



Singapore

ADD (previously NOT RATED)

Consensus ratings*: Buy 0 Hold 0 Sell 0

Current price: S\$1.51

Target price: S\$2.69

Previous target: N/A

Up/downside: 78.2%

CIMB / Consensus: na

Reuters: AEM.SI

Bloomberg: AEM SP

Market cap: US\$45.76m

S\$64.55m

Average daily turnover: US\$0.17m

S\$0.24m

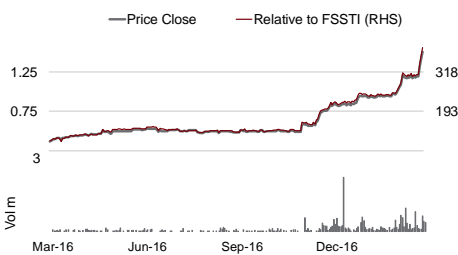
Current shares o/s: 42.80m

Free float: 67.0%

*Source: Bloomberg

Key changes in this note

N/A



Source: Bloomberg

| Price performance | 1M | 3M | 12M |
|-------------------|------|------|-------|
| Absolute (%) | 55.7 | 78.7 | 319.4 |
| Relative (%) | 53.8 | 72.9 | 308.5 |

| Major shareholders | % held |
|--------------------|--------|
| Orion Phoenix | 28.1 |

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AEM Holdings Ltd**Another upcycle begins**

- Successfully restructured with a net cash balance sheet.
- Return to profitability driven by orders for a new equipment product from a major customer (sole source).
- We expect an EPS CAGR of 55% over FY16-19F driven by orders from customer.
- Announced a 25% dividend payout policy and proposed a 1-for-2 bonus issue. Projected dividend yields of 4.7-6.7% over FY17-19F.
- Potential rerating catalysts include higher order wins. In the longer-term, could be a possible acquisition target by competitors. Initiate coverage at Add.

Initiating coverage at Add

AEM Holdings Ltd (AEM) is listed on the main board of the SGX. AEM designs and manufactures equipment and precision components for the semiconductor, solar, smart card and other industries. We initiate at Add with a target price of S\$2.69 based on 2.95x (Gordon growth, cost of equity 11.10%, zero growth) FY17 BVPS. A dividend payout policy of 25% and a proposed 1-for-2 bonus issue limits share price downside.

Restructured and ready for growth

AEM has undergone shareholding and management changes in the past few years. The group appointed its current CEO, Charles Cher, an industry veteran on 1 Apr 2014. FY14 marked the last year of restructuring, with the company selling off its loss-making semiconductor substrate business. As at FY16, net cash was S\$6.2m. Since FY15, AEM has also been regularly buying back its own shares.

Game changer – start of a new product upcycle

In FY12, AEM started collaborating with a major customer to develop the test handler for the customer's next generation of high-density modular testers that are able to test various types of computer chips on a single machine. All associated costs in developing this new generation of testers have been expensed off. AEM is currently the sole supplier for this test handler product. On 2 Mar 17, AEM announced that it has to-date received purchases orders worth S\$130m for delivery in FY17.

Risks

Key risks include: 1) Exposure to the cyclical semiconductor industry. AEM noted that the semiconductor industry is cyclical and it needs to keep abreast of rapid technological changes. 2) Customer concentration risk – its major customer accounted for more than 80% of FY16 sales. The order backlog at any point in time may not be representative of actual sales in any future period due to the possibility of the customer changing delivery schedules and cancelling orders.

Rerating catalysts

Potential rerating catalysts include: 1) higher order wins, and 2) AEM as a potential acquisition target. AEM's current major shareholder, Orion Phoenix, is essentially a private equity fund. AEM's current major competitor is Cohu. AEM and Cohu share the same major customer; should this customer decide to switch all its future needs to the current test handler being produced by AEM, there could be a case for Cohu to consider an acquisition of AEM to keep its test handler business with the same customer.

Financial Summary

| | Dec-15A | Dec-16A | Dec-17F | Dec-18F | Dec-19F |
|--------------------|---------|---------|---------|---------|---------|
| Revenue (S\$m) | 51.5 | 70.4 | 138.0 | 176.6 | 211.2 |
| Net Profit (S\$m) | 6.52 | 4.42 | 12.13 | 14.36 | 17.25 |
| Core EPS (S\$) | 0.15 | 0.10 | 0.28 | 0.34 | 0.40 |
| Core EPS Growth | | (32%) | 172% | 18% | 20% |
| FD Core P/E (x) | 9.88 | 14.50 | 5.32 | 4.50 | 3.74 |
| Price To Sales (x) | 1.30 | 0.93 | 0.47 | 0.37 | 0.31 |
| DPS (S\$) | 0.01 | 0.02 | 0.07 | 0.08 | 0.10 |
| Dividend Yield | 0.66% | 1.19% | 4.70% | 5.56% | 6.68% |
| EV/EBITDA (x) | 10.30 | 7.50 | 3.90 | 3.33 | 2.45 |
| P/FCFE (x) | NA | NA | NA | 19.33 | 5.61 |
| Net Gearing | (52.0%) | (20.8%) | 0.9% | 0.1% | (12.3%) |
| P/BV (x) | 2.73 | 2.16 | 1.65 | 1.30 | 1.03 |
| ROE | 32.0% | 16.7% | 35.2% | 32.3% | 30.7% |

% Change In Core EPS Estimates

CIMB/consensus EPS (x)

SOURCE: COMPANY DATA, CIMB FORECASTS

Another upcycle begins

Company background

AEM then ➤

AEM Holdings Limited (AEM) traces its roots to AEM-Evertech (AEM-Evertech) Holdings Ltd, which listed on the SGX on 19 Dec 2000. The major shareholders of AEM-Evertech then were founders, Tok Kian You (12.5% stake), Ang Seng Thor (11.2% stake) and Transpac Capital Pte Ltd (25.9% stake). Transpac Capital Pte Ltd (Transpac) is a direct investment management company.

AEM-Evertech's businesses then were:

- a) Equipment - design, develop and manufacture equipment for the assembly, testing and finishing processes of semiconductor manufacturing. Through its in-house design and development capabilities, AEM-Evertech was able to integrated various processes into a single machine.
- b) Precision Engineering - design, develop and manufacture precision engineering products for equipment used in the semiconductor assembly, testing and finishing processes.
- c) Chemicals and Services: develop processes and associated chemical formulations for the surface finishing of semiconductors and connectors. AEM-Evertech also provided surface finishing services for high-end and specialised requirements in deflashing and plating of connectors.
- d) Distribution: distribute a range of engineering materials and products to the semiconductor manufacturing industry.

AEM-Evertech Holdings Ltd changed its name to AEM Holdings Limited in 2007.

What changed? ➤

Key changes for AEM were

- a) In 2012, Tok Kian You and Ang Thor Seng were sentenced for bribery charges. Both Tok and Ang are no longer involved with AEM and as of 16 Dec 2016, Tok ceased to be a substantial shareholder of AEM as his stake fell to 1.04%.
- b) Orion Phoenix, through its Novo Tellus PE Fund 1, L.P., became the major shareholder of AEM with an initial 16.59% stake on 23 Nov 2011 as Transpac sold its stake. As of 28 Dec 2016, Orion Phoenix's stake was 28.1%.
- c) In the past few years, the group has exited its non-core businesses and assets, and has focused on its core competency.
- d) There were also various management changes, and its current CEO, Charles Cher, was appointed on 1 Apr 2014.

AEM now ➤

Today, AEM has a healthy net cash balance sheet and the company aims to be a leading global provider of equipment systems solutions and manufacturing services. AEM's key business segment today is Equipment Systems Solutions (ESS) that makes up the bulk of its revenue. It also has a smaller Precision Component Solutions (PCS) division. For FY16, the ESS segment accounted for 92% of sales, while the PCS segment accounted for the remaining 8%. Its factories are located in Singapore, Malaysia and China.

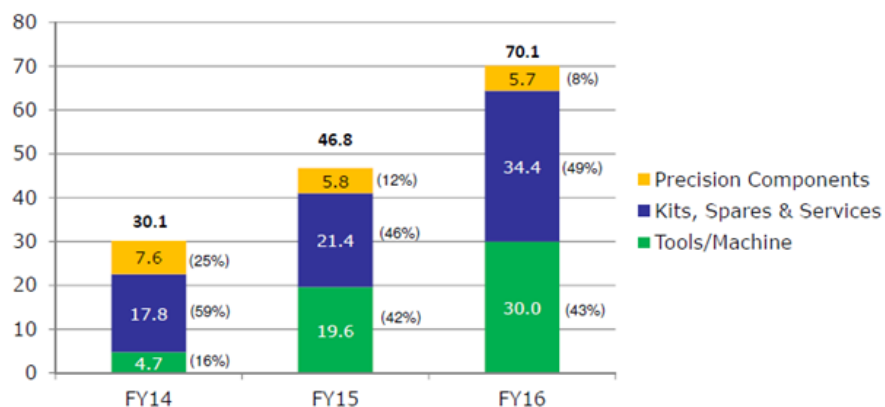
Of the 92% of sales from the ESS segment, 43% was revenue derived from the sales of tools and machines, while the balance 49% was from the sale of consumables used in these machines (kits, spares and services).

Figure 1: Factories

| Country | Locations | Entities | Activities/Businesses |
|-----------|-----------------|--|--|
| Singapore | Serangoon North | <ul style="list-style-type: none">• AEM Holdings Ltd ("AEH")• AEM Singapore Pte. Ltd. ("ASG") | <ul style="list-style-type: none">• Corporate Headquarters• Equipment Systems Solutions• Precision Component Solutions |
| Malaysia | Penang | <ul style="list-style-type: none">• AEM Microtronics (M) Sdn. Bhd. ("AMM") | <ul style="list-style-type: none">• Equipment Systems Solutions• Precision Component Solutions |
| China | Suzhou | <ul style="list-style-type: none">• AEM (Suzhou) Co., Ltd. ("ASZ") | <ul style="list-style-type: none">• Equipment Systems Solutions• Precision Component Solutions |



SOURCES: COMPANY REPORTS

Figure 2: Revenue breakdown

SOURCES: COMPANY REPORTS

ESS Segment ►

AEM specialises in providing customised systems solutions to both mass volume manufacturers and new technology development laboratories. The company is a partner for customers in product development from concept to mass production. Its equipment solutions involve integrating Precise High Speed Motion, Innovative Mechanical Design, Advanced PLC (Programmable Logic Control), Sophisticated GUI (Graphics User Interface) and Reliable SECS/GEM [SECS (SEMI Equipment Communications Standard)/GEM (Generic Equipment Model)] compliance communication protocol.

AEM's systems are deployed globally at world-class semiconductor and solar manufacturing facilities. Under its ESS segment, AEM strives to be an Innovative and Proactive Business Solutions Provider, promoting early involvement and a partnership approach. AEM's solutions include Test Handlers (key product), Wafer Handling Systems, Laser Marking, Laser De-Flashing, Vision Inspection and Unique Handling Systems.

Figure 3: Automated Test Handlers

- Over 700 machines sold
- System Level Test
- Recurring consumables sales



SOURCES: COMPANY REPORTS

Figure 4: Hot-Spot Tester

An Integrated Thermal Imaging handler to test and grade PV Cells



- Highly customized Handler, integrating Thermal Imaging Module to test and grade PV Cells
- Scratch-Free handling through; Bernoulli Pickup and Vacuum Ejector
- Optimized Vacuum Chuck Design to support Thermal Imaging
- Support mapping for Traceability
- High throughput of above 1600 UPH

SOURCES: COMPANY REPORTS

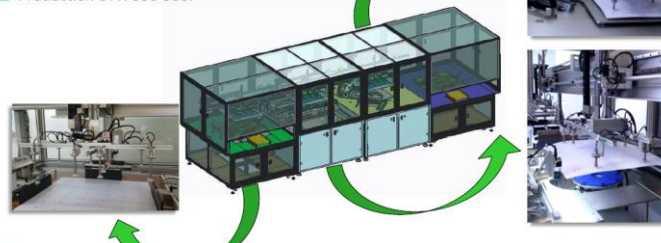
Figure 5: Wafer Loader and Un-loader*Loader and Unloader to automate wafer processing*

- ❑ Highly customized Handler, integrating Thermal Imaging Module to test and grade PV Cells
- ❑ Silicon Wafer Handling Automation
- ❑ High throughput up to 2500 WPH
- ❑ High Mechanical Yield
- ❑ Rotated, Offset and Broken Wafer Detection
- ❑ Walking Beam Concept

SOURCES: COMPANY REPORTS

Figure 6: Smartcard Backend Handler*An Automated Backend Line for Smartcard Processing*

- ❑ Modular setup, allows flexibility in :
 - ❑ Customizing design
 - ❑ Individual process upgrading
 - ❑ Subsequent expansion for other assembly process
- ❑ Production : Loader, Cut, Unloader
- ❑ Options : Vision Inspection, Test, Print, Punch, Sort
- ❑ Production UPH 300-500.

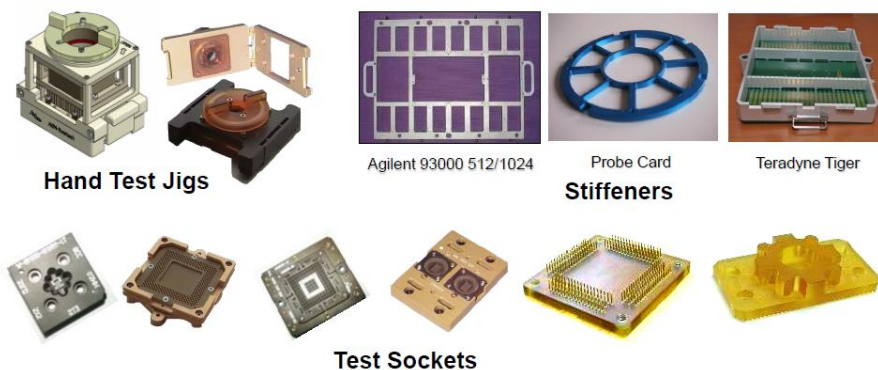


SOURCES: COMPANY REPORTS

PCS Segment ➤

AEM specialises in high precision components and mechanical assemblies. The company designs, develops and manufactures precision engineering products used in the electronics, life sciences, instrumentation and aerospace industries. The group has state-of-the-art machines, consisting of 5 axis CNC (Computer-Numerical-Controlled), Turn Mill, EDM (Electric Discharge Machining) and Wire Cut machines enabling it to deliver a broad range of customised precision engineering solutions with metals as well as plastics (such as Vespel and Torlon).

Major products produced for customers include standard and customised items such as test sockets, device change kits, stiffeners, golden units, holding jigs, preventive maintenance kits and precision mechanical assembly modules.

Figure 7: PCS product range

- ❑ Design, develop and manufacture precision engineering products for semiconductor, solar, life sciences and aerospace industries
- ❑ Products include final test sockets, device change kits, load board stiffeners, jigs & fixtures and preventive maintenance kits.
- ❑ Major supplier of parts to leading semiconductor OEMs

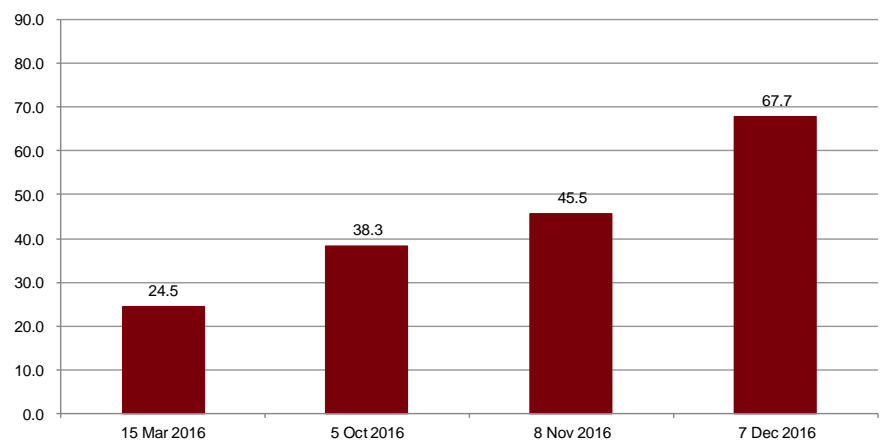
SOURCES: COMPANY REPORTS

Game Changer

The game changer for AEM is its current Test Handler business. Its Test Handlers are sold to a single customer who is the leader in the design and manufacture of advanced integrated digital technology platforms. This customer's platform consists of a microprocessor and chipset, and may be enhanced by additional hardware, software, and services. Currently, AEM is the sole supplier for this customer.

AEM spent more than 4 years collaborating with this customer to develop this new High-Density Test Handler product. This Test Handler designed for its customer represents a paradigm shift in how semiconductor chips are tested and also represents a multi-year migration for its customer. By the end of 4Q15, AEM was ready to ship production units and orders became sizeable necessitating disclosure in FY16.

Figure 8: Order book (\$\$ m)

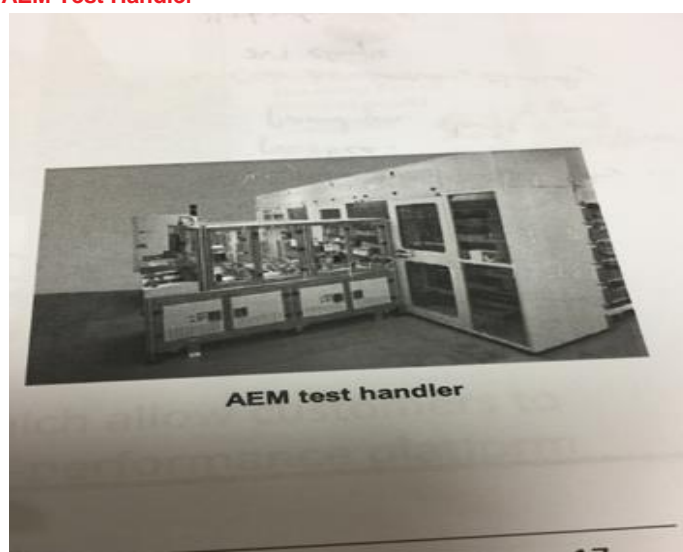


SOURCES: COMPANY REPORTS

AEM's major customer started to build its own test own test solutions from the ground up as the market was not meeting its needs. In 2014, AEM's major customer announced the availability of HDMT (High-Density Modular Testing) for its foundry clients. AEM's customer commented that its HDMT platform significantly reduces costs compared to traditional test platforms. HDMT also reduces test time to market and improves productivity as it uses a common platform from low-volume product debug up to high-volume production. The HDMT platform targets a range of products in diverse markets including server, client, system on chip, and Internet of Things.

Automated Test Equipment (ATE) systems typically interface with an automated placement tool, called a "Test Handler", that physically places the Device Under Test (DUT) on an Interface Test Adapter (ITA) so that it can be measured by the equipment. There may also be an Interface Test Adapter (ITA), a device just making electronic connections between the ATE and the Device Under Test, but also it might contain an additional circuitry to adapt signals between the ATE and the DUT and has physical facilities to mount the DUT. Finally, a socket is used to bridge the connection between the ITA and the DUT. A socket must survive the rigorous demands of a production floor, so they are usually replaced frequently.

AEM's Test Handlers incorporate advanced robotics, thermal and fluid engineering and complex systems integration.

Figure 9: AEM Test Handler

SOURCES: COMPANY REPORTS

Risks

The key risks faced by AEM are:

- Customer concentration risk. One single customer accounted for more than 80% of its FY16 revenue.
- Single product concentration risk. AEM's business is currently being driven by the sale of a single product - Test Handler.
- Total Addressable Market (TAM). The TAM based on its customer requirements is also a source of uncertainty as the customer's shift to its new testing platform implies efficiencies and thus, a reduced quantity of Test Handlers required compared to previous replacement cycles. The pace of replacement by its key customer is also not within AEM's control.
- The order backlog at any point in time may not be representative of the actual sales in any future period due to the possibility of the customer changing the delivery schedules and cancelling orders, among other factors.

SWOT Analysis

Figure 10: SWOT Analysis

| Strengths | Opportunities |
|--|---|
| <ul style="list-style-type: none"> Sole supplier currently Margin expansion potential | <ul style="list-style-type: none"> Opportunity to sell higher margin consummables as installed base grows Potential to develop new products for new customers |
| Weaknesses | Threats |
| <ul style="list-style-type: none"> Key customer accounted for more than 80% of sales Single product dependency | <ul style="list-style-type: none"> Technological changes may lead to product obsolescence Subject to global economic conditions |

SOURCES: CIMB, COMPANY REPORTS

Outlook

Global semiconductor industry to recover in 2017 ➤

On 23 January 2017, Gartner released its projections for the global semiconductor industry. According to Gartner, worldwide semiconductor revenue is forecast to total US\$364.1 bn in 2017, an increase of 7.2% from 2016. Gartner highlighted that the areas to watch for in 2017 are the industrial, automotive and storage markets, which are growing quickly. Additionally, the slow-growth outlook for traditional applications such as smartphones and PCs highlights the importance of semiconductor markets outside of these categories, notably the Internet of Things.

World economic outlook positive ➤

In its Oct 2016 release, the International Monetary Fund (IMF) projected that global growth will slow to 3.1% in 2016 before recovering to 3.4% in 2017. The US is expected to grow 2.2% in 2017 vs. 1.6% growth in 2016. Japan is also expected to grow 0.6% in 2017 vs. 0.5% in 2016. The European Union is expected to slow down to 1.5% in 2017 from 1.7% in 2016. China is also expected to experience slower growth of 6.2% in 2017 from 6.6% in 2016.

Key customers outlook ➤

Based on Bloomberg consensus forecasts, AEM's key customer's revenue is forecast to experience a CAGR of 2.0% over FY16F-19F while net profit is expected to grow at a CAGR of 3.1% over the same period. By FY19F, consensus expects this customer to achieve revenue of US\$63bn and net profit of US\$14.5bn.

Financials

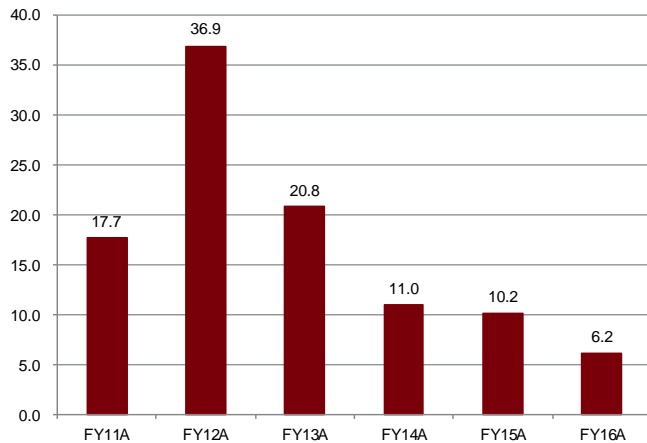
P&L trends ➤

AEM turned around in FY15 with a pre-tax profit of S\$4.9m. A tax credit in FY15 brought net profit to S\$6.7m. AEM registered a net loss of S\$27.3m in FY14. In FY14, there was a S\$26.2m charge under other expenses. The bulk of this charge was due to the loss on disposal of a subsidiary and inventory provision as its major customer discontinued orders for older equipment in favour of next generation platforms. The earnings recovery continued into FY16 with pre-tax profit growing 25.1% yoy to S\$6.1m. With deferred tax assets fully utilised, AEM resumed paying taxes on its profits in FY16, leading to a 28.6% yoy decline in net profit.

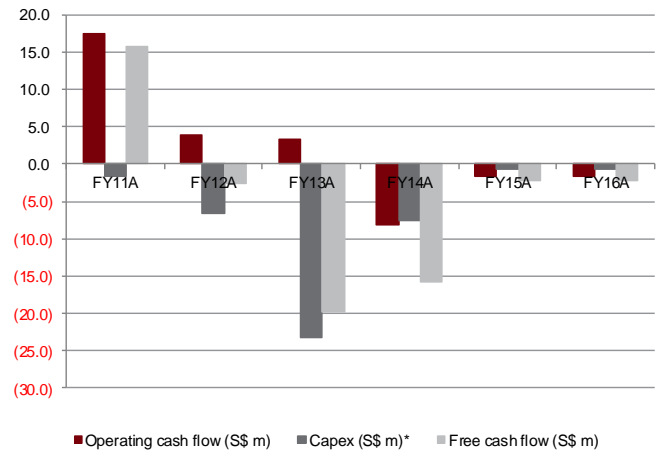
Balance sheet trends ➤

AEM has been in a net cash position for the six years. The business is R&D intensive and not capex intensive. Over the past six years, the cash cycle has averaged 148 days. This is mainly due to the high inventory days.

AEM resumed dividend payments since returning to the black in FY15. The company paid a DPS of 1.0Scts in FY15 and 1.8Scts in FY16.

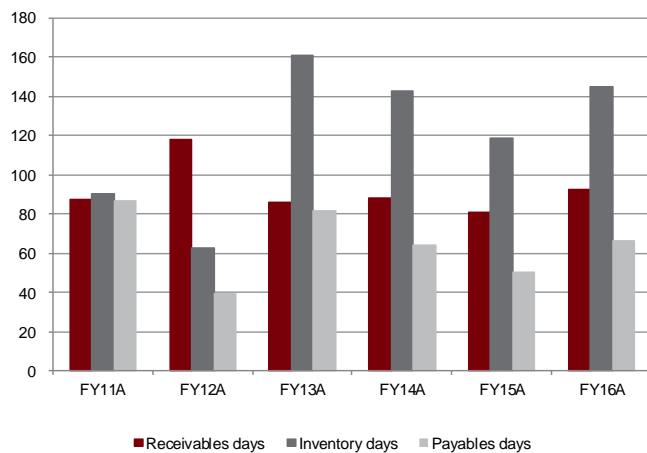
Figure 11: Net cash (\$\$ m)

SOURCES: COMPANY REPORTS

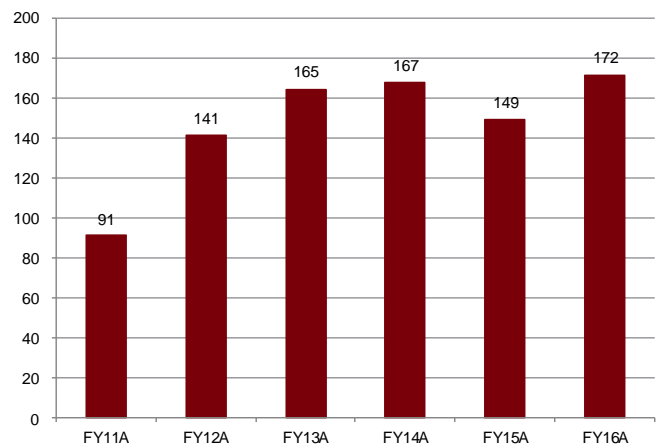
Figure 12: Cash flow

SOURCES: CIMB, COMPANY REPORTS

* includes intangibles and PPE

Figure 13: Receivables, Inventory and Payables days

SOURCES: CIMB, COMPANY REPORTS

Figure 14: Cash cycle (days)

SOURCES: CIMB, COMPANY REPORTS

Competitors

Direct competitors for AEM are US-listed Cohu Inc and Xcerra Corporation. Cohu is a leading supplier of semiconductor test and inspection handlers, micro-electro mechanical systems (MEMS) test modules, test contactors and thermal sub-systems used by global semiconductor manufacturers and test subcontractors. Xcerra Corporation, formerly known as LTX-Credence Corporation, is a global provider of test and handling capital equipment, interface products, test fixtures and related services to the semiconductor and electronics manufacturing industries.

On the SGX, UMS Holdings is a listed peer that is involved in the semiconductor business and is also dependent on one major customer for more than 80% of sales.

Figure 15: AEM's historical financial comparison against direct peers

| Company | AEM Holdings Ltd | Cohu Inc | Xcerra Corp |
|------------------------|---|---|---------------------------------------|
| FYE | Dec-16 | Dec-16 | Jul-16 |
| Revenue (US\$ m) | 49.9 | 282.1 | 324.2 |
| Gross profit (US\$ m) | 18.8 | 94.9 | 139.9 |
| Gross margin (%) | 37.6 | 33.6 | 43.2 |
| Net profit (US\$ m) | 3.3 | 6.6 | 11.2 |
| Net cash (US\$ m) | 4.4 | 128.0 | 115.4 |
| Customer concentration | 1 customer accounted for more than 80% of sales | Intel (18% of FY15 sales) NXP Semiconductor N.V. (11.4% of FY15 sales) | 1 customer accounted for 19% of sales |

SOURCES: BLOOMBERG, COMPANY REPORTS

Key forecast assumptions

Our key assumptions are as follows:

- We assume that the current addressable market for AEM's Test Handlers with its major customer is approximately 180 units. This is based only on the customer's server chip and Silicon on chip business. We note that its major customer has other business segments such as IoT, modems, memory etc that could represent business opportunities for AEM .
- We assume that the Average Selling Price (ASP) is S\$3.0m per Test Handler and that there will be no cost down for FY17F as there is an order backlog. FY18-19F will see a 10.0% cost down. Depending on how many test cells the customer wants AEM's Test Handler to handle, the ASP could range from S\$1.0m to more than S\$3.0m.
- We assume that gross material margin will decline to 26-28% as unit shipments of machines increase, as machines generally command lower margins than consumables.
- In its FY16 results announcement, AEM guided that it expects to achieve S\$70m in sales and a profit before tax of S\$6.5m for 1HFY12/17. On 2 Mar 17, AEM announced that it has received to date, purchases orders worth S\$130m for delivery in FY17. In our FY17F forecasts, we have assumed that AEM will achieve S\$138m in sales and a profit before tax of S\$14.6m.

Valuation & recommendation

We value AEM based on the Gordon Growth implied P/BV method. We assume zero growth and an adjusted cost of equity of 11.10%. This leads to an implied P/BV of 2.95x (versus FY17F-FY19F average ROE of 32.7%) which translates into a target price of S\$2.69 based on our FY17F BVPS.

Our target price of S\$2.69 translates into an implied FY18F P/E of 8.0x. This is at a 34% discount to its closest peer, Cohu's FY18F P/E of 12.1x. AEM's projected EPS CAGR over FY16A-FY19F is 55%.

Figure 16: Gordon Growth implied P/BV valuation

| | | |
|-----------------------|---------------|---|
| Ke | 9.10% | |
| RF | 4.00% | Assumed |
| Beta | 0.85 | Bloomberg |
| Rm | 10.00% | Assumed based on STI historical performance |
| ERP | 6.00% | |
| Liquidity premium | 1.00% | Assumed |
| Single cust risk | 1.00% | Assumed |
| Adjusted Ke | 11.10% | |
| | | |
| ROE | 32.7% | Average of FY17F-FY19F |
| | | |
| Implied P/BV (x) | 2.95 | Assume no growth |
| Dec-17F BVPS (\$) | 0.91 | |
| TP (\$) | 2.69 | |
| Implied CY18F P/E (x) | 8.0 | |

SOURCES: CIMB, COMPANY REPORTS

Figure 17: Peer comparison

| Company | Bloomberg Ticker | Recom. | Price (lcl curr) | Target Price (lcl curr) | Market Cap (US\$ m) | Core P/E (x) CY17F | Core P/E (x) CY18F | 3-year EPS CAGR (%) | P/BV (x) CY17F | Recurring ROE (%) CY17F | Dividend Yield (%) CY17F |
|-------------------------------------|---------------------|--------|---------------------|-------------------------------|---------------------------|-----------------------|-----------------------|------------------------|-------------------|-------------------------------|--------------------------------|
| AEM Holdings Ltd | AEM SP | ADD | 1.51 | 2.69 | 45.8 | 5.3 | 4.5 | 54.8% | 1.65 | 34.8% | 4.7% |
| UMS Holdings Ltd | UMSH SP | Add | 0.73 | 0.82 | 222.1 | 11.7 | 11.5 | 6.5% | 1.64 | 13.9% | 8.2% |
| Cohu Inc | COHU US | NR | 17.00 | NA | 456.4 | 14.6 | 12.1 | na | na | 8.9% | na |
| Xcerra Corp | XCRA US | NR | 8.65 | NA | 468.5 | 17.0 | 14.5 | na | 1.50 | 12.7% | na |
| Simple average excluding AEM | | | | | | 14.4 | 12.7 | 6.5% | 1.05 | 11.8% | 8.2% |

SOURCES: BLOOMBERG

Figure 18: Historical average forward valuations

| | Minimum | Average | Maximum | + 2SD | Comments |
|--------------------------|---------|----------------|--------------|-------|---|
| AEM P/BV (x) - FY12-FY16 | 0.45 | 0.93 | 2.33 | 1.79 | |
| Cohu P/BV - FY01-FY06 | 0.65 | 1.44 | 3.26 | 2.33 | |
| Cohu P/BV - FY07-FY16 | 0.65 | 1.18 | 1.92 | 1.62 | |
| Cohu P/BV - FY12-FY16 | 0.74 | 1.14 | 1.61 | 1.51 | |
| AEM P/E (x) - FY04-FY06 | 2.95 | 6.69 | 13.71 | na | } profitable years |
| AEM P/E (x) - FY15-FY16 | 1.92 | 3.79 | 7.87 | na | } or years with meaningful profits |
| | | <u>Average</u> | <u>10.79</u> | | |
| Cohu P/E - FY01-FY16 | 9.85 | 17.92 | 37.6 | 23.4 | Excludes outliers and loss making years |

SOURCES: BLOOMBERG

Board of Directors

Figure 19: Board of Directors



LOKE WAI SAN

*Non-Executive Chairman
and Non-Independent
Director*

Position : Non-Executive Chairman and Non-Independent Director
Chairman of Remuneration Committee
Age : 47
Qualifications : Masters of Business Administration / University of Chicago
Bachelor of Science in Electrical and Electronics
Engineering / Lehigh University

Mr. Loke Wai San is a founder and Managing Director of a private equity fund adviser Novo Tellus Capital Partners. His expertise is in cross-border private equity investments in various sectors including semiconductors, IT, enterprise software, medical equipment, and manufacturing. From 2000 to 2010, he was with Baring Private Equity Asia, where he was a Managing Director and head of Baring Asia's US office and subsequently co-head for Southeast Asia. Prior to joining Baring Asia, Mr. Loke was a Vice President at venture capital fund H&Q Asia Pacific from 1999 to 2000, a Senior Manager at management consulting firm AT Kearney from 1995 to 1999, and an R&D engineer with Motorola from 1991 to 1993. Mr. Loke was the former Chairman and President of the Singapore American Business Association in San Francisco.



CHARLES CHER LEW SIANG

*Executive Director and
Chief Executive Officer*

Position : Executive Director and Chief Executive Officer
Age : 55
Qualification : Bachelor of Science, Marketing and Management
University of Oregon, USA

Mr. Cher Lew Siang, Charles, formerly the Group Chief Executive Officer of ASTI Holdings Ltd. and Chief Executive Officer of Advanced Systems Automation Ltd., has more than 25 years of global semiconductor and corporate management experience. His achievements in ASTI include successfully leading the Group in its regional trust and establishment of many strategic partnerships. In 1990, he spearheaded the development of ASTI's chip-taping operations, enabling the Group to expand into the design and manufacture of its own chip-taping equipment. Mr. Cher previously sat on the Board of ASTI Holdings Ltd.

SOURCES: COMPANY REPORTS

Figure 19: Board of Directors



BASIL CHAN

Independent Director

Position : Independent Director
Chairman of Audit Committee
Age : 65
Qualifications : Bachelor of Science (Economics) Honours, major Business
Administration, University of Wales Institute of Science
and Technology, UK
Member of the Institute of Chartered Accountants /
England and Wales
Member of ISCA
Fellow Member of the Singapore Institute of Directors

Mr. Basil Chan is the Founder and Managing Director of MBE Corporate Advisory Pte Ltd. He was a Council Member and Board Director of the Singapore Institute of Directors from 2002 to 2013. He was a member of the Corporate Governance Committee in 2001 that developed the Singapore Code. He was previously a member of the Accounting Standards Committee of the Institute of Certified Public Accountants of Singapore ("ICPAS") and was formerly a member of the Audit and Assurance Standards Committee of the Institute of Singapore Chartered Accountants ("ISCA", formerly known as "ICPAS"). He is currently the Deputy Chairman of the Corporate Governance Committee of ISCA. Mr. Chan has more than 33 years of audit, financial and general management experience having held senior financial positions in both private and listed companies. Mr. Chan is also an independent non-executive director on the Boards of several publicly listed companies on the Singapore Stock Exchange namely Yoma Strategic Holdings Ltd, Grand Banks Yachts Limited, Global Invacon Group Limited, Singapore eDevelopment Limited and SBI Offshore Ltd. In the last 3 years, he previously sat on the Boards of Teledata (Singapore) Ltd.



KEITH TOH

Independent Director

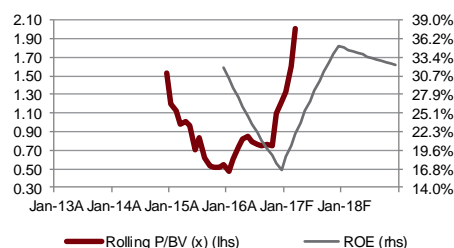
Position : Independent Director
Chairman of Nominating Committee
Age : 41
Qualification : Bachelor of Science (Electrical Engineering with Dean's
Award)
Stanford University, USA

Mr. Keith is a private investor and the founder and owner of Boost, a US-based internet business. He is also a venture partner at Novo Tellus Capital Partners, a Singapore-based investment firm. Mr. Toh was formerly an investment principal at Francisco Partners, a leading global technology-focused private equity fund. At Francisco Partners, Keith focused on investments in global technology sectors including electronics manufacturing, semiconductors, enterprise software, internet platforms, and optical communications. Keith has held numerous board positions over the last decade for technology companies worldwide, and is currently a director of Source Photonics, an optical components manufacturer, of Aconex, a publicly listed enterprise software company, and of Aura Knifeworks, a private retail company. Previously Keith was a product lead at Trilogy, an enterprise software company, and held research roles at Stanford University and the Singapore Ministry of Defense.

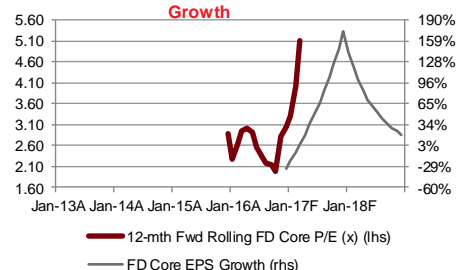
SOURCES: COMPANY REPORTS

BY THE NUMBERS

P/BV vs ROE



12-mth Fwd FD Core P/E vs FD Core EPS Growth



Revenue growth driven by strong demand from customer

Profit & Loss

| (\$m) | Dec-15A | Dec-16A | Dec-17F | Dec-18F | Dec-19F |
|---|--------------|--------------|---------------|---------------|---------------|
| Total Net Revenues | 51.51 | 70.39 | 138.04 | 176.63 | 211.23 |
| Gross Profit | 24.12 | 26.50 | 38.65 | 45.92 | 54.92 |
| Operating EBITDA | 5.26 | 7.38 | 15.70 | 18.39 | 21.87 |
| Depreciation And Amortisation | (1.26) | (0.82) | (0.70) | (0.70) | (0.70) |
| Operating EBIT | 4.00 | 6.56 | 15.00 | 17.69 | 21.17 |
| Financial Income/(Expense) | (0.03) | (0.02) | (0.09) | (0.09) | (0.09) |
| Pretax Income/(Loss) from Assoc. | 0.00 | (0.45) | (0.30) | (0.30) | (0.30) |
| Non-Operating Income/(Expense) | 0.74 | (0.35) | 0.00 | 0.00 | 0.00 |
| Profit Before Tax (pre-EI) | 4.97 | 5.90 | 14.61 | 17.30 | 20.78 |
| Exceptional Items | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pre-tax Profit | 4.72 | 5.74 | 14.61 | 17.30 | 20.78 |
| Taxation | 1.81 | (1.33) | (2.48) | (2.94) | (3.53) |
| Exceptional Income - post-tax | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Profit After Tax | 6.52 | 4.42 | 12.13 | 14.36 | 17.25 |
| Minority Interests | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Preferred Dividends | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FX Gain/(Loss) - post tax | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Adjustments - post-tax | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Profit | 6.52 | 4.42 | 12.13 | 14.36 | 17.25 |
| Recurring Net Profit | 6.78 | 4.54 | 12.13 | 14.36 | 17.25 |
| Fully Diluted Recurring Net Profit | 6.78 | 4.54 | 12.13 | 14.36 | 17.25 |

Free cash flow driven by limited PPE capex

Cash Flow

| (\$m) | Dec-15A | Dec-16A | Dec-17F | Dec-18F | Dec-19F |
|---|---------------|---------------|---------------|---------------|---------------|
| EBITDA | 5.26 | 7.38 | 15.70 | 18.39 | 21.87 |
| Cash Flow from Inv. & Assoc. | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 |
| Change In Working Capital | (6.97) | (9.05) | (17.41) | (10.98) | (5.55) |
| (Incr)/Decr in Total Provisions | (2.40) | (3.15) | (3.99) | (4.99) | (5.89) |
| Other Non-Cash (Income)/Expense | 1.26 | 0.82 | 0.70 | 0.70 | 0.70 |
| Other Operating Cashflow | (0.50) | 0.31 | (1.90) | (0.70) | (1.10) |
| Net Interest (Paid)/Received | 0.03 | (0.02) | (0.09) | (0.09) | (0.09) |
| Tax Paid | 0.80 | 0.11 | (1.33) | (2.48) | (2.94) |
| Cashflow From Operations | (1.52) | (1.61) | (5.31) | 3.84 | 12.00 |
| Capex | (0.68) | (0.61) | (0.50) | (0.50) | (0.50) |
| Disposals Of FAs/subsidiaries | 0.00 | 2.74 | 0.00 | 0.00 | 0.00 |
| Acq. Of Subsidiaries/investments | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Investing Cashflow | 1.56 | (3.20) | 0.00 | 0.00 | 0.00 |
| Cash Flow From Investing | 0.88 | (1.07) | (0.50) | (0.50) | (0.50) |
| Debt Raised/(repaid) | (0.30) | (0.08) | 3.02 | 0.00 | 0.00 |
| Proceeds From Issue Of Shares | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Shares Repurchased | (0.08) | (0.76) | 0.00 | 0.00 | 0.00 |
| Dividends Paid | 0.00 | (0.66) | (0.77) | (3.03) | (3.59) |
| Preferred Dividends | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Financing Cashflow | (0.10) | (0.02) | (0.09) | (0.09) | (0.09) |
| Cash Flow From Financing | (0.48) | (1.51) | 2.16 | (3.12) | (3.68) |
| Total Cash Generated | (1.12) | (4.19) | (3.66) | 0.22 | 7.82 |
| Free Cashflow To Equity | (0.94) | (2.75) | (2.80) | 3.34 | 11.50 |
| Free Cashflow To Firm | (0.61) | (2.65) | (5.72) | 3.43 | 11.59 |

SOURCE: CIMB RESEARCH, COMPANY DATA

BY THE NUMBERS... cont'd

Net cash balance sheet

Balance Sheet

| (\$m) | Dec-15A | Dec-16A | Dec-17F | Dec-18F | Dec-19F |
|--------------------------------------|--------------|--------------|--------------|--------------|---------------|
| Total Cash And Equivalents | 12.91 | 6.31 | 2.73 | 3.03 | 10.83 |
| Total Debtors | 10.38 | 17.78 | 34.04 | 43.55 | 52.08 |
| Inventories | 8.90 | 17.44 | 34.85 | 45.84 | 51.39 |
| Total Other Current Assets | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Current Assets | 32.19 | 41.53 | 71.62 | 92.42 | 114.30 |
| Fixed Assets | 3.24 | 2.23 | 2.03 | 1.83 | 1.63 |
| Total Investments | 0.00 | 4.22 | 3.77 | 3.47 | 3.17 |
| Intangible Assets | 0.22 | 0.07 | 0.07 | 0.07 | 0.07 |
| Total Other Non-Current Assets | 1.12 | 0.08 | 0.08 | 0.08 | 0.08 |
| Total Non-current Assets | 4.57 | 6.59 | 5.94 | 5.44 | 4.94 |
| Short-term Debt | 0.09 | 0.08 | 3.00 | 3.00 | 3.00 |
| Current Portion of Long-Term Debt | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Creditors | 11.38 | 16.73 | 34.04 | 43.55 | 52.08 |
| Other Current Liabilities | 0.66 | 1.05 | 1.05 | 1.05 | 1.05 |
| Total Current Liabilities | 12.13 | 17.86 | 38.08 | 47.60 | 56.13 |
| Total Long-term Debt | 0.08 | 0.01 | 0.10 | 0.10 | 0.10 |
| Hybrid Debt - Debt Component | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Other Non-Current Liabilities | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Non-current Liabilities | 0.08 | 0.01 | 0.10 | 0.10 | 0.10 |
| Total Provisions | 0.04 | 0.31 | 0.30 | 0.30 | 0.30 |
| Total Liabilities | 12.25 | 18.17 | 38.48 | 48.00 | 56.53 |
| Shareholders' Equity | 24.50 | 29.95 | 39.04 | 49.81 | 62.75 |
| Minority Interests | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Equity | 24.50 | 29.95 | 39.04 | 49.81 | 62.75 |

Margin should be maintained as scale effects kick in

Key Ratios

| | Dec-15A | Dec-16A | Dec-17F | Dec-18F | Dec-19F |
|---------------------------|---------|---------|---------|---------|---------|
| Revenue Growth | 54.5% | 36.6% | 96.1% | 28.0% | 19.6% |
| Operating EBITDA Growth | N/A | 40% | 113% | 17% | 19% |
| Operating EBITDA Margin | 10.2% | 10.5% | 11.4% | 10.4% | 10.4% |
| Net Cash Per Share (\$) | 0.29 | 0.15 | (0.01) | (0.00) | 0.18 |
| BVPS (\$) | 0.55 | 0.70 | 0.91 | 1.16 | 1.47 |
| Gross Interest Cover | 157.7 | 319.7 | 166.7 | 196.5 | 235.3 |
| Effective Tax Rate | 0.0% | 23.1% | 17.0% | 17.0% | 17.0% |
| Net Dividend Payout Ratio | 6.5% | 16.8% | 25.0% | 25.0% | 25.0% |
| Accounts Receivables Days | 63.26 | 73.19 | 68.50 | 80.17 | 82.63 |
| Inventory Days | 119.6 | 109.8 | 96.0 | 112.7 | 113.5 |
| Accounts Payables Days | 179.0 | 117.2 | 93.2 | 108.3 | 111.7 |
| ROIC (%) | 60.6% | 56.9% | 75.7% | 49.2% | 45.3% |
| ROCE (%) | 19.9% | 24.4% | 41.2% | 37.0% | 35.5% |
| Return On Average Assets | 18.7% | 10.8% | 19.4% | 16.5% | 16.0% |

Assuming 10% ASP decline (high end of company's historical experience in the business).

Key Drivers

| | Dec-15A | Dec-16A | Dec-17F | Dec-18F | Dec-19F |
|-----------------------------------|---------|---------|---------|---------|---------|
| ASP Change (% , Main Product) | 0.0% | 0.0% | 0.0% | -10.0% | -10.0% |
| Unit sales growth (% , main prod) | N/A | N/A | N/A | N/A | N/A |
| No. Of Lines (main Product) | N/A | N/A | N/A | N/A | N/A |
| Rev per line (US\$, main prod) | N/A | N/A | N/A | N/A | N/A |
| ASP chg (% , 2ndary prod) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Unit sales grth (% , 2ndary prod) | N/A | N/A | N/A | N/A | N/A |
| No. Of Lines (secondary Product) | N/A | N/A | N/A | N/A | N/A |
| Rev per line (US\$, 2ndary prod) | N/A | N/A | N/A | N/A | N/A |

SOURCE: CIMB RESEARCH, COMPANY DATA

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| | | | | | |
|---------------------|-----------|-----------|---------|-------------|------------------|
| Score Range: | 90 - 100 | 80 - 89 | 70 - 79 | Below 70 or | No Survey Result |
| Description: | Excellent | Very Good | Good | N/A | |

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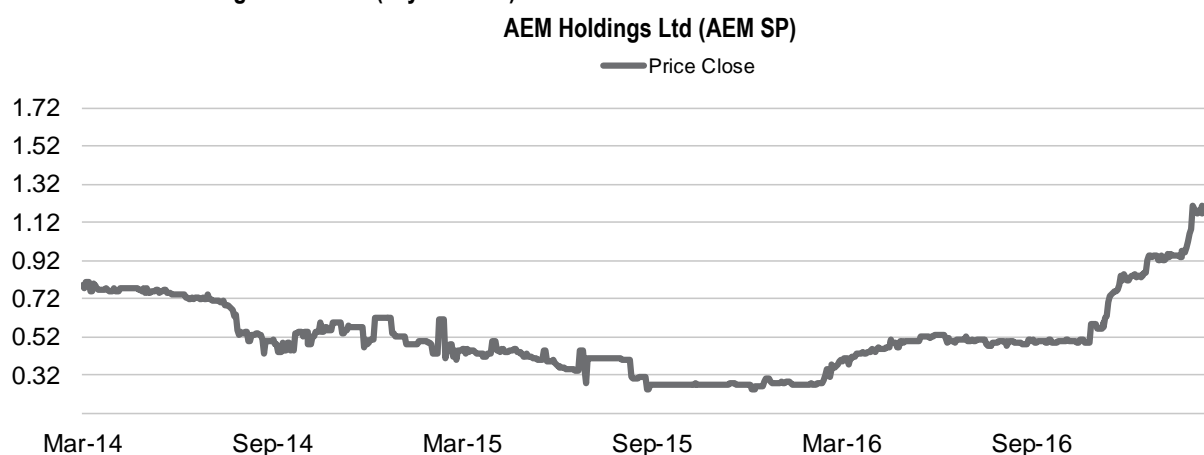
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| Distribution of stock ratings and investment banking clients for quarter ended on 31 December 2016 | | |
|--|-------------------------|--------------------------------|
| 1626 companies under coverage for quarter ended on 31 December 2016 | | |
| | Rating Distribution (%) | Investment Banking clients (%) |
| Add | 58.4% | 5.4% |
| Hold | 29.6% | 1.4% |
| Reduce | 11.6% | 0.4% |

Spitzer Chart for stock being researched (2 year data)



Corporate Governance Report of Thai Listed Companies (CGR). CG Rating by the Thai Institute of Directors Association (Thai IOD) in 2016, Anti-Corruption 2016.

AAV – Very Good, n/a, **ADVANC** – Very Good, Certified, **AEONTS** – Good, n/a, **AMATA** – Excellent, Declared, **ANAN** – Very Good, Declared, **AOT** – Excellent, Declared, **AP** – Very Good, Declared, **ASK** – Very Good, Declared, **ASP** – Very Good, Certified, **BANPU** – Very Good, Certified, **BAY** – Excellent, Certified, **BBL** – Very Good, Certified, **BCH** – not available, Declared, **BCP** – Excellent, Certified, **BEM** – Very Good, n/a, **BDMS** – Very Good, n/a, **BEAUTY** – Good, Declared, **BEC** – Good, n/a, **BH** – Good, Declared, **BIGC** – Excellent, Declared, **BJC** – Good, n/a, **BLA** – Very Good, Certified, **BPP** – not available, n/a, **BTS** – Excellent, Certified, **CBG** – Good, n/a, **CCET** – not available, n/a, **CENTEL** – Very Good, Certified, **CHG** – Very Good, n/a, **CK** – Excellent, n/a, **COL** – Very Good, Declared, **CPALL** – not available, Declared, **CPF** – Excellent, Declared, **CPN** – Excellent, Certified, **DELTA** – Excellent, Declared, **DEMCO** – Excellent, Certified, **DTAC** – Excellent, Certified, **EA** – Very Good, Declared, **ECL** – Good, Certified, **EGCO** – Excellent, Certified, **EPG** – Good, n/a, **GFPT** – Excellent, Declared, **GLOBAL** – Very Good, Declared, **GLOW** – Very Good, Certified, **GPSC** – Excellent, Declared, **GRAMMY** – Excellent, n/a, **GUNKUL** – Very Good, Declared,

HANA - Excellent, Certified, **HMPRO** - Excellent, Declared, **ICHI** - Very Good, Declared, **INTUCH** - Excellent, Certified, **ITD** - Good, n/a, **IVL** - Excellent, Certified, **JAS** - not available, Declared, **JASIF** - not available, n/a, **JUBILE** - Good, Declared, **KAMART** - not available, n/a, **KBANK** - Excellent, Certified, **KCE** - Excellent, Certified, **KGI** - Good, Certified, **KKP** - Excellent, Certified, **KSL** - Very Good, Declared, **KTB** - Excellent, Certified, **KTC** - Excellent, Certified, **LH** - Very Good, n/a, **LPN** - Excellent, Declared, **M** - Very Good, Declared, **MAJOR** - Good, n/a, **MAKRO** - Good, Declared, **MALEE** - Very Good, Declared, **MBKET** - Very Good, Certified, **MC** - Very Good, Declared, **MCOT** - Excellent, Declared, **MEGA** - Very Good, Declared, **MINT** - Excellent, Certified, **MTLS** - Very Good, Declared, **NYT** - Excellent, n/a, **OISHI** - Very Good, n/a, **PLANB** - Very Good, Declared, **PSH** - not available, n/a, **PSL** - Excellent, Certified, **PTT** - Excellent, Certified, **PTTEP** - Excellent, Certified, **PTTGC** - Excellent, Certified, **QH** - Excellent, Declared, **RATCH** - Excellent, Certified, **ROBINS** - Very Good, Declared, **RS** - Very Good, n/a, **SAMART** - Excellent, n/a, **SAPPE** - Good, n/a, **SAT** - Excellent, Certified, **SAWAD** - Good, n/a, **SC** - Excellent, Declared, **SCB** - Excellent, Certified, **SCBLIF** - not available, n/a, **SCC** - Excellent, Certified, **SCN** - Good, Declared, **SCCC** - Excellent, Declared, **SIM** - Excellent, n/a, **SIRI** - Good, n/a, **SPALI** - Excellent, Declared, **SPRC** - Very Good, Declared, **STA** - Very Good, Declared, **STEC** - Excellent, n/a, **SVI** - Excellent, Certified, **TASCO** - Very Good, Declared, **TCAP** - Excellent, Certified, **THAI** - Very Good, Declared, **THANI** - Very Good, Certified, **THCOM** - Excellent, Certified, **THRE** - Very Good, Certified, **THREL** - Very Good, Certified, **TICON** - Very Good, Declared, **TISCO** - Excellent, Certified, **TK** - Very Good, n/a, **TKN** - Good, n/a, **TMB** - Excellent, Certified, **TOP** - Excellent, Certified, **TPCH** - Good, n/a, **TIPIP** - not available, n/a, **TRUE** - Very Good, Declared, **TTW** - Very Good, Declared, **TU** - Excellent, Declared, **UNIQ** - not available, Declared, **VGI** - Excellent, Declared, **WHA** - not available, Declared, **WHART** - not available, n/a, **WORK** - not available, n/a.

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- Companies that have declared their intention to join CAC, and
- Companies certified by CAC

CIMB Recommendation Framework

Stock Ratings

Definition:

- Add** The stock's total return is expected to exceed 10% over the next 12 months.
- Hold** The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
- Reduce** The stock's total return is expected to fall below 0% or more over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

Sector Ratings

Definition:

- Overweight** An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
- Neutral** A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
- Underweight** An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

Country Ratings

Definition:

- Overweight** An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
- Neutral** A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
- Underweight** An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.