

HLIB Research

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NEUTRAL (Maintain)

KLTEC vs KLCI

Stock Rating

Stock	Rating	Price	Target
Frontken	BUY	1.58	1.67
Inari	HOLD	1.59	1.42
Unisem	SELL	2.27	2.04
ViTrox	HOLD	6.84	6.68

Technology

Recover in 2H but may not be enough

The initial optimism on sector disappeared as 1H19's reality set in. Global sales and spending forecasts were cut implying a soft recovery in 2H19. Boost from stronger USD may be neutralized by higher commodity prices. Growth is expected to be driven by HPC and IoT while automotive takes a back seat. Tech-focused trade war will disrupt overall supply chain if unresolved. Reiterate **NEUTRAL** with Frontken as our top pick.

Outperformed in 1H19. Despite the lacklustre worldwide semiconductor sales and equipment spending, KLTEC gained 9% vs KLCI's 1% decline (Figure #1). Our initial strategy of being cautious and selective is rewarding so far.

Global semiconductor sales. 5M19 turnover fell 14% YoY to USD162bn (Figure #2) was a negative surprise and prompted consensus to cut estimate. However, this is in line with our expectation on the back of the downside risks highlighted earlier. From the initial expectation of 3% growth for 2019, the industry is now seeing an average of 4% decline (Figure #3) with lower demands from all regions in all products except discretely (Figure #4). The plunge of memory price was a major contributor albeit the recent reversion (Figure #5). The only silver lining is the industry is projected to return to expansionary mode in 2020 with an average of 6% growth (Figure #6).

Equipment spending. Capital investment plunged in tandem with 5M19 3MA billings tumbled by 24% to USD10bn from USD13bn in prior year (Figure #7). This is also within our expectation and validates our thesis of prolonged growth in capital spending outpacing sales' will lead to industry-wide overcapacity. Based on SEMI's latest forecast, global sales of semiconductor manufacturing equipment by OEM is projected to drop 18% to USD52.7bn in 2019 reflecting rising market uncertainty due in part to geopolitical tensions.

Stronger greenback. HLIB expects RM to be stronger in 2019 ranging RM4.05-4.15/USD compared to 2018's average of RM4.04/USD (Figure #8). As such, we expect tech firms to be marginally boosted thanks to their USD-denominated sales while partly offset by the USD cost items.

High input cost. Major raw material prices including gold, aluminium and copper remain elevated (Figure #9). Compounded by stronger USD projection, pricier commodities will exert pressures on margins for traditional packaging.

Segmental view. High-performance computing (HPC) is expected to be the major growth driver for global tech industry on the back of robust cloud investments and potentially cryptocurrency mining. Although IoT device generally has lower IC content, the sheer forecasted volume suggests that this market is too big to ignore. Smartphone demand waned due to longer replacement cycle and innovation stalemate. While, automotive is stuck in the low gear.

Tech-focused trade spat. We took comfort that the US and China are going back to the negotiation table while sanction on Huawei is lifted for now. Bad habit spread fast and Japan is waging another trade war on South Korea. While this may eventually benefit Taiwan, we opine that trade tensions among any of the tech leading nations is a bane due to their strong interdependence in the supply chain.

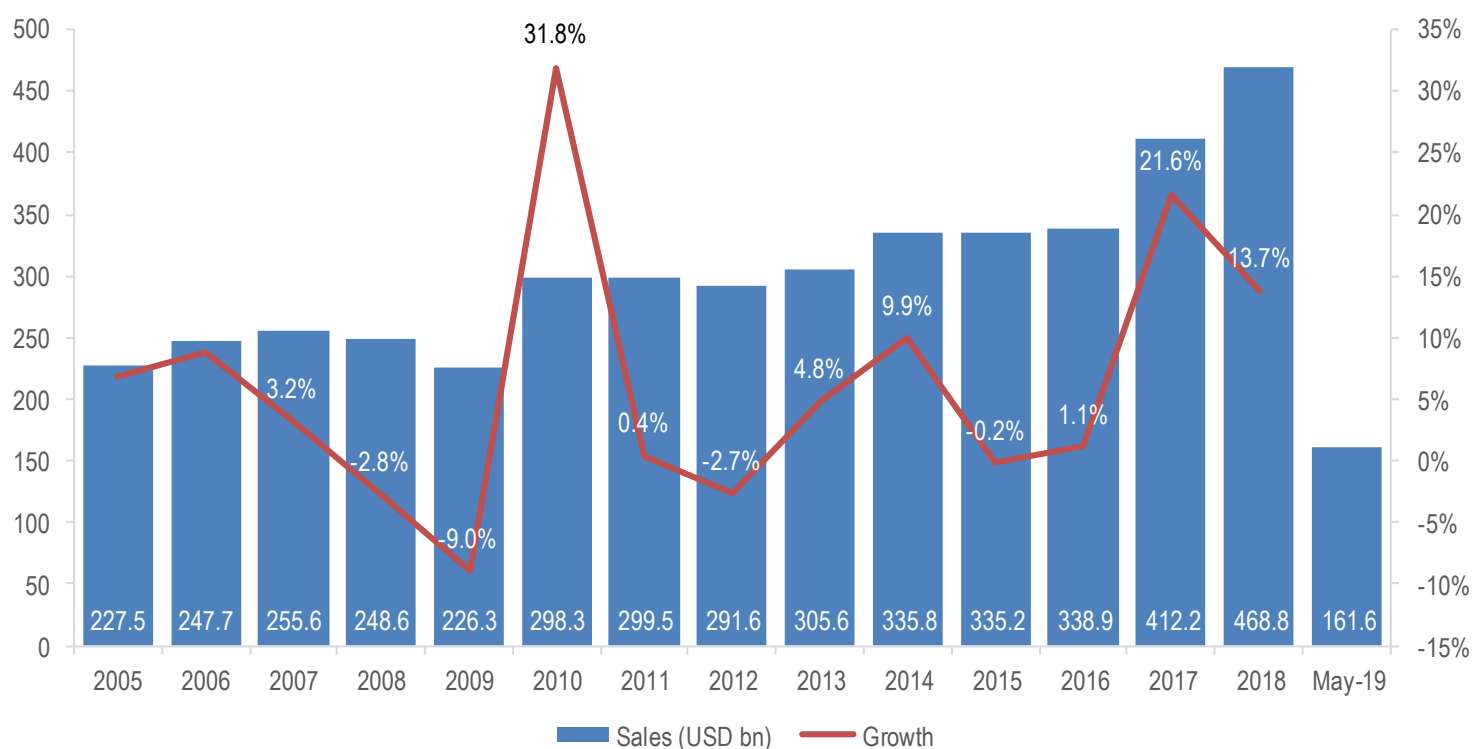
Maintain NEUTRAL. We reiterate our conservatism in the absence of near term catalyst and remain fussy. **Frontken** (BUY, TP: RM1.67 pegged to 25x of FY20 EPS) remains our top pick. We expect it to experience multi-year growth ahead on the back of (1) sustainable global semiconductor market outlook; (2) robust fab investment; (3) leading edge technology; (4) O&G recovery; and (5) strong balance sheet.

Figure #1 **Techs' Share Price Performance**

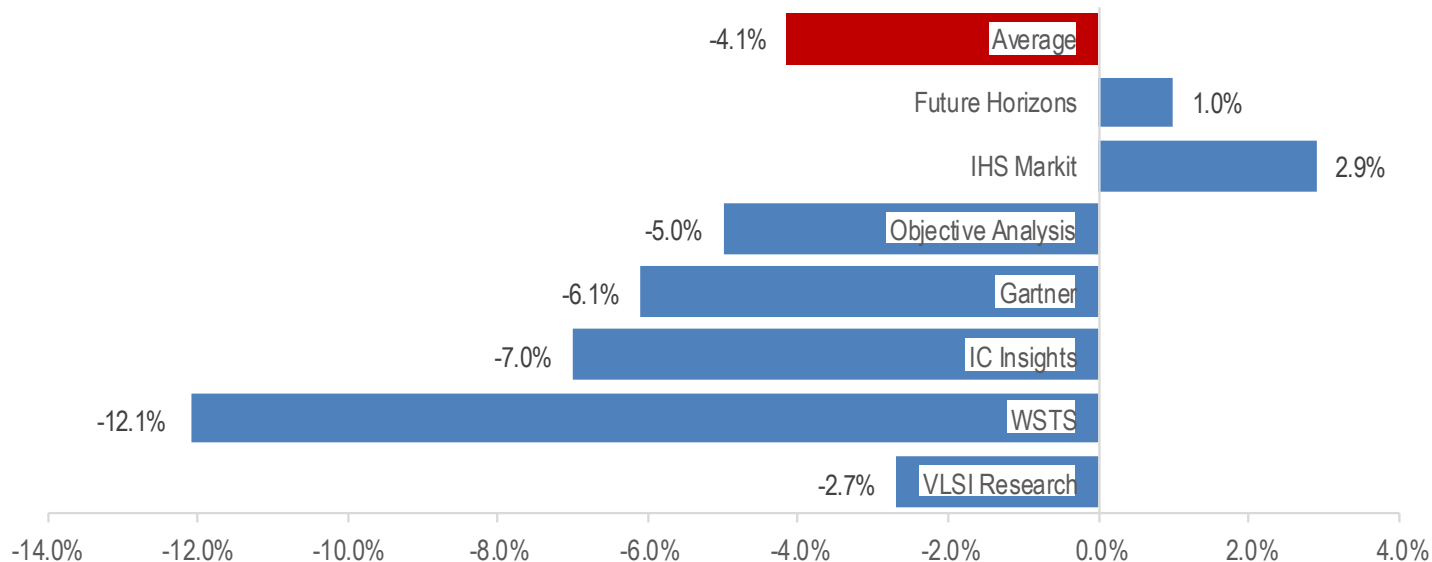
	Year End Closing Price (RM)				Change (%)		
	2016	2017	2018	1H19	2017	2018	1H19
KLCI	1,641.73	1,796.81	1,690.58	1,672.13	9.4	-5.9	-1.1
Technology	22.07	41.86	29.34	31.97	89.7	-29.9	9.0
Elsoft	1.42	2.70	1.09	0.80	90.1	-3.1*	-26.6
Frontken	0.17	0.46	0.71	1.34	170.6	53.3	90.1
Globetronics	3.48	6.60	1.75	1.67	89.7	-38.1*	-4.6
Inari Amertron	3.32	3.40	1.50	1.60	104.8*	-33.8*	6.7
MPI	7.41	12.61	9.95	9.22	70.2	-21.1	-7.3
Unisem	2.36	3.65	3.28	2.46	54.7	-10.1	-25.0
VisDynamics	0.37	0.62	0.50	0.34	154.8*	-20.2	-32.3
ViTrox	3.71	6.21	6.29	6.99	234.8*	1.3	11.1
Average	1,641.73	1,796.81	1,690.58	1,672.13	121.2	-9.0	1.5

* Adjusted for bonus issue

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Figure #2 **Global Semiconductor Sales**

WSTS, HLIB

Figure #3 2019 Global Semiconductor Sales Forecasts

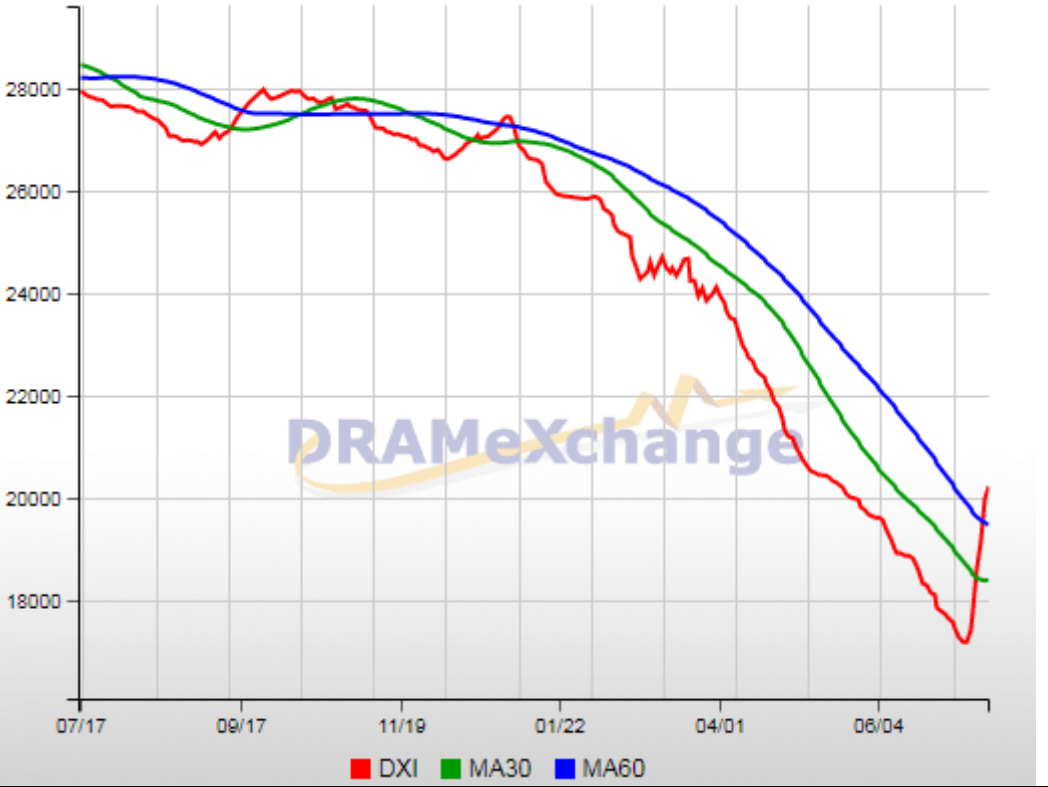
Various, HLIB

Figure #4 WSTS Semiconductor Market Forecast Breakdown

	Sales (USD m)			YoY Growth (%)		
	2018	2019	2020	2018	2019	2020
Region						
Americas	102,997	78,741	84,582	16.4	-23.6	7.4
Europe	42,957	41,609	43,572	12.1	-3.1	4.7
Japan	39,961	36,069	37,473	9.2	-9.7	3.9
Asia Pacific	282,863	255,666	268,762	13.7	-9.6	5.1
Total	468,778	412,085	434,389	13.7	-12.1	5.4
Products						
Discrete semiconductors	24,102	24,450	25,689	11.3	1.4	5.1
Optoelectronics	38,032	37,474	39,699	9.2	-1.5	5.9
Sensors	13,356	13,295	13,892	6.2	-0.5	4.5
Integrated circuits	393,288	336,867	355,109	14.6	-14.3	5.4
Analog	58,785	55,846	58,639	10.8	-5.0	5.0
Micro	67,233	66,519	69,147	5.2	-1.1	4.0
Logic	109,303	104,912	110,450	6.9	-4.0	5.3
Memory	157,967	109,590	116,873	27.4	-30.6	6.6
Total	468,778	412,086	434,389	13.7	-12.1	5.4

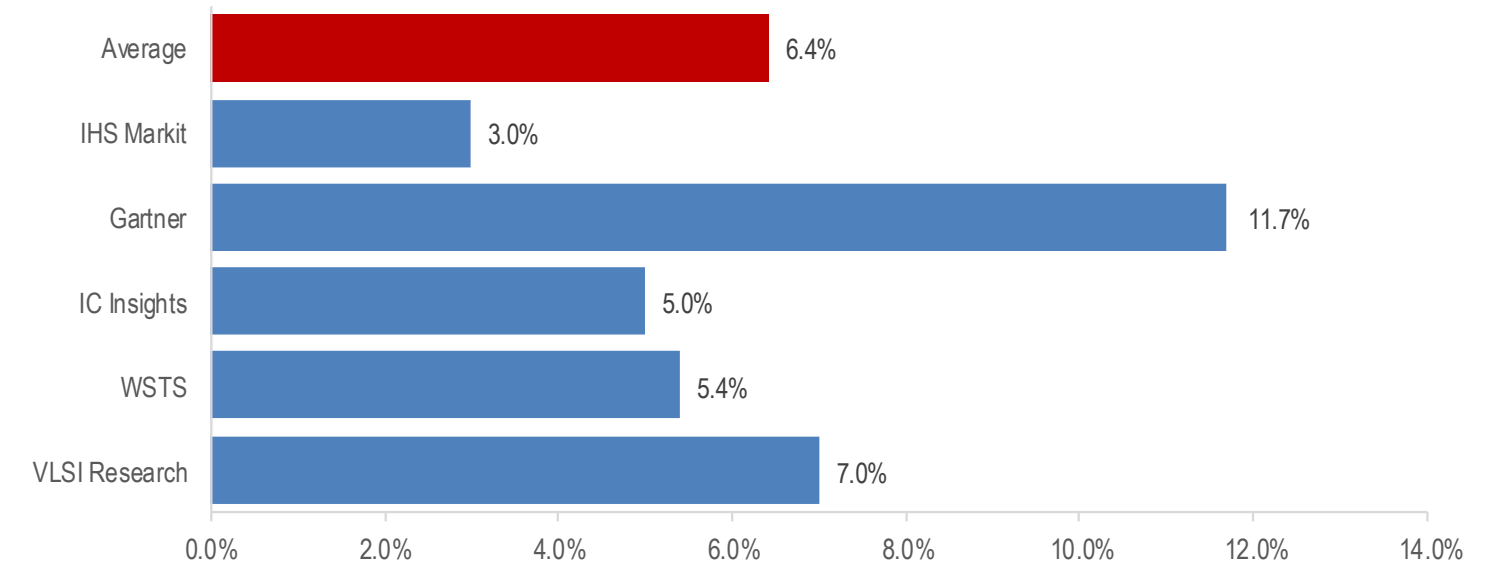
WSTS

Figure #5 DRAM eXchange Index



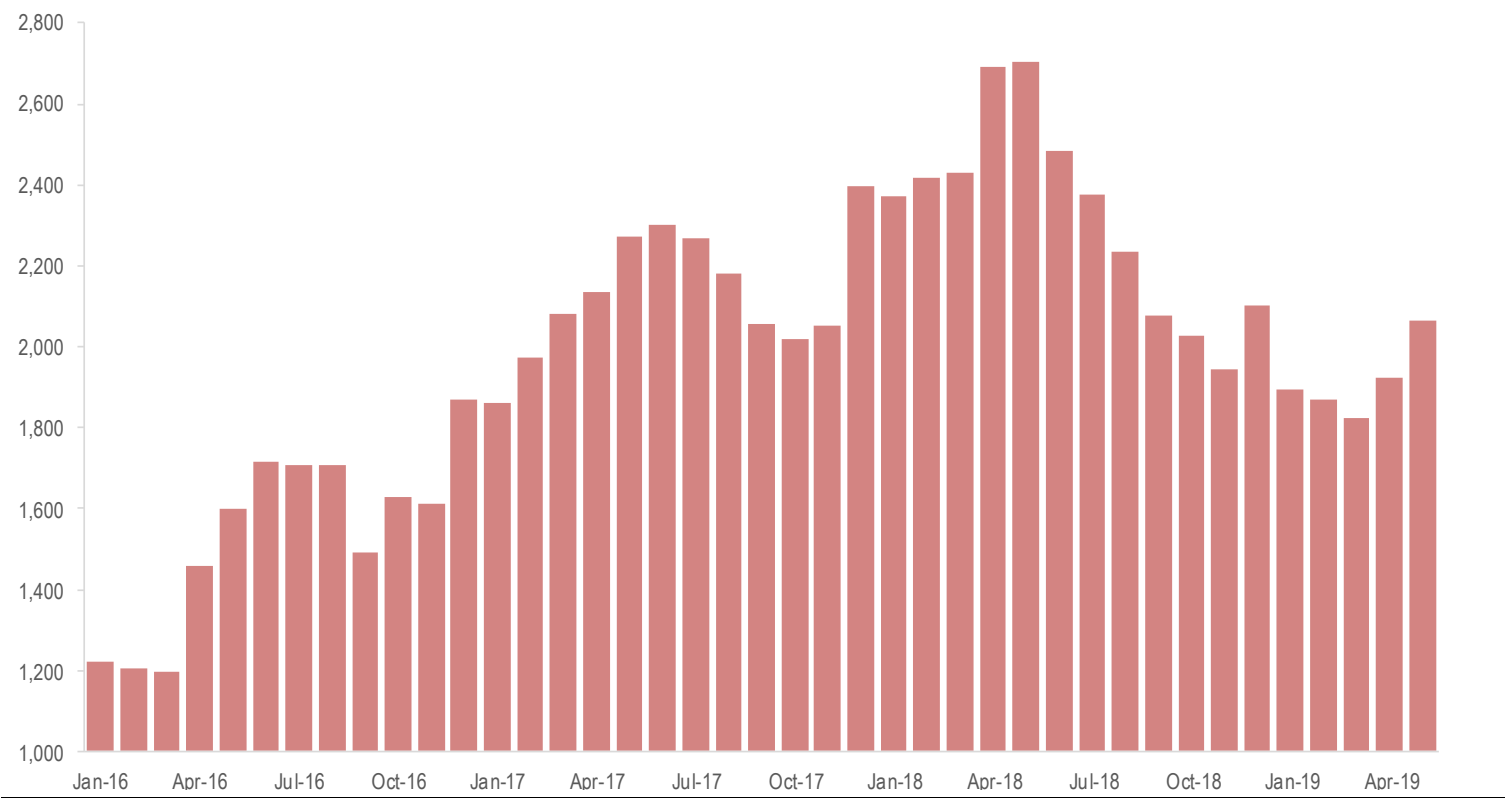
TrendForce

Figure #6 2020 Global Semiconductor Sales Forecasts



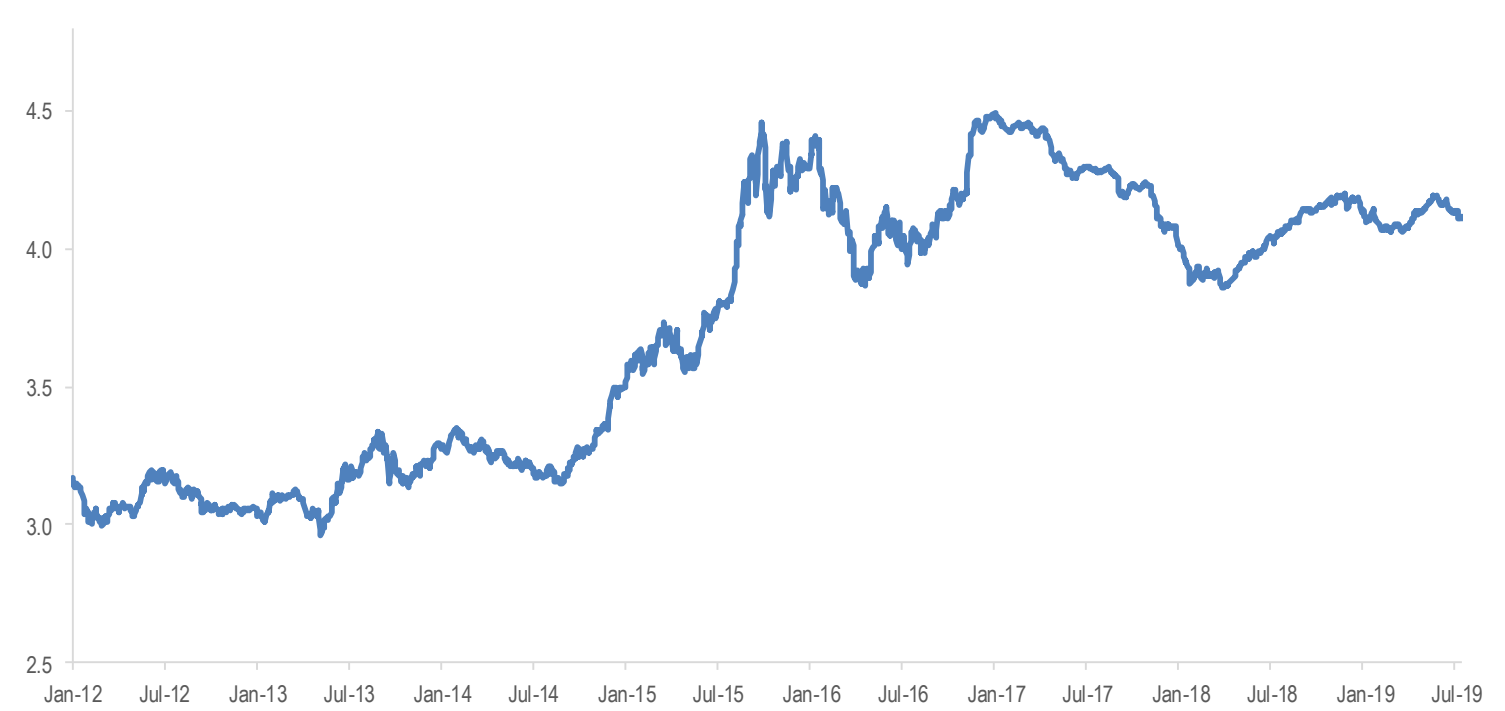
Various, HLIB

Figure #7 3MA Billings (USD m)

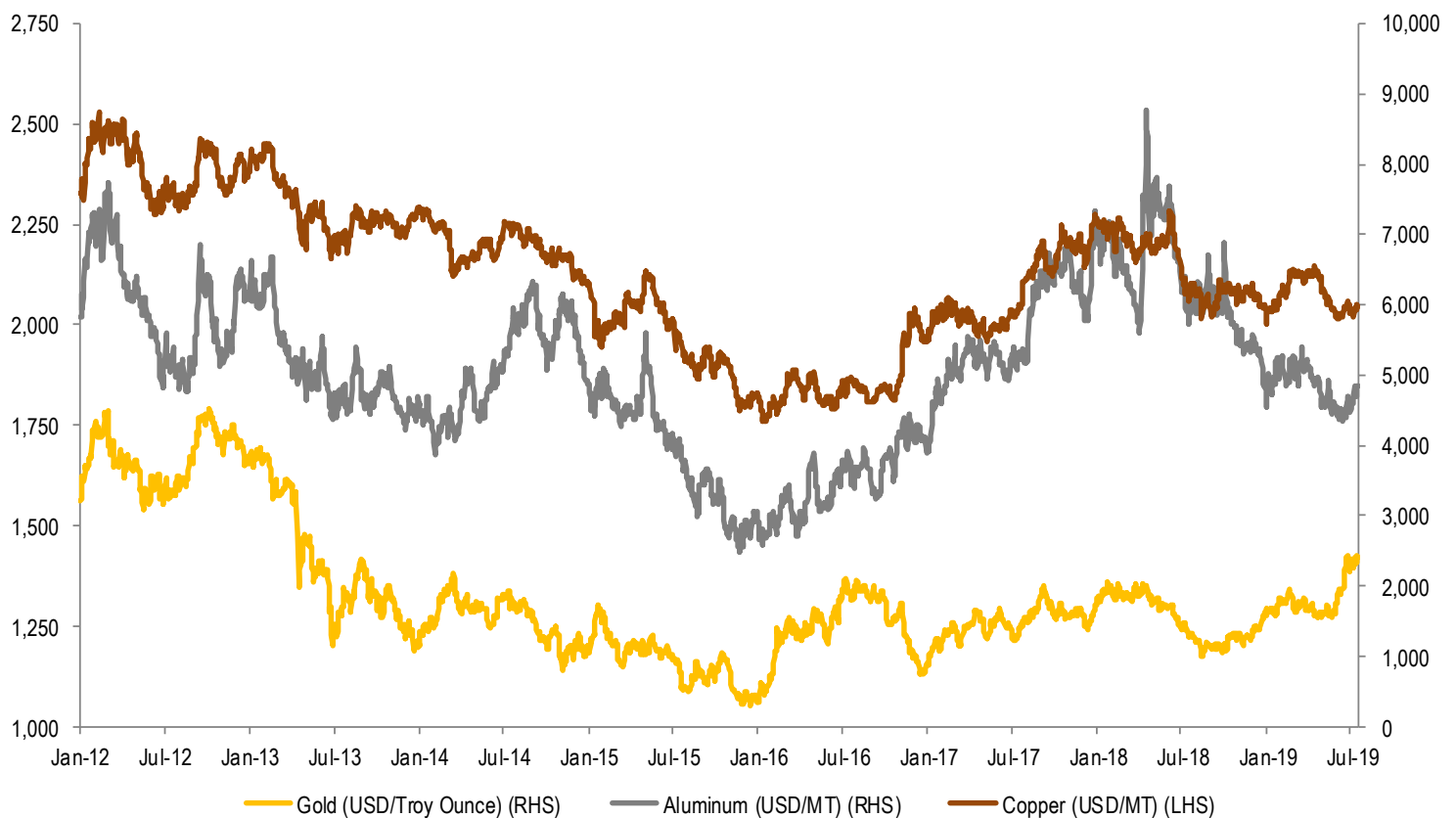


SEMI, HLIB

Figure #8 RM/USD Rate



Bloomberg, HLIB

Figure #9 Gold, Copper and Aluminium Prices

Bloomberg, HLIB

Figure #10 Peers comparison for Equipment Vendors

Company	FYE	Price (Local)	Market Cap (USD m)	P/E (x)		P/B (x)		Gross DY (%)
				2019	2020	2019	2020	2019
Malaysia								
ViTrox	Dec	6.99	796.3	25.8	21.1	6.5	5.3	1.0
Aemulus	Sep	0.18	23.9	18.0	15.0	1.2	1.1	N/A
Elsoft Research	Dec	0.80	129.0	20.0	16.0	N/A	N/A	3.9
Average				21.3	17.4	3.9	3.2	2.5
Asia								
Advantest	Mar	2,965.00	5,459.6	20.2	14.2	2.7	2.4	1.6
Koh Young Technology	Dec	83,100.00	1,154.8	27.3	21.8	4.3	3.8	0.9
Chroma ATE	Dec	138.00	1,858.7	22.0	17.4	3.8	3.4	3.3
Average				23.2	17.8	3.6	3.2	1.9
Europe								
BE Semiconductor	Dec	22.64	2,060.2	23.6	14.6	5.5	5.2	4.0
ASML	Dec	183.74	88,885.9	30.3	21.6	6.3	5.6	1.1
Average				26.9	18.1	5.9	5.4	2.6
US								
National Instruments	Dec	41.99	5,537.1	26.2	24.0	4.4	4.3	2.5
Teradyne	Dec	47.91	8,211.6	20.4	16.3	6.3	6.6	0.8
KLA-Tencor	Jun	118.20	19,103.5	14.2	13.2	7.1	6.6	2.5
Applied Materials	Oct	44.91	42,040.5	15.1	12.2	5.1	4.7	1.8
Veeco Instruments	Dec	12.22	594.8	-28.1	30.0	N/A	N/A	N/A
Brooks Automation	Sep	38.75	2,795.3	47.8	25.7	3.6	2.7	1.0
Average				15.9	20.2	5.3	5.0	1.7
Overall Average				21.8	18.4	4.7	4.2	2.2

Bloomberg

Figure #11 Peers comparison for OSAT

Company	FYE	Price (Local)	Market Cap (USD m)	P/E (x)		P/B (x)		Gross DY (%)
				2019	2020	2019	2020	2019
Malaysia								
Inari Amertron	Jun	1.60	1,232.2	24.2	20.0	4.6	4.3	3.3
Globetronics Tech	Dec	1.67	270.9	18.0	15.0	3.7	3.5	4.7
Unisem	Dec	2.46	433.6	19.7	15.8	1.2	1.5	3.6
MPI	Jun	9.22	444.5	13.6	12.4	1.5	1.4	3.0
Average				18.9	15.8	2.7	2.7	3.7
Foreign								
Broadcom	Oct	287.86	114,589.5	13.5	12.1	6.0	6.2	3.7
Analog Devices	Oct	112.87	41,734.9	21.5	20.3	3.6	3.4	1.8
Skyworks Solutions	Sept	77.27	13,344.0	12.4	11.7	3.3	3.1	2.0
Texas Instruments	Dec	114.76	107,668.5	21.8	19.8	13.6	13.6	2.7
Qualcomm	Sept	76.07	92,478.2	19.9	14.9	13.3	13.4	3.3
Infineon Tech	Sept	15.516	22,036.1	17.1	15.7	2.4	2.2	1.8
Qorvo	Mar	66.61	7,863.5	13.3	11.1	1.8	1.7	0.3
Amkor	Dec	73.9	2,093.6	15.6	10.7	1.1	1.0	N/A
ASE	Dec	88.9	10,390.4	14.5	12.6	1.6	1.5	3.1
Powertech	Dec	21.15	2,254.8	10.3	9.1	1.7	1.6	5.8
Siliconware	Dec	64.8	610.0	19.5	11.4	1.0	1.0	1.9
Chipbond	Dec	73.9	1,369.5	10.7	12.5	1.6	1.5	5.6
Average				15.8	13.5	4.2	4.2	3.1
Overall average								
				17.4	14.7	3.5	3.5	3.4

Bloomberg

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UNDER REVIEW	Rating on the stock is temporarily under review which may or may not result to a change from the previous rating.
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