

AEM Holdings (AEM SP)

After the rain comes a rainbow

Strong 2020E after 2019E speed-bump; Initiate BUY

We model a base case scenario where 2020E earnings could rebound 133% YoY following a 51% slump in 2019E, driven by i) a potential recovery of HDMT test handler (TH) deliveries, and ii) production ramp-up from new customers. There may be upside to our forecasts, as we have not factored in contributions from Huawei and a second project AEM is involved in for its core customer, a USD215b market-cap chipmaker. Initiate with BUY with ROE-g/COE-g TP of SGD1.21, based on 2.9x average 2019-20E P/B, based on 2019-20E average ROE of 27.3%, COE of 10.6% and LTG of 2%. Our TP implies 2020E EV/EBITDA of 5.2x, vs. peers' at 9.6x.

HDMT recovery in 2020E

Following two strong years of production ramp-up, HDMT TH orders are expected to be tempered by slower operational fleet replacement. However, we believe deliveries in 2020E could pick up as the core customer completes its capacity expansion in Israel. Concomitantly, the customer has re-affirmed the timelines of new chips manufactured on its new 10nm process, which we believe bodes well for AEM's prospects. We currently forecast HDMT TH shipments of 44/17/35 in 2018-20E. However, we may have to update our earnings forecasts as and when AEM updates on 2019E guidance.

Still lucrative with core customer

Thanks to AEM's strong execution, it has been selected to work with the customer on various other initiatives, including a next-gen hybrid solutions product. Meanwhile, the progress of the core customer's 10nm process, R&D (2017: USD13b) that is head-and-shoulders ahead of peers, and strong portfolio of IPs and chip manufacturing know-how suggests that the customer's competitive advantages are intact.

Diversification underway

Since 2017, AEM has acquired three companies and introduced its own in-house modular and massively parallel test handling solutions AMPS. With these, AEM has secured at least three customers. Development and customisation for these products are already underway. Management expects production ramp-ups in 2020E.

FYE Dec (SGD m)	FY16A	FY17A	FY18E	FY19E	FY20E
Revenue	70	222	255	163	266
EBITDA	7	38	43	22	50
Core net profit	5	31	35	17	40
Core FDEPS (cts)	1.8	11.9	12.8	6.3	14.7
Core FDEPS growth(%)	(27.4)	554.4	7.8	(50.6)	132.8
Net DPS (cts)	0.4	3.0	3.2	1.6	3.7
Core FD P/E (x)	7.9	7.1	7.1	14.4	6.2
P/BV (x)	1.2	3.8	2.9	2.5	1.9
Net dividend yield (%)	2.8	3.6	3.5	1.7	4.0
ROAE (%)	17.0	71.5	48.8	18.9	35.6
ROAA (%)	11.2	38.2	27.9	14.0	25.9
EV/EBITDA (x)	4.2	4.6	4.8	8.5	3.6
Net gearing (%) (incl perps)	net cash	net cash	net cash	net cash	net cash
Consensus net profit	-	-	38	20	22
MKE vs. Consensus (%)	-	-	(8.0)	(15.3)	77.2

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BUY

Share Price SGD 0.91
12m Price Target SGD 1.21 (+33%)

Company Description

AEM manufactures equipment used in the semiconductor back-end process

Statistics

52w high/low (SGD)	1.90/0.65
3m avg turnover (USDm)	6.3
Free float (%)	80.5
Issued shares (m)	273
Market capitalisation	SGD248.7M USD184M

Major shareholders:

Aberdeen Standard Investments (Asia) Ltd	7.1%
TOH BAN LENG JAMES	5.1%
Orion Phoenix	4.2%

Price Performance



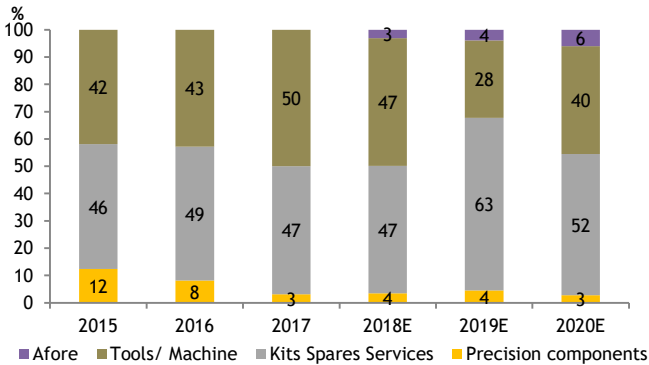
	-1M	-3M	-12M
Absolute (%)	12	18	(23)
Relative to index (%)	7	10	(14)

Source: FactSet

Value Proposition

- Back-end test-equipment manufacturer that has co-developed the HDMT handler for a market-leading chipmaker with a market cap of USD215b.
- Leading-edge HDMT technology has helped its core customer achieve 2x savings in chip-testing costs.
- AEM provides strong synergies like field-service capabilities and manufacturing scale for the high-tech companies that it acquires.
- High single-customer and product risks.

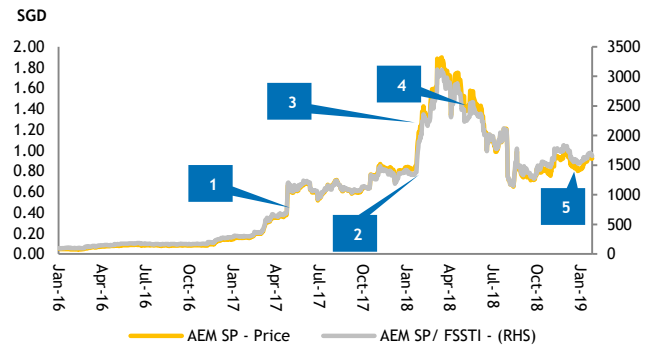
Revenue by segment



Source: Company, Maybank Kim Eng

Price Drivers

Historical share price trend



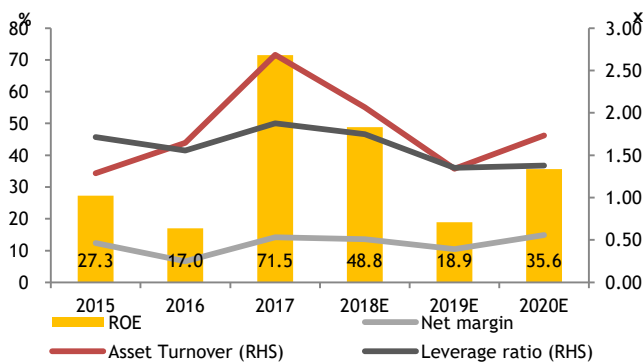
Source: Company, FactSet, Maybank Kim Eng

1. Announced favourable 1Q17 net profit as HDMT handlers delivery pick up momentum. There were also insider purchases.
2. Announced 2018 guidance for SGD255m in revenue and SGD42m PBT.
3. Announced accretive acquisition of Afore, Finnish-based MEMS test-solutions provider.
4. Novo Tellus distributes AEM shares in-specie to investors; Core customer announces 10nm delay.
5. AEM's core customer denies rumours from tech-blog SemiAccurate that its 10nm process is cancelled.

Financial Metrics

- We expect 2019E EPS to fall 51% as the drop in HDMT equipment sales may not be adequately cushioned by an expected rise in consumables sales.
- AEM is not a capex intensive company. Improved cash-flow from 2016 levels has allowed AEM to pursue highly synergistic acquisitions.
- Training a batch of engineers during pre-production ramp up could take 5-6 months. During such time, staff costs could be elevated and profitability could temporarily decline.
- Adopted 25% dividend payout ratio policy in 2017.

EPS, FCF per share and DPS forecasts



Source: Company, Maybank Kim Eng

Swing Factors

Upside

- Revenue expansion from securing new customers, or wallet expansion/ increased orders from existing customers.
- Synergistic and accretive acquisitions.
- Positive customer-related newsflow that could catalyse improved orders for AEM, such as capacity expansion or launch of new chips.

Downside

- Order cancellation, delays, and earnings misses.
- Emerging technology from rivals that could erode AEM's competitive position with customer(s).
- Erosion in the competitive advantages of the core customer, as a result of company specific or industry related developments.

1. Investment Summary

1.1 Potential HDMT recovery in FY20E

Following an aggressive production ramp-up of HDMT THs in 2017-18E, AEM has guided for more-tempered demand from 2019E onwards, as the “operational fleet replacement” phase of the core customer’s fleet of test handlers begins.

However, deliveries will likely pick up in 2020E. This is because the expected completion of the customer’s USD5b capacity expansion in Israel could result in a rise in orders for HDMT THs. Another catalyst could be new chip launches by the key customer, especially those manufactured on the customer’s new 10nm process. All things equal, management believes chips manufactured on the new 10nm process will likely require more testing as compared to chips manufactured on the matured 14nm process, due to reduced familiarity with the new node.

We forecast base case HDMT TH shipments of 44/17/35 in 2018-20E. As we await 2019E guidance from management, we emphasize that our 2019-20E forecasts are modelled scenarios, factoring in i) recent order wins of SGD110m to be fulfilled in 2019E, ii) management’s confidence that order wins should continue as the year progresses and iii) multiple sources of earnings growth in 2020E, including from a recovery of HDMT equipment orders. Our expectations of HDMT equipment order recovery in 2020E accounts for around 45ppt of the forecasted 63% rebound in revenue.

While we will likely have to update our forecasts when management provides 2019E guidance, we believe our expectations for revenue to fall by 36% in 2019E is a reasonable estimate, taking cue from a 30% reduction in production capacity following recent layoffs.

In our bear case scenario, where we unrealistically assume AEM does not secure any more orders beyond the current SGD110m for 2019E, we expect the company to still turn in a profit of SGD4m (-89% YoY).

1.2 Still lucrative relationship with core customer

Thanks to AEM’s strong execution with the core customer, AEM has been selected to work with the customer on other initiatives, including a next-gen hybrid solutions product. We believe the strong learning curve from AEM’s relationship with this customer could enhance AEM’s capabilities as it continues to diversify and deepen its offerings.

At the same time, we believe that the customer’s competitive advantages are broadly intact. For starters, the customer has affirmed that progress on its 10nm process remains on track. The customer’s R&D budget of USD13b (21% of FY17 sales) is also heads and shoulders above its peers. Despite a softer than expected 2019 outlook, the customer is still steadfast in increasing capex for its logic chips, and remains committed in focusing R&D on data-centric solutions, to forge and strengthen competitive advantages in these areas. The customer has expanded into other products, which include automotive, programmable solutions, memory and modem chips.

1.3 Diversifying for growth

To-date, AEM has made three acquisitions amounting to SGD17m, and also launched its in-house test handling solution called AMPS. With these, AEM has secured at least three new customers. While contributions are expected to be nascent in 2019E, AEM expects production ramp-ups with these customers to add on to the 2020E recovery.

Among customers won were i) a memory customer for AMPS, ii) Huawei - for testing the telecommunications giant's 5G short-haul cabling links in China, and iii) an automotive customer for InspiRain. According to AEM, Afore's MEMS wafer-level test-handling technologies are several years ahead of the industry, and are able to radically reduce the cost of testing MEMS.

1.4 Valuation

Our ROE-g/COE-g TP of SGD1.21 is based on 2.9x average 2019-20E P/B, in turn based on 2019-20E average ROE of 27.3%, and LTG of 2%. We have used average 2019-20E BVPS to arrive at our TP as we believe this would capture the accretion from the expected hockey stick earnings recovery in 2020E earnings.

As AEM is a cyclical company, we believe the ROE-g/COE-g methodology helps us infer an appropriate valuation for AEM, vis-à-vis its ROE profile. We have not captured any ROE accretion from potential contributions from Huawei and the next generation hybrid solutions that AEM is developing for its key customer.

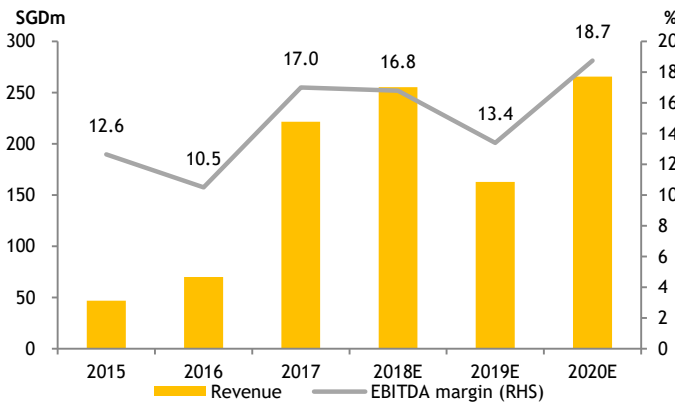
We believe our TP is reasonable, as it implies 8.2x 2020E P/E, for earnings growth of 133%, while global test handling peers are trading at 11.7x for growth of 33%. On a 2019E basis, our TP implies 19.1x while peers are trading at 14.3x.

If our base case scenario plays out, we expect AEM's cash position to account for 27% of its market cap by 2020E. This implies that AEM is currently trading at only 4.5x ex-cash 2020E P/E.

AEM's share price may be volatile in 2019, especially considering the softer than expected outlook of its key customer at its 4Q18 earnings briefing. However, disclosures by the customer suggest that the weakness is transient, and that its secular prospects are intact. Moreover, given the earnings tailwinds we see for AEM in 2020, we would be BUY-ers on dips.

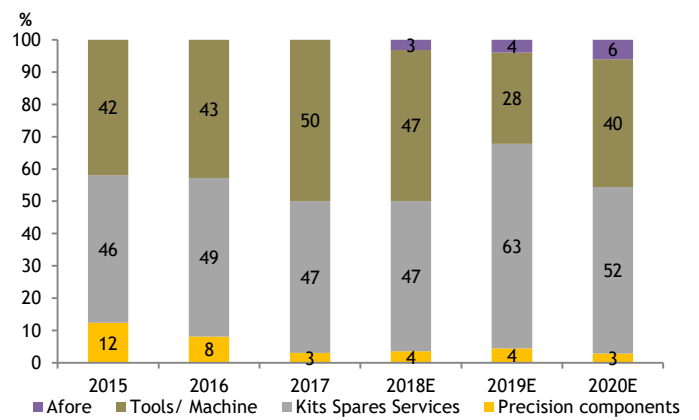
2. Focus Charts

Fig 1: Revenue and EBITDA margins



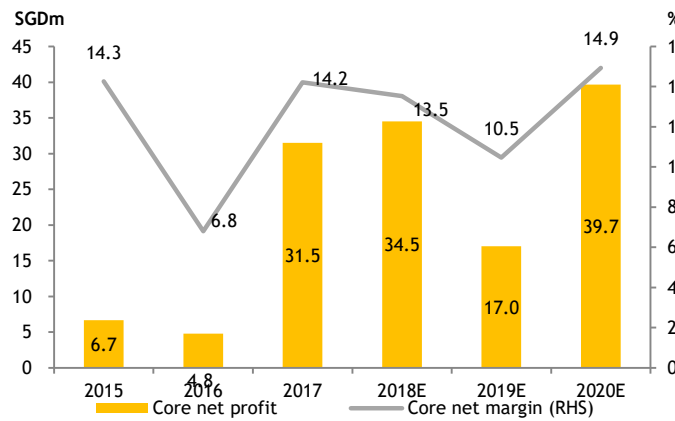
Source: Company, Maybank Kim Eng

Fig 2: Revenue mix



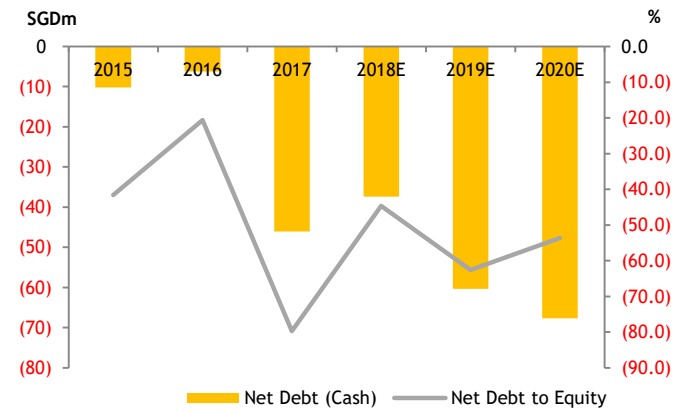
Source: Company, Maybank Kim Eng

Fig 3: Net profits and margins



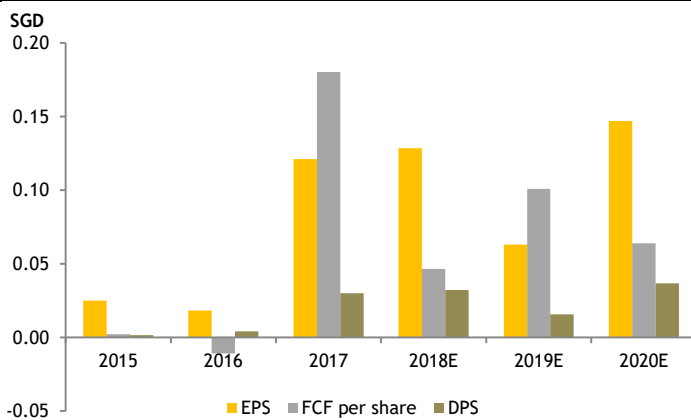
Source: Company, Maybank Kim Eng

Fig 4: Burgeoning cash pile to be deployed for M&As



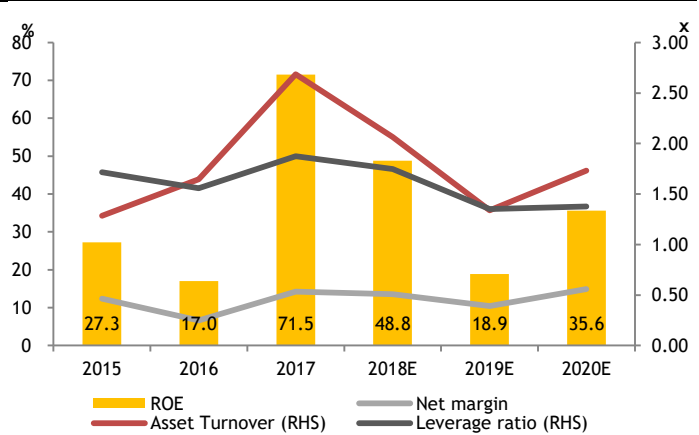
Source: Company, Maybank Kim Eng

Fig 5: EPS, FCF per share and DPS



Source: Company, Maybank Kim Eng

Fig 6: DuPont ROE



Source: Company, Maybank Kim Eng

3. Corporate information

3.1 Back-end test equipment manufacturer serving a USD215b market cap chipmaker

AEM specialises in semiconductor back-end handling and testing solutions. It began co-developing HDMT THs alongside its core customer in 2013. A strong volume ramp of these handlers in 2017 caused net profit to swell 6.7x to SGD31.5m. It has four production sites, in Singapore, Penang, Suzhou, and Finland.

AEM's major customer is a USD215b market-cap chipmaker which contributes >90% of revenue. While AEM is diversifying its revenue streams, we expect this core customer to continue contributing the lion's share of earnings during our forecast period.

Since FY17, the mix of its machine and consumable sales has approximated 50:50, in part because each piece of equipment is usually shipped with a corresponding set of consumables. However, as AEM installs a wider base of equipment over the years, its product mix should increasingly skew towards higher-margin consumable sales.

Much of AEM's direction and execution has been influenced by its chairman, Mr Loke Wai San. He became chairman after his PE fund, Novo Tellus Capital Partners, took a substantial 16.6% stake in 2011. Since then, Mr Loke has been instrumental in the restructuring of the company, the co-development and production ramp-up of HDMT handlers and integration of M&As. AEM has bought three companies since 2017, both vertically and horizontally along the value chain.

At the peak of its ownership, Novo Tellus held 27.1% of AEM, in 2014. It has gradually pared down its stakes to institutional investors. In Mar 2018, Novo Tellus distributed 8.7m or a 12.8% stake in-specie to its limited partners, with the fund retaining a 4.2% stake. We understand that this 4.2 % is owned by foreign investors and held in proxy by Novo Tellus, as the investors do not have a Singapore central depository account. Mr Loke's latest known stake was 2%.

3.2 Understanding AEM's role in HDMT

High Density Modular Test or HDMT is a test framework pioneered by AEM's key customer. It was meant to overcome increasingly burdensome testing costs under the traditional testing framework, as chips become increasingly complex to test. AEM's customer claims that HDMT has helped it cut costs by twice its original target.

Traditionally, chips were designed to be tested by testers known as automated test equipment or ATE. Under this "serial" framework, test costs have become increasingly prohibitive. This is due to the rising complexity of mission critical chips, low throughput due to set-up down time and increasingly expensive ATE price tags.

HDMT resolves this by taking a modular and massively parallel approach to chip testing, which helps to achieve throughput levels that are not possible under the traditional framework. The catch is that for a chip to be tested under HDMT, it must be designed to be capable of built-in-self-test at the system level. While this means greater costs incurred at the chip-design stage, this test paradigm has so far been a more economical and effective approach for AEM's customer.

Overall, AEM believes that its relationship with its core customer is sticky. This is because:

- i) AEM has patent rights to the HDMT handlers. AEM believes future chips from this customer will be mostly designed for testing using HDMT technology. These handlers have been deployed in its R&D labs.
- ii) The HDMT handlers can efficiently consolidate multiple test stages - from burn-in and class to system tests - in a single stage. This allows the customer to shrink its fleet of over a thousand handlers from legacy providers and shift allocations to AEM.
- iii) AEM is able to meet its core customer's stringent demands in engineering and global field service support. It is able to copy exactly its manufacturing requirements.
- iv) Its core customer historically incentivises its key technological providers to invest in R&D by appointing them as sole suppliers. AEM believes the current scenario is no different.

In similar fashion, AEM believes other chipmakers could benefit from the economic proposition of HDMT. In response to this perceived market opportunity, it has launched AMPS. This operates on a similar modular and massively parallel test framework. However, end-customers for AMPS will likely be chipmakers that are not in direct competition with its core customer, to avoid conflicts of interest.

Fig 7: Understanding the strengths of HDMT test handlers

Conventional approach and drawbacks	HDMT handlers' competitive advantages
<ul style="list-style-type: none"> • Test costs have been stubbornly high. There is a structural 'trilemma' between accuracy, throughput and costs, as mission-critical chips become increasingly complex to test. • Conventional test handlers are only equipped to facilitate tests in one stage, i.e. burn-in, class, or final test. • Serial tests typically result in low throughput, and high WIP inventory, from significant downtime in setting up new test environments. • Meanwhile, parallel tests often require expensive handlers, especially for those with higher parallelism and able to handle smaller chips. 	<ul style="list-style-type: none"> • Overall, AEM's test handlers help its core customer lower testing costs by maximising throughput while reducing overheads, through the following: • HDMT test handlers consolidate all three stages of test into a single-modular machine. With this, AEM is aiming to help its customer shrink its present fleet of legacy handlers, and dominate wallet share. • High parallelism and able to support testing of multiple chip types in heterogeneous environments across 30 test sites. • Overall, these minimise downtime, and increase throughput. • AEM's handlers are capable of facilitating extreme test scenarios (e.g. tri-temperature) in demanding timeframes without compromising the physical integrity of the device under test (DUT), further increasing throughput. This requires strong liquid and thermodynamics engineering capabilities.

Source: Company, Maybank Kim Eng

4. Focus on the 2020E HDMT recovery

4.1 HDMT to rebound in 2020E following 2019E slowdown

As the HDMT TH hits maturity following two strong years of production ramp-up in 2017-18E, management has guided for a slow-down in shipments in 2019E. This is because AEM believes the production ramp-up in 2017-18E was largely to cater to new projects and/or to fill up empty floor space within the plants of its core customer. However, AEM expects a more tempered replacement phase to begin in 2019E, where the HDMT THs will gradually replace the existing fleet of test handlers within the customer.

From 2019E onwards, AEM expects HDMT TH demand to be influenced by:

- The timing of launch for new/successive families of chips, that are designed to be tested using HDMT
- The customer's commissioning of new manufacturing sites
- The customer's sales volume and market share
- Rate of customer's efficiency gains with improved familiarity with HDMT, and/ or other factors affecting utilisation of HDMT handlers.

To that end, we expect a recovery of HDMT orders in 2020, triggered by the completion of the customer's capacity expansion plans in Israel, as well as from new products. Additionally, as the customer introduces new chips produced on its new 10nm node, the need for increased testing requirements relative to those produced on the matured 14nm node may also portend increased orders.

We have currently pencilled in a scenario where AEM will ship 44/17/35 HDMT THs in 2018-20E. However, we may have to revise our estimates as and when AEM provides 2019E guidance.

Takeaways from key customer's 4Q18 earnings and implications to AEM

Although AEM's customer posted 4Q18 earnings that surpassed street estimates, it fell short for 4Q18 revenue and FY19E revenue guidance. Nevertheless, we believe our 2019E forecasts for AEM has factored in the customer's softer outlook, as:

- 1) Proliferation of HDMT to test other chips may cushion the softness in the customer's data-centre and modem chips. We understand that the initial shipments of HDMT equipment may have been primarily catered for data-centre and modem chips. As these two types of chips are now facing demand softness, it is logical to assume that this could translate into lower utilisation of HDMT equipment, in turn tempering the momentum of new equipment orders. However, this argument fails to consider that the slack created by the softness modem and data centre chips can be offset by the key customer expanding the use of HDMT to test other types of chips, e.g. PC chips. AEM believes the customer has indeed been expanding the use of HDMT across more chip types.
- 2) Customer's FY19E capex guidance of USD15.5b is ahead of consensus estimates at USD14.3b. All things equal, AEM believes that positive capex trends from its customer would be favourable to its prospects. In addition, the customer's area of focus for 2019E capex is towards logic chips, which tend to require more rigorous testing, a positive signal for HDMT equipment demand.

TAM assumptions, scenarios and caveats

We estimate a total addressable market (TAM) of 200-300 test handlers over an 8-10 year delivery period. Of this, we estimate: i) around 100 units will be shipped in 2016-18E; ii) a replacement TAM of 100-150 units as the customer upgrades old fleet on a rolling basis and; iii) remainder of TAM coming from capacity expansion as the customer introduces new fabs or expands current ones.

We arrive at our replacement TAM of 100-150 units by taking the conservative end of management's expectations that: i) one HDMT test handler is capable of replacing 5-8 legacy test handlers; and ii) there could be 1,000-1,500 test-handlers within the customer's fleet that may be replaced. We stay conservative because demand dynamics are fluid and subject to change. Moreover, AEM is not privy to the plans of its customer, and it cannot guarantee the accuracy of these estimations.

Upside potential to our TAM expectations could come from the core customer's market-share gains, launches of new types of chips, and/or underestimation of potential demand from the customer's capacity expansion initiatives.

4.2 Higher-margin consumables sales could snowball from 2020E onwards

Over a longer time horizon, AEM expects recurring higher-margin consumables sales to be a key earnings driver. Management has alluded that over the lifetime of an HDMT TH, which it estimates to be 10-15 years, the profitability mix between tool and consumables is 20:80.

Currently, we do not expect recurring consumable sales in 2019E to offset the potential slump in HDMT deliveries in 2019E, due to the low installed base of 50-60 test handlers in 2017. However, we believe recurring consumables sales could snowball from 2020E onwards, taking cue from our estimate that the HDMT TH installed base could hit 100 by 2018E.

Demand for consumables, which we define as a catch-all term to include kits, pans, maintenance and services could be triggered by i) wear and tear, ii) the development of new chips and iii) other one-off, ad-hoc technology driven initiatives as requested by the customer.

Each new chip that the customer develops could be an earnings stream for AEM. This is because as long as a chip is designed to be tested using HDMT, it will require a customised kit, which will be produced by AEM. This allows AEM to be closely plugged into the technological advancements of its customer.

5. Still lucrative with core customer

5.1 Building a strong track record with core customer

AEM's test-handling technologies are a key component of its core customer's HDMT testing framework. In our view, this makes AEM's relationship with the customer quite sticky.

However, AEM's collaboration goes beyond R&D relating to new chips being tested by HDMT. Following the success of HDMT, AEM has been selected to work with the customer for next-gen hybrid solutions. While AEM has not provided details of this product, AEM has hinted that this product may undergo production ramp-up in 2020E. AEM has also clarified that this hybrid solutions product will not cannibalise the TAM of HDMT TH, but is another technological solution that the customer is developing.

We understand from management that AEM is working on several other initiatives with the core customer - although management has declined to disclose details, as these initiatives are still in an early stage.

5.2 Customer's 10nm progress is on track

Through several engagements with the public (e.g. 3Q18 and 4Q18 results briefings, CES 2019, analyst meeting at end-2018), AEM's key customer has repeatedly affirmed that yield improvements for its 10nm process are on track, and that 10nm chips will be found in consumer products in time for the 2019 holiday season, and for other products, including server chips to follow "shortly after".

We believe this is a relief for AEM, as potential negative implications of further delays could be two-fold. In the short term, HDMT handlers that would have otherwise been ordered in 2019 will be pushed further out. This is if this delay implicates the families of chips that are slated to be manufactured on the 10nm process which are also designed to be tested on the HDMT. For avoidance of doubt, we do not expect new 14nm chips that are designed to be tested on HDMT to be affected by this delay.

The longer-term impact is more disconcerting. If delay happens and 10nm chips are now pushed beyond 2019, other chipmakers might be able to close in on the customer's lead, which has been historically thought of as 1-2 years ahead of the industry. This could result in its customer's products losing market share. It could in turn reduce the TAM of HDMT equipment that AEM can supply.

For context, the customer's 10nm process has suffered several delays. The customer's 10nm CPUs were originally set to debut in late 2016. However, yield issues resulted in the launch being pushed into 2017. Meanwhile, mass production was supposed to begin in 1H18. Still plagued by yield issues, this was pushed out to 2H18, then 2019, and then 2H19 in its 2Q18 earnings call.

5.3 Customer's competitive advantages appear intact

The customer is well known for its durable competitive advantages which stem from its industry leading-portfolio of IPs, semiconductor manufacturing know-how, and world-class supply chain. Its R&D budget stood at USD13b (21% of sales) in 2017, heads and shoulders above other top 10 semiconductor players, where spending ranged from USD1.7b to

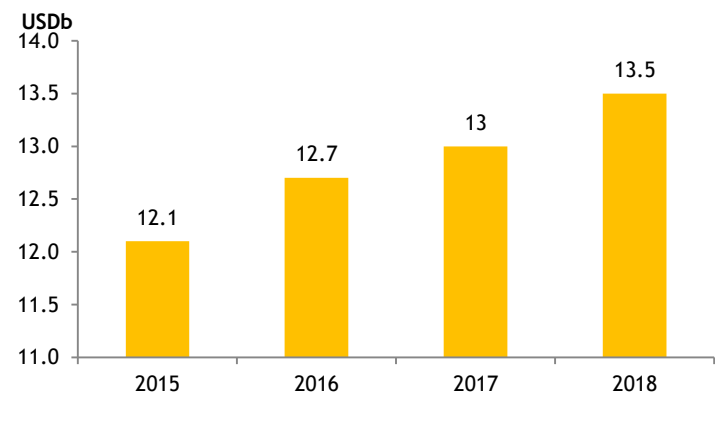
USD3.5b. The customer will continue to channel R&D into attractive growth areas in order to seize market opportunities.

Fig 8: AEM’s customer far outpends competitors in terms of R&D

2017 rank	Company	R&D exp (USDm)	R&D/Sales (%)
1	AEM's customer	13,098	21.2
2	Qualcomm	3,450	20.2
3	Broadcom*	3,423	19.2
4	Samsung	3,415	5.2
5	Toshiba	2,670	20.0
6	TSMC	2,656	8.3
7	MediaTek*	1,881	24.0
8	Micron	1,802	7.5
9	Nvidia	1,797	19.1
10	SK Hynix	1,729	6.5

Source: IC Insights

Fig 9: AEM’s customer has consistently grown R&D, and these are focused on higher growth, data-centric segments.

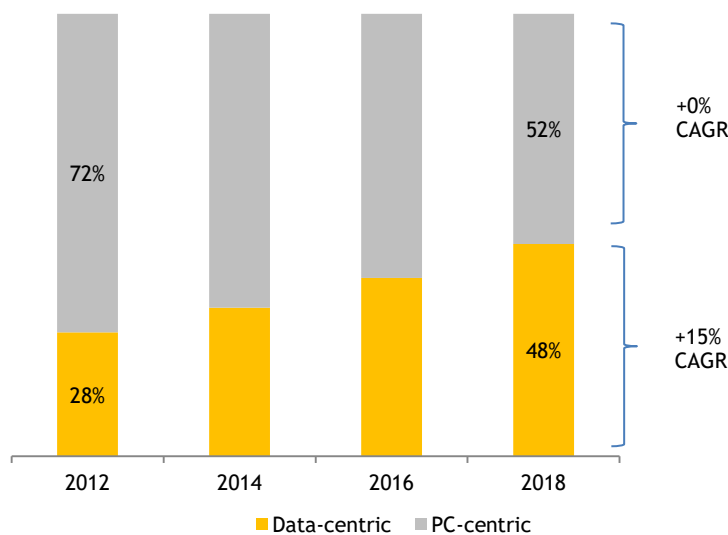


Source: AEM's customer

AEM’s customer is gradually transitioning from being a PC-driven company into a data-centric one. This shift began a few years ago when the company identified the need for new sources of growth amid a secular decline in the PC market, where it has a dominant 80% market share.

In our view, this transition has been executed well, thus far. In FY18, more than half of the customer’s revenue was from high-growth data-rich markets from memory, programmable solutions and data centre processors.

Fig 10: Data-centric segments now account for more than half of AEM’s customer’s revenue



Source: AEM's core customer

6. Diversification for longer-term sustainability

6.1 Introducing AMPS, AEM's in-house test handler

AEM introduced AMPS in early 2018, its own in-house test handling solutions that are uniquely customised for each customer's specific needs. This is a response to a structural need for lower chip testing costs industry-wide. Like the HDMT, AMPS is modular and is able to accommodate high parallelism testing and offer lower costs of testing compared to traditional serial testing methods.

AEM has secured a memory customer for AMPS. While nascent contributions could begin in 2019E before production ramp-up in 2020E, we have only assumed revenue contributions in 2020E.

Apart from semiconductor integrated device manufacturers (IDMs) that do not compete directly with AEM's customer, AMPs target market also encompasses third-party testing companies and companies that sells testers.

6.2 Synergistic M&A to drive TAM growth

Following its successful ramp-up of HDMT handlers in FY17, AEM generated FCF of SGD47m. AEM has used a portion of this for strategic acquisitions and will continue to do so. AEM's M&A philosophy is to acquire small-sized companies which have strong technological and engineering capabilities that can leverage AEM's global field service capabilities and manufacturing footprint. These companies could be either upstream or downstream along the current supply chain, or horizontally in related industries.

In total, AEM has spent SGD17m in the past year to acquire three companies. AEM's capabilities have now expanded into industrial RF test solutions (via InspiRain), wafer-level MEMS testing solutions (Afore) and vision inspection (IRIS Solutions). Of the SGD17m spent, the cash component is approximately SGD13m. These acquisitions have improved AEM's total addressable market from SGD1b a year to SGD9.5b a year.

Fig 11: AEM's acquisitions to-date

Date	Target	Acquisition rationale	Consideration	Cash component	Implied valuation
30 Sep '17	InspiRain	<ul style="list-style-type: none"> InspiRain's innovative RF test products are immediately adjacent to AEM's core handling market. AEM is able to help InspiRain's products build traction. InspiRain's engineering team possesses strong technical abilities. AEM claims that InspiRain's products can rival that from market leaders like Fluke and National Instruments. 	Up to SGD3.6m	Split not disclosed	ND
1 Feb '18	Afore Oy	<ul style="list-style-type: none"> Afore's wafer-level testing solutions are a perfect response to reduce cost of testing MEMs, which have been stubbornly high. AEM plans to help Afore scale up production, and develop new business opportunities 	EUR7.6m (SGD12.3m)	34%	7.9x EV/EBITDA, according to S'pore FRS
3 Mar '17	IRIS Solution	<ul style="list-style-type: none"> IRIS is a supplier of vision-inspection systems that is used the HDMT handlers. The acquisition is expected to help AEM yield 5% cost savings per test handler produced. IRIS' capabilities can be leveraged to develop other solutions for the semicon and industrial sectors 	SGD1.5m	100%	2.9x EV/EBITDA

Source: Company, Maybank Kim Eng

6.3 Acquisitions already bearing fruit

The acquisitions are already yielding fruit. Following the acquisition of InspiRain, AEM recently secured Huawei as a customer, as well as another automotive customer.

For Huawei, AEM is developing a test solution in collaboration with CETC23 to test 100Gbps links for Huawei's short reach 5G backhaul network. AEM indicated that the first solution will be delivered in a small batch to Huawei's labs in 2019E, before a further production ramp-up in 2020E. We have not pencilled in any contributions from Huawei as few financial details have been provided by AEM.

For Afore, the existing customer is a Japan-based global automotive MEMS sensor manufacturer. We understand that AEM had multiple business development conversations with other potential customers.

6.4 Afore - leading-edge MEMS testing technology

Of the three acquisitions to-date, we view Afore's prospects to be the most exciting. The MEMS is market rapidly growing, driven by strong secular prospects from mobile electronics, IOT and the electrification of vehicles amongst others. Yole Development forecasts the MEMS market to enjoy an 11% CAGR over 2015-2021 to hit USD22b.

Part of this rapid growth is spurred by the rapidly falling cost to manufacture MEMS sensors - which have in turn triggered exponential levels of new demand. Although manufacturing costs have fallen drastically, the cost to reliably test MEMS has remained stubborn- due to technical challenges stemming from increasingly complex and miniaturised devices. This has caused an economic problem where the cost-of-test as a percentage of total product cost has skyrocketed to exceed of 30%.

Afore has been able to overcome this by being able to reliably test MEMS at the wafer level instead of the individual device level. This has allowed Afore to significantly increase throughput and reduce testing costs. While this approach is conceptually simple, it is not easy to execute. Afore's probers, used to deliver physical stimulus for wafer-level testing, require significant engineering know-how to develop. In the opinion of the technical due-diligence consultant engaged to evaluate the Afore deal, Afore's technologies are a few years ahead of the market.

We understand that Afore likely sold 10-11 machines last year. Apart from opening new relationships, Afore will also leverage AEM's manufacturing capacity to scale up production.

7. Financial analysis

7.1 P&L

Lacking guidance for 2019E, we have derived a base case scenario from a range of possible outcomes. We may have to update our forecasts as AEM provides its 2019E guidance. For now, AEM has maintained its guidance of at least SGD255m in revenue and SGD42m in PBT for 2018E.

Under our base case, we expect net profit to fall 51% YoY in 2019E before rebounding 133% YoY in 2020E. Under this scenario, we have assumed shipments of 44/17/35 HDMT THs in 2018-20E. We believe our 2019E forecasts are realistic, as it considers i) the SGD110m of orders that AEM has to fulfil in 2019, and ii) increased order wins as the year progresses.

We think the probability of our 2019E bear case scenario playing out is very low. This is because this assumes AEM does not have further order wins beyond the SGD110m secured, as the year progresses. In our bear case, we have assumed four HDMT TH shipments in 2019E, and a token rebound to 15 units in FY20E. Under this scenario, AEM should still more than break-even in 2019E.

Under our bull case, we expect net profit to fall 16% in 2019E. In our view, the probability of this scenario playing out is also low, as it assumes an aggressive order win rate through the year, which may be unrealistic.

Fig 12: Scenario analysis

Item	Case	2018E	2019E	2020E	2021E
No. HDMT handlers sold	Bull	44	30	45	38
	Base	44	17	35	30
	Bear	44	4	15	20
Revenue (SGDm)	Bull	255.2	215.5	306.1	280.9
	Base	255.2	162.9	265.6	244.3
	Bear	255.2	110.2	184.6	199.6
Change in Revenue	Bull	15%	-16%	42%	-8%
	Base	15%	-36%	63%	-8%
	Bear	15%	-57%	67%	8%
Gross material margin	Bull	36.9%	37.3%	37.3%	38.5%
	Base	36.9%	39.3%	38.1%	41.4%
	Bear	36.9%	43.1%	40.6%	42.7%
SGA as a % of sales	Bull	15.0%	17.0%	14.0%	15.0%
	Base	15.0%	21.6%	16.7%	16.0%
	Bear	15.0%	32.0%	20.5%	19.0%
EBITDA (SGDm)	Bull	42.9	36.8	64.3	59.0
	Base	42.9	21.8	49.8	52.1
	Bear	42.9	5.3	30.2	40.2
Change in EBITDA	Bull	0%	-14%	75%	-8%
	Base	0%	-49%	128%	5%
	Bear	0%	-88%	472%	33%
Net Profit (SGDm)	Bull	34.5	29.2	51.5	47.7
	Base	34.5	17.0	39.7	42.1
	Bear	34.5	3.6	23.8	32.3
Change in Net Profit	Bull	10%	-15%	76%	-7%
	Base	10%	-51%	133%	6%
	Bear	10%	-89%	554%	36%
FCF (SGDm)	Bull	12.5	36.4	32.8	43.4
	Base	12.5	27.2	17.2	38.0
	Bear	12.5	13.3	15.0	37.0
Change in FCF	Bull	-73%	191%	-10%	32%
	Base	-73%	118%	-37%	120%
	Bear	-73%	6%	13%	147%
Avg. 2019-20E ROE	Bull		36.0%		
	Base		27.3%		
	Bear		14.8%		
ROE-g/COE-g Fair value	Bull		SGD1.83		
	Base		SGD1.21		
	Bear		SGD0.52		

Source: Maybank Kim Eng

For now, we expect gross material margin to improve from 36.9% in 2018E to 38.1% in 2020E. This is largely driven by a favourable shift in product mix.

Amid the expected 2019E slowdown, management has hinted that it has some room to manage costs. For instance, some of its production workers have been laid off. However, we have kept SG&A forecasts above SGD35m across from 2018-20E (2017: SGD25m) across the bull/base/bear scenarios, as we expect management to retain, or possibly even expand the engineering team to work on new projects.

Fig 13: Revenue forecasts by segment (base case)

Segments	2017	2018E	2019E	2020E	2021E	2018E	2019E	2020E	2021E	Comments
Tools/ Machine	110.7	119.4	46.1	105.0	81.4	7.9%	-61.4%	127.6%	-22.5%	Assuming 44/17/35 HDMT equipment sold in 2018-20E. Also assuming SGD10m of AMPS orders in 2020E
Kits Spares Services	104.1	118.8	103.0	137.1	135.9	14.1%	-13.3%	33.1%	-0.9%	Growth from recurring consumables offsets decline in consumables that initially shipped with HDMT THs
Precision components	6.8	9.0	7.3	7.5	7.0	32.4%	-18.9%	2.7%	-6.7%	
Afore		8.0	6.4	16.0	20.0		-20.0%	150.0%	25.0%	Assuming 10/8/20 Afore equipment sold in FY18-20E
Total	221.6	255.2	162.9	265.6	244.3	15.2%	-36.2%	63.1%	-8.0%	

Source: Company historical data, Maybank Kim Eng estimates

Fig 14: P&L

FYE 31 Dec (SGDm)	2015	2016	2017	2018E	2019E	2020E	2021E
Sales	46.8	70.1	221.6	255.2	162.9	265.6	244.3
Cost of goods sold	(27.8)	(44.7)	(149.3)	(161.9)	(99.7)	(165.3)	(143.9)
Gross profit	19.0	25.4	72.3	93.4	63.2	100.3	100.4
Operating expenses	(14.2)	(18.9)	(35.3)	(51.3)	(42.2)	(51.4)	(49.0)
Operating Profit	4.8	6.5	37.0	42.1	21.0	49.0	51.3
Net int income/ (exp)	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Net other non-op. JV+assoc.	0.0	(0.4)	(0.1)	0.0	0.0	0.0	0.0
Net extraordinaries	(0.9)	(0.1)	0.0	0.0	0.0	0.0	0.0
Pretax profit	4.0	6.0	36.8	42.1	21.0	49.0	51.3
Income taxes	1.8	(1.3)	(5.3)	(7.6)	(4.0)	(9.3)	(9.2)
Minority interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PATMI	5.8	4.7	31.5	34.5	17.0	39.7	42.1
Core PATMI	6.7	4.8	31.5	34.5	17.0	39.7	42.1
Core EPS (SGD)	0.02	0.02	0.12	0.13	0.06	0.15	0.16
EBITDA (SGDm)	5.9	7.4	37.7	42.9	21.8	49.8	52.1
Gross margin (%)	40.7	36.2	32.6	36.6	38.8	37.8	41.1
Core net margin (%)	14.3	6.8	14.2	13.5	10.5	14.9	17.2
Growth (YoY)							
Revenue	51.6%	49.8%	216.0%	15.2%	-36.2%	63.1%	-8.0%
Core EPS	-130.2%	-27.1%	569.7%	7.8%	-50.6%	132.8%	6.1%

Source: Maybank Kim Eng, Factset

7.2 Balance sheet & cash flow

Much of the production inputs into AEM's equipment are sourced externally, and the equipment is largely assembled by skilled technicians. As such, AEM is not a capex-intensive business. Management believes that maintenance capex SGD1-3m p.a. should be sufficient to meet AEM's requirements.

We forecast FCF of SGD13-27m in 2018-20E, which covers dividend payments of SGD4-10m in the same period, and also small synergistic acquisitions. AEM has a 25% dividend payout ratio.

Fig 15: Balance sheet

As at 31 Dec FYE (SGDm)	2015	2016	2017	2018E	2019E	2020E	2021E
Cash & Cash Equivalents	12.9	6.3	46.1	37.6	60.5	67.8	95.1
Trade Receivables	10.4	17.8	23.6	32.4	12.2	46.0	34.3
Other Receivables	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Inventories	8.9	17.4	35.8	32.5	11.2	50.4	40.3
Others	0.0	0.0	0.0	1.2	1.2	1.2	1.2
Current Assets	32.2	41.5	105.5	103.7	85.2	165.4	171.0
Fixed Assets (Net)	3.2	2.2	3.6	6.6	7.3	8.4	9.3
Associates	0.0	4.5	4.1	4.2	4.2	4.2	4.2
Other investments/financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deferred tax assets	1.1	0.1	0.0	0.0	0.0	0.0	0.0
Intangible Assets	0.2	0.1	3.4	16.0	16.0	16.0	16.0
Non current assets	4.6	6.9	11.2	26.8	27.5	28.6	29.6
Total Assets	36.8	48.4	116.7	130.5	112.7	194.0	200.6
Short-term Loan	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Trade Payables	11.1	16.7	52.2	38.2	8.2	59.7	34.9
Other Payables & Accruals	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income tax payable	0.5	0.8	5.6	7.3	7.3	7.3	7.3
Others (deferred income, etc)	0.2	0.2	0.4	0.5	0.0	0.0	0.0
Current Liabilities	11.9	17.8	58.3	46.1	15.5	67.1	42.2
Term Loans	0.1	0.0	0.0	0.2	0.2	0.2	0.0
Deferred Taxation	0.0	0.0	0.3	0.3	0.3	0.3	0.3
Other Liabilities	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Long Term Liabilities	0.4	0.3	0.6	0.7	0.7	0.7	0.6
Total Liabilities	12.3	18.2	58.9	46.8	16.3	67.8	42.8
Shareholders Funds	24.5	30.2	57.8	83.7	96.5	126.2	157.8
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liabilities + Equity	36.8	48.4	116.7	130.5	112.7	194.0	200.6

Source: Company, Maybank Kim Eng

Fig 16: Cash flow statement

FYE 31 Dec (SGDm)	2015	2016	2017	2018E	2019E	2020E	2021E
Pretax Profit	4.0	6.0	36.8	42.1	21.0	49.0	51.3
add: Depr.'n	1.1	0.8	0.7	0.8	0.8	0.8	0.8
add: Amortization	0.0	0.0	0.0	0.0	0.0	0.0	0.0
less: (Profit)/Loss on Sale of Invst.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
less: Associates	0.0	0.4	0.1	(0.0)	(0.0)	0.0	0.0
less: Tax Paid	0.8	0.1	(0.2)	(5.9)	(4.0)	(9.3)	(9.2)
less: Change in Working Capital	(7.1)	(10.3)	11.5	(20.6)	10.9	(21.4)	(3.1)
Cash Flow from Operations	(1.3)	(3.0)	49.0	16.3	28.7	19.1	39.8
Disposal/ (Addition) to Fixed Assets	1.8	0.2	(2.1)	(3.8)	(1.5)	(1.9)	(1.8)
Disposal/ (Addition) to Associates	0.0	(4.9)	0.3	(0.0)	(0.0)	0.0	0.0
Disposal/ (Addition) to Investments	(2.6)	2.6	0.0	0.0	0.0	0.0	0.0
Disposal/ (Addition) to Intangibles	0.4	0.2	(3.4)	(12.6)	0.0	0.0	0.0
Cash Flow from Investing	(0.3)	(2.0)	(5.2)	(16.4)	(1.5)	(1.9)	(1.8)
Increase/ (Decrease) in ST Loans	(0.1)	0.0	(0.1)	0.0	0.0	0.0	(0.0)
Increase/ (Decrease) in LT Loans	0.1	(0.1)	(0.0)	0.2	0.0	0.0	(0.2)
Proceeds from Share Issue	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital Transfers	0.8	1.7	0.6	0.0	0.0	0.0	0.0
Dividends Paid	0.0	(0.7)	(3.6)	(8.7)	(4.3)	(9.9)	(10.5)
Cash Flow from Financing	0.8	1.0	(3.1)	(8.5)	(4.3)	(9.9)	(10.7)
Change in Cash Position	(0.8)	(4.1)	40.6	(8.5)	23.0	7.3	27.3
Adjustment	0.0	0.0	(0.8)	0.0	0.0	0.0	0.0
Cash Position at Beg of Year	11.2	10.4	6.3	46.1	37.6	60.5	67.8
Cash Position at End of Year	10.4	6.3	46.1	37.6	60.5	67.8	95.1

Source: Company, Maybank Kim Eng

8. Valuation

Initiate at BUY with TP of SGD1.21

Our ROE-g/COE-g TP of SGD1.21 is based on 2.9x average 2019-20E P/B, in turn based on 2019-20E average ROE of 27.3%, and LTG of 2%. To capture the accretion from the expected earnings recovery in 2020E, we have used average 2019-20E BVPS in arriving at our TP. We believe the ROE-g/COE-g methodology helps us infer an appropriate valuation for AEM, vis-à-vis its ROE profile. We have not captured any ROE accretion from potential contributions from Huawei and the next generation hybrid solutions that AEM is developing for its key customer.

Our TP implies an undemanding 2020E P/E of 8.2x, relative to global test handling peers which are trading at 11.7x. Following a forgettable 2019E, our forecast earnings rebound of 133% in 2020E is supported by multiple sources of growth from i) recovery of HDMT equipment orders, ii) production ramp-up for new customers, and iii) snowballing of recurring HDMT consumables sales from an increasing installed base.

From the perspective of EV/EBITDA, our TP implies 12.2x on 2019E and 5.2x on 2020E. In recent years, transactions have occurred at a median TEV/NTM EBITDA multiple of 10x. The recently concluded acquisition of peer Xcerra by Cohu took place at 7-8x TEV/NTM EBITDA.

Fig 17: ROE-g/COE-g fair value for AEM

Fair value (SGD)	1.21
Beta (x)	1.25
Risk free rate (%)	2.5
Market risk premium (%)	6.5
Cost of equity (%)	10.6
Average ROE 2019-20E (%)	27.3
Terminal growth rate (%)	2
Justified P/B ratio	2.9
Average 2019-20E BVPS	0.41

Source: Maybank Kim Eng

Fig 18: Transaction multiples for Xcerra and relevant ranges

	TEV/NTM EBITDA
Xcerra (BBG consensus est)	7.6
Xcerra (Cohu's FY18E est)	7.0
Multiple ranges from relevant comps:	
High	30.8
Median	10.2
Low	6.8

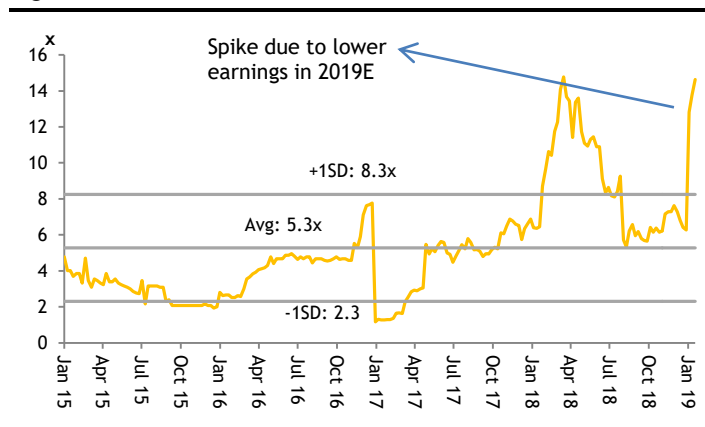
Source: Bloomberg, Cohu

Fig 19: Peer comparison

Company	BBG Code	MKE Rec	MKE TP (LC)	Price (LC)	FYE mm	Mcap USDm	P/E (x)				EV /EBI TDA (x) FY3	Div yield (%) FY1	ROE (%) FY1
							Act	FY1	FY2	FY3			
AEM	AEM SP	Buy	1.21	0.91	12	184	7.5	7.1	14.4	6.2	3.6	3.5	48.8
Global back-end test handler peers													
Cohu	COHU US	NR	-	17.47	12	711	11.3	11.9	11.5	7.5	-	-	-
Tesec	6337 JP	NR	-	1,504	03	80	8.3	-	-	-	-	-	-
Chroma ATE	2360 TT	NR	-	123.00	12	1,665	19.7	17.8	16.3	14.2	10.9	3.8	19.2
Pentamaster Corp	PENT MK	NR	-	2.86	12	220	25.2	16.7	12.1	11.4	4.7	0.7	15.6
Average							16.9	15.5	14.6	11.7	9.6	3.4	21.4
Global back-end equipment peers													
Koh Young Technology	098460 KS	NR	-	80,700	12	988	41.4	25.2	22.2	17.8	13.0	0.9	18.8
Advantest	6857 JP	NR	-	2,409	03	4,400	23.6	9.8	12.8	11.4	6.7	2.8	26.7
Vitrox	VITRO MK	Hold	6.80	6.83	12	782	39.7	31.5	22.1	18.9	15.9	0.8	-
Hirata	6258 JP	NR	-	6,650	03	655	10.4	18.3	16.3	11.6	-	1.9	8.2
ASM Pacific	522 HK	NR	-	81.00	12	4,198	12.8	13.3	13.9	11.7	7.7	-	19.7
BE Semiconductor	BESI NA	NR	-	21.50	12	1,969	9.9	13.2	14.1	12.1	8.4	6.4	36.2
KLA-Tencor	KLAC US	NR	-	101.68	06	15,744	12.7	11.5	11.3	10.4	8.0	2.9	77.0
Teradyne	TER US	NR	-	36.77	12	6,591	15.5	16.9	13.1	11.1	8.5	0.8	30.5
Average							15.8	13.6	12.9	11.3	8.2	2.5	49.5

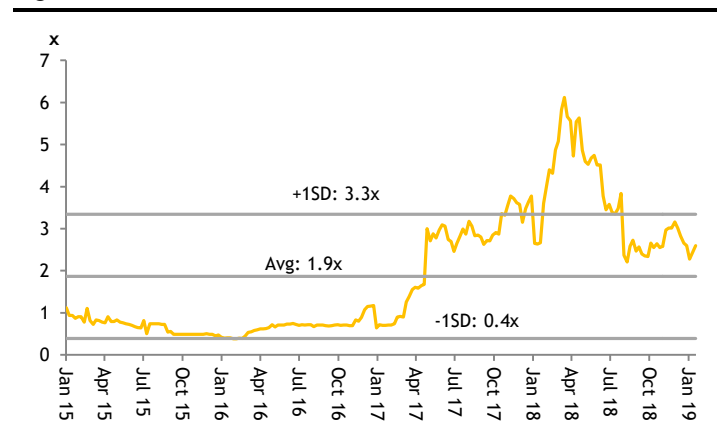
Source: Bloomberg, FactSet, Maybank Kim Eng

Fig 20: Forward P/E band



Source: FactSet, Company, Maybank Kim Eng

Fig 21: Forward P/B band



Source: FactSet, Company, Maybank Kim Eng

9. Risks

Customer concentration

As AEM's major customer contributes around 90% of AEM's revenue, AEM is vulnerable to the customer's strategic and operational missteps. An escalation of the US-China trade row may also impact the demand for products that have the customer's chips embedded inside.

Competition

The HDMT technology has allowed AEM's core customer to establish a new cost curve with regard to the cost of testing chips. This is likely to invite competition. AEM believes it would take a competitor around three years to develop a competing product. From channel checks and publically available information, we understand Astronics is partnering Apple to develop competing testing technologies that enable massively parallel system-level tests. In that regard, AEM and its customer must ceaselessly improve the present technology or design and develop new ones to remain ahead of the chip-testing cost curve.

Delay in customer timelines

Our forecasts assume that there are no delays in customers' timelines with regards to product launches, and/ or commissioning of new plants, as these could alter the timelines at which the customer would order equipment from AEM.

M&A and strategic missteps

Any M&A and post-integration carry risks. AEM aims to mitigate such risks by ensuring the capabilities of the acquirer and target are complementary and each has a strong cultural fit.

Key personnel risk

Chairman Loke Wai San plays an integral role as he sets the company's strategy, identifies and integrates inorganic opportunities, develops business opportunities, and manages strategic communications with capital markets. Meanwhile, CEO Chok Yean Hung was instrumental in ensuring the strong execution of the HDMT handlers' production ramp-up in 2017.

FYE 31 Dec	FY16A	FY17A	FY18E	FY19E	FY20E
Key Metrics					
P/E (reported) (x)	4.6	4.5	7.1	14.4	6.2
Core P/E (x)	7.9	6.9	7.1	14.4	6.2
Core FD P/E (x)	7.9	7.1	7.1	14.4	6.2
P/BV (x)	1.2	3.8	2.9	2.5	1.9
P/NTA (x)	1.2	3.8	2.9	2.5	1.9
Net dividend yield (%)	2.8	3.6	3.5	1.7	4.0
FCF yield (%)	nm	21.5	5.1	11.1	7.0
EV/EBITDA (x)	4.2	4.6	4.8	8.5	3.6
EV/EBIT (x)	4.8	4.6	4.9	8.8	3.6
INCOME STATEMENT (SGD m)					
Revenue	70.1	221.6	255.2	162.9	265.6
Gross profit	25.4	72.3	93.4	63.2	100.3
EBITDA	7.4	37.7	42.9	21.8	49.8
Depreciation	(0.8)	(0.7)	(0.8)	(0.8)	(0.8)
Amortisation	0.0	0.0	0.0	0.0	0.0
EBIT	6.5	37.0	42.1	21.0	49.0
Net interest income / (exp)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Associates & JV	(0.4)	(0.1)	0.0	0.0	0.0
Exceptionals	(0.1)	0.0	0.0	0.0	0.0
Other pretax income	0.0	0.0	0.0	0.0	0.0
Pretax profit	6.0	36.8	42.1	21.0	49.0
Income tax	(1.3)	(5.3)	(7.6)	(4.0)	(9.3)
Minorities	0.0	0.0	0.0	0.0	0.0
Discontinued operations	0.0	0.0	0.0	0.0	0.0
Reported net profit	4.7	31.5	34.5	17.0	39.7
Core net profit	4.8	31.5	34.5	17.0	39.7
BALANCE SHEET (SGD m)					
Cash & Short Term Investments	6.3	46.1	37.6	60.5	67.8
Accounts receivable	17.8	23.6	32.4	12.2	46.0
Inventory	17.4	35.8	32.5	11.2	50.4
Property, Plant & Equip (net)	2.2	3.6	6.6	7.3	8.4
Intangible assets	0.1	3.4	16.0	16.0	16.0
Investment in Associates & JVs	4.5	4.1	4.2	4.2	4.2
Other assets	0.1	0.0	1.2	1.2	1.2
Total assets	48.4	116.7	130.5	112.7	194.0
ST interest bearing debt	0.1	0.0	0.0	0.0	0.0
Accounts payable	16.7	52.2	38.2	8.2	59.7
LT interest bearing debt	0.0	0.0	0.2	0.2	0.2
Other liabilities	1.0	7.0	8.0	8.0	8.0
Total Liabilities	18.2	58.9	46.8	16.3	67.8
Shareholders Equity	30.2	57.8	83.7	96.5	126.2
Minority Interest	0.0	0.0	0.0	0.0	0.0
Total shareholder equity	30.2	57.8	83.7	96.5	126.2
Total liabilities and equity	48.4	116.7	130.5	112.7	194.0
CASH FLOW (SGD m)					
Pretax profit	6.0	36.8	42.1	21.0	49.0
Depreciation & amortisation	0.8	0.7	0.8	0.8	0.8
Adj net interest (income)/exp	0.0	0.0	0.0	0.0	0.0
Change in working capital	(10.3)	11.5	(20.6)	10.9	(21.4)
Cash taxes paid	0.1	(0.2)	(5.9)	(4.0)	(9.3)
Other operating cash flow	0.0	0.0	0.0	0.0	0.0
Cash flow from operations	(3.0)	49.0	16.3	28.7	19.1
Capex	0.2	(2.1)	(3.8)	(1.5)	(1.9)
Free cash flow	(2.8)	46.9	12.5	27.2	17.2
Dividends paid	(0.7)	(3.6)	(8.7)	(4.3)	(9.9)
Equity raised / (purchased)	0.0	0.0	0.0	0.0	0.0
Change in Debt	(0.1)	(0.1)	0.2	0.0	0.0
Other invest/financing cash flow	(0.5)	(2.6)	(12.6)	0.0	0.0
Effect of exch rate changes	0.0	(0.8)	0.0	0.0	0.0
Net cash flow	(4.1)	39.8	(8.5)	23.0	7.3

FYE 31 Dec	FY16A	FY17A	FY18E	FY19E	FY20E
Key Ratios					
Growth ratios (%)					
Revenue growth	49.8	216.0	15.2	(36.2)	63.1
EBITDA growth	24.4	411.7	13.8	(49.1)	128.1
EBIT growth	35.3	465.0	13.8	(50.0)	133.0
Pretax growth	50.5	515.8	14.3	(50.0)	132.8
Reported net profit growth	(19.5)	576.2	9.7	(50.6)	132.8
Core net profit growth	(28.6)	560.7	9.7	(50.6)	132.8
Profitability ratios (%)					
EBITDA margin	10.5	17.0	16.8	13.4	18.7
EBIT margin	9.3	16.7	16.5	12.9	18.4
Pretax profit margin	8.5	16.6	16.5	12.9	18.4
Payout ratio	22.9	24.8	25.0	25.0	25.0
DuPont analysis					
Net profit margin (%)	6.6	14.2	13.5	10.5	14.9
Revenue/Assets (x)	1.4	1.9	2.0	1.4	1.4
Assets/Equity (x)	1.6	2.0	1.6	1.2	1.5
ROAE (%)	17.0	71.5	48.8	18.9	35.6
ROAA (%)	11.2	38.2	27.9	14.0	25.9
Liquidity & Efficiency					
Cash conversion cycle	66.2	14.6	14.8	44.4	32.5
Days receivable outstanding	72.3	33.6	39.5	49.3	39.5
Days inventory outstanding	106.0	64.2	75.9	78.9	67.1
Days payables outstanding	112.1	83.1	100.6	83.8	74.0
Dividend cover (x)	4.4	4.0	4.0	4.0	4.0
Current ratio (x)	2.3	1.8	2.3	5.5	2.5
Leverage & Expense Analysis					
Asset/Liability (x)	2.7	2.0	2.8	6.9	2.9
Net gearing (%) (incl perps)	net cash	net cash	net cash	net cash	net cash
Net gearing (%) (excl. perps)	net cash	net cash	net cash	net cash	net cash
Net interest cover (x)	nm	nm	nm	nm	nm
Debt/EBITDA (x)	0.0	0.0	0.0	0.0	0.0
Capex/revenue (%)	nm	0.9	1.5	0.9	0.7
Net debt/ (net cash)	(6.2)	(46.1)	(37.4)	(60.3)	(67.7)

Source: Company; Maybank

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SELL	Return is expected to be below -10% in the next 12 months (excluding dividends)

Applicability of Ratings

The respective analyst maintains a coverage universe of stocks, the list of which may be adjusted according to needs. Investment ratings are only applicable to the stocks which form part of the coverage universe. Reports on companies which are not part of the coverage do not carry investment ratings as we do not actively follow developments in these companies.


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