

Health Management International

A visit to the crown jewel in Melaka



StocksBnB.com

SINGAPORE | HEALTHCARE | COMPANY VISIT

17 May 2017

- Regency taps onto unmet local demand gap whilst Mahkota attracts foreign patients
- Investment thesis remains intact: Increasing capacity, stronger patient demand, and higher revenue intensity to boost revenue growth
- Unique ability to attract and retain specialist doctors
- Maintained **“Buy”** rating with a DCF derive **TP of SGD0.83**

We attended an analyst site visit to Regency Specialist Hospital (“Regency”) in Johor and Mahkota Medical Centre (“Mahkota”) in Melaka on 5th to 6th May 2017. The visit provided an opportunity for us to understand how Health Management International (“HMI”) position itself amidst competitive landscape, and how it structures its growth strategies around the diverse operating environment in Johor and Melaka. We also had a brief overview of the performances of new and maturing hospitals.

During the trip, the Group CEO, as well as CEOs, Directors and General Manager of the two hospitals, shared with us some of their market insights and technicalities of the hospital operations.

Site visit key takeaways

- The newly launched PET-CT scan in Mahkota dominates diagnostic nuclear imaging service in Melaka.** The imaging service is gaining traction, with a total of 54 cases in Apr 2017, i.e. an average of 6-8 patients/day (industry maximum of 10-12 patients/day). Management is optimistic of wider usage of PET-CT scan in Malaysia on the back of its growing prominence; and (ii) increasing incidence of cancer.
- Expansion pipeline on track:** (i) a new ward with c.30 operational beds to be added to each of Mahkota and Regency by 1H FY18; and (ii) Hospital Extension Block at Regency by FY2020. Next prospective expansion in the medium to long term could be a multi-storey car park and a new hospital extension block for Mahkota. Two plots of car park space available for potential expansion. Currently there are still capacity at the Level 9 Administration Office. Mahkota could move its back office to another location, freeing some space in the existing block to add new beds before constructing a new hospital extension block.
- Investment thesis remains intact:** (i) Growing patient demand supported by favourable macro backdrop; (ii) Higher average bill size driven by its expanding range of specialist and sub-specialists, facilities and services; and (iii) Expanding capacity. The Group’s positioning and growth strategy for the two hospitals varies – Regency to focus on meeting local demand gap; while Mahkota to tap on foreign market demand amidst saturated local market. Higher foreign patient load will boost revenue intensity; higher utilization rate of its facilities and services will increase profitability.
- Unique partnership model to attract and retain specialist doctors.** Malaysia is suffering from specialist shortage. There are only about 9,000 specialist doctors nationwide serving the 30.33 million population of Malaysia (equivalent to 0.3 specialist doctor per 1,000 people). The Group offers specialist doctors a chance to start their own medical practise while able to enjoy as the benefit of being part of a hospital ecosystem. The doctors under the Group earn procedure fees and drugs margins, which has a higher earning potential compared to other private hospitals in Malaysia. Management also shared that collaboration with Kaohsiung Medical University could help in terms of medical staff trainings and attracts Malaysian specialists graduated in Taiwan to return and practise in Malaysia.

Buy (Maintained)

LAST CLOSE PRICE	SGD 0.610
FORECAST DIV	SGD 0.002
TARGET PRICE	SGD 0.83
TOTAL RETURN	36.0%

COMPANY DATA

BLOOMBERG CODE	HMISP
O/S SHARES (MN)	821
MARKET CAP (USD mn / SGD mn)	358 / 501
52 - WK HI/LO (SGD)	0.75 / 0.32
3M Average Daily T/O (mn)	0.91

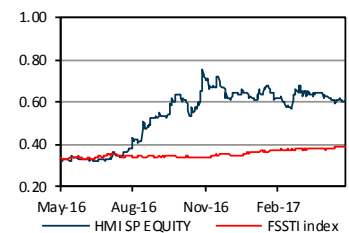
MAJOR SHAREHOLDERS (%)

Nam See Investment Pte Ltd	52.4%
Maju Medik (Malaysia) Sdn Bhd	18.8%
Kabouter Management LLC	6.0%
Cheah Way Mun	3.5%
Gan See Khem	1.3%

PRICE PERFORMANCE (%)

	1M TH	3M TH	1YR
COMPANY	(5.5)	(5.8)	87.7
STIRETURN	3.90	6.67	23.82

PRICE VS. STI



Source: Bloomberg, PSR

KEY FINANCIALS

Y/E Jun	FY 15	FY 16	FY 17F	FY 18 F
Revenue (RM mn)	345	398	449	494
EBITDA (RM mn)	73	85	87	98
NPAT (RM mn)	28	20	24	60
EPS (RM cts)	4.79	3.45	3.44	7.42
EPS (S cts)	1.65	1.15	1.09	2.35
PER, adj. (x)	21.5	29.3	55.8	25.9
P/BV, x	4.1	3.4	5.2	4.8
DPS (S cts)	-	0.25	0.22	0.48
Div Yield (%)	-	0.4%	0.4%	0.8%
ROE (%)	21.7%	12.6%	11.1%	20.7%

Source: Bloomberg

VALUATION METHOD

DCF (WACC: 7.0%; terminal g: 1.0%)

Soh Lin Sin (+65 6212 1847)

sohls@phillip.com.sg

Mahkota Medical Centre – the Crown Jewel in Melaka

PET-CT Scan: A revolutionary technology with promising prospect

The PET-CT (Positron Emission Tomography-Computed Tomography) scan combines both PET and CT scan images to produce one image, which can **detect most cancers in the human body at an earlier stage** than most well-known imaging techniques (such as MRI, CT, and Ultrasound scanning), and even blood tests could. Note that cancer treatment is often more successful in early detection cases.

Essentially, the PET-CT scan can be used in diagnostic imaging procedures in oncology, surgical planning, radiation therapy and cancer staging. It helps physicians to diagnose, stage, treat and manage cancer/tumour with more specificity and accuracy, resulting in a better outcome for the patient.

- It gives a more complete picture of a tumour's location, size, growth, and spread.
- It also improves the ability to diagnose cancer, to determine how far a tumour has spread, to plan treatment, and to monitor response to the treatment.
- It may also reduce the number of additional imaging tests and other procedures a patient need, thus reducing the cost of treatment.

However, PET-CT scan is less common in Malaysia because of resource scarcity – it requires (i) substantial investment in the PET-CT scanner; and (ii) highly trained personnel to operate and manage the radiopharmaceuticals.

Mahkota is the first and the only one in Melaka, to install a PET-CT scanner. Mahkota dominates diagnostic nuclear imaging service in Melaka while offers hospitals in vicinity a nearer solution. The other hospital which offers PET-CT scan service in South Malaysia is KPJ Johor Specialist Hospital (since Nov 2015).

Management is optimistic of a wider usage of PET-CT scan in Malaysia on the back of (i) its growing prominence; and (ii) increasing incidence of cancer.

Table 1:

PET-CT scan in Mahkota	Remarks
Capital outlay	RM6-7 million + Maintenance fees for the scanner
Variable cost	The radiotracer used in PET/CT imaging, i.e. <i>F-18 Fluorodeoxyglucose (F18-FDG)</i> *
Usage fee payable by patient	RM4,000/scan (compared to Singapore's ~S\$4,000/scan)
Target market	All cancer patients, from internal or external referrals for local and foreign patients The Group is reaching out to the healthcare service providers in Seremban, Malaysia
Utilisation rate	Currently only opens for two days per week (for effective cost management); Operational days to increase as it gains patient volume Positive reception and has been gaining traction (cases per month is growing) Receipt of 100 over cases since commencement of service in end-Nov 2016 54 cases in Apr 2017, i.e. an average of 6-8 patients/day (industry maximum of 10-12 patients/day).

Source: Company, PSR

* MMC does not produce the radiotracer, and as the radioactivity of the F-18 FDG reduces by 50% over 110 minutes, it cannot be imported. The F-18 FDG market in Malaysia is controlled by duopoly, i.e. Beacon Hospital and IBA RadioPharma Solutions, which are located near Kuala Lumpur.

Figure 1 & 2: The newly launched PET-CT scan machine

Preparation work includes pre-injection briefing to patient, preparation of radiotracer for injection, and injection of radiotracer into patient.

The scanning process takes about 20 to 30 minutes and patient will be isolated for 2 hours after the scan.

The whole process will take about 4 hours to complete.



Source: PSR

Potential expansion in Mahkota of in existing hospital block, as well as additional parking space, and potentially a new hospital extension block

Mahkota owns two parking lots which would be the plots for its potential expansion plan. Management shared that, in medium to long term plan, Mahkota would build a multi-storey carpark, which we think likely to be at **Car Park 2** (see **Figure 4**).

We also think that it is possible that Mahkota will move its back office to another location – freeing some space in the existing block to add new beds before construction of extension block. We think the extension block could be at **Car Park 1** (see **Figure 3**) as it is closer to Mahkota.

We think that a potentially new hospital extension block in the medium to long term plan would mainly add more clinical service areas and clinic suites, expanding the range of specialty and sub-specialty offered. The additional capacity would be supported by the growing patient base, from both local and foreign, particularly arising from the development in Melaka (such as Melaka Gateway project and several Chinese investments in Melaka).

(i) Figure 3: Car Park 1 (Next to Mahkota; or between Hatten Hotel and Mahkota)



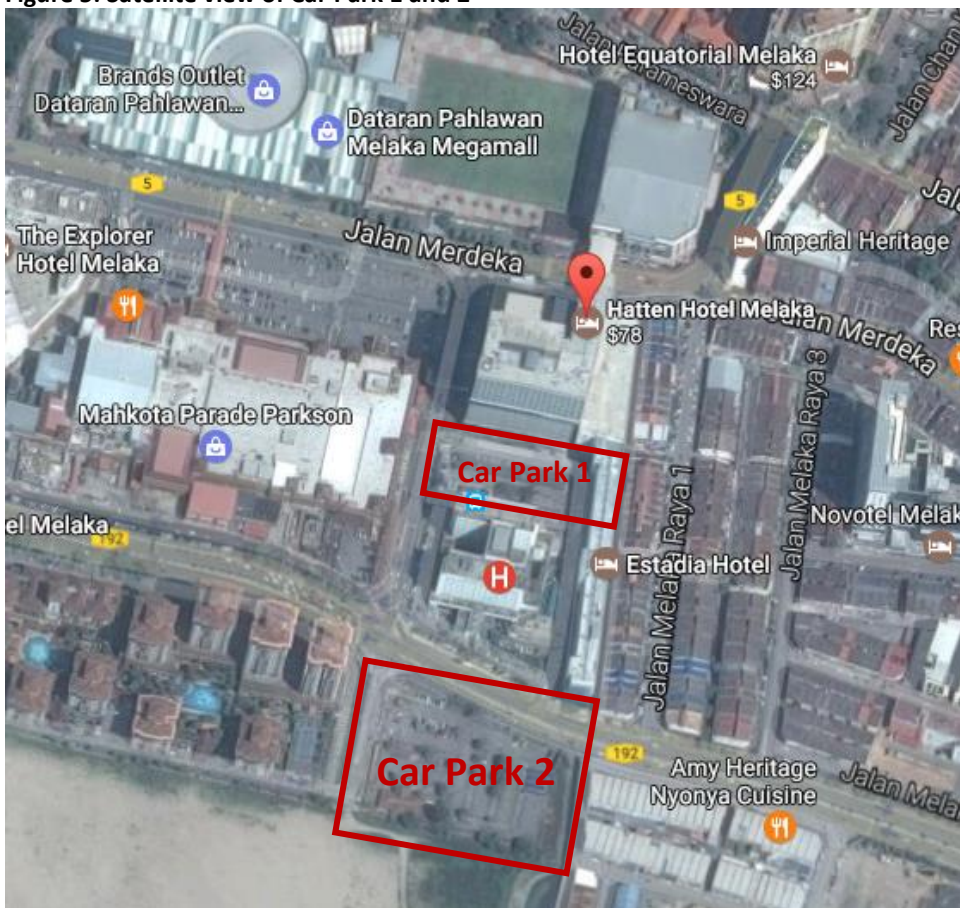
Source: Google Map, Image captured on Dec 2015

(ii) Figure 4: Car Park 2: Across the street (Opposite Mahkota)



Source: PSR

(iii) Figure 5: Satellite view of Car Park 1 and 2



Source: Google Map, Image captured on 2017

Strategic Positioning and Growth Strategy

RSH, a Regional Solution for Locals; MMC, a Magnet to Medical Tourists

Recall that in our [Initiation Report](#), we mentioned that, healthcare facilities in Johor is under-supplied with bed-to-population ratio* at 1.7, when compared to Malaysia's at 1.9. On the other hand, Malacca has higher bed density at 2.5.

**Number of beds available in both public and private hospitals per 1,000 people (Source: CEIC)*

Hence, the Group's growth strategy for the two hospitals are very different, with Regency focusing on meeting local demand gap; and Mahkota to tap on foreign market demand amidst saturated scene in the local market. This can be well reflected on the patient mix in [Table 2](#).

Regency's next initiative would be collaboration with insurance and corporates to grow its corporate account

- Management noted that only 70% of Regency's patients are insurance-covered.
- Being the closest tertiary hospital and the only private hospital to have 24-hour A&E staffed by emergency specialists in Pasir Gudang industrial area and new Petronas oil refinery-petrochemicals complex area (i.e. RAPID), gives Regency an edge to attract corporate clients. *(Note: Petronas is now a corporate client of Regency due to the reason mentioned)*

Nonetheless, management does not discount that there is room for Regency to attract foreign patients. It has recently started its marketing outreach to international patients, in particular from Indonesia and Singapore. Being one of the two hospitals in Johor, Malaysia, approved for Medisave use, offers a stronger value proposition for Singapore patients.

Meanwhile, the strategic location of Mahkota offers a full ecosystem for medical tourists, including food, accommodation, and transportation

- Mahkota is the only private healthcare provider in Melaka which provide transportation arrangement (via third party vendor) from Kuala Lumpur International Airport ("KLIA") to facilitate foreign patients travelling by air.
- It also offers same-day repot for health screening and same-day surgeries, which help to save time and limit travel costs for foreign patients.

It is not surprising when Management shared that ***Mahkota has the highest foreign patient load in Malaysia***. Its main competitor by states within Malaysia would be the private hospitals in Penang. Foreign patients in private hospitals in Kuala Lumpur are mainly expats, and note that the costs of living in Melaka is lower than Kuala Lumpur.

Within the state of Melaka, Mahkota being Indonesian's top preferred private hospital, despite Pantai Medical Centre Ayer Keroh having an 8 years of head start before the establishment of Mahkota, is a testament of effective marketing of its 17 representative offices in Indonesia.

Table 2: Recap on HMI's healthcare facilities, workforce strength and expansion plan

	Regency Specialist Hospital	Mahkota Medical Centre
Number of Beds	218 bed capacity 166 operational beds New ward (with additional 34 beds) to be added in 1H FY2018	288 bed capacity 266 operational beds New ward (with additional 36 beds) to be added in 1H FY2018
Number of Doctors	Over 70 practising consultants <ul style="list-style-type: none"> c.40 Resident consultants c.20 Part Time consultants c.10 Visiting consultants 	Over 120 practising consultants <ul style="list-style-type: none"> 92 Resident consultants (excluding a new Resident consultant joining soon) 5 Part-Time consultants 36 Visiting consultants
Patient mix <i>(in terms of revenue)</i>	95% Local : 5% Foreign Majority of its foreign patient are Indonesian, due to proximity and availability of direct flights and ferry. As mentioned in our Initiation Report , Indonesian patients tend to have 1.5x larger hospital bill size.	67% Local : 33% Foreign
Capacity expansion	New hospital extension block The 10-Storey hospital extension wing will more than double existing capacity at the hospital with 300 more inpatient beds, clinical service areas, operating theatres as well as clinic suites. Construction is expected to commence in 1H FY2018, and take up to 2.5 years to complete.	Potential to build new hospital extension on adjacent plot of land (in medium to long term plan)

Figure 6: Designated business counter in Mahkota for enquiries and ticketing for bus, flights, ferry, taxi and shuttle van



Source: PSR

Investment Thesis Remains Intact

Growing demand from local and overseas markets

(a) Lack of healthcare facilities in Indonesia

- The Indonesian government targets to provide universal health care under the National Health Insurance Programme (JKN) to all Indonesians by the year 2019.
- **However, the number of facilities remains limited:** undersupplied public hospitals coupled with handful of private hospitals that have opted to join the scheme as providers (due to unattractive scheme in terms of amount and time).
- With a growing middle-income class, Indonesians seek medical treatment abroad for quality healthcare services. Malaysia, being a neighbouring country with similar culture and language, while offering a more competitive pricing (compared to the private healthcare providers in Singapore, and even in Indonesia), has been a popular destination for Indonesian patients.
- **Some potential initiatives the Group may implement to boost Indonesian patient load:** (i) engage Third Party Administrator Services, and (ii) extending cashless admission to Indonesian patients.

(b) Macro tailwinds at play at local scene

- Increasing access to healthcare/medical insurance will propel patients transition from public to private healthcare services.
- Both Melaka and Johor are undergoing major development:
 - (i) Melaka Gateway project and several Chinese investments in Melaka; and
 - (ii) Pasir Gudang Industrial Area and new RM60 billion Petronas RAPID (Refinery and Petrochemical Integrated Development) project in Johor
 Bright prospects in property market, growing population and consumer affluence, improving standards of living as well as infrastructure upgrade in both states, will boost demand for quality healthcare.

Higher average bill size per patient

Recall that Malaysia's healthcare fees are regulated under the Private Healthcare Facilities and Services Act 1998 and Regulations 2006. The professional fees of doctors are controlled with a maximum ceiling. While the cost of hospital care, day surgeries, screening and diagnosis services, ambulance services, and clinical laboratories, are not covered under these Acts.

Hence, the number of complex cases treated in the hospitals and the utilisation of its services and facilities are the main drivers for to average bill size per patient.

Management shared that services and facility fees are the main contributors to its bottom line, as compared to ward room fees. These higher margin items include charges from operating theatre ("OT") usage, intensive care and monitoring costs, nursing care costs, etc. Mahkota has 12 OTs and 2 Day Surgery Units; while Regency has 6 OTs.

Factors which could increase utilization rate of Operating Theatre ("OT") and Day Surgery facilities:

- (i) Deepening of insurance coverage on day surgery will increase day surgery load. Only some private insurance providers in Malaysia cover medical expenses for day surgery, and Malaysia is still in the midst of considering a national health insurance scheme. *(Note: Singapore government has already included day surgery under Medisave)*
- (ii) Higher patient volume, especially foreign patients who typically involve complex cases. Approximately 40-50% of outpatient revenue in Mahkota are contributed by day surgery).

The increasing day surgery load would effectively also lift bed turnover ratio.

Management shared that the fees for OT usage are charged based on a certain percentage of procedure fees. As most of the procedure fees are capped by the Private Healthcare Act, Mahkota's model has a more competitive pricing, as compared to other hospitals which charge based on number of hours of usage.

Quality assurance builds and sustains brand equity

HMI will renew its wards every six years to improve a patient's experience during the hospital stay. Recently, Mahkota has went through a minor ward renovation (aesthetic); while Regency is still in the midst of refitting its six wards (four wards completed renovation, one undergoing, and one pending to be completed by end-2017).

We also noted that the two hospitals would be up for review for the Malaysian Society for Quality in Health (MSQH) Hospital Accreditation Standards in 15-17 May 2017. MSQH is a local system of accreditation, developed based on national standards and best practices in Malaysia's healthcare industry. It gives hospitals a government certified standard of quality and cost much less than the internationally recognised Joint Commission International ("JCI") accreditation.

Currently, none of the public hospital in Melaka is accredited and all three private hospitals in Melaka, including Mahkota, are accredited. On the other hand, only one public hospital and six private hospitals in Johor are accredited.

Management is open to undertake JCI accreditation in future. This would further improves its profile on the international platform, as well as attracts medical tourists from United States, Europe and Middle East.

Figure 7:
Logo for MSQH Accreditation



Source: MSQH website

An Industry-wide Challenge, to Attract and Retain Medical Specialists

Scarcity of specialists in Malaysia

Malaysia is facing a shortage of specialist doctors. There are more than 46,000 doctors nationwide, but only c.20% of them are specialists, majority are general practitioners.

According to the Malaysia's Ministry of Health, there has been a continued departure of medical specialist from public sector. Over the past six years, c.150 medical specialists left the public service every year.

Management shared the main pull factors for specialists to join private healthcare institutes in Malaysia:

- Work-life balance as compared to the work overload issue in overcrowded public hospitals
- To stay close to their families
- Better compensation package in private healthcare sector

While we may see some brain drain to overseas countries, particularly to Singapore due to its proximity, but Malaysia has a greater unmet demand gap as compared to a more saturated healthcare market in Singapore. In addition, the starting costs in Singapore is much higher as compared to Malaysia's.

In addition to a well-established referral network, HMI also offers a unique partnership model to attracts and retains top specialist doctors.

Table 3: In HMI, doctors own their clinic business, but also enjoy the benefit of being part of a hospital ecosystem

	HMI	Other Private Hospitals in Malaysia
Medical suite ownership	Yes	Mostly no
Individual private clinic license required	Yes	Mostly no
Drug dispensing rights	Yes	No
Compensation package to doctors	Procedure fees + drugs margin	Procedure fees only

Source: Company, PSR

Collaboration with Kaohsiung Medical University, KMU

According to China Times dated 16 April 2017, KMU has signed a Memorandum of Cooperation (MOC) with HMI to provide HMI support in terms of medical staff training, manpower, hospital management, and seek opportunities of potential partnership in building a new international hospital in future.

There had been an increasing trend of returning Malaysian doctors from Taiwan. Malaysia now houses over 400 KMU alumni, according to the news article. (Source: <http://www.chinatimes.com/newspapers/20170416000402-260107>)

KMU is one of the eight Taiwan medical universities recognised by The Malaysian Medical Council under Second Schedule Medical Act 1971. Any medical graduate who holds a medical qualification from an institution not listed in the Second Schedule of the Medical Act is required to sit and passed an examination approved by the Minister of Health to practise medicine in Malaysia.

We believe the trend of Malaysian doctors returning and practising in Malaysia will continue as:

- (i) Malaysian government has implemented Returning Expert Programme via Talent Corp to encourage Malaysians abroad with expertise in selected priority sectors to return and work in Malaysia.
- (ii) The compensation package offered by Malaysia healthcare institutions could be more attractive as compared to Taiwan's. The healthcare providers in Taiwan are facing challenges as profits are eroded by increasing medical and operating costs, while medical fees are limited by the national health insurance system.

Financials

Income Statement

Y/E Jun, MYR mn	FY14	FY15	FY16	FY17F	FY18F
Revenue	293	345	398	449	494
EBITDA	58	73	85	87	98
Depreciation & Amortisation	(14)	(16)	(18)	(22)	(26)
EBIT	42	53	63	64	72
Share of results of assoc.	5	3	2	2	0
Net Finance Inc/(Exp)	(1)	(2)	(2)	(3)	(8)
Profit before tax	46	55	63	64	72
Taxation	(10)	(1)	(18)	(19)	(12)
NPAT before NCI, reported	36	53	45	46	60
NPAT before NCI, adjusted	38	57	48	56	60
Non-controlling interest	(20)	(26)	(26)	(22)	0
PATMI, reported	16	28	20	24	60
PATMI, adjusted	18	31	23	35	60

Per share data (MYR Cents)

Y/E Jun	FY14	FY15	FY16	FY17F	FY18F
EPS, reported	2.78	4.79	3.45	3.44	7.42
DPS	0.00	0.00	0.75	0.70	1.50
BVPS	19.14	25.02	29.58	37.08	39.78

Per share data (SGD Cents)

Y/E Jun	FY14	FY15	FY16	FY17F	FY18F
FX rate (SGD/MYR)	0.39	0.34	0.33	0.32	0.32
EPS, reported	1.09	1.65	1.15	1.09	2.35
DPS	0.00	0.00	0.25	0.22	0.48
BVPS	7.52	8.62	9.90	11.77	12.63

Cash Flow

Y/E Jun, MYR mn	FY14	FY15	FY16	FY17F	FY18F
CFO					
Profit before tax	46	55	63	64	72
Adjustments	14	21	27	23	33
WC changes	4	17	(4)	(21)	8
Cash generated from ops	64	92	86	66	113
Others	(11)	(11)	(13)	(23)	(22)
Cashflow from ops	52	82	73	43	91
CFI					
CAPEX, net	(12)	(10)	(11)	(18)	(83)
Others	2	3	(11)	(209)	2
Cashflow from investments	(10)	(7)	(22)	(227)	(81)
CFF					
Share issuance, net	0	0	(1)	58	0
Loans, net of repayments	(8)	(15)	1	183	64
Dividends	0	0	0	(4)	(5)
Others	(10)	(9)	(25)	(12)	0
Cashflow from financing	(18)	(24)	(25)	225	59
Net change in cash	25	50	26	41	69
Effect of FX	0	0	1	1	1
CCE, end	26	39	79	58	137

Source: Company, Phillip Securities Research (Singapore) Estimates

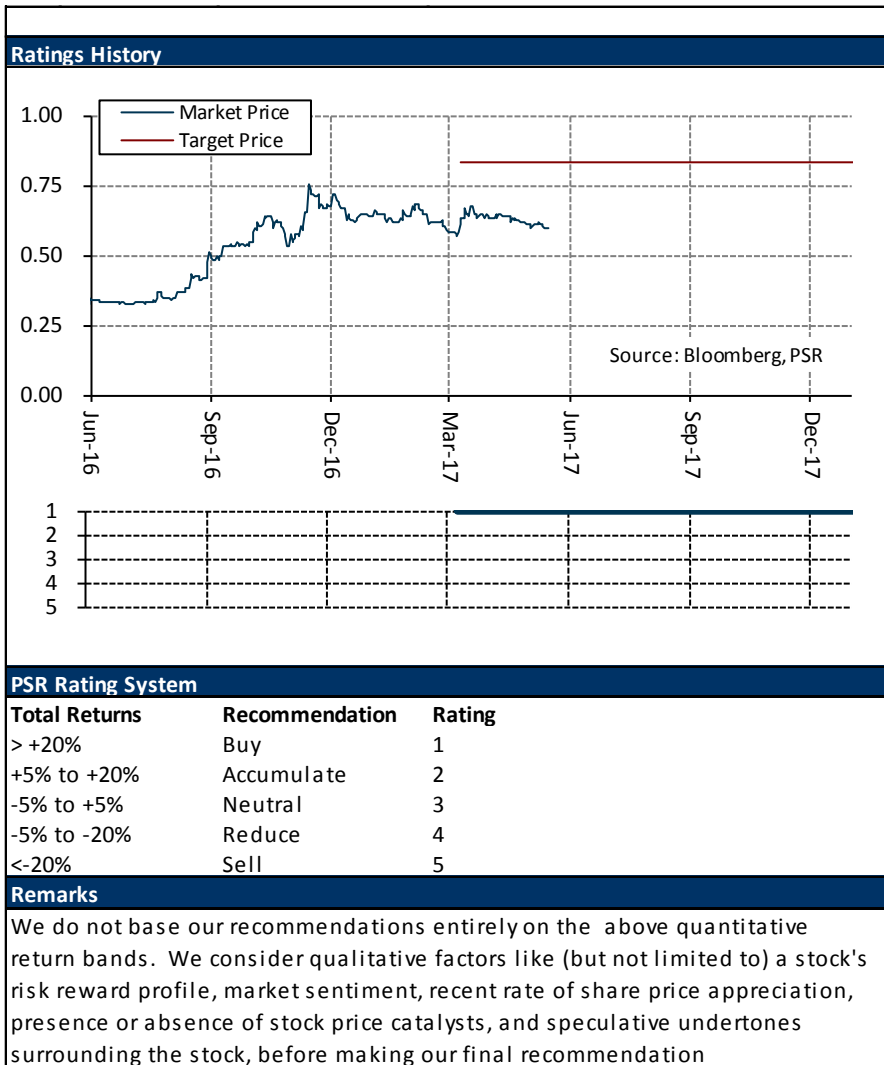
*Forward multiples & yields based on current market price; historical multiples & yields based on historical market price.

Balance Sheet

Y/E Jun, MYR mn	FY14	FY15	FY16	FY17F	FY18F
ASSETS					
PPE	143	180	178	174	231
Others	38	48	50	263	263
Total non-current assets	180	228	228	436	494
Accounts receivables	71	88	58	82	82
Cash	26	39	79	58	137
Inventories	5	13	14	15	15
Others	5	4	4	4	4
Total current assets	107	144	155	159	238
Total Assets	287	372	383	595	732
LIABILITIES					
Accounts payables	56	66	79	83	91
Short term loans	34	29	27	27	27
Others	3	2	6	6	6
Total current liabilities	93	97	113	117	124
Long term loans	22	12	14	198	262
Others	20	58	24	24	24
Total non-current liabilities	42	69	38	222	286
Total Liabilities	135	167	151	338	410
EQUITY					
Non-controlling interests	42	61	62	0	0
Shareholder Equity	110	144	171	257	321

Valuation Ratios

Y/E Jun	FY14	FY15	FY16	FY17F	FY18F
P/E (X), adj.	19.0	21.5	29.3	55.8	25.9
P/B (X)	2.8	4.1	3.4	5.2	4.8
EV/EBITDA (X), adj.	5.2	8.1	6.9	17.9	15.9
Dividend Yield (%)	0.0%	0.0%	0.4%	0.4%	0.8%
Growth & Margins (%)					
Growth					
Revenue	19.4%	17.9%	15.2%	12.9%	9.9%
EBITDA	26.8%	26.3%	15.4%	2.6%	12.9%
EBIT	25.7%	25.8%	18.7%	1.5%	12.4%
Net profit, adj.	142.1%	77.7%	-27.1%	51.1%	73.5%
Margins					
EBITDA margin	19.8%	21.2%	21.2%	19.3%	19.8%
EBIT margin	14.5%	15.4%	15.9%	14.3%	14.6%
Net profit, adj. margin	6.0%	9.1%	5.7%	7.7%	12.1%
Key Ratios					
ROE (%)	15.7%	21.7%	12.6%	11.1%	20.7%
ROA (%)	5.8%	8.4%	5.3%	4.9%	9.0%
Net Debt / (Cash)	29	2	(37)	168	153
Net Gearing (X)	19.3%	0.7%	Net Cash	65.3%	47.6%



Contact Information (Singapore Research Team)

Head of Research

Paul Chew – paulchewkl@phillip.com.sg

Research Operations Officer

Mohamed Amiruddin - amiruddin@phillip.com.sg

Consumer | Healthcare

Soh Lin Sin - sohls@phillip.com.sg

Property | Infrastructure

Peter Ng - peterngmc@phillip.com.sg

Macro

Pei Sai Teng - peist@phillip.com.sg

Transport | REITs (Industrial)

Richard Leow, CFTe, FRM -
richardleowwt@phillip.com.sg

REITs (Commercial, Retail, Healthcare) | Property

Dehong Tan - tandh@phillip.com.sg

Technical Analysis

Jeremy Ng - jeremyngch@phillip.com.sg

Banking and Finance

Jeremy Teong - jeremyteongfh@phillip.com.sg

US Equity

Ho Kang Wei - hokw@phillip.com.sg

Oil & Gas | Energy

Chen Guangzhi - chengz@phillip.com.sg

Contact Information (Regional Member Companies)

SINGAPORE

Phillip Securities Pte Ltd
Raffles City Tower
250, North Bridge Road #06-00
Singapore 179101
Tel +65 6533 6001
Fax +65 6535 6631
Website: www.poems.com.sg

MALAYSIA

Phillip Capital Management Sdn Bhd
B-3-6 Block B Level 3 Megan Avenue II,
No. 12, Jalan Yap Kwan Seng, 50450
Kuala Lumpur
Tel +603 2162 8841
Fax +603 2166 5099
Website: www.poems.com.my

HONG KONG

Phillip Securities (HK) Ltd
11/F United Centre 95 Queensway
Hong Kong
Tel +852 2277 6600
Fax +852 2868 5307
Websites: www.phillip.com.hk

JAPAN

Phillip Securities Japan, Ltd.
4-2 Nihonbashi Kabuto-cho Chuo-ku,
Tokyo 103-0026
Tel +81-3 3666 2101
Fax +81-3 3666 6090
Website: www.phillip.co.jp

INDONESIA

PT Phillip Securities Indonesia
ANZ Tower Level 23B,
Jl Jend Sudirman Kav 33A
Jakarta 10220 – Indonesia
Tel +62-21 5790 0800
Fax +62-21 5790 0809
Website: www.phillip.co.id

CHINA

Phillip Financial Advisory (Shanghai) Co Ltd
No 550 Yan An East Road,
Ocean Tower Unit 2318,
Postal code 200001
Tel +86-21 5169 9200
Fax +86-21 6351 2940
Website: www.phillip.com.cn

THAILAND

Phillip Securities (Thailand) Public Co. Ltd
15th Floor, Vorawat Building,
849 Silom Road, Silom, Bangkok,
Bangkok 10500 Thailand
Tel +66-2 6351700 / 22680999
Fax +66-2 22680921
Website www.phillip.co.th

FRANCE

King & Shaxson Capital Limited
3rd Floor, 35 Rue de la Bienfaisance 75008
Paris France
Tel +33-1 45633100
Fax +33-1 45636017
Website: www.kingandshaxson.com

UNITED KINGDOM

King & Shaxson Capital Limited
6th Floor, Candlewick House,
120 Cannon Street,
London, EC4N 6AS
Tel +44-20 7426 5950
Fax +44-20 7626 1757
Website: www.kingandshaxson.com

UNITED STATES

Phillip Capital Inc
141 W Jackson Blvd Ste 3050
The Chicago Board of Trade Building
Chicago, IL 60604 USA
Tel +1-312 356 9000
Fax +1-312 356 9005
Website: www.phillipusa.com

AUSTRALIA

Phillip Capital Limited
Level 10, 330 Collins Street
Melbourne, Victoria 3000, Australia
Tel +61-03 9629 8288
Fax +61-03 9629 8882
Website: www.phillipcapital.com.au

SRI LANKA

Asha Phillip Securities Limited
2nd Floor, Lakshmans Building,
No. 321, Galle Road,
Colombo 03, Sri Lanka
Tel: (94) 11 2429 100
Fax: (94) 11 2429 199
Website: www.ashaphillip.net

INDIA

PhillipCapital (India) Private Limited
No.1, 18th Floor, Urmi Estate
95, Ganpatrao Kadam Marg
Lower Parel West, Mumbai 400-013
Maharashtra, India
Tel: +91-22-2300 2999 / Fax: +91-22-2300 2969
Website: www.phillipcapital.in

TURKEY

PhillipCapital Menkul Degerler
Dr. Cemil Bengü Cad. Hak Is Merkezi
No. 2 Kat. 6A Caglayan
34403 Istanbul, Turkey
Tel: 0212 296 84 84
Fax: 0212 233 69 29
Website: www.phillipcapital.com.tr

DUBAI

Phillip Futures DMCC
Member of the Dubai Gold and
Commodities Exchange (DGCX)
Unit No 601, Plot No 58, White Crown Bldg,
Sheikh Zayed Road, P.O.Box 212291
Dubai-UAE
Tel: +971-4-3325052 / Fax: + 971-4-3328895

CAMBODIA

Phillip Bank Plc
Ground Floor of B-Office Centre,#61-64,
Norodom Blvd Corner Street 306,Sangkat
Boeung Keng Kang 1, Khan Chamkamorn,
Phnom Penh, Cambodia
Tel: 855 (0) 7796 6151/855 (0) 1620 0769
Website: www.phillipbank.com.kh

Important Information

This report is prepared and/or distributed by Phillip Securities Research Pte Ltd ("Phillip Securities Research"), which is a holder of a financial adviser's license under the Financial Advisers Act, Chapter 110 in Singapore.

By receiving or reading this report, you agree to be bound by the terms and limitations set out below. Any failure to comply with these terms and limitations may constitute a violation of law. This report has been provided to you for personal use only and shall not be reproduced, distributed or published by you in whole or in part, for any purpose. If you have received this report by mistake, please delete or destroy it, and notify the sender immediately.

The information and any analysis, forecasts, projections, expectations and opinions (collectively, the "Research") contained in this report has been obtained from public sources which Phillip Securities Research believes to be reliable. However, Phillip Securities Research does not make any representation or warranty, express or implied that such information or Research is accurate, complete or appropriate or should be relied upon as such. Any such information or Research contained in this report is subject to change, and Phillip Securities Research shall not have any responsibility to maintain or update the information or Research made available or to supply any corrections, updates or releases in connection therewith.

Any opinions, forecasts, assumptions, estimates, valuations and prices contained in this report are as of the date indicated and are subject to change at any time without prior notice. Past performance of any product referred to in this report is not indicative of future results.

This report does not constitute, and should not be used as a substitute for, tax, legal or investment advice. This report should not be relied upon exclusively or as authoritative, without further being subject to the recipient's own independent verification and exercise of judgment. The fact that this report has been made available constitutes neither a recommendation to enter into a particular transaction, nor a representation that any product described in this report is suitable or appropriate for the recipient. Recipients should be aware that many of the products, which may be described in this report involve significant risks and may not be suitable for all investors, and that any decision to enter into transactions involving such products should not be made, unless all such risks are understood and an independent determination has been made that such transactions would be appropriate. Any discussion of the risks contained herein with respect to any product should not be considered to be a disclosure of all risks or a complete discussion of such risks.

Nothing in this report shall be construed to be an offer or solicitation for the purchase or sale of any product. Any decision to purchase any product mentioned in this report should take into account existing public information, including any registered prospectus in respect of such product.

Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, may provide an array of financial services to a large number of corporations in Singapore and worldwide, including but not limited to commercial / investment banking activities (including sponsorship, financial advisory or underwriting activities), brokerage or securities trading activities. Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, may have participated in or invested in transactions with the issuer(s) of the securities mentioned in this report, and may have performed services for or solicited business from such issuers. Additionally, Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, may have provided advice or investment services to such companies and investments or related investments, as may be mentioned in this report.

Phillip Securities Research or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report may, from time to time maintain a long or short position in securities referred to herein, or in related futures or options, purchase or sell, make a market in, or engage in any other transaction involving such securities, and earn brokerage or other compensation in respect of the foregoing. Investments will be denominated in various currencies including US dollars and Euro and thus will be subject to any fluctuation in exchange rates between US dollars and Euro or foreign currencies and the currency of your own jurisdiction. Such fluctuations may have an adverse effect on the value, price or income return of the investment.

To the extent permitted by law, Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, may at any time engage in any of the above activities as set out above or otherwise hold an interest, whether material or not, in respect of companies and investments or related investments, which may be mentioned in this report. Accordingly, information may be available to Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, which is not reflected in this report, and Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited to its officers, directors, employees or persons involved in the issuance of this report, may, to the extent permitted by law, have acted upon or used the information prior to or immediately following its publication. Phillip Securities Research, or persons associated with or connected to Phillip Securities Research, including but not limited its officers, directors, employees or persons involved in the issuance of this report, may have issued other material that is inconsistent with, or reach different conclusions from, the contents of this report.

The information, tools and material presented herein are not directed, intended for distribution to or use by, any person or entity in any jurisdiction or country where such distribution, publication, availability or use would be contrary to the applicable law or regulation or which would subject Phillip Securities Research to any registration or licensing or other requirement, or penalty for contravention of such requirements within such jurisdiction.

This report is intended for general circulation only and does not take into account the specific investment objectives, financial situation or particular needs of any particular person. The products mentioned in this report may not be suitable for all investors and a person receiving or reading this report should seek advice from a professional and financial adviser regarding the legal, business, financial, tax and other aspects including the suitability of such products, taking into account the specific investment objectives, financial situation or particular needs of that person, before making a commitment to invest in any of such products.

This report is not intended for distribution, publication to or use by any person in any jurisdiction outside of Singapore or any other jurisdiction as Phillip Securities Research may determine in its absolute discretion.

IMPORTANT DISCLOSURES FOR INCLUDED RESEARCH ANALYSES OR REPORTS OF FOREIGN RESEARCH HOUSES

Where the report contains research analyses or reports from a foreign research house, please note:

- (i) recipients of the analyses or reports are to contact Phillip Securities Research (and not the relevant foreign research house) in Singapore at 250 North Bridge Road, #06-00 Raffles City Tower, Singapore 179101, telephone number +65 6533 6001, in respect of any matters arising from, or in connection with, the analyses or reports; and
- (ii) to the extent that the analyses or reports are delivered to and intended to be received by any person in Singapore who is not an accredited investor, expert investor or institutional investor, Phillip Securities Research accepts legal responsibility for the contents of the analyses or reports.