beneficiary or discretionary object; or (iii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

² Financial interest is defined as interests that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

Singapore Company Guide

Frencken Group Limited

Version 4 | Bloomberg: FRKN SP | Reuters: FREN.SI

Refer to important disclosures at the end of this report

DBS Group Research . Equity

29 Nov 2019

BUY

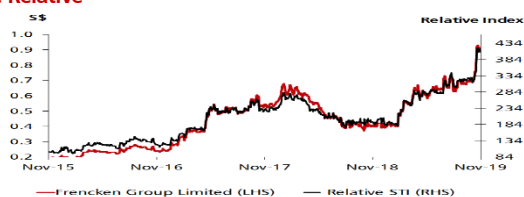
Last Traded Price (28 Nov 2019): S\$0.905 (STI : 3,200.61)

Price Target 12-mth: S\$1.06 (17% upside) (Prev S\$0.95)

Analyst

Lee Keng LING +65 6682 3703 leekeng@db.com

Price Relative



Forecasts and Valuation

FY Dec (S\$m)	2018A	2019F	2020F	2021F
Revenue	626	668	736	799
EBITDA	61.4	72.6	79.3	85.7
Pre-tax Profit	40.2	52.9	57.9	62.6
Net Profit	30.0	41.0	44.9	48.5
Net Pft (Pre Ex.)	33.9	41.0	44.9	48.5
Net Pft Gth (Pre-ex) (%)	47.7	20.7	9.5	8.1
EPS (S cts)	7.12	9.67	10.6	11.5
EPS Pre Ex. (S cts)	8.05	9.67	10.6	11.5
EPS Gth Pre Ex (%)	46	20	10	8
Diluted EPS (S cts)	7.12	9.67	10.6	11.5
Net DPS (S cts)	2.14	2.90	3.18	3.44
BV Per Share (S cts)	62.8	69.3	76.7	84.8
PE (X)	12.7	9.4	8.5	7.9
PE Pre Ex. (X)	11.2	9.4	8.5	7.9
P/Cash Flow (X)	15.2	5.5	8.0	7.0
EV/EBITDA (X)	6.3	4.9	4.4	3.9
Net Div Yield (%)	2.4	3.2	3.5	3.8
P/Book Value (X)	1.4	1.3	1.2	1.1
Net Debt/Equity (X)	0.0	CASH	CASH	CASH
ROAE (%)	11.3	14.0	13.8	13.5
Earnings Rev (%):		0	0	0
Consensus EPS (S cts):		9.3	9.7	10.1
Other Broker Recs:		B: 3	S: 0	H: 1

Source of all data on this page: Company, DBS Bank, Bloomberg Finance L.P

Semiconductor turnaround beneficiary

Benefitting from Semiconductor turnaround; Industrial Automation remains key. We expect Frencken Group (FRKN) to benefit from the turnaround in the Semiconductor segment given its c.20% revenue exposure. Industrial Automation remains a key division, riding on the optimistic outlook of its key customer. FRKN's strong presence in a wide variety of industries and business segments - Automotive, Analytical & Life Science, Medical, Semiconductor and Industrial & Industrial Automation provides greater resilience and stability.

At 9.4x FY19F and 8.5x FY20F earnings, FRKN is trading at about 30% discount to its peers' average of c.12x price-to-earnings (PE). In our view, this discount is too steep. The stock is supported by a dividend yield of about 3.2%, based on a 30% payout ratio.

Where we differ: We use a lower PE multiple of 10x, which is at a 20% discount to its peers' average given FRKN's smaller scale.

Potential catalysts: 1) Positive outcome from US-China trade negotiations; 2) Better operational efficiency to improve margins

Valuation:

Maintain BUY with higher TP of S\$1.06. Our target price (TP) is raised accordingly to S\$1.06 (Prev S\$0.95), pegged to 10x FY20F PE, (up from 9x in line with the recent re-rating of technology stocks). We retain the 20% discount peg to peers' average given FRKN's smaller scale. Maintain BUY

Key Risks to Our View:

Dependence on global market conditions. FRKN has exposure to customers in the US, European Union (EU) and Asia. A broad global economic slowdown could impact demand and earnings.

At A Glance

Issued Capital (m shrs)	424
Mkt. Cap (S\$m/US\$m)	384 / 281
Major Shareholders (%)	
Thong Low Heang	6.3
Micro Compact Sdn Bhd	6.2
Precico Singapore Pte Ltd	6.2
Free Float (%)	67.6
3m Avg. Daily Val (US\$m)	1.5
GIC Industry : Industrials / Capital Goods	



Live more, Bank less

Frencken Group Limited

CRITICAL DATA POINTS TO WATCH

Critical Factors

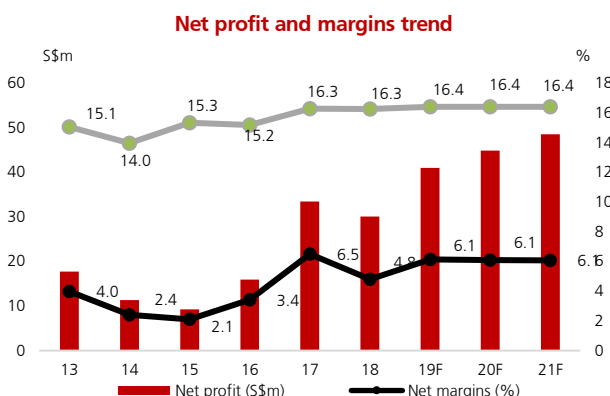
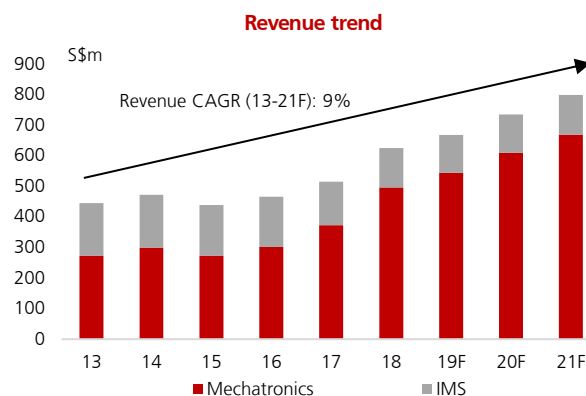
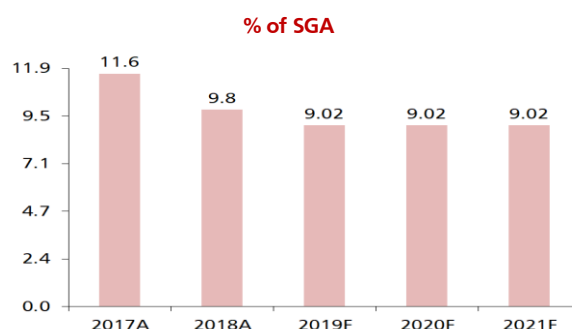
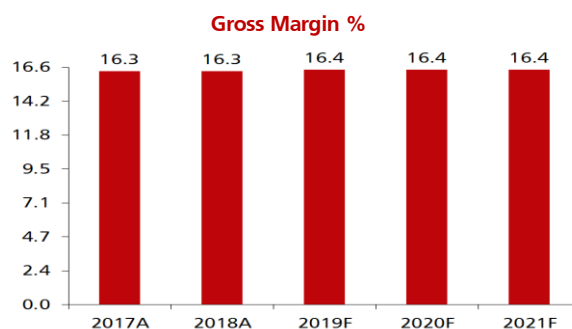
Technology advancements and rising transformation. The accelerating technological advancements and market trends in cloud computing, big data, artificial intelligence (AI), augmented reality (AR), virtual reality (VR), proliferation of connected devices and Internet of Things (IOT), as well as the transformation of the automotive industry and advances in the analysis of biotech and genomics are drivers for FRKN’s business. Among the rising trends are electric cars and connectivity technologies (e.g. smart Wi-Fi systems). FRKN collaborates closely with existing and new customers to develop the next generation of products and technology.

Exposure to high-growth segments. Among FRKN’s five key business segments, we expect the Analytical & Life Sciences, Industrial & Industrial Automotive and Automotive segments to be the main growth drivers in the long term. The proliferation and advancement of technology is giving rise to greater research and analysis, and demand for high-tech products to improve efficiencies and raise productivity. FRKN is in a sweet spot with its exposure to evolving technologies, especially in the Analytical & Life Sciences and Industrial & Industrial Automotive segments.

We turned positive on the semiconductor segment recently. Frencken should benefit as it has c.20% revenue exposure to this segment. SEMI forecasts the equipment market to jump 11.6% in 2020. The recovery is on the strength of memory spending and new projects in China.

Optimisation through leaner organisational structure. The strategic divestment of loss-making wholly-owned subsidiary Precico Group Sdn Bhd (PESB) in FY17 enabled FRKN to unlock the value of this business unit at a profit. In FY15, FRKN took a hit to wind up certain subsidiaries in Malaysia and China.

Operational efficiencies to drive margins. FRKN’s earnings recovered strongly in FY16, after a prolonged period of negative earnings growth from FY11-FY15. During this period, besides challenging market conditions, the group was also hit by impairment losses for subsidiaries and deferred development costs. An optimisation exercise was undertaken and some subsidiaries were wound up for a leaner structure. A sustainable and improvement of its earnings momentum should continue to re-rate the stock.



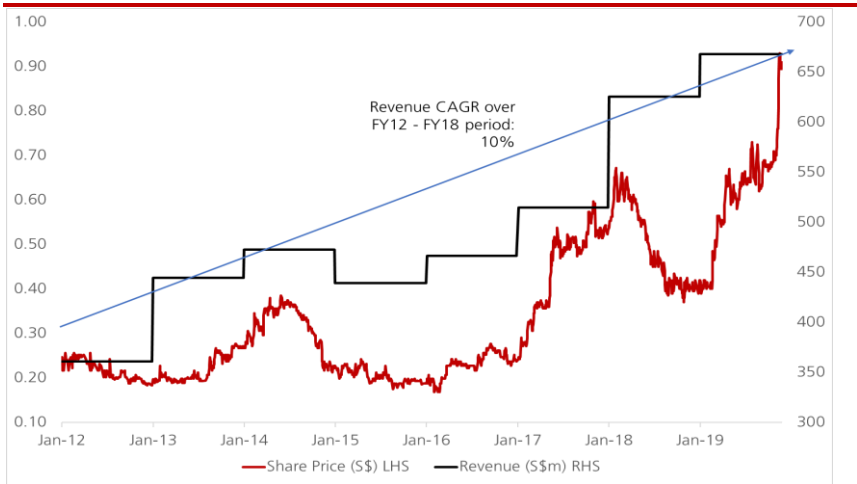
Source: Company, DBS Bank

Frencken Group Limited

Appendix 1: A look at Company's listed history – what drives its share price?

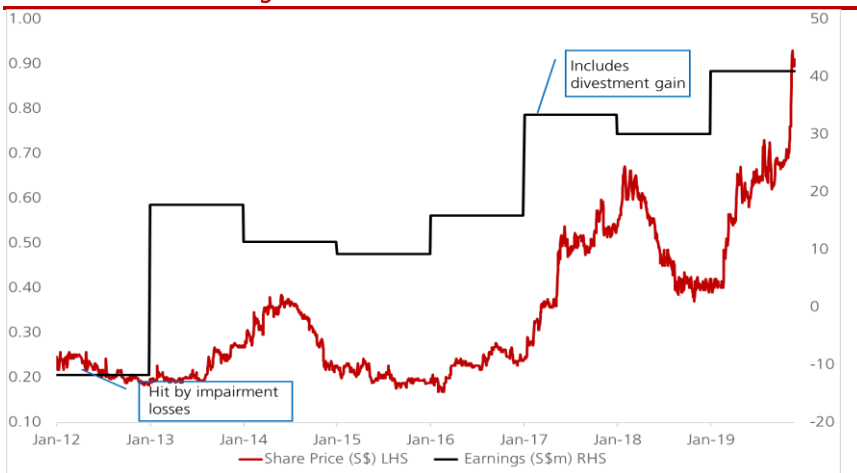
Remarks

Share Price vs Revenue



In the last seven years, FRKN's share price has tracked revenue quite closely, with a correlation of +0.84. The group has grown over the years, via organic and inorganic growth. We expect this uptrend to continue, as the group continues to gain wallet share from its existing customers and build market share through the acquisition of new customers and product segments.

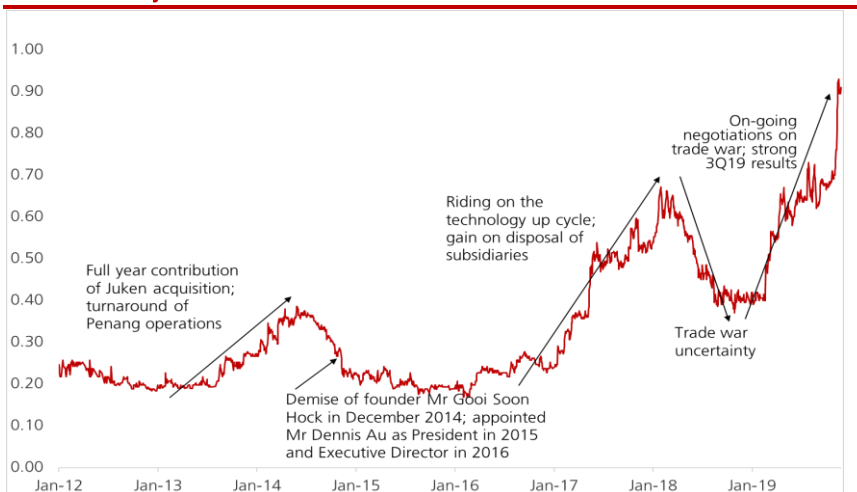
Share Price vs Net Earnings



Net earnings have been relatively more volatile compared to revenue (correlation +0.75), partly affected by impairment charges and gains/losses from disposal of subsidiaries. The group undertook several exercises to restructure/rationalise and build a stronger base.

Overall, we project a FY18-FY21 earnings CAGR of 17%.

Share Price Key Event Chart



Source: Company, DBS Bank

Frencken Group Limited

Balance Sheet:

Return to net cash position expected. The bulk of FRKN's borrowings is in the form of short-term borrowings and forms an integral part of the group's cash management. The borrowings are mainly denominated in Euro (EUR), US Dollar (USD), Singapore Dollar (SGD), Indonesian Rupiah (INR) and Malaysian Ringgit (MYR) at interest rates of 1.36-11.75% (for FY18). We expect the group to return to a net cash position in FY19F, barring any major capital expenditure (capex).

Share Price Drivers:

Revenue and earnings momentum. FRKN's revenue registered a CAGR of 10% in FY12-FY18. Earnings recovered strongly in FY16, after a prolonged period of negative earnings growth in FY11-FY15 due to challenging market conditions. The group was also hit by impairment losses for subsidiaries and deferred development costs. Optimisation exercises were undertaken and some subsidiaries were wound up for a leaner structure. A sustainable and improved earnings momentum should continue to re-rate the stock.

Key Risks:

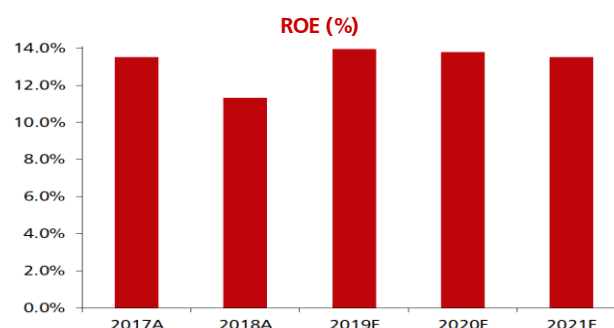
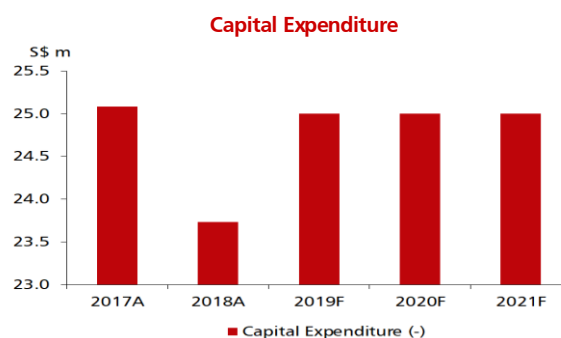
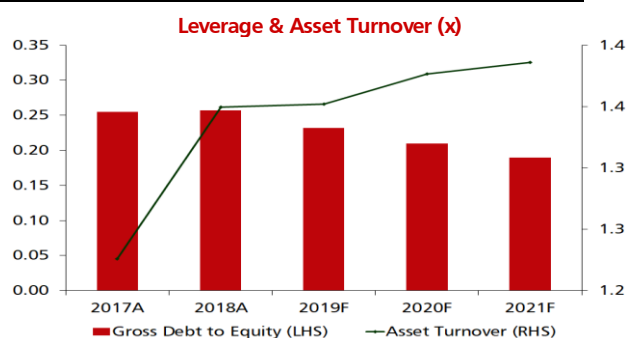
Dependence on global market conditions. FRKN has exposure to customers in the US, EU and Asia. A broad global economic slowdown could have an impact on FRKN's operations due to its vulnerability to business cycles. Political and policy risks could also affect FRKN's business in these regions. A case in point is the ongoing US-China trade war.

Forex exposure. A weakening USD against SGD, Renminbi (RMB) and MYR could impact FRKN's earnings, but should be minimal. Our sensitivity analysis shows that every 5% appreciation of USD against SGD, RMB and MYR will increase FRKN's net profit by 2%.

Vulnerable to industry cycles. Some industries that FRKN is exposed to, like the semiconductor industry, are cyclical in nature. A sudden swing in the cycle could affect FRKN's operations, especially its inventory level and profitability.

Company Background

Frencken Group Limited (FRKN) provides end-to-end solutions across the entire customer value chain. It offers comprehensive original design, original equipment and diversified integrated manufacturing solutions for world-class multinational companies in the automotive, healthcare, industrial, life sciences and semiconductor industries.



Source: Company, DBS Bank

Frencken Group Limited

Key Assumptions

FY Dec	2017A	2018A	2019F	2020F	2021F
Gross Margin %	16.3	16.3	16.4	16.4	16.4
% of SGA	11.6	9.80	9.02	9.02	9.02

Segmental Breakdown

FY Dec	2017A	2018A	2019F	2020F	2021F
Revenues (\$\$m)					
Mechatronics	373	497	545	609	669
IMS	142	129	123	126	130

Total	515	626	668	736	799
Operating profit (EBIT)					
Mechatronics	19.0	30.3	39.7	43.6	48.7
IMS	2.97	1.95	1.93	1.85	1.90

Total	21.9	32.3	41.7	45.4	50.6
Operating profit (EBIT)					
Mechatronics	5.1	6.1	7.3	7.2	7.3
IMS	2.1	1.5	1.6	1.5	1.5

Total	4.3	5.2	6.2	6.2	6.3
-------	-----	-----	-----	-----	-----

Income Statement (\$\$m)

FY Dec	2017A	2018A	2019F	2020F	2021F
Revenue	515	626	668	736	799
Cost of Goods Sold	(431)	(524)	(558)	(615)	(668)
Gross Profit	83.9	102	110	121	131
Other Opng (Exp)/Inc	(59.9)	(61.3)	(60.2)	(66.4)	(72.1)
Operating Profit	23.9	40.4	49.3	54.3	59.0
Other Non Opng (Exp)/Inc	6.35	4.64	4.64	4.64	4.64
Associates & JV Inc	0.0	0.0	0.0	0.0	0.0
Net Interest (Exp)/Inc	(0.3)	(1.0)	(1.0)	(1.0)	(1.0)
Exceptional Gain/(Loss)	10.5	(3.9)	0.0	0.0	0.0
Pre-tax Profit	40.4	40.2	52.9	57.9	62.6
Tax	(6.6)	(9.8)	(11.6)	(12.7)	(13.8)
Minority Interest	(0.4)	(0.3)	(0.3)	(0.3)	(0.3)
Preference Dividend	0.0	0.0	0.0	0.0	0.0
Net Profit	33.4	30.0	41.0	44.9	48.5
Net Profit before Except.	23.0	33.9	41.0	44.9	48.5
EBITDA	45.2	61.4	72.6	79.3	85.7
Growth					
Revenue Gth (%)	10.4	21.5	6.7	10.1	8.6
EBITDA Gth (%)	19.6	35.9	18.1	9.3	8.0
Opg Profit Gth (%)	52.0	68.8	21.9	10.1	8.6
Net Profit Gth (Pre-ex) (%)	44.5	47.7	20.7	9.5	8.1
Margins & Ratio					
Gross Margins (%)	16.3	16.3	16.4	16.4	16.4
Opg Profit Margin (%)	4.6	6.5	7.4	7.4	7.4
Net Profit Margin (%)	6.5	4.8	6.1	6.1	6.1
ROAE (%)	13.5	11.3	14.0	13.8	13.5
ROA (%)	8.0	6.5	8.3	8.4	8.4
ROCE (%)	7.1	9.6	10.8	10.9	10.9
Div Payout Ratio (%)	29.8	30.0	30.0	30.0	30.0
Net Interest Cover (x)	70.8	40.5	49.4	54.4	59.1

Gains from disposal of subsidiary

Impairment losses for goodwill attributable to its plant in Netherlands

Source: Company, DBS Bank

Frencken Group Limited
Quarterly / Interim Income Statement (\$\$m)

FY Dec	3Q2018	4Q2018	1Q2019	2Q2019	3Q2019
Revenue	164	176	159	164	170
Cost of Goods Sold	(139)	(146)	(134)	(136)	(143)
Gross Profit	25.2	29.3	25.1	28.0	27.0
Other Oper. (Exp)/Inc	(13.1)	(14.7)	(13.5)	(13.5)	(12.6)
Operating Profit	12.1	14.6	11.6	14.5	14.4
Other Non Opg (Exp)/Inc	0.0	0.0	0.0	0.0	0.0
Associates & JV Inc	0.0	0.0	0.0	0.0	0.0
Net Interest (Exp)/Inc	(0.2)	(0.4)	(0.4)	(0.4)	(0.3)
Exceptional Gain/(Loss)	(4.0)	0.14	0.0	0.0	0.0
Pre-tax Profit	7.83	14.4	11.2	14.1	14.1
Tax	(2.4)	(3.2)	(2.6)	(2.9)	(2.6)
Minority Interest	(0.1)	(0.1)	0.0	(0.1)	(0.1)
Net Profit	5.26	11.0	8.60	11.1	11.4
Net profit bef Except.	9.30	10.9	8.60	11.1	11.4
EBITDA	16.4	18.5	16.9	19.9	19.5

Growth

Revenue Gth (%)	11.2	7.2	(9.5)	3.3	3.5
EBITDA Gth (%)	18.8	13.2	(9.0)	17.8	(1.6)
Opg Profit Gth (%)	26.7	21.0	(20.5)	24.6	(0.7)
Net Profit Gth (Pre-ex) (%)	32.9	16.9	(20.9)	29.2	2.9

Margins

Gross Margins (%)	15.3	16.7	15.8	17.0	15.9
Opg Profit Margins (%)	7.4	8.3	7.3	8.8	8.4
Net Profit Margins (%)	3.2	6.3	5.4	6.8	6.7

Balance Sheet (\$\$m)

FY Dec	2017A	2018A	2019F	2020F	2021F
Net Fixed Assets	93.9	97.4	105	111	115
Invts in Associates & JVs	0.0	0.0	0.0	0.0	0.0
Other LT Assets	32.1	26.9	32.8	32.8	32.7
Cash & ST Invts	68.2	67.1	99.1	109	124
Inventory	112	145	130	143	156
Debtors	100	116	115	127	138
Other Current Assets	13.5	11.9	11.9	11.9	11.9
Total Assets	420	464	494	534	577
ST Debt	61.7	67.5	67.5	67.5	67.5
Creditor	61.9	79.2	73.4	80.9	87.8
Other Current Liab	39.9	42.8	49.9	51.0	52.0
LT Debt	1.87	1.21	1.21	1.21	1.21
Other LT Liabilities	5.25	5.47	5.47	5.47	5.47
Shareholder's Equity	247	265	294	325	359
Minority Interests	2.34	2.63	2.95	3.27	3.58
Total Cap. & Liab.	420	464	494	534	577
Non-Cash Wkg. Capital	124	150	134	150	166
Net Cash/(Debt)	4.55	(1.6)	30.4	40.0	55.0
Debtors Turn (avg days)	71.1	67.6	63.0	63.0	63.0
Creditors Turn (avg days)	54.3	56.9	49.7	49.6	49.6
Inventory Turn (avg days)	98.3	104.0	87.9	87.9	87.9
Asset Turnover (x)	1.2	1.3	1.4	1.4	1.4
Current Ratio (x)	1.8	1.8	1.9	2.0	2.1
Quick Ratio (x)	1.0	1.0	1.1	1.2	1.3
Net Debt/Equity (X)	CASH	0.0	CASH	CASH	CASH
Net Debt/Equity ex MI (X)	CASH	0.0	CASH	CASH	CASH
Capex to Debt (%)	39.4	34.5	36.4	36.4	36.4

Source: Company, DBS Bank

Frencken Group Limited

Cash Flow Statement (\$m)

FY Dec	2017A	2018A	2019F	2020F	2021F
Pre-Tax Profit	40.4	40.2	52.9	57.9	62.6
Dep. & Amort.	14.9	16.4	18.6	20.4	22.1
Tax Paid	(6.6)	(9.8)	(11.6)	(12.7)	(13.8)
Assoc. & JV Inc/(loss)	0.0	0.0	0.0	0.0	0.0
Chg in Wkg.Cap.	(5.6)	(26.8)	9.35	(17.4)	(16.4)
Other Operating CF	(8.3)	5.10	0.0	0.0	0.0
Net Operating CF	34.9	25.1	69.3	48.2	54.6
Capital Exp.(net)	(25.1)	(23.7)	(25.0)	(25.0)	(25.0)
Other Invt.(net)	0.0	0.0	0.0	0.0	0.0
Invt in Assoc. & JV	38.6	0.0	0.0	0.0	0.0
Div from Assoc & JV	0.0	0.0	0.0	0.0	0.0
Other Investing CF	0.70	0.56	0.0	0.0	0.0
Net Investing CF	14.2	(23.2)	(25.0)	(25.0)	(25.0)
Div Paid	(5.0)	(10.1)	(12.3)	(13.5)	(14.6)
Chg in Gross Debt	9.83	7.33	0.0	0.0	0.0
Capital Issues	1.91	0.95	0.0	0.0	0.0
Other Financing CF	0.0	0.0	0.0	0.0	0.0
Net Financing CF	6.77	(1.8)	(12.3)	(13.5)	(14.6)
Currency Adjustments	(1.3)	0.34	0.0	0.0	0.0
Chg in Cash	54.6	0.46	32.0	9.69	15.0
Opg CFPS (S cts)	9.72	12.3	14.1	15.5	16.7
Free CFPS (S cts)	2.35	0.32	10.5	5.47	6.98

Source: Company, DBS Bank

Target Price & Ratings History



S.No.	Date of Report	Closing Price	12-mth Target Price	Rating
1:	15 Apr 19	0.62	0.75	BUY
2:	10 May 19	0.62	0.75	BUY
3:	13 Aug 19	0.65	0.80	BUY
4:	07 Nov 19	0.74	0.95	BUY

Note: Share price and Target price are adjusted for corporate actions.

Source: DBS Bank

Analyst: Lee Keng LING

DBS Bank recommendations are based on an Absolute Total Return* Rating system, defined as follows:

STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)

BUY (>15% total return over the next 12 months for small caps, >10% for large caps)

HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)

SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

*Share price appreciation + dividends

Completed Date: 29 Nov 2019 07:10:55 (SGT)

Dissemination Date: 29 Nov 2019 07:13:29 (SGT)

Sources for all charts and tables are DBS Bank unless otherwise specified.

GENERAL DISCLOSURE/DISCLAIMER

This report is prepared by DBS Bank Ltd. This report is solely intended for the clients of DBS Bank Ltd, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS Bank Ltd.

The research set out in this report is based on information obtained from sources believed to be reliable, but we (which collectively refers to DBS Bank Ltd, its respective connected and associated corporations, affiliates and their respective directors, officers, employees and agents (collectively, the "DBS Group") have not conducted due diligence on any of the companies, verified any information or sources or taken into account any other factors which we may consider to be relevant or appropriate in preparing the research. Accordingly, we do not make any representation or warranty as to the accuracy, completeness or correctness of the research set out in this report. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained in this document does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This document is for the information of addressees only and is not to be taken in substitution for the exercise of judgement by addressees, who should obtain separate independent legal or financial advice. The DBS Group accepts no liability whatsoever for any direct, indirect and/or consequential loss (including any claims for loss of profit) arising from any use of and/or reliance upon this document and/or further communication given in relation to this document. This document is not to be construed as an offer or a solicitation of an offer to buy or sell any securities. The DBS Group, along with its affiliates and/or persons associated with any of them may from time to time have interests in the securities mentioned in this document. The DBS Group, may have positions in, and may effect transactions in securities mentioned herein and may also perform or seek to perform broking, investment banking and other banking services for these companies.

Any valuations, opinions, estimates, forecasts, ratings or risk assessments herein constitutes a judgment as of the date of this report, and there can be no assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments. The information in this document is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed, it may not contain all material information concerning the company (or companies) referred to in this report and the DBS Group is under no obligation to update the information in this report.

This publication has not been reviewed or authorized by any regulatory authority in Singapore, Hong Kong or elsewhere. There is no planned schedule or frequency for updating research publication relating to any issuer.

The valuations, opinions, estimates, forecasts, ratings or risk assessments described in this report were based upon a number of estimates and assumptions and are inherently subject to significant uncertainties and contingencies. It can be expected that one or more of the estimates on which the valuations, opinions, estimates, forecasts, ratings or risk assessments were based will not materialize or will vary significantly from actual results. Therefore, the inclusion of the valuations, opinions, estimates, forecasts, ratings or risk assessments described herein IS NOT TO BE RELIED UPON as a representation and/or warranty by the DBS Group (and/or any persons associated with the aforesaid entities), that:

- (a) such valuations, opinions, estimates, forecasts, ratings or risk assessments or their underlying assumptions will be achieved, and
- (b) there is any assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments stated therein.

Frencken Group Limited

Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets. Any assumptions made in this report that refers to commodities, are for the purposes of making forecasts for the company (or companies) mentioned herein. They are not to be construed as recommendations to trade in the physical commodity or in the futures contract relating to the commodity referred to in this report.

DBSVUSA, a US-registered broker-dealer, does not have its own investment banking or research department, has not participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months and does not engage in market-making.

ANALYST CERTIFICATION

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible for the content of this research report, in part or in whole, certifies that he or his associate¹ does not serve as an officer of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant) and the research analyst(s) primarily responsible for the content of this research report or his associate does not have financial interests² in relation to an issuer or a new listing applicant that the analyst reviews. DBS Group has procedures in place to eliminate, avoid and manage any potential conflicts of interests that may arise in connection with the production of research reports. The research analyst(s) responsible for this report operates as part of a separate and independent team to the investment banking function of the DBS Group and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of DBS Group's compensation to any specific investment banking function of the DBS Group.

COMPANY-SPECIFIC / REGULATORY DISCLOSURES

1. DBS Bank Ltd, DBS HK, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS") or their subsidiaries and/or other affiliates do not have a proprietary position in the securities recommended in this report as of 31 Oct 2019
2. Neither DBS Bank Ltd nor DBS HK market makes in equity securities of the issuer(s) or company(ies) mentioned in this Research Report.

Compensation for investment banking services:

3. DBSVUSA does not have its own investment banking or research department, nor has it participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months. Any US persons wishing to obtain further information, including any clarification on disclosures in this disclaimer, or to effect a transaction in any security discussed in this document should contact DBSVUSA exclusively.

Disclosure of previous investment recommendation produced:

4. DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed in the first page of this report to view previous investment recommendations published by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates in the preceding 12 months.

¹ An associate is defined as (i) the spouse, or any minor child (natural or adopted) or minor step-child, of the analyst; (ii) the trustee of a trust of which the analyst, his spouse, minor child (natural or adopted) or minor step-child, is a beneficiary or discretionary object; or (iii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

² Financial interest is defined as interests that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

Singapore Company Focus

Fu Yu Corp

Bloomberg: FUYU SP | Reuters: FUYU.SI

Refer to important disclosures at the end of this report

DBS Group Research . Equity

15 Jan 2020

BUY

(Initiating Coverage)

Last Traded Price (14 Jan 2020): S\$0.25 (STI : 3,270.54)

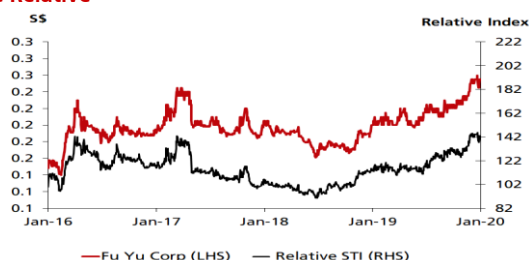
Price Target 12-mth: S\$0.35 (40% upside)

Potential Catalyst: Higher manufacturing data print, further improvement in margins

Analyst

Lee Keng LING +65 6682 3703 leekeng@db.com
Singapore Research Team equityresearch@db.com

Price Relative



Forecasts and Valuation

FY Dec (S\$m)	2018A	2019F	2020F	2021F
Revenue	198	197	201	208
EBITDA	21.3	29.8	29.5	31.1
Pre-tax Profit	15.9	13.8	28.5	23.2
Net Profit	11.9	10.5	21.9	17.9
Net Pft (Pre Ex.)	11.9	14.7	16.5	17.9
EPS (S cts)	1.58	1.39	2.91	2.38
EPS Pre Ex. (S cts)	1.58	1.95	2.19	2.38
EPS Gth (%)	165	(12)	109	(18)
EPS Gth Pre Ex (%)	165	24	12	8
Diluted EPS (S cts)	1.58	1.39	2.91	2.38
Net DPS (S cts)	1.60	1.60	1.60	1.60
BV Per Share (S cts)	21.8	21.6	22.9	23.7
PE (X)	15.8	18.0	8.6	10.5
PE Pre Ex. (X)	15.8	12.8	11.4	10.5
P/Cash Flow (X)	8.1	8.9	5.6	7.5
EV/EBITDA (X)	4.9	3.6	3.1	2.7
Net Div Yield (%)	6.4	6.4	6.4	6.4
P/Book Value (X)	1.1	1.2	1.1	1.1
Net Debt/Equity (X)	CASH	CASH	CASH	CASH
ROAE (%)	7.2	6.4	13.1	10.2

Consensus EPS (S cts): 1.80 1.80 1.80
Other Broker Recs: B: 2 S: 0 H: 1

GIC Industry : Industrials

GIC Sector: Capital Goods

Principal Business: Fu Yu Corporation Limited is a one-stop high precision plastic parts and moulds manufacturer in Asia.

Source of all data on this page: Company, DBS Bank, Bloomberg Finance L.P.

Moulding for growth

- Turnaround in manufacturing across all regions
- Favourable shift in product mix towards higher profitability and growth potential
- Improving margins; high cash level (0.11 Scts/share) and attractive yield at 6.4%
- Initiate with BUY and TP of S\$0.35

Turnaround in manufacturing across all regions. Manufacturing PMIs in China, Singapore, and Malaysia, where Fu Yu's manufacturing facilities are located, are indicating an expansion in the manufacturing sector. We believe that this will lead to an uptick in earnings for Fu Yu.

Emphasis on products with higher profitability and growth potential. Part of the Group's business strategy is to shift towards producing parts for products in the consumer, medical, and automotive space, which have higher profitability and growth potential, as compared to printing and imaging segment.

Cost efficiency to improve margins. Fu Yu is also expanding its margins through cost enhancement initiatives. The redevelopment of its Singapore factory and consolidation of its China operations in Shanghai and Suzhou will further lift normalised net profit margins to 8.2% in FY2020F, from 5.4% in FY2018.

Strong financial positioning. Fu Yu has a high cash level and no debt. Its cash level is equivalent to 44.1% of its market capitalisation and 37.7% of total assets. It has an attractive dividend yield of c.6.4% in FY2019F and TTM EV/EBITDA of 4.4x, vs peers of 6 to 7x.

Valuation:

Initiate with BUY and TP of S\$0.35. Our TP is pegged to FY2020F forward PE of 16.0x, which is +1.0 SD its historical 5-year average. The current recovery of the manufacturing cycle across its operating regions, as well as its business strategies, presents an opportunity for a re-rating of the stock's forward PE. Ex-cash, Fu Yu is trading at an attractive FY2020F PE of 7.2x.

Key Risks to Our View:

Slowdown in manufacturing activity, increasing competition, escalation of the US-China Trade War, sharp decline in USDSGD.

At A Glance

Issued Capital (m shrs)	753
Mkt. Cap (S\$m/US\$m)	188 / 140
Major Shareholders (%)	
Tam Wai	12.9
Ho Nee Kit	12.9
Ching Heng Yang	11.8
Free Float (%)	62.4
3m Avg. Daily Val (US\$m)	0.25



Live more, Bank less

Investment Summary

We are initiating with a BUY and TP of S\$0.35, representing an upside of 40.0% to its last traded price of S\$0.25. Our TP is pegged to a FY2020F forward PE of 16.0x, which is +1.0 SD above its 5-year historical average forward PE. Based on similarities in late 2016, before the onset of the trade war, we believe that the uptrend in the manufacturing cycle justifies an upward re-rating of the stock's forward PE to +1.0 SD.

Fu Yu is a high precision plastic parts and mould manufacturer involved in the printing & imaging, networking & communications, consumer, medical, and automotive sectors. We like Fu Yu on the back of:

1. A recovery in manufacturing,
2. A focus on the faster growing manufacturing industries,
3. Cost efficiency initiatives to improve operating margins,
4. Its strong financial positioning.

1) Turnaround in manufacturing across all regions. The latest data prints of the manufacturing PMIs in Singapore, China, and Malaysia are showing positive signs of recovery heading into 2020 and we believe that Fu Yu's revenue and earnings will ride on the rising trend.

2) Emphasis on products with higher profitability and growth potential. Fu Yu is shifting its focus to products that are more sustainable and have higher growth potential. These industries – consumer, medical, and automotive industries – are poised to grow at high single digits, as compared to the general plastic injecting moulding industry growth of slightly below 5%. In addition, the products in these industries are able to command higher margins due to their demand and high design specifications. In 1H19, Fu Yu has demonstrated that their product mix has shifted towards these industries.

3) Cost efficiency initiatives to improve margins. Along with its focus on the higher growth industries, Fu Yu has also been focusing heavily on its cost management initiatives. The Group has in the past consolidated businesses and factories to reduce costs. In 2Q19, Fu Yu announced that it will be redeveloping its Singapore factory at 9 Tuas Drive 1. This will increase the building space of that factory by three times, while at the same time, it will be selling the leasehold of one other factory in Singapore. The upgraded factory will feature a more efficient layout as well as more advanced equipment to improve profitability.

In addition, Fu Yu will be terminating its Shanghai factory's lease and will be shifting the production to its Suzhou factory to improve the utilisation of its resources, which will further improve on its operational efficiencies.

4) Strong financial positioning. Fu Yu has high cash, equivalent to 44.1% of its market capitalisation and 37.7% of its total assets. It has a dividend policy of paying out at least 50% of its PATMI but has been consistently paying out dividends that is higher than its dividend policy. It recently increased its dividend per share from 1.5 Scts in FY2017 to 1.6 Scts in FY2018. Its current dividend payout represents a yield of c.6.4%. Given its high cash level and stable business performance, we believe that Fu Yu's dividend payout is likely to be maintained in the foreseeable future.

In addition, given Fu Yu's financial positioning and low TTM EV/EBITDA of 4.4x, it is a potential M&A target. Its peers in the region are currently trading at an average of c.6-7x EV/EBITDA.

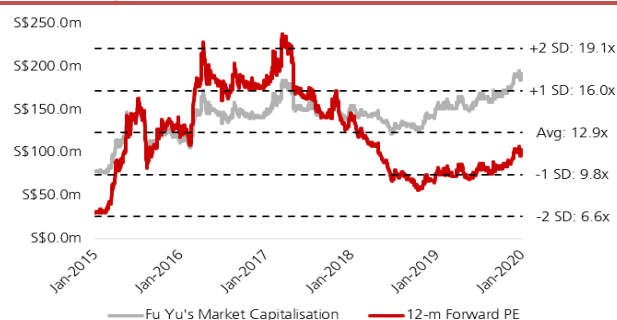
Valuation & Peers Comparison

Valuation

FY2020F forward PE of 16.0x implies a target price of S\$0.35, representing an upside of 40.0% to its last traded price of S\$0.25. Fu Yu is currently trading at a 12-month rolling forward PE of 11.4x, which is slightly below its 5-year historical average forward PE of 12.9x. We believe the stock's forward PE will be **re-rated to 16.0x FY2020F earnings (+1.0 SD)** on the back of higher earnings growth driven mainly by:

1. A recovery in the manufacturing sectors in Singapore, China, and Malaysia,
2. Strategic focus on industries with higher growth potentials (consumer, medical, and automotive), and
3. Cost efficiency initiatives.

Fu Yu's 5-year forward PE

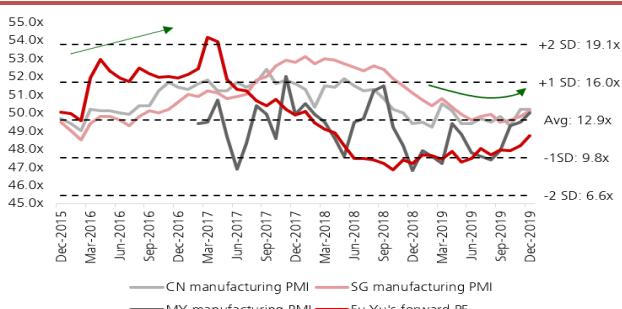


Source: Bloomberg Finance L.P., Company, DBS Bank

FY2020F forward PE of +1.0 SD is a conservative estimate.

The manufacturing PMIs in China and Singapore picked up in late 2016 along with the bottoming of the manufacturing cycle as well as a boost from the 2016 US presidential election when Trump was elected. As the manufacturing PMIs rose above 50, Fu Yu's forward PE also re-rated upwards from the average to above +2.0 SD. We believe that the current bottoming of the manufacturing cycle and progress of the US-China trade war represent a similar situation of an upward re-rating of its forward PE and a +1.0 SD valuation extends a fair margin of safety.

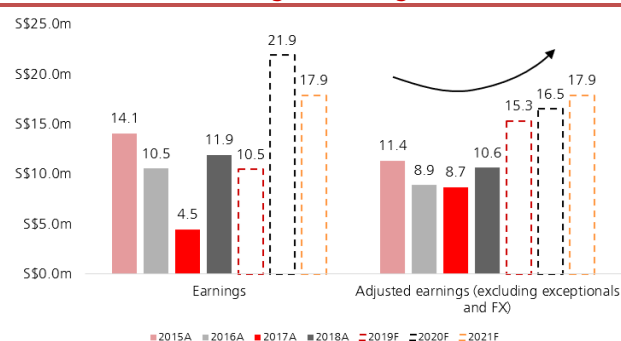
Manufacturing PMI in the region indicates a re-rating in forward PE



Source: Bloomberg Finance L.P., Company, DBS Bank

Stock price to trend up with earnings. In the last five years, Fu Yu's stock price began a decline following the last peak in its share price in early April 2017 and rebounded in July 2018, along with a bottoming in its earnings in FY2017. With higher earnings expected in FY2020F, we are positive on the continued uptrend in the stock price as well as a re-rating of its forward PE multiple.

Past the 2017 bottoming of earnings



Source: Bloomberg Finance L.P., Company, DBS Bank

Key Assumptions

Turnaround in revenue growth of 1.8%/3.4%/5.5% in FY2020F/21F/22F. We are optimistic on Fu Yu's revenue on signs of improving manufacturing PMI data prints in Singapore, China, and Malaysia. In addition, the focus on the faster growing industries (medical, consumer, and automotive) will further boost its revenue growth.

Improving gross profit margins of 19.5%/20.5%/21.0% in FY2020F/21F/22F. As the Group previously included the costs associated with the shutdown of its factory in China in its cost of sales, our gross profit margins projected exclude this one-off redevelopment of the building in FY2020F. With their continued exercising of cost control measures such as the reduction in overheads, we are expecting normalised gross profit margins of to decrease from FY2020F-22F.

The improvement in gross profit margins in FY2021F and FY2022F are due to its shift in product mix towards more profitable industries as well as its cost efficiency initiatives:

1. The consolidation of its Shanghai and Suzhou operations,
2. Redevelopment of its 9 Tuas Drive Singapore factory,
3. Leaner operations through automation and more efficient employees.

Normalised earnings growth of 12.3%/7.9%/9.0% in FY2020F/21F/22F. Fu Yu classifies its FX gains and losses under 'other operating income'. As the FX component is volatile and unpredictable, we have excluded this item in the calculation of the normalised net profit.

Earnings growth is driven by a rise in sales as well as improvements in profitability. Its net profit margin is projected to improve to 8.2%/8.6%/8.8% for FY2020F/21F/22F on the back of its cost enhancement initiatives.

Peer Comparison Table (As of 14 January 2020)

Bloomberg Ticker	Company Name	Market Cap (\$m)	Financial Data						Valuation					
			Sales (\$m)	Net Profit (\$m)	Net Profit Margin (%)	Cash (\$m)	Debt (\$m)	Net Cash as a % of Market Cap	Dividend Yield (%)	EV/EBITDA FY19F	EV/EBITDA FY20F	TTM PE	P/E FY19F	P/E FY20F
Singapore Peers														
FUYU SP Equity	Fu Yu Corp Ltd	188.2	197.7	11.9	6.0%	80.3	0.0	42.7%	6.4	4.7x	4.1x	15.8x	13.1x	11.6x
SUNN SP Equity	Sunningdale Tech Ltd	251.4	726.8	29.8	4.1%	88.7	109.7	-8.3%	6.1	6.8x	5.7x	15.9x	29.3x	15.3x
SPE SP Equity	Spindex Industries Ltd	121.1	155.8	15.3	9.8%	42.3	0.3	34.7%	3.3	N/A	N/A	7.9x	N/A	N/A
HIP SP Equity	Hi-P International Ltd	1,248.5	1,402.1	100.9	7.2%	286.7	169.1	9.4%	3.1	6.3x	5.7x	12.4x	15.0x	13.2x
SG peer average		452.3	620.6	39.5	6.8%	124.5	69.8	19.6%	4.7	5.9x	5.2x	13.0x	19.1x	13.4x
SG peer average (excluding Fu Yu)		540.3	761.6	48.7	7.0%	139.2	93.0	11.9%	4.2	6.6x	5.7x	12.0x	22.2x	14.3x
Regional Peers														
300151 CH Equity	Shenzhen Changhong Technology Co Ltd	837.8	141.5	11.6	8.2%	39.6	0.0	4.7%	0.7	N/A	N/A	66.5x	N/A	N/A
2283 HK Equity	TK Group Holdings Ltd	568.8	395.7	60.3	15.2%	124.8	59.6	11.5%	4.8	6.8x	5.6x	10.1x	9.9x	8.4x
BRB IN Equity	Bright Brothers Ltd	8.3	44.8	0.4	0.9%	0.5	2.0	-17.5%	2.6	N/A	N/A	21.8x	N/A	N/A
7958 JP Equity	Tenma Corp	656.5	1,038.3	27.2	2.6%	379.4	0.0	57.8%	4.0	N/A	N/A	15.0x	N/A	N/A
002855 CH Equity	Dongguan Chitwing Technology Co Ltd	684.0	449.3	6.0	1.3%	39.4	80.4	-6.0%	0.2	N/A	N/A	100.4x	44.8x	25.7x
Regional peer average		517.9	405.1	24.9	6.7%	136.1	15.4	14.1%	3.0	6.8x	5.6x	28.4x	9.9x	8.4x
Total average		485.1	512.8	32.2	6.8%	130.3	42.6	16.9%	3.9	6.2x	5.3x	20.7x	16.8x	12.1x
Total average (excluding Fu Yu)		527.5	557.9	35.1	6.9%	137.4	48.7	13.2%	3.5	6.6x	5.7x	21.4x	18.1x	12.3x

Source: Bloomberg Finance L.P., Company, DBS Bank

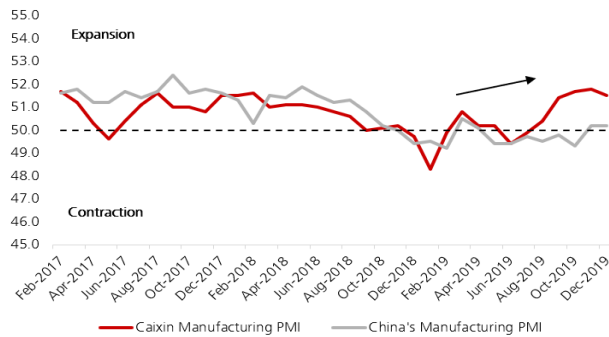
Investment Thesis

1) Turnaround in manufacturing across regions

Fu Yu's manufacturing plants are mainly in China, Singapore and Malaysia and its customers' locations are not significantly different from the location of Fu Yu's assets. As such, the health of the manufacturing activity is key in determining the sales level of the Group.

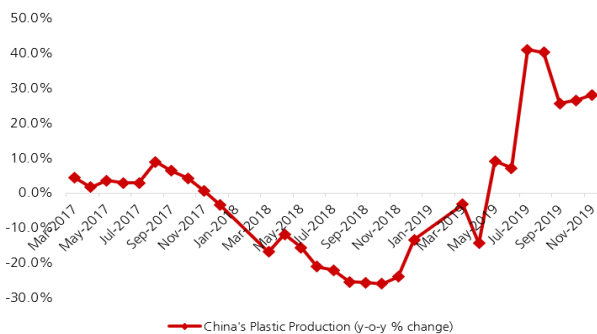
China's manufacturing indices indicate an expansion of the economy. The Caixin Manufacturing PMI bottomed in 1Q19 and China's Manufacturing PMI indicated an expansion in the economy (above 50.0) after six consecutive months of contraction. Both data points indicate an uptick in the manufacturing sector in China. In addition, y-o-y percentage change in the plastic production volume in China turned positive in May 2019 after 16 consecutive months of negative growth.

China's manufacturing PMIs enter expansion territory



Source: Bloomberg Finance L.P., DBS Bank

China's plastic product production volume reverses contraction

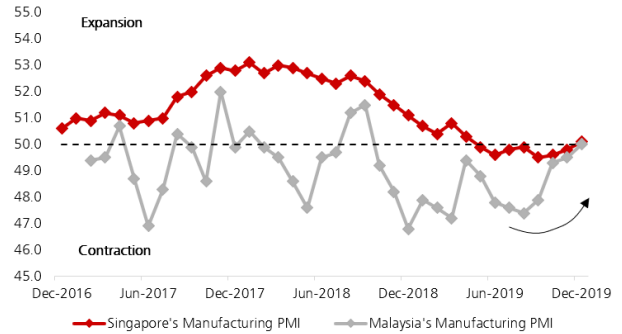


Source: CEIC, Company, DBS Bank

Singapore and Malaysia's manufacturing PMIs past their recent bottom. The negativity surrounding the trade war has impeded on global growth in 2018 and 2019. After news on the progress of the US-China trade war, both the Singapore and Malaysia manufacturing PMIs picked up, pointing to an expansion in their manufacturing sectors after six and 14

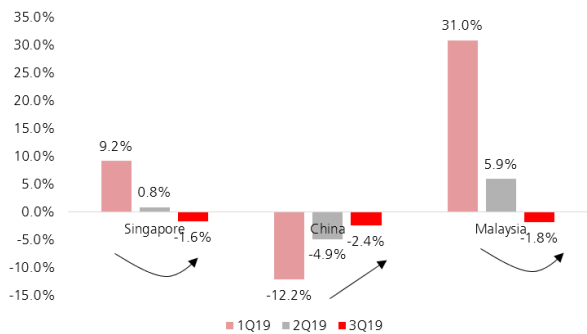
consecutive months of contraction respectively. With the bottoming out of the manufacturing PMIs, we are positive that the negative growth in these regions will reverse in FY2020.

Singapore and Malaysia's manufacturing PMIs past their recent bottom



Source: CEIC, Company, DBS Bank

Expect positive sales growth across all manufacturing regions



Source: Company, DBS Bank

2) Emphasis on products with higher profitability and growth potential

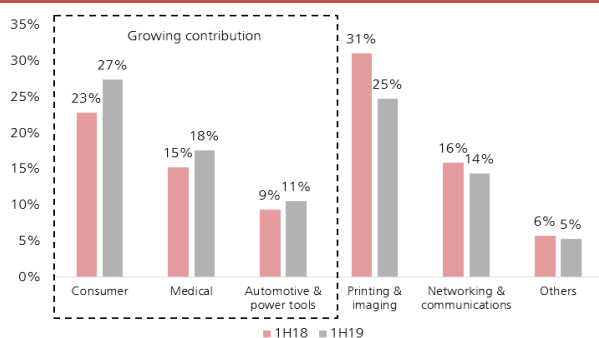
Focusing on the consumer, medical, and automotive products with higher margins. Compared with other plastic production methods, plastic injection moulding in which Fu Yu specialises, allows for high production rates, high precision, and the finished products are of good, consistent quality. As such, it is an indispensable method used for medical equipment, aerospace, automotive, and consumer goods. Fu Yu, which produces plastic parts via injection moulding, is focusing on products with longer life cycles and higher growth potential such as medical, automotive, eco-friendly and smart home consumer products in order to enhance its margins.

These products generally command higher margins due to the high-quality design specifications and higher demand, as compared to products in other segments like the printing &

imaging division. As such, Fu Yu's margins have improved as it shifts its product mix towards consumer, medical, and automotive products.

The consumer, medical, and automotive segments are also expected to grow at a faster rate. Various industry sources have indicated that the consumer, medical, and automotive plastic parts industry will grow at high single digits. On the other hand, printing and imaging, and the overall plastic injection moulding industry are projected to grow below 5%. The shift in product mix towards the faster growing markets will drive higher revenue growth for Fu Yu.

Shift in product mix towards faster growing industries



Source: Company, DBS Bank

3) Cost efficiency initiatives to improve margins

Redevelopment of its factory in Singapore to improve productivity and efficiency. In 2Q19, Fu Yu announced that it had accepted a letter of offer from Jurong Town Corporation (JTC) to renew the lease of its premises at 7 Tuas Drive 1 and 9 Tuas Drive 1 that was due to expire on 15 November 2021 for a further term of 20 years. One of the agreements in the lease renewal was to sell its premises at 5 Tuas Drive 1 whose lease was due to expire on 15 November 2041, by 10 September 2020.

As such, Fu Yu will be redeveloping one of its Singapore premises at 9 Tuas Drive. The initiative entails the demolition of the existing building and a construction of a larger building to house a factory, warehouse, and office space. The new building will have an estimated gross floor area of 9,000 sqm, more than **three times the size of its existing building** (2,572sqm).

The layout of the new building will incorporate a seamless workflow across tooling, moulding, and assembly operations, to **enhance productivity and efficiencies**, and to ensure faster time-to-market for its customers. The Group expects the capex for the redevelopment to be c.\$15.4m, which will be financed via internal funds.

Selling of 5 Tuas Drive 1 to partially offset redevelopment costs. Based on the average rental rates and capitalisation rates of industrial properties in that region, we estimate that the property could be sold for S\$8-10m, which will be used to partially offset the redevelopment costs in 9 Tuas Drive 1.

Assumptions for 5 Tuas Drive 1

	Lower End	Higher End
Rental rates (S\$/sqft/month)	1.20	1.50
Building area (sqm)	5,179	5,179
Net property income margin (%)	70.0	70.0
Capitalisation rate (%)	7.0	7.0
Selling price (S\$m)	8.0	10.0

Source: DBS Bank

Streamlining of operations in China. On 23 August 2019, Fu Yu announced that the landlord will be terminating its lease for the Shanghai factory on 31 January 2020, in advance of the original expiration date on 31 August 2021. This move was made amidst higher operating costs in Shanghai, contributed by the government initiatives in 2014 to shift the city's economy away from manufacturing:

- Lowered the terms of industrial land-use rights from 50 years to 20 years.
- Lowering of the proportion of industrial land from 27% to 17% by the end of 2020.

As such, the Group will be transferring its assets from its factory in Shanghai to Suzhou and will continue serving its customers located in Shanghai from its factory in Suzhou. This will further improve the utilisation of the resources and cost structure. Fu Yu expects a one-off expense of c.\$5.5m in relation to the closure of its Shanghai plant, of which it had booked in S\$4.8m in 3Q19. We are expecting the closure of the operations in Shanghai to shave off c.\$2.4m from its depreciation expense, representing c.1.2% of its sales in FY2018.

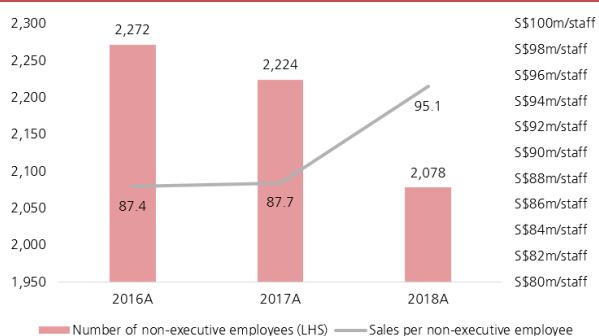
Leaner operations through automation and more efficient employees.

Fu Yu has ongoing initiatives to optimise its production processes through lean management and automation. The number of non-executive employees declined by 8.5% from 2016 to 2018 and the revenue generated per non-executive employee increased by 8.9% during the same period. A part of the employee overhead expenses related to the production of its goods are included in the cost of sales and this increase in efficiency has improved normalised gross profit margins by 4.4 percentage points, from 16.3% in 2016 to 20.7% in 9M19. The normalised gross profit margins exclude one-off expenses such as the costs related to the closure of the Shanghai plant.

We believe that the net impact from the cessation of operations in the Shanghai factory and expansion in the Singapore factory will be a c.10% reduction in the number of employees as:

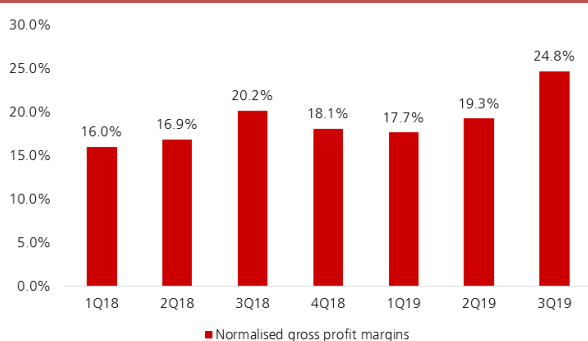
1. The Singapore expansion is smaller than the Shanghai factory.
2. The Singapore factory is likely to be more productive due to more efficient outlay and automation.

Decline in staff count and an increase in productivity



Source: Company, DBS Bank

Rising normalised gross profit margins



Source: Company, DBS Bank

4) Strong financial positioning

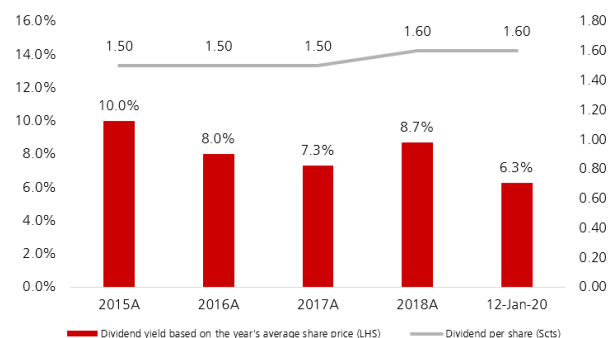
High cash position with zero borrowings. As of 3Q19, Fu Yu had no borrowings and cash and cash equivalents of S\$84.6m, which is equivalent to 44.1% of its market capitalisation on 12 January 2020 (share price of S\$0.255) and forms 37.7% of its total assets.

Stable dividend payout; attractive dividend yield of c.6.4%.

Although Fu Yu has a dividend policy of paying at least 50% of its PATMI, the Group has been paying out dividends of S1.5 Scts/share from FY2015 to FY2017, and 1.6 Scts in FY2018, all of which were above 80% of their PATMI. This translates to an average annual yield of 8.6% from 2015 to 2018.

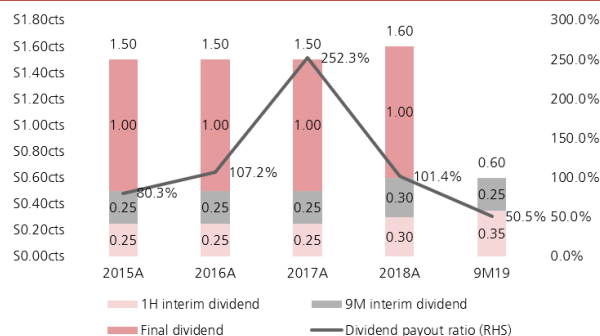
In FY2019F, Fu Yu has paid out interim dividends of 0.6 Scts, which is the same as FY2018. Based on its cash level, business performance, and funding needs, we expect Fu Yu to at least pay a final dividend of 1.0 Scts, translating to a total dividend payout of 1.6 Scts/share in FY2019F, similar to FY2018, which is equivalent to a dividend yield of 6.4% based on its current share price.

Stable dividend payout and attractive yield



Source: Company, DBS Bank

Dividend payout above its dividend policy



Source: Company, DBS Bank

Potential M&A with a 4.4x trailing-12-month EV/EBITDA. Fu Yu is currently trading at a trailing-12-month EV/EBITDA multiple of 4.4x. This is the lowest among its industry peers in this region, which are trading at an average of c.6-7x EV/EBITDA.

Key Risks

Slowdown in the manufacturing cycle. Fu Yu's forward PE trades closely to the manufacturing PMIs in China, Singapore, and Malaysia. A slowdown in manufacturing activity due to geopolitical risks or a weakening of end consumer demand could hinder the re-rating of its forward PE.

Intensifying competition in China. According to a research report by McKinsey, China is gaining market share through its enhanced competitiveness from automation. Chinese OEMs now have more than 50% market share in plastic moulding. An intensifying competition in plastic parts and mould manufacturing could eat into profitability margins for Fu Yu.

Escalation of the US-China trade war. The escalation of the US-China Trade War has weighed on global growth, with the International Monetary Fund indicating that global growth remains subdued, forecasting a 3.5% growth in

2020. In its October 2019 World Economic Outlook, it reported that momentum in manufacturing activity has weakened substantially to levels not seen since the financial crisis, citing a rise in trade and geopolitical tensions. A re-escalation of the US-China trade war would impede the recovery of manufacturing activity and thus Fu Yu's sales.

Foreign exchange translation losses. Fu Yu's key business operations are in Singapore, Malaysia, and China, with SGD as its reporting currency. A significant portion of its trade transactions are denominated in USD and while its foreign exchange risk is partially managed through a natural hedge between the revenue and the purchases in the same currency (USD), the remaining unhedged portion is usually a surplus of funds which will be converted to the required currencies when the need arises. As such, the Group has a net USD position on its assets and a depreciation of the USD against the SGD, MYR, or CNY will result in a foreign exchange loss recorded.

SWOT Analysis

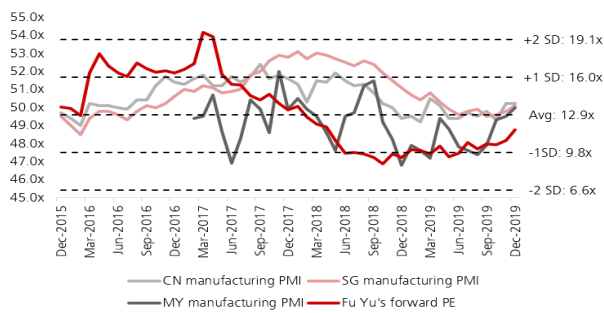
Strengths	Weakness
<ul style="list-style-type: none"> • Broad and diversified customer base. With 42 years of operating history, Fu Yu has built a broad and diversified customer base of blue-chip companies in various industries – the printing and imaging, networking and communications, consumer, medical, and automotive sectors. • Strong financial position. As of 3Q19, Fu Yu had no borrowings and cash and cash equivalents of S\$84.6m. This amount represents c.44.1% of Fu Yu's market capitalisation on 12 January 2020. • Experienced co-founders with substantial interest. Three of Fu Yu's co-founders are on the Board of Directors as Executive Directors. They have a combined effective interest of 37.57% in the Group and oversee its operations. Being co-founders and long-standing shareholders of the company, they have the Group's long-term interests as their priority. 	<ul style="list-style-type: none"> • Foreign exchange exposure. A significant portion of Fu Yu's trade transactions are denominated in USD and the surplus of funds are retained in USD. As of FY2018, the Group was in a net USD assets position and an appreciation of the USD against the SGD, MYR, and CNY will contribute to a foreign exchange gain and vice versa. • High level of unutilised of cash. As of 3Q19, 37.7% of Fu Yu's balance sheet comprised cash and cash equivalents of which are cash balances (12.9% of total assets) and bank deposits (24.8% of total assets) with maturities of three months or less from the date of acquisition. In FY2018, these deposits generated effective interest rates ranging from 1.08-3.95% per annum. The return on assets and return on equity for Fu Yu was 4.8% and 6.1% respectively in FY2018.
Opportunities	Threats
<ul style="list-style-type: none"> • Recovering manufacturing sector in the region. Manufacturing PMIs in China, Singapore, and Malaysia have entered expansionary territory after bottoming out in 2019. • Consumer, medical, and automotive are positioned to grow faster than the industry. According to various market research firms, the consumer, medical, and automotive plastic parts manufacturing industry are projected to grow at high single digits compared to the plastic manufacturing industry growth of less than 5%. 	<ul style="list-style-type: none"> • Slowdown in the manufacturing cycle. Fu Yu's forward PE trades closely with the manufacturing PMIs in China, Singapore, and Malaysia. A slowdown in manufacturing activity would translate to a downward re-rating of its forward PE. • Intensifying competition in China. China OEMs are gaining market share through their automation, enhancing their competitiveness. An increase in competition in the industry would eat into Fu Yu's profitability. • Escalation of the US-China trade situation. The US-China trade war has disrupted global supply chains and stifled global growth. In 2019, the International Monetary Fund (IMF) downgraded its 2019 global economic growth forecast to 3.0% in its October meeting, from 3.3% in its April World Economic Outlook, citing rising trade barriers and increasing geopolitical tensions. A re-escalation of the US-China trade war could dampen trade volumes, economic growth, and end-user demand for its customers' products.

Source: DBS Bank

Critical Factors

Economic outlook of manufacturing regions. Fu Yu's business is dependent on manufacturing activity and its plants are located in Singapore, China, and Malaysia. Its customers' locations are not significantly different from the location of its assets. As such, the manufacturing PMIs of each country provides a good indication of the direction of its revenue and earnings derived from that country and its forward PE trades closely to the trend of the manufacturing PMIs.

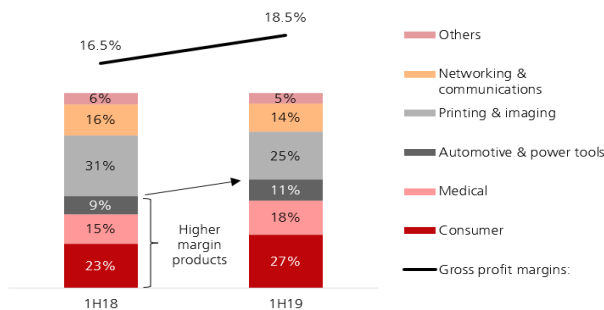
Forward PE trends with the manufacturing cycle



Source: Bloomberg Finance L.P., Company, DBS Bank

Product mix affects gross profit margins. Due to the difference in demand and growth of the finished products, and complexity of the design specifications of the plastic parts required in different industries, margins differ across the products from different industries. As such, a change in it is product mix will affect its gross profit margins.

Shift in product mix towards more profitable industries

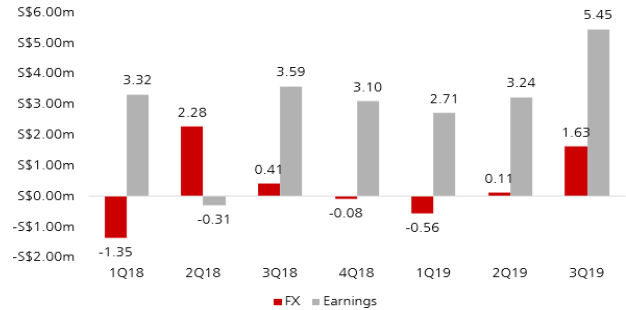


Source: Company, DBS Bank

Movement of the USD currency against the SGD, CNY, and MYR impacts earnings. A significant portion of Fu Yu's trade transactions are denominated in USD and the Group retains its excess funds in USD. The cash is converted into the local currency where the funds are needed for operational purposes. As such, an appreciation of the USD against the SGD, MYR, and CNY will contribute to a foreign exchange gain and vice versa. Based on historical relationships, we

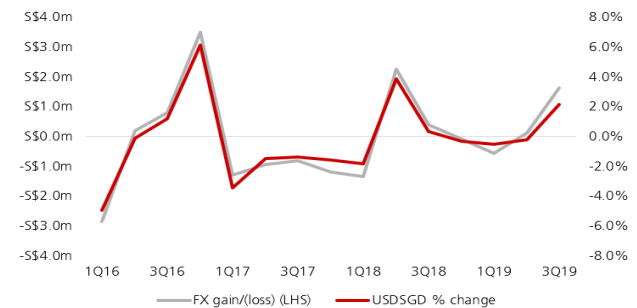
estimate that a percentage point gain/(loss) in USDSGD translates to an FX gain/(loss) of S\$0.5m.

FX gains or losses have an impact on earnings



Source: Company, DBS Bank

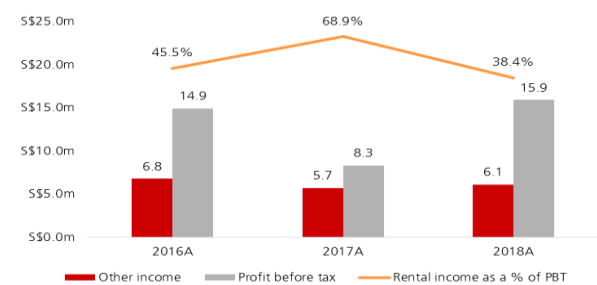
Close relationship between FX gains/(losses) and the USDSGD



Source: Company, DBS Bank

Other income accounts for a relatively substantial portion of its profit. The Group's other income mainly consists of rental income and the sale of scrap and raw materials. The rental income amounted to S\$4.0m and S\$3.8m in FY2017 and FY2018 respectively. One of the Group's leased properties is sublet to a third party, of which amounted to S\$2.8m and S\$2.9m in FY2017 and FY2018 respectively, is included in the rental income.

Other income accounts for a relatively substantial portion of profit before tax

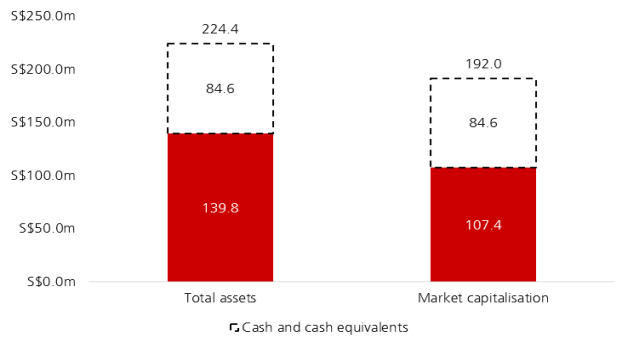


Source: Company, DBS Bank

Financials

High cash levels with zero borrowings. Fu Yu has a high cash level of S\$84.6m and no debt. Its cash level is equivalent to 37.7% of its total assets and 44.1% of its current market capitalisation.

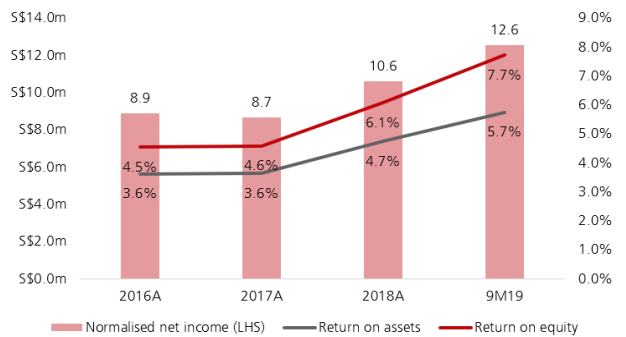
Cash is a high percentage of total assets and market capitalisation



Source: Company, DBS Bank

More efficient use of resources – Higher ROA and ROE, operating margins, and quicker cash conversion cycle. In the last few years, Fu Yu has been focused on increasing its profitability through a focus on more profitable industries as well as improving its cost efficiencies. As such, its utilisation of assets (return on assets and return on equity) improved from 3.6% and 4.6% in FY2016A to 5.7% and 7.7%, respectively in 9M19.

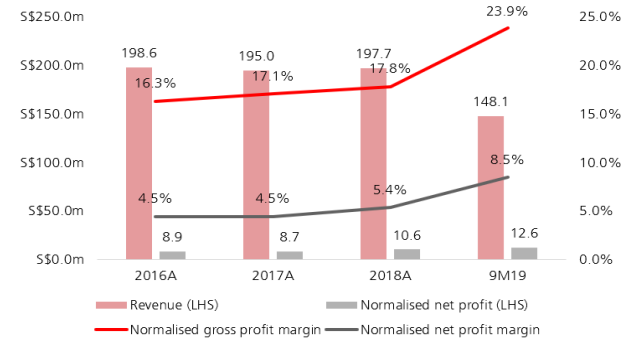
Higher returns on assets and equity



Source: Company, DBS Bank

Through its operational efficiencies, the Group managed to increase its gross profit margins and net profit margins through a shift in product mix, leaner operations, automation, and increase in employee efficiency.

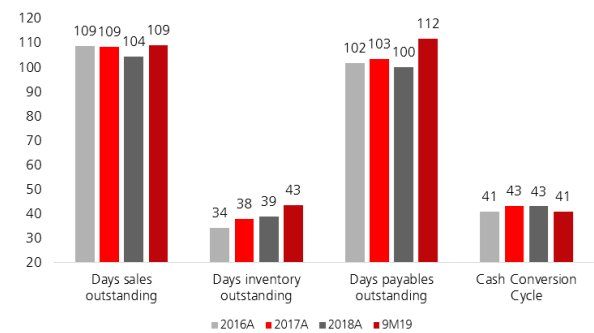
Improving gross and net profit margins



Source: Company, DBS Bank

In addition, the Group managed to lower its cash conversion cycle from 43.0 days in FY2018 to 40.9 days in 9M19, which indicates a faster conversion of its cash from inventories and a more efficient use of its resources.

Faster cash conversion cycle



Source: Company, DBS Bank

Key Assumptions

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Gross Profit Margins	16.3%	17.1%	17.8%	19.5%	20.5%	21.0%
Administrative Costs as a % of Revenue	14.0%	13.9%	13.9%	13.5%	13.5%	13.5%

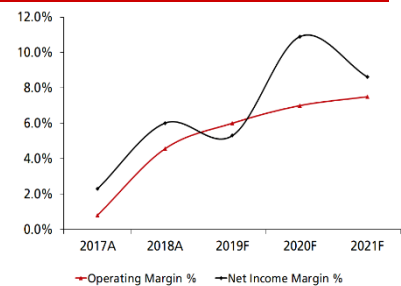
Cost savings from the reduction in overheads and increase in efficiency

Source: Company, DBS Bank

Income Statement (\$m)

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Revenue	199	195	198	197	201	208
Cost of Goods Sold	(166)	(162)	(162)	(159)	(160)	(164)
Gross Profit	32.4	33.3	35.3	38.5	41.2	43.6
Other Opng (Exp)/Inc	(26.3)	(31.8)	(26.3)	(26.6)	(27.1)	(28.0)
Operating Profit	6.15	1.53	9.00	11.8	14.1	15.6
Other Non Opng (Exp)/Inc	6.78	5.73	6.12	6.00	6.00	6.00
Associates & JV Inc	0.09	(0.7)	(0.8)	0.0	0.0	0.0
Net Interest (Exp)/Inc	1.88	1.76	1.60	1.45	1.38	1.67
Exceptional Gain/(Loss)	0.0	0.0	0.0	(5.5)	7.00	0.0
Pre-tax Profit	14.9	8.32	15.9	13.8	28.5	23.2
Tax	(3.0)	(2.9)	(3.7)	(3.3)	(6.5)	(5.3)
Minority Interest	(1.3)	(1.0)	(0.3)	0.0	0.0	0.0
Preference Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Net Profit	10.5	4.48	11.9	10.5	21.9	17.9
Net Profit before Except.	10.5	4.48	11.9	14.7	16.5	17.9
EBITDA	22.8	14.3	21.3	29.8	29.5	31.1
Growth						
Revenue Gth (%)	(10.7)	(1.8)	1.4	(0.2)	1.8	3.4
EBITDA Gth (%)	(25.0)	(37.5)	49.5	39.7	(0.8)	5.4
Opg Profit Gth (%)	(26.7)	(75.1)	488.7	31.5	18.8	10.8
Net Profit Gth (Pre-ex)	(25.1)	(57.5)	165.5	23.7	12.3	8.4
Margins & Ratio						
Gross Margins (%)	16.3	17.1	17.8	19.5	20.5	21.0
Opg Profit Margin (%)	3.1	0.8	4.6	6.0	7.0	7.5
Net Profit Margin (%)	5.3	2.3	6.0	5.3	10.9	8.6
ROAE (%)	6.0	2.6	7.2	6.4	13.1	10.2
ROA (%)	4.3	1.9	5.3	5.0	10.1	7.9
ROCE (%)	6.3	3.3	7.7	9.8	10.6	11.1
Div Payout Ratio (%)	107.2	252.3	101.4	115.1	55.0	67.3
Net Interest Cover (x)	NM	NM	NM	NM	NM	NM

Margins Trend



Cost of sales excludes the one-off expense of S\$5.5m that is related to the closure of the Shanghai plant

Cost of sales of S\$5.5m that is related to the closure of the Shanghai plant is re-categorised under exceptional

Estimated sale of 5 Tuas Drive 1 and administrative costs involved in the redevelopment of 9 Tuas Drive 1

Source: Company, DBS Bank

Quarterly / Interim Income Statement (\$\$m)

FY Dec	2Q2018	3Q2018	4Q2018	1Q2019	2Q2019	3Q2019
Revenue	50.8	52.4	48.1	46.7	50.1	51.3
Cost of Goods Sold	(42.2)	(41.9)	(39.4)	(38.4)	(40.4)	(38.6)
Gross Profit	8.57	10.6	8.69	8.26	9.66	12.7
Other Oper. (Exp)/Inc	(5.0)	(4.8)	(6.4)	(7.5)	(6.5)	(4.9)
Operating Profit	3.62	5.77	2.24	0.80	3.15	7.75
Other Non Opg (Exp)/Inc	1.33	0.09	1.44	1.35	1.31	1.26
Associates & JV Inc	(0.1)	(0.3)	(0.2)	(0.1)	(0.1)	0.0
Net Interest (Exp)/Inc	0.43	0.31	0.39	0.40	0.41	0.45
Exceptional Gain/(Loss)	0.0	0.0	0.0	0.0	0.0	(4.8)
Pre-tax Profit	5.24	5.90	3.82	2.48	4.76	4.65
Tax	(1.0)	(1.5)	(0.9)	(0.9)	(1.3)	(0.7)
Minority Interest	0.0	0.0	0.0	0.0	0.0	0.0
Net Profit	4.24	4.40	2.94	1.59	3.46	3.91
Net profit bef Except.	4.24	4.40	2.94	1.59	3.46	8.71
EBITDA	6.59	7.31	5.13	5.10	7.35	12.0

Growth

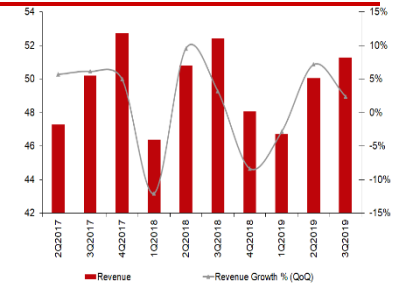
Revenue Gth (%)	9.6	3.2	(8.3)	(2.8)	7.2	2.4
EBITDA Gth (%)	189.6	11.0	(29.8)	(0.6)	44.2	62.7
Opg Profit Gth (%)	(577.6)	59.4	(61.2)	(64.2)	292.1	146.3
Net Profit Gth (Pre-ex)	580.0	3.6	(33.2)	(45.9)	117.6	152.0

Margins

Gross Margins (%)	16.9	20.2	18.1	17.7	19.3	24.8
Opg Profit Margins (%)	7.1	11.0	4.7	1.7	6.3	15.1
Net Profit Margins (%)	8.4	8.4	6.1	3.4	6.9	7.6

Source: Company, DBS Bank

Revenue Trend

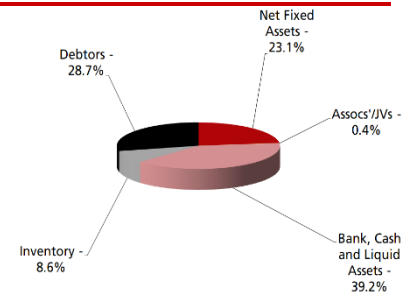


One-off expense of S\$4.0m related to the closure of the Shanghai plant is excluded from cost of sales

One-off expense from the closure of the Shanghai plant

Balance Sheet (\$m)

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Net Fixed Assets	47.7	46.0	44.8	45.5	42.2	38.8
Invt in Associates & JVs	2.16	1.49	0.71	0.71	0.71	0.71
Other LT Assets	10.3	9.93	8.82	8.64	8.46	8.28
Cash & ST Invt	108	98.8	83.9	80.5	96.1	103
Inventory	16.0	17.6	16.9	16.9	17.0	17.5
Debtors	57.0	59.0	54.0	56.4	57.4	59.4
Other Current Assets	0.08	3.44	2.38	2.38	2.38	2.38
Total Assets	242	236	212	211	224	230
ST Debt	0.0	0.0	0.0	0.0	0.0	0.0
Creditor	45.4	46.2	43.0	43.6	43.9	45.1
Other Current Liab	2.38	3.94	3.48	3.90	7.12	5.93
LT Debt	0.0	0.0	0.0	0.0	0.0	0.0
Other LT Liabilities	0.61	0.62	0.95	0.95	0.95	0.95
Shareholder's Equity	174	165	164	163	172	178
Minority Interests	19.6	20.2	0.0	0.0	0.0	0.0
Total Cap. & Liab.	242	236	212	211	224	230
Non-Cash Wkg. Capital	25.3	30.0	26.8	28.2	25.8	28.2
Net Cash/(Debt)	108	98.8	83.9	80.5	96.1	103
Debtors Turn (avg days)	108.7	108.6	104.3	102.1	103.4	102.6
Creditors Turn (avg days)	108.2	108.5	104.7	107.6	106.2	105.0
Inventory Turn (avg days)	36.2	39.8	40.6	42.1	41.2	40.7
Asset Turnover (x)	0.8	0.8	0.9	0.9	0.9	0.9
Current Ratio (x)	3.8	3.6	3.4	3.3	3.4	3.6
Quick Ratio (x)	3.5	3.1	3.0	2.9	3.0	3.2
Net Debt/Equity (X)	CASH	CASH	CASH	CASH	CASH	CASH
Net Debt/Equity ex MI (X)	CASH	CASH	CASH	CASH	CASH	CASH
Capex to Debt (%)	N/A	N/A	N/A	N/A	N/A	N/A

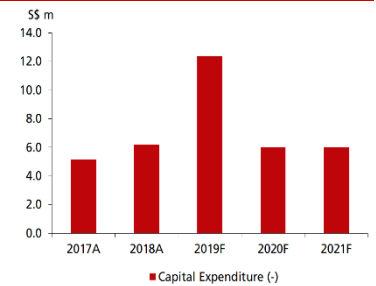
Asset Breakdown

Source: Company, DBS Bank

Cash Flow Statement (\$m)

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Pre-Tax Profit	14.9	8.32	15.9	13.8	28.5	23.2
Dep. & Amort.	9.79	7.70	6.99	11.9	9.44	9.53
Tax Paid	(3.4)	(2.1)	(2.1)	(2.9)	(3.3)	(6.5)
Assoc. & JV Inc/(loss)	(0.1)	0.70	0.80	0.0	0.0	0.0
Chg in Wkg.Cap.	0.68	(6.1)	3.09	(1.8)	(0.9)	(1.2)
Other Operating CF	(0.9)	(2.6)	(1.4)	0.0	0.0	0.0
Net Operating CF	21.0	5.93	23.3	21.0	33.7	25.0
Capital Exp.(net)	(6.4)	(5.1)	(6.2)	(12.4)	(6.0)	(6.0)
Other Invts.(net)	0.92	(0.6)	(0.3)	0.0	0.0	0.0
Invts in Assoc. & JV	0.0	0.0	0.0	0.0	0.0	0.0
Div from Assoc & JV	0.37	0.0	0.0	0.0	0.0	0.0
Other Investing CF	1.88	1.76	1.60	0.0	0.0	0.0
Net Investing CF	(3.2)	(3.9)	(4.9)	(12.4)	(6.0)	(6.0)
Div Paid	(12.7)	(12.2)	(12.0)	(12.0)	(12.0)	(12.0)
Chg in Gross Debt	0.0	0.0	0.0	0.0	0.0	0.0
Capital Issues	0.0	0.0	0.0	0.0	0.0	0.0
Other Financing CF	(0.1)	0.06	(21.3)	0.0	0.0	0.0
Net Financing CF	(12.7)	(12.1)	(33.3)	(12.0)	(12.0)	(12.0)
Currency Adjustments	(2.3)	(0.1)	(0.2)	0.0	0.0	0.0
Chg in Cash	2.69	(10.2)	(15.1)	(3.4)	15.6	6.98
Opg CFPS (S cts)	2.70	1.59	2.68	3.03	4.59	3.48
Free CFPS (S cts)	1.94	0.11	2.27	1.15	3.68	2.53

Capital Expenditure



Redevelopment cost of
9 Tuas Drive 1

Source: Company, DBS Bank

Company Background

Company Background

Over 40 years of history. Fu Yu Corporation Limited (Fu Yu) was founded in 1978 and was listed on the Main Board of the Singapore Exchange on 14 June 1995. It began as a small moulding and tooling fabrication factory and extended its operations in 1985 to include various sub-assembly processes. It is now one of the largest manufacturers of high precision plastic parts and moulds in Asia.

Manufacturer of high precision plastic parts and moulds. It offers a one-stop solution by providing vertically integrated services for the manufacturing of precision plastic components and the fabrication of precision moulds and dies. Its capabilities range from precision tool design and fabrication, precision injection moulding to secondary processes such as silk screen printing, ultrasonic welding, heat staking and spray painting, as well as sub-assembly.

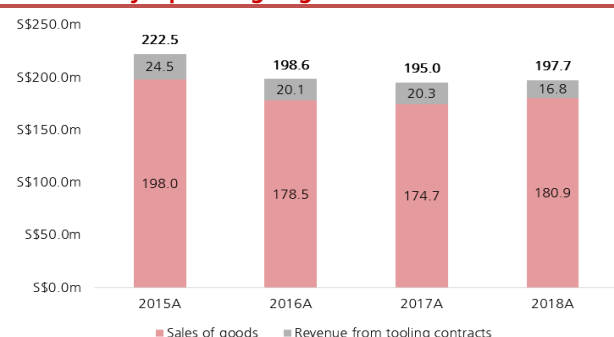
Business Operations

Fu Yu segments its revenue into i) Sales of goods and ii) Revenue from tooling contracts.

- **Sales of goods:** Manufacturing and sub-assembly of precision plastic parts and components
- **Revenue from tooling contracts:** Fabrication of precision moulds and dies

Main business is in manufacturing and sub-assembly. Sales of goods is its main operating segment, contributing c.90% of the Group's total revenue.

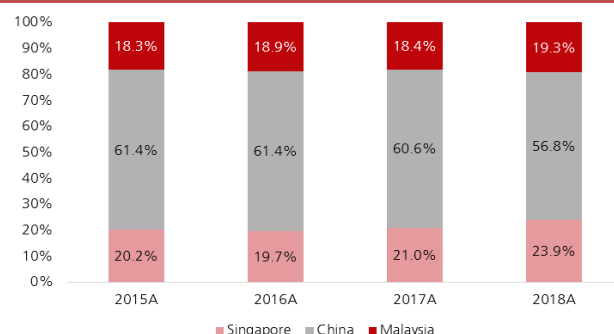
Revenue by Operating Segments



Source: Company, DBS Bank

Operations in Singapore, China, and Malaysia. Fu Yu conducts its business operations in Singapore, China, and Malaysia. China has been its main contributing region, accounting for c.57-60% of its revenue. Singapore and Malaysia account for c.20-25% and c.18-20% of its revenue respectively.

Revenue by Geographical Segments



Source: Company, DBS Bank

Fu Yu operates within the printing and imaging, networking and communications, consumer, medical, and automotive sectors.

Supply Chain

Assets in Singapore, China, and Malaysia. The Group has a total of seven manufacturing facilities in Singapore (one), China (four), and Malaysia (two) to support its operations locally. Its customers' locations are not significantly different from the location of Fu Yu's assets.

The manufacturing plants are located in:

- **Singapore:** Singapore
- **Malaysia:** Johor, Penang
- **China:** Dongguan, Suzhou, Zhuhai, and Chongqing

Blue chip customers. Its customers are blue chip companies in the printing and imaging, networking and communications, consumer, medical, and automotive industries.

Two major customers account for c.20-25% of its revenue.

Fu Yu has two major customers which account for c.20-25% of its revenue. The revenue from these two customers are derived from all three of its operating regions.

Management & Strategy

Key Management Team

Name	Background & Experiences
Dr John Chen Seow Phun Non-Executive Chairman, Independent Director <i>(0.13% effective interest)</i>	Dr Chen holds a PhD in Electrical Engineering from the University of Waterloo, Canada. He was appointed as the Non-Executive Chairman and Independent Director of Fu Yu in November 2007. Other responsibilities: Dr Chen is also presently the Executive Chairman of Pavillon Holdings Ltd and the Chairman of SAC Capital Pte Ltd. He also sits on the board of several publicly listed companies.
Ching Heng Yang <i>(Co-Founder)</i> Vice Chairman, Executive Director <i>(11.81% effective interest)</i>	Mr Ching, one of the co-founders of Fu Yu, was appointed as the Executive Director in December 1980. He has over 44 years of experience in the mould fabrication and plastic injection moulding industry. Group responsibilities: Oversees the plastic injection moulding, finishing, and sub-assembly operations of the Group. He is also responsible for the investment in factory buildings and machinery.
Tam Wai <i>(Co-Founder)</i> Executive Director <i>(12.88% effective interest)</i>	Mr Tam, one of the co-founders of Fu Yu, was appointed as the Executive Director in December 1980. He has over 49 years of experience in the mould fabrication and plastic injection moulding industry. Group responsibilities: Oversees the mould design and fabrication operations of the Group.
Ho Nee Kit <i>(Co-Founder)</i> Executive Director <i>(12.88% effective interest)</i>	Mr Ho, one of the co-founders of Fu Yu, was appointed as the Executive Director in December 1980. Group responsibilities: Oversees the mould fabrication, plastic injection moulding, finishing, and sub-assembly operations of the Group.
Hew Lien Lee Executive Director, Chief Executive Officer, and Chief Operating Officer <i>(1.08% effective interest)</i>	Mr Hew holds a Diploma in Electrical Engineering. He first joined Fu Yu in 1984 and was appointed as Executive Director and Chief Operating Officer in March 2007. In February 2016, Mr Hew was promoted to Chief Executive Officer of the Group. He has 39 years of experience in the plastic injection moulding industry. Group responsibilities: Responsible for the overall strategic direction and management of the Group.

Source: Company, DBS Bank

Business Strategy

Maintain a diversified customer base. Fu Yu's long-term strategy is to maintain a diversified customer base across its target market segments, which includes printing and imaging, consumer, medical, networking and communications, and automotive.

Focus on growth products. Its focus will be to secure products with greater stability, longer life cycles, and higher growth

potential. These products include those that are in the medical, automotive, eco-friendly and smart consumer products, as well as 3D printers.

Improve operational efficiencies. Fu Yu has been undertaking cost-reduction initiatives such as lean management and automation. Over the last few years, it has consolidated operations, liquidated unprofitable businesses, as well as reduced employee overheads through automation.

^ Bloomberg ESG Disclosure Scores rate companies annually based on their disclosure of quantitative and policy-related ESG data. It is based on a scoring scale of 0-100, and calculated using a subset of more than 100 raw data points it collects on ESG. It is designed to measure the robustness of companies' disclosure of ESG information in their reporting/the public domain. Based on Bloomberg disclosures, as of 25 Jan 2019, the global ESG disclosure average score is 24.92 and 22.14, 28.26, 49.97 for Environmental, Social and Governance, respectively.

DBS Bank recommendations are based on Absolute Total Return* Rating system, defined as follows:

STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)

BUY (>15% total return over the next 12 months for small caps, >10% for large caps)

HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)

SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

*Share price appreciation + dividends

Completed Date: 15 Jan 2020 7:56:11 (SGT)

Dissemination Date: 15 Jan 2020 08:48:42 (SGT)

Sources for all charts and tables are DBS Bank unless otherwise specified.

GENERAL DISCLOSURE/DISCLAIMER

This report is prepared by DBS Bank Ltd. This report is solely intended for the clients of DBS Bank Ltd, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS Bank Ltd.

The research set out in this report is based on information obtained from sources believed to be reliable, but we (which collectively refers to DBS Bank Ltd, its respective connected and associated corporations, affiliates and their respective directors, officers, employees and agents (collectively, the "DBS Group") have not conducted due diligence on any of the companies, verified any information or sources or taken into account any other factors which we may consider to be relevant or appropriate in preparing the research. Accordingly, we do not make any representation or warranty as to the accuracy, completeness or correctness of the research set out in this report. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained in this document does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This document is for the information of addressees only and is not to be taken in substitution for the exercise of judgement by addressees, who should obtain separate independent legal or financial advice. The DBS Group accepts no liability whatsoever for any direct, indirect and/or consequential loss (including any claims for loss of profit) arising from any use of and/or reliance upon this document and/or further communication given in relation to this document. This document is not to be construed as an offer or a solicitation of an offer to buy or sell any securities. The DBS Group, along with its affiliates and/or persons associated with any of them may from time to time have interests in the securities mentioned in this document. The DBS Group, may have positions in, and may effect transactions in securities mentioned herein and may also perform or seek to perform broking, investment banking and other banking services for these companies.

Any valuations, opinions, estimates, forecasts, ratings or risk assessments herein constitutes a judgment as of the date of this report, and there can be no assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments. The information in this document is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed, it may not contain all material information concerning the company (or companies) referred to in this report and the DBS Group is under no obligation to update the information in this report.

This publication has not been reviewed or authorized by any regulatory authority in Singapore, Hong Kong or elsewhere. There is no planned schedule or frequency for updating research publication relating to any issuer.

The valuations, opinions, estimates, forecasts, ratings or risk assessments described in this report were based upon a number of estimates and assumptions and are inherently subject to significant uncertainties and contingencies. It can be expected that one or more of the estimates on which the valuations, opinions, estimates, forecasts, ratings or risk assessments were based will not materialize or will vary significantly from actual results. Therefore, the inclusion of the valuations, opinions, estimates, forecasts, ratings or risk assessments described herein IS NOT TO BE RELIED UPON as a representation and/or warranty by the DBS Group (and/or any persons associated with the aforesaid entities), that:

- (a) such valuations, opinions, estimates, forecasts, ratings or risk assessments or their underlying assumptions will be achieved, and
 (b) there is any assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments stated therein.

Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets. Any assumptions made in this report that refers to commodities, are for the purposes of making forecasts for the company (or companies) mentioned herein. They are not to be construed as recommendations to trade in the physical commodity or in the futures contract relating to the commodity referred to in this report.

DBSVUSA, a US-registered broker-dealer, does not have its own investment banking or research department, has not participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months and does not engage in market-making.

ANALYST CERTIFICATION

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible for the content of this research report, in part or in whole, certifies that he or his associate¹ does not serve as an officer of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant) and the research analyst(s) primarily responsible for the content of this research report or his associate does not have financial interests² in relation to an issuer or a new listing applicant that the analyst reviews. DBS Group has procedures in place to eliminate, avoid and manage any potential conflicts of interests that may arise in connection with the production of research reports. The research analyst(s) responsible for this report operates as part of a separate and independent team to the investment banking function of the DBS Group and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of DBS Group's compensation to any specific investment banking function of the DBS Group.

COMPANY-SPECIFIC / REGULATORY DISCLOSURES

1. DBS Bank Ltd, DBS HK, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS") or their subsidiaries and/or other affiliates do not have a proprietary position in the securities recommended in this report as of 30 Nov 2019.
2. Neither DBS Bank Ltd nor DBS HK market makes in equity securities of the issuer(s) or company(ies) mentioned in this Research Report.

Compensation for investment banking services:

3. DBS Bank Ltd, DBS HK, DBSVS their subsidiaries and/or other affiliates of DBSVUSA have received compensation, within the past 12 months for investment banking services from TK Group Holdings, as of 31 Dec 2019.
4. DBSVUSA does not have its own investment banking or research department, nor has it participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months. Any US persons wishing to obtain further information, including any clarification on disclosures in this disclaimer, or to effect a transaction in any security discussed in this document should contact DBSVUSA exclusively.

Disclosure of previous investment recommendation produced:

5. DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed in the first page of this report to view previous investment recommendations published by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates in the preceding 12 months.

¹ An associate is defined as (i) the spouse, or any minor child (natural or adopted) or minor step-child, of the analyst; (ii) the trustee of a trust of which the analyst, his spouse, minor child (natural or adopted) or minor step-child, is a beneficiary or discretionary object; or (iii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

² Financial interest is defined as interests that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

Singapore Company Guide

UMS Holdings

Version 20 | Bloomberg: UMSH SP | Reuters: UMSH.SI

Refer to important disclosures at the end of this report

DBS Group Research. Equity

24 Jan 2020

BUY

Last Traded Price (23 Jan 2020): S\$0.98 (STI : 3,234.56)

Price Target 12-mth: S\$1.16 (18% upside) (Prev S\$1.08)

Analyst

Lee Keng LING +65 6682 3703 leekeng@db.com

Price Relative



Forecasts and Valuation

FY Dec (S\$m)	2018A	2019F	2020F	2021F
Revenue	128	129	148	163
EBITDA	51.6	42.9	49.7	56.1
Pre-tax Profit	45.5	37.2	44.4	50.9
Net Profit	43.1	34.7	41.3	47.3
Net Pft (Pre Ex.)	43.1	34.7	41.3	47.3
Net Pft Gth (Pre-ex) (%)	(17.2)	(19.5)	19.1	14.6
EPS (S cts)	8.03	6.47	7.70	8.82
EPS Pre Ex. (S cts)	8.03	6.47	7.70	8.82
EPS Gth Pre Ex (%)	(17)	(19)	19	15
Diluted EPS (S cts)	8.03	6.47	7.70	8.82
Net DPS (S cts)	4.50	3.50	3.50	3.50
BV Per Share (S cts)	42.6	45.6	49.8	55.1
PE (X)	12.2	15.2	12.7	11.1
PE Pre Ex. (X)	12.2	15.2	12.7	11.1
P/Cash Flow (X)	13.6	9.4	13.9	11.5
EV/EBITDA (X)	10.3	11.8	9.9	8.4
Net Div Yield (%)	4.6	3.6	3.6	3.6
P/Book Value (X)	2.3	2.2	2.0	1.8
Net Debt/Equity (X)	0.0	CASH	CASH	CASH
ROAE (%)	19.4	14.7	16.2	16.8
Earnings Rev (%)		0	0	0
Consensus EPS (S cts)		6.50	9.10	8.20
Other Broker Recs:		B: 2	S: 0	H: 1

Source of all data on this page: Company, DBS Bank, Bloomberg Finance L.P.

Recovery justifies higher valuation

Remain positive on semiconductor; maintain BUY with slightly higher TP of S\$1.16, pegged to +2SD valuation. The recent data points for the semiconductor industry have reinforced our positive view. UMS, a pure semiconductor play, is a prime beneficiary of this uptrend. Given the expectation of a continued recovery in the semiconductor space and anticipated recovery in the mid-down stream segment, which should help to drive demand further, we expect further re-rating of the stock's forward PE to +2.0 SD on FY20F earnings. During the last semiconductor upcycle in 2016/2017, the PE valuations shot beyond the +2SD level. The semiconductor market is now larger and less volatile than before, due to growth and diversification of demand drivers, spanning consumer and enterprise end-markets. Thus, we believe +2SD is a fair valuation peg. Maintain BUY.

Where we differ: We are more positive on the semiconductor outlook and expect UMS to trade to +2SD FY20F earnings.

Potential catalysts: Stronger recovery in semiconductor equipment sales, client diversification, earnings-accretive M&As.

Valuation:

Maintain BUY with higher TP of S\$1.16 pegged to 14.9x FY20F, +2SD. We expect the growth momentum for UMS to continue. Our target price is raised to S\$1.16, pegged to 14.9x FY20F earnings (previously S\$1.08, pegged to peers' average of 14x FY20F earnings).

Key Risks to Our View:

Key client risk. Historically, c.90% of UMS's revenues on average were attributed to Applied Materials (AMAT). Disruptions to the relationship or weakness in AMAT's end-demand could significantly weigh on UMS's performance.

At A Glance

Issued Capital (m shrs)	536
Mkt. Cap (S\$m/US\$m)	526 / 390
Major Shareholders (%)	
Luong Andy	20.7
Free Float (%)	79.3
3m Avg. Daily Val (US\$m)	5.0
GIC Industry : Information Technology / Semiconductors & Semiconductor Equipment	



DBS
Live more, Bank less

UMS Holdings

CRITICAL DATA POINTS TO WATCH

Critical Factors

Positive on semiconductor outlook

Recent data points for the semiconductor market have reinforced our positive view. Shipment and billing data continued to charge higher, while inventory de-stocking continues. According to SEMI, global sales of semiconductor manufacturing equipment by original equipment manufacturers (OEMs) are projected to bottom out in 2020, after a decline in 2019. Growth in equipment sales is expected to resume in 2020, with an 11.6% y-o-y jump on the strength of memory spending and new projects in China, while equipment sales in Japan should surge 46.4%.

UMS is also witnessing an upturn in the overall semiconductor industry as demand is picking up with chip inventories easing and new technological disruptors driving the growth of new products and capabilities.

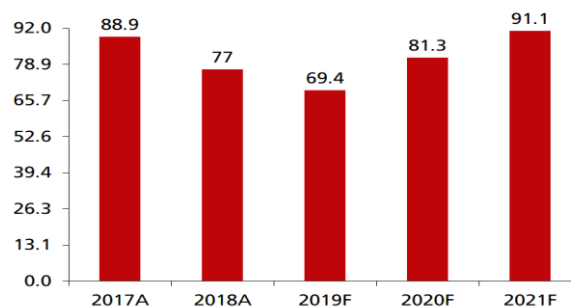
Leveraging on key customer Applied Materials (AMAT). As a long-standing manufacturing partner to AMAT in the manufacture of components for various semiconductor equipment, and as the main manufacturer and sub-assembler of AMAT's flagship Endura deposition system, UMS naturally depends on AMAT's performance.

Based on consensus numbers, AMAT is projected to register a 15% y-o-y drop in earnings in FY October 2019 (which is an improvement from the c.40% drop projection in August 2019) and to rebound 9% in FY20F followed by 18% in FY21F.

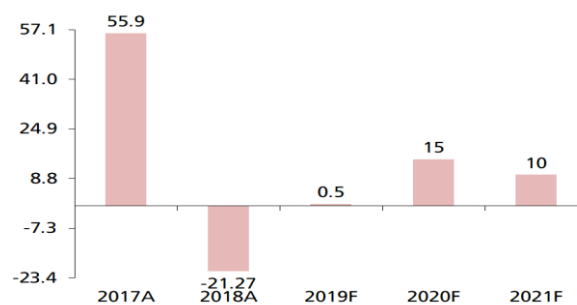
Expect lower dividends, in favour of M&A activities. DPS had fallen to 4.5 Scts in FY18, from an average of 6 Scts paid annually over the last five years. Going forward, we would not rule out the possibility of a lower dividend payout, as the group preserves cash for M&A opportunities. We are projecting a 3.5-Sct DPS for FY19F-21F.

Diversification into other businesses could also bear fruit in the longer term. UMS has a c.40% stake in JEP Holding, which is in the precision engineering business, a 70% stake in Starke Singapore, a non-ferrous metal specialist, a 51% stake in water and chemical engineering solutions company, Kalf Engineering and a 10% stake in aerospace component manufacturer All Star Fortress Sdn Bhd. These investments should provide the group with alternative growth opportunities in the medium-to-long term and provide diversification away from the cyclical semiconductor business.

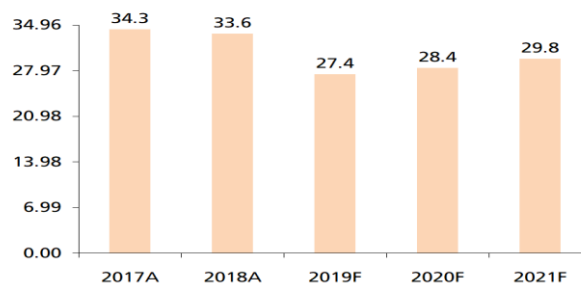
Gross Profit (\$\$ m)



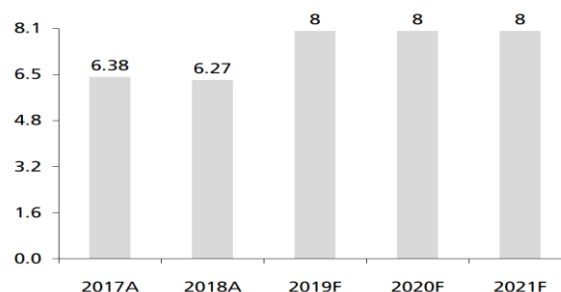
Revenue Growth (%)



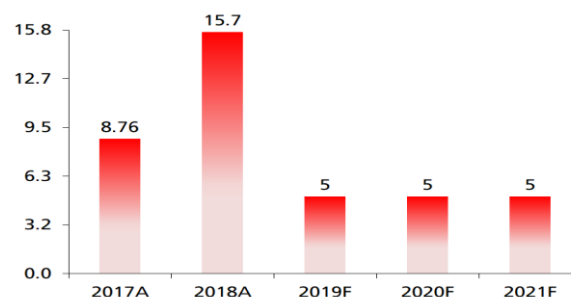
Operating Profit Margin (%)



Effective Tax Rate (%)



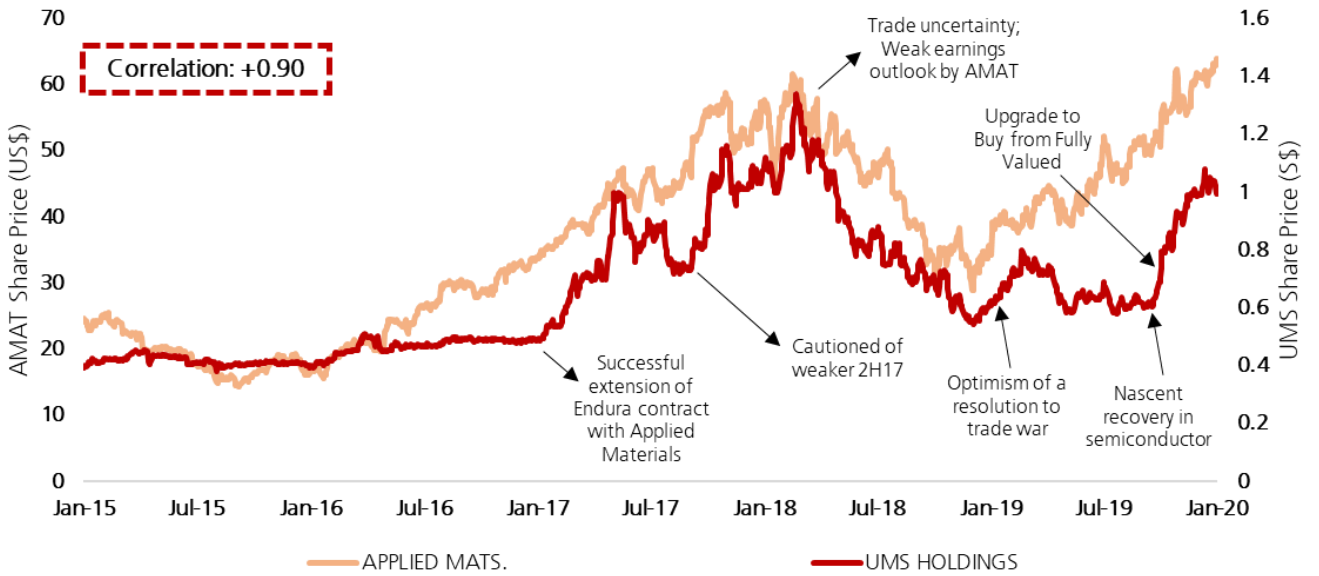
Capex (\$\$ m)



Source: Company, DBS Bank

UMS Holdings

Appendix 1: A look at Company's listed history – what drives its share price?



Source: Bloomberg Finance L.P., DBS Bank

UMS Holdings

Balance Sheet:

Healthy cash level. UMS invested S\$6.9m to raise its equity stake in JEP Holdings from 29% to 39% in 2Q19. Even after making an additional investment in JEP and paying dividends of S\$10.7m, the group's net cash rose to S\$7.6m as of end-3Q19, reversing from a net debt of S\$1.4m as at end-4Q18.

Share Price Drivers:

A sustainable recovery in semiconductor industry. Industry bodies like SEMI and Worldwide Semiconductor Trade Statistics (WSTS) are forecasting a return to growth for the semiconductor industry in 2020. UMS is witnessing signs of an upturn in the overall semiconductor industry. A sustainable recovery should drive earnings, and thus push its share price higher.

M&A opportunities. UMS continues to be on the lookout for diversification opportunities (outside of the semiconductor industry) with good long-term growth potential. New avenues of growth outside the semiconductor space could help drive re-rating of its share price.

Potential takeover target. UMS has only one large shareholder, with a 20% stake. With its entrenched relationship with AMAT, consistently strong cash flows and net cash position, we see UMS as an attractive takeover target.

Key Risks:

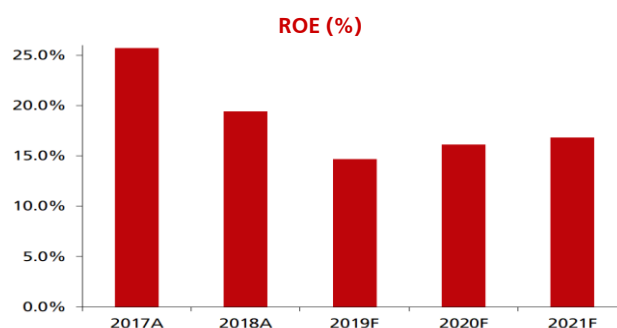
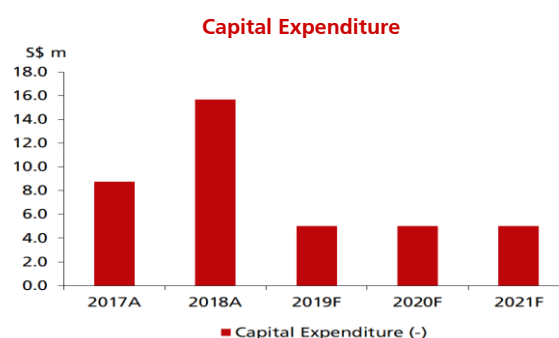
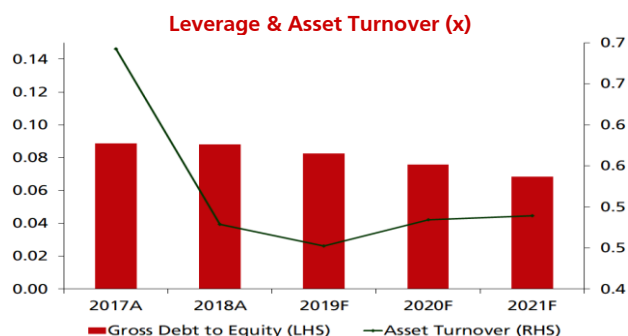
Key client risk – AMAT. UMS's performance is closely tied to that of AMAT. About 90% of UMS's revenues are attributable to AMAT.

Disruptions to the relationship (i.e. loss of market share) or weakness in AMAT's end-demand could significantly weigh on UMS's performance.

Underlying demand for semiconductor manufacturing equipment. As demand for semiconductor manufacturing equipment is largely driven by capex cycles of chipmakers and foundries, an extension of the life cycle of existing systems or a slowdown in the global economy could result in deferments in their planned capital investments.

Company Background

UMS Holdings (UMSH SP) is an integrated OEM for front-end semiconductor equipment manufacturing, providing both component manufacturing and sub-assembly services, primarily to key client, Applied Materials (AMAT).



Source: Company, DBS Bank

UMS Holdings

Key Assumptions

FY Dec	2017A	2018A	2019F	2020F	2021F
Gross Profit (\$\$ m)	88.9	77.0	69.4	81.3	91.1
Revenue Growth (%)	55.9	(21.3)	0.50	15.0	10.0
Operating Profit Margin	34.3	33.6	27.4	28.4	29.8
Effective Tax Rate (%)	6.38	6.27	8.00	8.00	8.00
Capex (\$\$ m)	8.76	15.7	5.00	5.00	5.00

Income Statement (\$\$m)

FY Dec	2017A	2018A	2019F	2020F	2021F
Revenue	162	128	129	148	163
Cost of Goods Sold	(73.6)	(50.9)	(59.1)	(66.5)	(71.6)
Gross Profit	88.9	77.0	69.4	81.3	91.1
Other Opng (Exp)/Inc	(33.2)	(34.0)	(34.2)	(39.3)	(42.6)
Operating Profit	55.7	43.0	35.2	42.0	48.5
Other Non Opg (Exp)/Inc	(0.4)	2.36	0.0	0.0	0.0
Associates & JV Inc	0.0	0.53	2.00	2.00	2.00
Net Interest (Exp)/Inc	0.0	(0.4)	0.0	0.43	0.48
Exceptional Gain/(Loss)	0.0	0.0	0.0	0.0	0.0
Pre-tax Profit	55.2	45.5	37.2	44.4	50.9
Tax	(3.5)	(2.9)	(3.0)	(3.6)	(4.1)
Minority Interest	0.32	0.42	0.43	0.44	0.46
Preference Dividend	0.0	0.0	0.0	0.0	0.0
Net Profit	52.0	43.1	34.7	41.3	47.3
Net Profit before Except.	52.0	43.1	34.7	41.3	47.3
EBITDA	59.6	51.6	42.9	49.7	56.1
Growth					
Revenue Gth (%)	55.9	(21.3)	0.5	15.0	10.0
EBITDA Gth (%)	98.4	(13.4)	(16.8)	15.8	13.0
Opg Profit Gth (%)	89.7	(22.7)	(18.1)	19.2	15.4
Net Profit Gth (Pre-ex) (%)	130.3	(17.2)	(19.5)	19.1	14.6
Margins & Ratio					
Gross Margins (%)	54.7	60.2	54.0	55.0	56.0
Opg Profit Margin (%)	34.3	33.6	27.4	28.4	29.8
Net Profit Margin (%)	32.0	33.7	27.0	27.9	29.1
ROAE (%)	25.7	19.4	14.7	16.2	16.8
ROA (%)	22.2	16.1	12.2	13.5	14.2
ROCE (%)	24.2	17.2	13.1	14.7	15.5
Div Payout Ratio (%)	57.7	56.0	54.1	45.4	39.7
Net Interest Cover (x)	55,695.0	107.3	NM	NM	NM

Source: Company, DBS Bank

UMS Holdings

Quarterly / Interim Income Statement (\$5m)

FY Dec	3Q2018	4Q2018	1Q2019	2Q2019	3Q2019
Revenue	29.3	25.9	28.6	30.0	32.9
Cost of Goods Sold	(12.1)	(10.1)	(13.4)	(14.1)	(14.9)
Gross Profit	17.2	15.8	15.2	15.9	18.1
Other Oper. (Exp)/Inc	(9.3)	(8.3)	(8.1)	(7.9)	(8.9)
Operating Profit	7.88	7.46	7.06	7.98	9.18
Other Non Opg (Exp)/Inc	0.68	1.33	0.01	0.0	0.24
Associates & JV Inc	0.36	0.24	0.46	0.83	0.65
Net Interest (Exp)/Inc	(0.1)	(0.2)	(0.2)	(0.2)	(0.2)
Exceptional Gain/(Loss)	0.0	0.0	0.0	0.0	0.0
Pre-tax Profit	8.83	8.87	7.37	8.57	9.89
Tax	(1.1)	0.41	(0.6)	(0.6)	(0.8)
Minority Interest	(0.1)	0.31	0.23	0.15	0.05
Net Profit	7.59	9.59	7.05	8.09	9.18
Net profit bef Except.	7.59	9.59	7.05	8.09	9.18
EBITDA	10.5	10.7	9.22	10.5	11.8

Growth

Revenue Gth (%)	(17.0)	(11.5)	10.4	4.8	9.8
EBITDA Gth (%)	(38.4)	2.5	(14.1)	13.9	12.4
Opg Profit Gth (%)	(45.3)	(5.4)	(5.3)	13.0	15.0
Net Profit Gth (Pre-ex) (%)	(47.7)	26.3	(26.5)	14.7	13.4

Margins

Gross Margins (%)	58.7	60.9	53.2	53.1	54.9
Opg Profit Margins (%)	26.9	28.8	24.7	26.6	27.9
Net Profit Margins (%)	25.9	37.0	24.6	27.0	27.9

Balance Sheet (\$5m)

FY Dec	2017A	2018A	2019F	2020F	2021F
Net Fixed Assets	38.8	53.4	52.7	52.0	51.4
Invts in Associates & JVs	0.0	29.5	41.5	43.5	45.5
Other LT Assets	87.7	87.6	87.6	87.6	87.6
Cash & ST Invts	59.6	18.9	41.0	55.0	76.9
Inventory	49.6	70.4	45.4	51.0	54.9
Debtors	23.4	15.1	24.7	28.4	31.2
Other Current Assets	0.0	0.0	0.0	0.0	0.0
Total Assets	259	275	293	318	348
ST Debt	19.0	20.3	20.3	20.3	20.3
Creditor	18.1	14.1	15.9	17.9	19.2
Other Current Liab	3.29	3.72	4.38	4.96	5.48
LT Debt	0.0	0.0	0.0	0.0	0.0
Other LT Liabilities	4.99	6.43	6.43	6.43	6.43
Shareholder's Equity	215	229	244	267	296
Minority Interests	(1.3)	1.91	1.48	1.04	0.58
Total Cap. & Liab.	259	275	293	318	348
Non-Cash Wkg. Capital	51.7	67.7	49.8	56.6	61.4
Net Cash/(Debt)	40.6	(1.4)	20.8	34.7	56.7
Debtors Turn (avg days)	49.8	55.0	56.5	65.4	66.8
Creditors Turn (avg days)	91.3	129.9	102.4	101.2	102.7
Inventory Turn (avg days)	214.4	484.3	395.2	289.1	293.4
Asset Turnover (x)	0.7	0.5	0.5	0.5	0.5
Current Ratio (x)	3.3	2.7	2.7	3.1	3.6
Quick Ratio (x)	2.1	0.9	1.6	1.9	2.4
Net Debt/Equity (X)	CASH	0.0	CASH	CASH	CASH
Net Debt/Equity ex MI (X)	CASH	0.0	CASH	CASH	CASH
Capex to Debt (%)	46.1	77.2	24.6	24.6	24.6
Z-Score (X)	8.7	9.2	8.7	8.6	8.5

Source: Company, DBS Bank

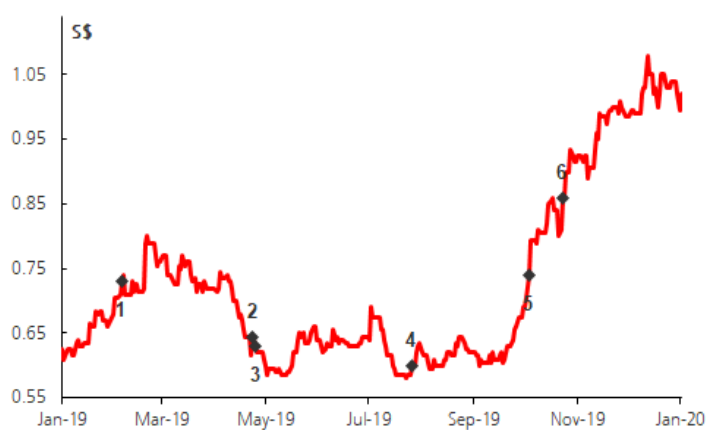
UMS Holdings

Cash Flow Statement (\$m)

FY Dec	2017A	2018A	2019F	2020F	2021F
Pre-Tax Profit	55.2	45.5	37.2	44.4	50.9
Dep. & Amort.	4.32	5.67	5.67	5.67	5.67
Tax Paid	(2.1)	(3.6)	(2.3)	(3.0)	(3.6)
Assoc. & JV Inc/(loss)	0.04	(0.5)	(2.0)	(2.0)	(2.0)
Chg in Wkg.Cap.	(18.4)	(7.5)	17.3	(7.4)	(5.3)
Other Operating CF	0.02	(1.0)	0.0	0.0	0.0
Net Operating CF	39.2	38.7	55.9	37.7	45.7
Capital Exp.(net)	(8.8)	(15.7)	(5.0)	(5.0)	(5.0)
Other Invt.(net)	0.0	0.0	0.0	0.0	0.0
Invt in Assoc. & JV	(0.1)	(33.4)	(10.0)	0.0	0.0
Div from Assoc & JV	0.0	0.0	0.0	0.0	0.0
Other Investing CF	(2.1)	0.21	0.0	0.0	0.0
Net Investing CF	(11.0)	(48.8)	(15.0)	(5.0)	(5.0)
Div Paid	(26.8)	(29.5)	(18.8)	(18.8)	(18.8)
Chg in Gross Debt	18.8	(0.3)	0.0	0.0	0.0
Capital Issues	0.0	0.0	0.0	0.0	0.0
Other Financing CF	(0.4)	(0.6)	0.0	0.0	0.0
Net Financing CF	(8.5)	(30.5)	(18.8)	(18.8)	(18.8)
Currency Adjustments	(2.8)	0.0	0.0	0.0	0.0
Chg in Cash	17.0	(40.6)	22.1	14.0	21.9
Opg CFPS (S cts)	10.7	8.60	7.19	8.41	9.52
Free CFPS (S cts)	5.67	4.29	9.49	6.10	7.59

Source: Company, DBS Bank

Target Price & Ratings History



S.No.	Date of Report	Closing Price	12-mth Target Price	Rating
1:	26 Feb 19	0.73	0.55	FULLY VALUED
2:	14 May 19	0.65	0.55	FULLY VALUED
3:	16 May 19	0.63	0.45	FULLY VALUED
4:	16 Aug 19	0.60	0.49	FULLY VALUED
5:	24 Oct 19	0.74	0.87	BUY
6:	13 Nov 19	0.86	1.00	BUY

Note: Share price and Target price are adjusted for corporate actions.

Source: DBS Bank

Analyst: Lee Keng LING

DBS Bank recommendations are based on an Absolute Total Return* Rating system, defined as follows:

STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)

BUY (>15% total return over the next 12 months for small caps, >10% for large caps)

HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)

SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

**Share price appreciation + dividends*

Completed Date: 23 Jan 2020 18:20:45 (SGT)

Dissemination Date: 23 Jan 2020 18:33:35 (SGT)

Sources for all charts and tables are DBS Bank unless otherwise specified.

GENERAL DISCLOSURE/DISCLAIMER

This report is prepared by DBS Bank Ltd. This report is solely intended for the clients of DBS Bank Ltd, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS Bank Ltd.

The research set out in this report is based on information obtained from sources believed to be reliable, but we (which collectively refers to DBS Bank Ltd, its respective connected and associated corporations, affiliates and their respective directors, officers, employees and agents (collectively, the "DBS Group") have not conducted due diligence on any of the companies, verified any information or sources or taken into account any other factors which we may consider to be relevant or appropriate in preparing the research. Accordingly, we do not make any representation or warranty as to the accuracy, completeness or correctness of the research set out in this report. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained in this document does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This document is for the information of addressees only and is not to be taken in substitution for the exercise of judgement by addressees, who should obtain separate independent legal or financial advice. The DBS Group accepts no liability whatsoever for any direct, indirect and/or consequential loss (including any claims for loss of profit) arising from any use of and/or reliance upon this document and/or further communication given in relation to this document. This document is not to be construed as an offer or a solicitation of an offer to buy or sell any securities. The DBS Group, along with its affiliates and/or persons associated with any of them may from time to time have interests in the securities mentioned in this document. The DBS Group, may have positions in, and may effect transactions in securities mentioned herein and may also perform or seek to perform broking, investment banking and other banking services for these companies.

Any valuations, opinions, estimates, forecasts, ratings or risk assessments herein constitutes a judgment as of the date of this report, and there can be no assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments. The information in this document is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed, it may not contain all material information concerning the company (or companies) referred to in this report and the DBS Group is under no obligation to update the information in this report.

This publication has not been reviewed or authorized by any regulatory authority in Singapore, Hong Kong or elsewhere. There is no planned schedule or frequency for updating research publication relating to any issuer.

The valuations, opinions, estimates, forecasts, ratings or risk assessments described in this report were based upon a number of estimates and assumptions and are inherently subject to significant uncertainties and contingencies. It can be expected that one or more of the estimates on which the valuations, opinions, estimates, forecasts, ratings or risk assessments were based will not materialize or will vary significantly from actual results. Therefore, the inclusion of the valuations, opinions, estimates, forecasts, ratings or risk assessments described herein IS NOT TO BE RELIED UPON as a representation and/or warranty by the DBS Group (and/or any persons associated with the aforesaid entities), that:

- (a) such valuations, opinions, estimates, forecasts, ratings or risk assessments or their underlying assumptions will be achieved, and
- (b) there is any assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments stated therein.

Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets.

Any assumptions made in this report that refers to commodities, are for the purposes of making forecasts for the company (or companies) mentioned herein. They are not to be construed as recommendations to trade in the physical commodity or in the futures contract relating to the commodity referred to in this report.

DBSVUSA, a US-registered broker-dealer, does not have its own investment banking or research department, has not participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months and does not engage in market-making.

ANALYST CERTIFICATION

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible for the content of this research report, in part or in whole, certifies that he or his associate¹ does not serve as an officer of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant) and the research analyst(s) primarily responsible for the content of this research report or his associate does not have financial interests² in relation to an issuer or a new listing applicant that the analyst reviews. DBS Group has procedures in place to eliminate, avoid and manage any potential conflicts of interests that may arise in connection with the production of research reports. The research analyst(s) responsible for this report operates as part of a separate and independent team to the investment banking function of the DBS Group and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of DBS Group's compensation to any specific investment banking function of the DBS Group.

COMPANY-SPECIFIC / REGULATORY DISCLOSURES

1. DBS Bank Ltd, DBS HK, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS") or their subsidiaries and/or other affiliates do not have a proprietary position in the securities recommended in this report as of 31 Dec 2019.
2. Neither DBS Bank Ltd nor DBS HK market makes in equity securities of the issuer(s) or company(ies) mentioned in this Research Report.

Compensation for investment banking services:

3. DBSVUSA does not have its own investment banking or research department, nor has it participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months. Any US persons wishing to obtain further information, including any clarification on disclosures in this disclaimer, or to effect a transaction in any security discussed in this document should contact DBSVUSA exclusively.

Disclosure of previous investment recommendation produced:

4. DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed in the first page of this report to view previous investment recommendations published by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates in the preceding 12 months.

¹ An associate is defined as (i) the spouse, or any minor child (natural or adopted) or minor step-child, of the analyst; (ii) the trustee of a trust of which the analyst, his spouse, minor child (natural or adopted) or minor step-child, is a beneficiary or discretionary object; or (iii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

² Financial interest is defined as interests that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

DBS Bank recommendations are based on an Absolute Total Return* Rating system, defined as follows:

STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)

BUY (>15% total return over the next 12 months for small caps, >10% for large caps)

HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)

SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

*Share price appreciation + dividends

Completed Date: 24 Jan 2020 08:02:20 (SGT)

Dissemination Date: 24 Jan 2020 08:48:29 (SGT)

Sources for all charts and tables are DBS Bank unless otherwise specified.

GENERAL DISCLOSURE/DISCLAIMER

This report is prepared by DBS Bank Ltd. This report is solely intended for the clients of DBS Bank Ltd, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS Bank Ltd.

The research set out in this report is based on information obtained from sources believed to be reliable, but we (which collectively refers to DBS Bank Ltd, its respective connected and associated corporations, affiliates and their respective directors, officers, employees and agents (collectively, the "DBS Group") have not conducted due diligence on any of the companies, verified any information or sources or taken into account any other factors which we may consider to be relevant or appropriate in preparing the research. Accordingly, we do not make any representation or warranty as to the accuracy, completeness or correctness of the research set out in this report. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained in this document does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This document is for the information of addressees only and is not to be taken in substitution for the exercise of judgement by addressees, who should obtain separate independent legal or financial advice. The DBS Group accepts no liability whatsoever for any direct, indirect and/or consequential loss (including any claims for loss of profit) arising from any use of and/or reliance upon this document and/or further communication given in relation to this document. This document is not to be construed as an offer or a solicitation of an offer to buy or sell any securities. The DBS Group, along with its affiliates and/or persons associated with any of them may from time to time have interests in the securities mentioned in this document. The DBS Group, may have positions in, and may effect transactions in securities mentioned herein and may also perform or seek to perform broking, investment banking and other banking services for these companies.

Any valuations, opinions, estimates, forecasts, ratings or risk assessments herein constitutes a judgment as of the date of this report, and there can be no assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments. The information in this document is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed, it may not contain all material information concerning the company (or companies) referred to in this report and the DBS Group is under no obligation to update the information in this report.

This publication has not been reviewed or authorized by any regulatory authority in Singapore, Hong Kong or elsewhere. There is no planned schedule or frequency for updating research publication relating to any issuer.

The valuations, opinions, estimates, forecasts, ratings or risk assessments described in this report were based upon a number of estimates and assumptions and are inherently subject to significant uncertainties and contingencies. It can be expected that one or more of the estimates on which the valuations, opinions, estimates, forecasts, ratings or risk assessments were based will not materialize or will vary significantly from actual results. Therefore, the inclusion of the valuations, opinions, estimates, forecasts, ratings or risk assessments described herein IS NOT TO BE RELIED UPON as a representation and/or warranty by the DBS Group (and/or any persons associated with the aforesaid entities), that:

- (a) such valuations, opinions, estimates, forecasts, ratings or risk assessments or their underlying assumptions will be achieved, and
- (b) there is any assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments stated therein.

Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets.

Any assumptions made in this report that refers to commodities, are for the purposes of making forecasts for the company (or companies) mentioned herein. They are not to be construed as recommendations to trade in the physical commodity or in the futures contract relating to the commodity referred to in this report.

DBSVUSA, a US-registered broker-dealer, does not have its own investment banking or research department, has not participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months and does not engage in market-making.

ANALYST CERTIFICATION

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible for the content of this research report, in part or in whole, certifies that he or his associate¹ does not serve as an officer of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant) and the research analyst(s) primarily responsible for the content of this research report or his associate does not have financial interests² in relation to an issuer or a new listing applicant that the analyst reviews. DBS Group has procedures in place to eliminate, avoid and manage any potential conflicts of interests that may arise in connection with the production of research reports. The research analyst(s) responsible for this report operates as part of a separate and independent team to the investment banking function of the DBS Group and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of DBS Group's compensation to any specific investment banking function of the DBS Group.

COMPANY-SPECIFIC / REGULATORY DISCLOSURES

1. DBS Bank Ltd, DBS HK, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS") or their subsidiaries and/or other affiliates do not have a proprietary position in Samsung Electronics Co Ltd, Venture Corporation, recommended in this report as of 31 Dec 2019.
2. Neither DBS Bank Ltd nor DBS HK market makes in equity securities of the issuer(s) or company(ies) mentioned in this Research Report.

Compensation for investment banking services:

3. DBSVUSA does not have its own investment banking or research department, nor has it participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months. Any US persons wishing to obtain further information, including any clarification on disclosures in this disclaimer, or to effect a transaction in any security discussed in this document should contact DBSVUSA exclusively.


Disclosure of previous investment recommendation produced:

4. DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed in the first page of this report to view previous investment recommendations published by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates in the preceding 12 months.

¹ An associate is defined as (i) the spouse, or any minor child (natural or adopted) or minor step-child, of the analyst; (ii) the trustee of a trust of which the analyst, his spouse, minor child (natural or adopted) or minor step-child, is a beneficiary or discretionary object; or (iii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

² Financial interest is defined as interests that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

RESTRICTIONS ON DISTRIBUTION

General	This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation.
Australia	<p>This report is being distributed in Australia by DBS Bank Ltd, DBSVS or DBSV HK. DBS Bank Ltd holds Australian Financial Services Licence no. 475946.</p> <p>DBSVS and DBSV HK are exempted from the requirement to hold an Australian Financial Services Licence under the Corporation Act 2001 ("CA") in respect of financial services provided to the recipients. Both DBS Bank Ltd and DBSVS are regulated by the Monetary Authority of Singapore under the laws of Singapore, and DBSV HK is regulated by the Hong Kong Securities and Futures Commission under the laws of Hong Kong, which differ from Australian laws.</p> <p>Distribution of this report is intended only for "wholesale investors" within the meaning of the CA.</p>
Hong Kong	<p>This report has been prepared by a person(s) who is not licensed by the Hong Kong Securities and Futures Commission to carry on the regulated activity of advising on securities in Hong Kong pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong). This report is being distributed in Hong Kong and is attributable to DBS Bank (Hong Kong) Limited, a registered institution registered with the Hong Kong Securities and Futures Commission to carry on the regulated activity of advising on securities pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong).</p> <p>For any query regarding the materials herein, please contact Carol Wu (Reg No. AH8283) at dbsvhk@dbs.com</p>
Indonesia	This report is being distributed in Indonesia by PT DBS Vickers Sekuritas Indonesia.
Malaysia	<p>This report is distributed in Malaysia by AllianceDBS Research Sdn Bhd ("ADBSR"). Recipients of this report, received from ADBSR are to contact the undersigned at 603-2604 3333 in respect of any matters arising from or in connection with this report. In addition to the General Disclosure/Disclaimer found at the preceding page, recipients of this report are advised that ADBSR (the preparer of this report), its holding company Alliance Investment Bank Berhad, their respective connected and associated corporations, affiliates, their directors, officers, employees, agents and parties related or associated with any of them may have positions in, and may effect transactions in the securities mentioned herein and may also perform or seek to perform broking, investment banking/corporate advisory and other services for the subject companies. They may also have received compensation and/or seek to obtain compensation for broking, investment banking/corporate advisory and other services from the subject companies.</p> <p style="text-align: right;">  Wong Ming Tek, Executive Director, ADBSR </p>
Singapore	This report is distributed in Singapore by DBS Bank Ltd (Company Regn. No. 196800306E) or DBSVS (Company Regn No. 198600294G), both of which are Exempt Financial Advisers as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore. DBS Bank Ltd and/or DBSVS, may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, DBS Bank Ltd accepts legal responsibility for the contents of the report to such persons only to the extent required by law. Singapore recipients should contact DBS Bank Ltd at 6327 2288 for matters arising from, or in connection with the report.

Thailand	This report is being distributed in Thailand by DBS Vickers Securities (Thailand) Co Ltd.
United Kingdom	<p>This report is produced by DBS Bank Ltd which is regulated by the Monetary Authority of Singapore.</p> <p>This report is disseminated in the United Kingdom by DBS Vickers Securities (UK) Ltd, ("DBSVUK"). DBSVUK is authorised and regulated by the Financial Conduct Authority in the United Kingdom.</p> <p>In respect of the United Kingdom, this report is solely intended for the clients of DBSVUK, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBSVUK. This communication is directed at persons having professional experience in matters relating to investments. Any investment activity following from this communication will only be engaged in with such persons. Persons who do not have professional experience in matters relating to investments should not rely on this communication.</p>
Dubai International Financial Centre	This research report is being distributed by DBS Bank Ltd., (DIFC Branch) having its office at units 608 - 610, 6 th Floor, Gate Precinct Building 5, PO Box 506538, DIFC, Dubai, United Arab Emirates. DBS Bank Ltd., (DIFC Branch) is regulated by The Dubai Financial Services Authority. This research report is intended only for professional clients (as defined in the DFSA rulebook) and no other person may act upon it.
United Arab Emirates	This report is provided by DBS Bank Ltd (Company Regn. No. 196800306E) which is an Exempt Financial Adviser as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore. This report is for information purposes only and should not be relied upon or acted on by the recipient or considered as a solicitation or inducement to buy or sell any financial product. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situation, or needs of individual clients. You should contact your relationship manager or investment adviser if you need advice on the merits of buying, selling or holding a particular investment. You should note that the information in this report may be out of date and it is not represented or warranted to be accurate, timely or complete. This report or any portion thereof may not be reprinted, sold or redistributed without our written consent.
United States	This report was prepared by DBS Bank Ltd. DBSVUSA did not participate in its preparation. The research analyst(s) named on this report are not registered as research analysts with FINRA and are not associated persons of DBSVUSA. The research analyst(s) are not subject to FINRA Rule 2241 restrictions on analyst compensation, communications with a subject company, public appearances and trading securities held by a research analyst. This report is being distributed in the United States by DBSVUSA, which accepts responsibility for its contents. This report may only be distributed to Major U.S. Institutional Investors (as defined in SEC Rule 15a-6) and to such other institutional investors and qualified persons as DBSVUSA may authorize. Any U.S. person receiving this report who wishes to effect transactions in any securities referred to herein should contact DBSVUSA directly and not its affiliate.
Other jurisdictions	In any other jurisdictions, except if otherwise restricted by laws or regulations, this report is intended only for qualified, professional, institutional or sophisticated investors as defined in the laws and regulations of such jurisdictions.

DBS Regional Research Offices

HONG KONG

DBS (Hong Kong) Ltd

Contact: Carol Wu
13th Floor One Island East,
18 Westlands Road,
Quarry Bay, Hong Kong
Tel: 852 3668 4181
Fax: 852 2521 1812
e-mail: dbsvhk@dbs.com

MALAYSIA

AllianceDBS Research Sdn Bhd

Contact: Wong Ming Tek (128540 U)
19th Floor, Menara Multi-Purpose,
Capital Square,
8 Jalan Munshi Abdullah 50100
Kuala Lumpur, Malaysia.
Tel.: 603 2604 3333
Fax: 603 2604 3921
e-mail: general@alliancedbs.com

SINGAPORE

DBS Bank Ltd

Contact: Janice Chua
12 Marina Boulevard,
Marina Bay Financial Centre Tower 3
Singapore 018982
Tel: 65 6878 8888
Fax: 65 65353 418
e-mail: equityresearch@dbs.com
Company Regn. No. 196800306E

THAILAND

DBS Vickers Securities (Thailand) Co Ltd

Contact: Chanpen Sirithanarattanakul
989 Siam Piwat Tower Building,
9th, 14th-15th Floor
Rama 1 Road, Pathumwan,
Bangkok Thailand 10330
Tel. 66 2 857 7831
Fax: 66 2 658 1269
e-mail: research@th.dbs.com
Company Regn. No 0105539127012
Securities and Exchange Commission, Thailand

INDONESIA

PT DBS Vickers Sekuritas (Indonesia)

Contact: Maynard Priajaya Arif
DBS Bank Tower
Ciputra World 1, 32/F
Jl. Prof. Dr. Satrio Kav. 3-5
Jakarta 12940, Indonesia
Tel: 62 21 3003 4900
Fax: 6221 3003 4943
e-mail: indonesiaresearch@dbs.com