

15th straight year of operational growth

Costs rose faster than revenues in 2016 but we expect this balance to be restored in 2017

Cost pressure to balance revenue growth in 2017

Raffles Medical saw strong revenue growth in FY16, with revenues rising 15.4% y-y driven by its acquisition of MCH clinics in Oct-15, the ramp-up of Shaw Centre and Holland Village medical centres and the Osaka clinic in Japan. However, costs rose faster led by staff costs which grew 1.4pp y-y to 51% of revenues, as the company hired new staff and specialists for the expansion of its existing business operations and the increased staff costs from the MCH acquisition. In 2017, we expect this balance to be restored as the new staff is deployed productively, Shaw Centre and Holland Village break even and the company benefits from rental income from Holland Village. Overall, we see EBITDA margins stabilizing at 20~21%.

Catalysts: Redevelopment of Raffles Hospital; Expansion into China

We see catalysts on three time horizons: 1) Near term (FY17F): continued ramp up at Shaw Centre and the Holland Village redevelopment; 2) Medium term (FY18~20F): Raffles Hospital expansion; 3) Long term (beyond FY21F): expansion into China via its 70% stake in the 400-bed Shanghai Hospital. We see any further investments in China as a long-term positive for the company.

Valuation: Target price of SGD1.70 implies upside of 16.4%

RMG is the only large-cap company listed in Singapore which has shown annual operational performance growth for the last 15 years. With the Raffles Hospital extension unlikely to make any significant contribution until FY18F, in our view, we reduce our net profit estimates for FY17F by 12% and FY18F by 15%. We use sum-of-the-parts to value RMG: 1) Core business we value at an FY17F EV/EBITDA of 20x, in line with regional peers; 2) Shanghai Hospital we value using DCF. Our TP of SGD1.70 implies 16.4% upside, for a target FY17F P/E of 39.0x (EPS of SGD0.04), which is at a relative discount to regional peers in Malaysia, Thailand and India.

Year-end 31 Dec	FY16		FY17F		FY18F		FY19F	
Currency (SGD)	Actual	Old	New	Old	New	Old	New	
Revenue (mn)	474	567	523	658	605		733	
Reported net profit (mn)	70	87	76	101	86		105	
Normalised net profit (mn)	70	87	76	101	86		105	
FD normalised EPS	4.02c	4.96c	4.36c	5.76c	4.88c		5.96c	
FD norm. EPS growth (%)	0.0	18.7	8.4	16.1	12.0		22.2	
FD normalised P/E (x)	36.4	N/A	33.5	N/A	29.9	N/A	24.5	
EV/EBITDA (x)	25.8	N/A	23.6	N/A	20.3	N/A	16.2	
Price/book (x)	3.8	N/A	3.5	N/A	3.1	N/A	2.9	
Dividend yield (%)	1.4	N/A	1.4	N/A	1.7	N/A	2.1	
ROE (%)	10.8	12.6	10.7	13.4	10.9		12.2	
Net debt/equity (%)	net cash	net cash	net cash	net cash	net cash		net cash	

Source: Company data, Nomura estimates

Key company data: See next page for company data and detailed price/index chart.

Global Markets Research

21 February 2017

Rating Remains	Buy
Target Price Reduced from 1.74	SGD 1.70
Closing price 20 February 2017	SGD 1.46
Potential upside	+16.4%

Anchor themes

The healthcare sector presents secular growth prospects driven by rising incomes, disease awareness, government spending, insurance coverage and medical tourism.

Nomura vs consensus

Our FY17 revenue estimates are largely in line with consensus

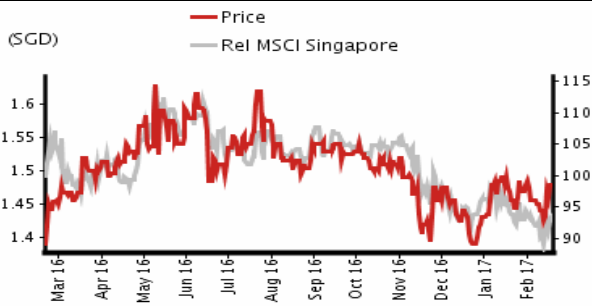
Research analysts

Healthcare/Pharmaceutical

Raghavendra Divekar, CFA - NSC
raghavendra.divekar@nomura.com
+81 3 6703 1229

Key data on Raffles Medical

Relative performance chart



Source: Thomson Reuters, Nomura research

Notes:

Performance

(%)	1M	3M	12M		
Absolute (SGD)	0.3	2.8	5.0	M cap (USDm)	1,800.4
Absolute (USD)	1.1	3.3	4.0	Free float (%)	48.0
Rel to MSCI Singapore	-2.3	-6.3	-9.5	3-mth ADT (USDm)	1.4

Income statement (SGDmn)

Year-end 31 Dec	FY15	FY16	FY17F	FY18F	FY19F
Revenue	411	474	523	605	733
Cost of goods sold	-330	-392	-431	-501	-605
Gross profit	81	82	91	104	128
SG&A					
Employee share expense					
Operating profit	81	82	91	104	128
EBITDA	93	97	107	125	150
Depreciation	-13	-15	-16	-20	-22
Amortisation					
EBIT	81	82	91	104	128
Net interest expense	1	1	1	1	1
Associates & JCEs					
Other income					
Earnings before tax	82	83	92	105	129
Income tax	-13	-15	-17	-19	-23
Net profit after tax	69	68	76	86	106
Minority interests	0	2	1	0	-1
Other items					
Preferred dividends					
Normalised NPAT	69	70	76	86	105
Extraordinary items					
Reported NPAT	69	70	76	86	105
Dividends	-21	-35	-35	-53	-55
Transfer to reserves	49	35	41	33	50

Valuations and ratios

Reported P/E (x)	36.3	36.4	33.5	29.9	24.5
Normalised P/E (x)	36.3	36.4	33.5	29.9	24.5
FD normalised P/E (x)	36.3	36.4	33.5	29.9	24.5
Dividend yield (%)	1.4	1.4	1.4	1.7	2.1
Price/cashflow (x)	34.6	32.4	25.0	22.5	18.6
Price/book (x)	4.2	3.8	3.5	3.1	2.9
EV/EBITDA (x)	27.0	25.8	23.6	20.3	16.2
EV/EBIT (x)	31.3	30.5	27.6	24.3	19.0
Gross margin (%)	19.6	17.3	17.5	17.3	17.5
EBITDA margin (%)	22.8	20.4	20.5	20.6	20.5
EBIT margin (%)	19.6	17.3	17.5	17.3	17.5
Net margin (%)	16.9	14.8	14.6	14.2	14.4
Effective tax rate (%)	15.4	18.1	18.1	18.1	18.1
Dividend payout (%)	29.9	49.8	46.0	61.6	52.1
ROE (%)	11.9	10.8	10.7	10.9	12.2
ROA (pretax %)	13.1	10.8	10.9	11.0	12.5

Growth (%)

Revenue	9.6	15.4	10.4	15.7	21.2
EBITDA	8.9	3.4	10.6	16.6	20.4
Normalised EPS	7.2	0.0	8.4	12.0	22.2
Normalised FDEPS	7.2	0.0	8.4	12.0	22.2

Source: Company data, Nomura estimates

Cashflow statement (SGDmn)

Year-end 31 Dec	FY15	FY16	FY17F	FY18F	FY19F
EBITDA	93	97	107	125	150
Change in working capital	5	-1	12	8	45
Other operating cashflow	-25	-17	-16	-18	-57
Cashflow from operations	73	79	103	114	138
Capital expenditure	-35	-14	-150	-150	-50
Free cashflow	38	64	-47	-36	88
Reduction in investments	-116	-28	25	25	25
Net acquisitions					
Dec in other LT assets	-33	0	0	0	0
Inc in other LT liabilities	-2	1	0	0	0
Adjustments	7	-4	1	0	0
CF after investing acts	-105	34	-21	-11	113
Cash dividends	-12	-14	-12	-10	-25
Equity issue	26	7	8	9	9
Debt issue	26	-2	0	0	0
Convertible debt issue					
Others	1	1	0	0	0
CF from financial acts	41	-8	-4	-1	-15
Net cashflow	-64	26	-25	-12	98
Beginning cash	150	86	112	87	75
Ending cash	86	112	87	75	173
Ending net debt	-47	-73	-48	-36	-134

Balance sheet (SGDmn)

As at 31 Dec	FY15	FY16	FY17F	FY18F	FY19F
Cash & equivalents	86	112	87	75	173
Marketable securities					
Accounts receivable	75	101	93	108	131
Inventories	10	10	11	12	15
Other current assets					
Total current assets	171	223	190	195	318
LT investments	344	371	346	321	296
Fixed assets	264	270	402	532	560
Goodwill					
Other intangible assets	32	31	31	31	31
Other LT assets	4	5	5	5	5
Total assets	815	901	975	1,084	1,211
Short-term debt	11	13	13	13	13
Accounts payable	118	145	149	173	209
Other current liabilities	27	26	29	31	35
Total current liabilities	157	184	191	218	257
Long-term debt	28	25	25	25	25
Convertible debt					
Other LT liabilities	8	9	9	9	9
Total liabilities	193	219	226	252	292
Minority interest	19	15	15	15	15
Preferred stock					
Common stock	286	314	345	378	415
Retained earnings					
Proposed dividends					
Other equity and reserves	317	352	390	439	489
Total shareholders' equity	603	666	735	817	904
Total equity & liabilities	815	901	975	1,084	1,211

Liquidity (x)

Current ratio	1.09	1.21	1.00	0.89	1.24
Interest cover	na	na	na	na	na

Leverage

Net debt/EBITDA (x)	net cash	net cash	net cash	net cash	net cash
Net debt/equity (%)	net cash	net cash	net cash	net cash	net cash

Per share

Reported EPS (SGD)	4.02c	4.02c	4.36c	4.88c	5.96c
Norm EPS (SGD)	4.02c	4.02c	4.36c	4.88c	5.96c
FD norm EPS (SGD)	4.02c	4.02c	4.36c	4.88c	5.96c
BVPS (SGD)	0.35	0.38	0.42	0.46	0.51
DPS (SGD)	0.02	0.02	0.02	0.03	0.03

Activity (days)

Days receivable	49.9	68.2	67.9	60.6	59.3
Days inventory	10.0	9.1	8.8	8.5	8.3
Days payable	107.0	123.0	124.3	117.4	115.3
Cash cycle	-47.1	-45.7	-47.6	-48.4	-47.6

Source: Company data, Nomura estimates

Revenues grew strongly in 2016

Raffles saw strong operational growth in FY16, with revenues rising 15.4% y-y to SGD473.6mn as shown in Figure 1. This was largely due to the strong growth of the Healthcare Services segment, consisting of the company's clinic network, which grew 30.8% y-y due to the ramp-up of the Shaw Centre and Holland Village Medical centres, the new clinic in Osaka and the acquisition of International SOS and its subsidiaries (MCH) in October 2015. On the other hand, the Hospital Services segment grew 6.3% y-y as it prepares for the Raffles Hospital extension which is on track to be completed in 2H17. Excluding the revenue contribution of the newly acquired MCH, the company's revenues would have grown 7.5% y-y.

Fig. 1: Raffles Medical – FY16 results summary

	2015	2016		
		Actual	Nomura	difference (%)
Revenues (SGDmn)	410.5	473.6	486.1	(2.6)
Staff costs (SGDmn)	203.5	241.7	248.9	(2.9)
— as a % of revenue	49.6	51.0	51.2	(0.2)
Operating profit (SGDmn)	80.6	81.9	85.7	(4.4)
EBITDA (SGDmn)	93.4	96.6	100.8	(4.2)
Net profit (SGDmn)	69.3	70.2	73.0	(3.9)
Margins (%)				
Operating margin	19.6	17.3	17.6	(0.3)
EBITDA margin	22.8	20.4	20.7	(0.3)
Net margin	16.9	14.8	15.0	(0.2)

Source: Company data, Nomura estimates

... but costs grew faster led by staff costs

However, this strong revenue growth was impacted by an even faster rise in costs. This cost increase was led by staff costs, which rose sharply by 1.4pp y-y to 51.0% of revenues due to the recruitment of more doctors, specialists, nurses and ancillary staff for the expansion of the existing business operations. Staff costs at the MCH were higher than the rest of the company at ~60% of revenues at the time of acquisition, and while the company has worked to reduce these costs, they remained at ~56% of revenues at the end of 2016. The company also saw higher inventories and consumables used due to increased sales of medical supplies and services. These higher costs resulted in EBITDA rising only 3.4% y-y and coming in 3.9% below our estimates.

Local patients grew faster than foreign patients in 2016

While Raffles continues to benefit from medical tourism, we understand that local patients grew faster than foreign patients in 2016. While local patients generally tend to have lower revenue intensity compared with foreign patients, their growth tends to be 'sticky', as these patients are more likely to use the company's services for future treatments, which should be beneficial to the company in the long run. Raffles noted that in 4Q16, medical tourists were impacted by: (1) strengthening of the SGD versus regional currencies; (2) lower growth among Indonesian patients due to political uncertainty in the country. While a large share of the company's medical tourists came from Indonesia and Malaysia, Raffles continued to benefit from its diversified patient base, and the company noted that it treated patients from 120 countries in 2016, with 45% of its medical tourism business coming from patients outside the top 10 countries ranked by number of Raffles foreign patients.

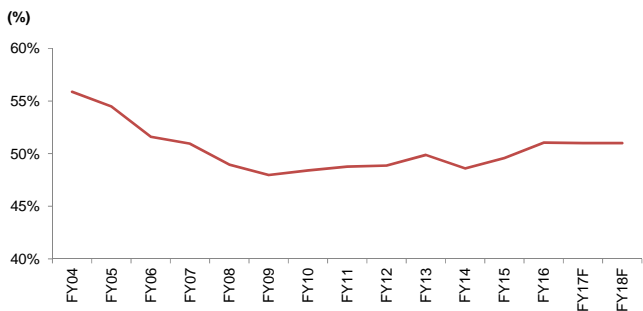
Cost pressure to balance revenue growth in 2017F

While costs rose faster than revenues in 2016, we expect this balance to be largely restored in 2017F, as: (1) The newly hired specialists, nurses and ancillary staff are used productively as Holland Village and the Shaw Centre Medical Centre ramp up. We see these medical centres breaking even in 2017; (2) We expect staff costs at MCH Holdings to continue to trend downwards from current levels of 54% of revenues and come closer to the company's average of 51% of revenues; (3) We see the company benefiting from rental revenues from Holland Village. We see growth in FY17 continuing to be led by the Healthcare Services segment, which consists of the company's clinics and medical centre business, and expect it to grow 14% y-y compared with 8% growth for the Hospital Services business. Overall, we see revenues growing 10% y-y in FY17F, while operating profit and EBITDA grow 11% y-y.

Staff costs to stabilize at ~51% of revenue in the near term

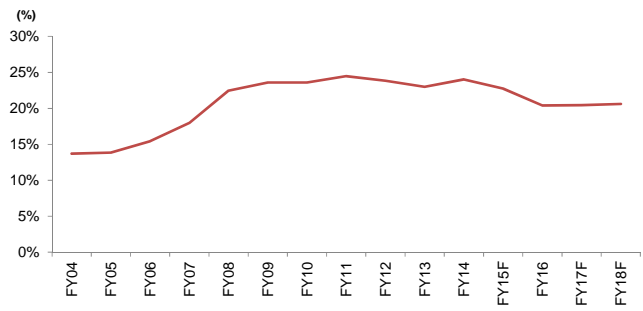
As Raffles expands its clinic network and redevelops its hospital, the company has been recruiting additional staff and specialists to help meet these needs. Generally there is a lead time for training purposes between when additional personnel are hired and when they can be deployed. This has led to an increase in staff costs as a percentage of revenue from 49% in FY14 to 51.0% in 2016. As Shaw Centre and Holland Village ramp up, we expect these additional staff to be deployed productively. However, as Raffles continues to hire new specialists for its Raffles Hospital expansion in FY17F, we expect staff costs to remain at 51% of revenue in the near term, as shown in Figure 2.

Fig. 2: Staff costs to stabilize at 51% of revenues



Source: Company data, Nomura estimates

Fig. 3: EBITDA margins to stabilize at 20~21%



Source: Company data, Nomura estimates

EBITDA margins to stabilize at 20~21% in FY18F

Raffles EBITDA margins grew sharply, from ~14% in FY04 to ~24% in FY11, as the company benefited from the ramp-up of Raffles Hospital and the reduction in staff costs as a percentage of revenues. While an increase in operating costs caused a temporary dip in margins in FY12, Raffles continued to grow revenues faster than costs, resulting in margins returning to ~23% by FY15. However, in FY16, Raffles EBITDA margins declined 2.4pp y-y to 20.4% due to a rise in costs as the company continued its expansion in Singapore and the region. With the Shaw Centre and Holland Village medical centres ramping up and with revenue growth and costs expected to be largely balanced in the near term, we expect Raffles EBITDA margins to remain stable at 20~21% in FY18F, as shown in Figure 3.

Maintain Buy; Reduce TP to SGD1.70

With the Raffles Hospital extension likely to be completed by end-2017, we update our estimates for FY17 and 18F. In the near term, and we see the company continuing to benefit from: 1) the MCH acquisition; 2) ramp-up of Shaw Centre and the Holland Village project; 3) the three new clinics opened in 2016. However, we also expect costs to continue to rise, with staff costs remaining at 51% of revenues as the company ramps up the newly opened clinics, hires new specialists and staff for its hospital expansion and gears up for the opening of its Shanghai Hospital in China. We also raise our tax rate for the company to 18% from 16%, given its international operations. Overall, we see the Raffles Hospital extension contributing significantly to revenues only from FY18F and reduce our net profit estimates by 12% for FY17F and 15% for FY18F, as shown in Figure 4.

Fig. 4: Raffles Medical: Changes in estimates

	2017F forecast			2018F forecast		
	Previous	Current	change (%)	Previous	Current	change (%)
Revenue (SGDmn)	567.2	522.7	-7.9%	658.1	604.9	-8.1%
Staff costs (SGDmn)	289.3	266.6	-7.9%	335.6	308.5	-8.1%
— as a % of revenue (%)	51.0	51.0	0.0pp	51.0	51.0	0.0pp
EBIT (SGDmn)	101.4	91.3	-9.9%	120.1	104.3	-13.2%
EBITDA (SGDmn)	117.4	106.9	-8.9%	138.1	124.6	-9.8%
Net profit (SGDmn)	87.0	76.4	-12.2%	101.4	85.9	-15.3%
Margins (%)						
EBIT margin	17.9	17.5	(0.4)	18.3	17.3	(1.0)
EBITDA margin	20.7	20.5	(0.2)	21.0	20.6	(0.4)
Net profit margin	15.3	14.6	(0.7)	15.4	14.2	(1.2)

Source: Nomura estimates

We continue to like the company for its strong core business, consisting of flagship Raffles Hospital in Bugis and over 90 clinics and medical centres in Singapore and in the region, and we see its recent expansion plans for China as a long-term growth driver. We maintain our Buy rating but reduce our target price slightly to SGD1.70 (previously: SGD1.74).

TP of SGD1.70 is based on sum-of-the-parts valuation

We use sum-of-the-parts to arrive at a valuation for RMG, as shown in Figure 5. Given the company's expansion plans in Singapore and China, we divide the business into two parts:

- **Core business**, consisting of its flagship Raffles Hospital in Bugis, over 90 clinics — mostly in Singapore — and its Holland Village project. We value the core business at an FY17F EBITDA multiple of 20x, which is largely in line with its regional peers. We believe this is justified given the concentration of the company's operations in Singapore and major urban areas such as Shanghai and Hong Kong. Based on our FY17F EBITDA estimate of SGD107mn, we value the company's core business at SGD2.1bn
- **Shanghai Hospital project**, in which Raffles has a 70% stake, is expected to become operational in FY18F. Given this, we value the hospital using a DCF approach, since it is likely to be two years before it breaks even. We expect the hospital to achieve an EBITDA margin of 27% in FY25F. We use a WACC of 7% and a terminal growth rate of 2% post FY30F to value the hospital. Given these variables, we arrive at a valuation of ~SGD785mn for RMG's stake in the hospital.

Fig. 5: Sum-of-the-parts valuation for Raffles

Region	Valuation methodology	Raffles stake	Important terms	EV (SGDmn)
Singapore	FY17F EV / EBITDA multiple	100%	EBITDA multiple = 20x	2,138
China - Shanghai	DCF of EBITDA	70%	WACC = 7% Terminal growth rate = 2%	785
Total Enterprise value (SGDmn)				2,923
Net cash (SGDmn)				48
Total Equity value (SGDmn)				2,971
Value per share (SGD)				1.70
Premium				16.4%

Source: Nomura estimates

As shown in Figure 5, we arrive at an equity valuation of SGD2.9bn for Raffles using sum of the parts, for a target price of SGD1.70 (previously: SGD1.74). This implies an FY17F EV/EBITDA of 27.3x and a FY17F P/E of 39.0x. As a comparison, the global EBITDA multiples for healthcare services companies range between 15x and 25x, with emerging market hospitals trading between 18x and 22x on average and Australian franchises trading below 15x. The higher valuation for Raffles reflects the upside potential from its new hospital project in China, in our view.

Downside risks to our TP

Key downside risks include:

- **Drop in medical tourists:** Medical tourists make up over 30% of Raffles Hospital's patient load. Given the current economic environment, there is a risk that the number of medical tourists will decline as they put off treatment. However, we believe that RMG's target clientele is generally defensive as its patient base seeks care for acute diseases which they cannot delay (e.g., cancer), unlike elective procedures (e.g., plastic surgery). Furthermore, we understand that its customer base consists of relatively less price-conscious patients who are unlikely to stop seeking quality care. In addition, RMG has developed another layer of defence by building up a diversified foreign patient base, with patients from over 100 countries.
- **Execution of China project:** While RMG management has a strong execution record in Singapore, we note that it does not have significant experience operating overseas. The execution risks involved include recruitment of medical professionals and attracting a sufficient patient base to avoid prolonged initial losses. We believe regulatory risks for the Shanghai hospital are mitigated, given that the company's partner – Shanghai LuJiaZui – is owned by the Pudong government.
- **Attracting and retaining top medical professionals:** The success of RMG's group practice model is highly dependent on its ability to attract and retain top medical professionals. Given the limited supply of doctors in Singapore, the group may face challenges in attracting competent specialists, who may prefer to set up their own practices.
- **Ability to contain staff costs:** Operating leverage is a double-edged sword: in the event of negative revenue growth, a high fixed cost base would hurt margins. While we understand that RMG has considerable flexibility in managing staff costs through bonuses, the group would have to maintain a delicate balance to avoid losing its top specialists..

Appendix A-1

Analyst Certification

I, Raghavendra Divekar, hereby certify (1) that the views expressed in this Research report accurately reflect my personal views about any or all of the subject securities or issuers referred to in this Research report, (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this Research report and (3) no part of my compensation is tied to any specific investment banking transactions performed by Nomura Securities International, Inc., Nomura International plc or any other Nomura Group company.

Issuer Specific Regulatory Disclosures

The terms "Nomura" and "Nomura Group" used herein refers to Nomura Holdings, Inc. and its affiliates and subsidiaries, including Nomura Securities International, Inc. ('NSI') and Instinet, LLC('ILLC'), U. S. registered broker dealers and members of SIPC.

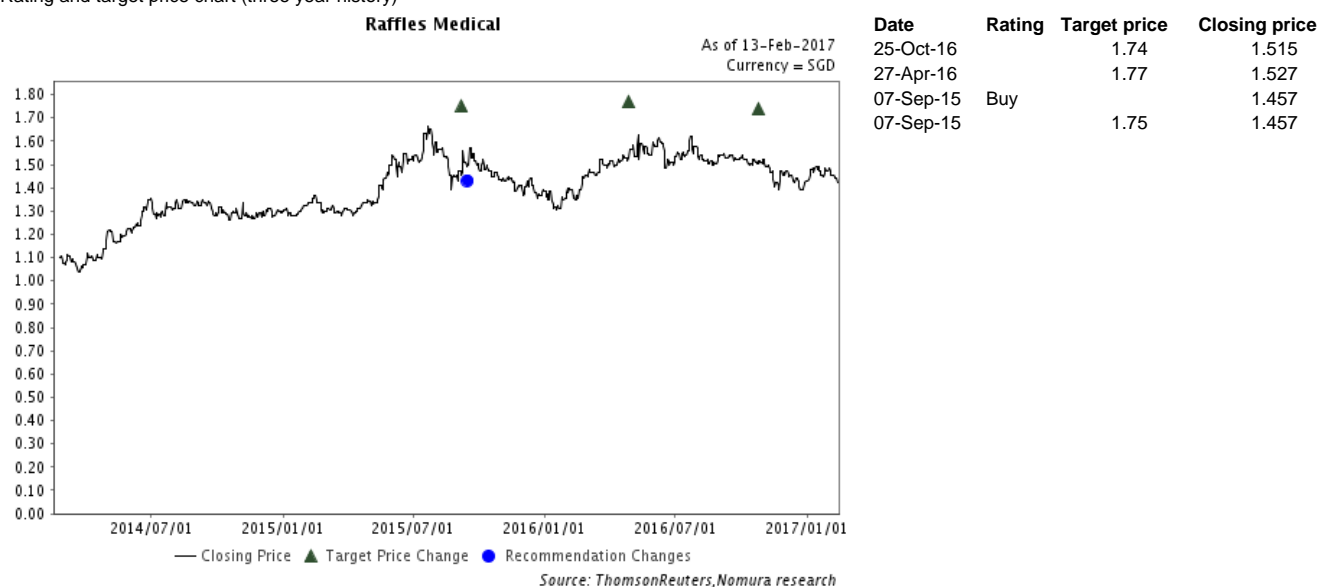
Materially mentioned issuers

Issuer	Ticker	Price	Price date	Stock rating	Sector rating	Disclosures
Raffles Medical	RFMD SP	SGD 1.48	17-Feb-2017	Buy	N/A	

Raffles Medical (RFMD SP)

SGD 1.48 (17-Feb-2017) Buy (Sector rating: N/A)

Rating and target price chart (three year history)



For explanation of ratings refer to the stock rating keys located after chart(s)

Valuation Methodology We use SOTP valuation for RMG. 1) We value the company's core business, which consists of Raffles Hospital and its clinics in Singapore, Shanghai and Hong Kong, at FY17F EV/EBITDA of 20x, in line with regional peers. 2) We value its Shanghai Hospital project using a DCF approach, with a WACC of 7% and a terminal growth rate of 2%. Adding these two parts, we get a target price of SGD1.70. The benchmark index for this stock is the MSCI Singapore.

Risks that may impede the achievement of the target price Key downside risks: 1) a drop in medical tourists; 2) execution risks for its China project; 3) inability to attract and retain top medical staff; and 4) staff cost overruns.

Important Disclosures

Online availability of research and conflict-of-interest disclosures

Nomura Group research is available on www.nomuranow.com/research, Bloomberg, Capital IQ, Factset, MarkitHub, Reuters and ThomsonOne. Important disclosures may be read at <http://go.nomuranow.com/research/globalresearchportal/pages/disclosures/disclosures.aspx> or requested from Nomura Securities International, Inc., or Instinet, LLC on 1-877-865-5752. If you have any difficulties with the website, please email grpsupport@nomura.com for help.

The analysts responsible for preparing this report have received compensation based upon various factors including the firm's total revenues, a portion of which is generated by Investment Banking activities. Unless otherwise noted, the non-US analysts listed at the front of this report are not registered/qualified as research analysts under FINRA rules, may not be associated persons of NSI or ILLC, and may not be subject to

FINRA Rule 2241 restrictions on communications with covered companies, public appearances, and trading securities held by a research analyst account.

Nomura Global Financial Products Inc. ("NGFP") Nomura Derivative Products Inc. ("NDPI") and Nomura International plc. ("Nlplc") are registered with the Commodities Futures Trading Commission and the National Futures Association (NFA) as swap dealers. NGFP, NDPI, and Nlplc are generally engaged in the trading of swaps and other derivative products, any of which may be the subject of this report.

Distribution of ratings (Nomura Group)

The distribution of all ratings published by Nomura Group Global Equity Research is as follows:

50% have been assigned a Buy rating which, for purposes of mandatory disclosures, are classified as a Buy rating; 39% of companies with this rating are investment banking clients of the Nomura Group*. 0% of companies (which are admitted to trading on a regulated market in the EEA) with this rating were supplied material services** by the Nomura Group.

42% have been assigned a Neutral rating which, for purposes of mandatory disclosures, is classified as a Hold rating; 52% of companies with this rating are investment banking clients of the Nomura Group*. 0% of companies (which are admitted to trading on a regulated market in the EEA) with this rating were supplied material services by the Nomura Group

8% have been assigned a Reduce rating which, for purposes of mandatory disclosures, are classified as a Sell rating; 7% of companies with this rating are investment banking clients of the Nomura Group*. 0% of companies (which are admitted to trading on a regulated market in the EEA) with this rating were supplied material services by the Nomura Group.

As at 31 December 2016.

*The Nomura Group as defined in the Disclaimer section at the end of this report.

** As defined by the EU Market Abuse Regulation

Distribution of ratings (Instinet, LLC)

The distribution of all ratings published by Instinet, LLC Equity Research is as follows:

53% have been assigned a Buy rating which, for purposes of mandatory disclosures, are classified as a Buy rating; Instinet LLC has provided investment banking services to 0% of companies with this rating within the previous 12 months.

42% have been assigned a Neutral rating which, for purposes of mandatory disclosures, is classified as a Hold rating; Instinet LLC has provided investment banking services to 0% of companies with this rating within the previous 12 months.

5% have been assigned a Reduce rating which, for purposes of mandatory disclosures, are classified as a Sell rating; Instinet LLC has provided investment banking services to 0% of companies with this rating within the previous 12 months.

Definition of Nomura Group's equity research rating system and sectors

The rating system is a relative system, indicating expected performance against a specific benchmark identified for each individual stock, subject to limited management discretion. An analyst's target price is an assessment of the current intrinsic fair value of the stock based on an appropriate valuation methodology determined by the analyst. Valuation methodologies include, but are not limited to, discounted cash flow analysis, expected return on equity and multiple analysis. Analysts may also indicate expected absolute upside/downside relative to the stated target price, defined as (target price - current price)/current price.

STOCKS

A rating of '**Buy**', indicates that the analyst expects the stock to outperform the Benchmark over the next 12 months. A rating of '**Neutral**', indicates that the analyst expects the stock to perform in line with the Benchmark over the next 12 months. A rating of '**Reduce**', indicates that the analyst expects the stock to underperform the Benchmark over the next 12 months. A rating of '**Suspended**', indicates that the rating, target price and estimates have been suspended temporarily to comply with applicable regulations and/or firm policies. Securities and/or companies that are labelled as '**Not rated**' or shown as '**No rating**' are not in regular research coverage. Investors should not expect continuing or additional information from Nomura relating to such securities and/or companies. Benchmarks are as follows: **United States/Europe/Asia ex-Japan**: please see valuation methodologies for explanations of relevant benchmarks for stocks, which can be accessed at: <http://go.nomuranow.com/research/globalresearchportal/pages/disclosures/disclosures.aspx>; **Global Emerging Markets (ex-Asia)**: MSCI Emerging Markets ex-Asia, unless otherwise stated in the valuation methodology; **Japan**: Russell/Nomura Large Cap.

SECTORS

A '**Bullish**' stance, indicates that the analyst expects the sector to outperform the Benchmark during the next 12 months. A '**Neutral**' stance, indicates that the analyst expects the sector to perform in line with the Benchmark during the next 12 months. A '**Bearish**' stance, indicates that the analyst expects the sector to underperform the Benchmark during the next 12 months. Sectors that are labelled as '**Not rated**' or shown as '**N/A**' are not assigned ratings. Benchmarks are as follows: **United States**: S&P 500; **Europe**: Dow Jones STOXX 600; **Global Emerging Markets (ex-Asia)**: MSCI Emerging Markets ex-Asia. **Japan/Asia ex-Japan**: Sector ratings are not assigned.

Target Price

A Target Price, if discussed, indicates the analyst's forecast for the share price with a 12-month time horizon, reflecting in part the analyst's estimates for the company's earnings. The achievement of any target price may be impeded by general market and macroeconomic trends, and by other risks related to the company or the market, and may not occur if the company's earnings differ from estimates.

Disclaimers

This publication contains material that has been prepared by the Nomura Group entity identified on page 1 and, if applicable, with the contributions of one or more Nomura Group entities whose employees and their respective affiliations are specified on page 1 or identified elsewhere in the publication. The term "Nomura Group" used herein refers to Nomura Holdings, Inc. and its affiliates and subsidiaries including:

Nomura Securities Co., Ltd. ('NSC') Tokyo, Japan; Nomura International plc ('Nlplc'), UK; Nomura Securities International, Inc. ('NSI'), New York, US; Instinet, LLC ('ILLC'); Nomura International (Hong Kong) Ltd. ('NIHK'), Hong Kong; Nomura Financial Investment (Korea) Co., Ltd. ('NFIK'), Korea (Information on Nomura analysts registered with the Korea Financial Investment Association ('KOFIA') can be found on the KOFIA Intranet at <http://dis.kofia.or.kr>); Nomura Singapore Ltd. ('NSL'), Singapore (Registration number 197201440E, regulated by the Monetary Authority of Singapore); Nomura Australia Ltd. ('NAL'), Australia (ABN 48 003 032 513), regulated by the Australian Securities and Investment Commission ('ASIC') and holder of an Australian financial services licence number 246412; P.T. Nomura Indonesia ('PTNI'), Indonesia; Nomura Securities Malaysia Sdn. Bhd. ('NSM'), Malaysia; NIHK, Taipei Branch ('NITB'), Taiwan; Nomura Financial Advisory and Securities (India) Private Limited ('NFASL'), Mumbai, India (Registered Address: Ceejay House, Level 11, Plot F, Shivsagar Estate, Dr. Annie Besant Road, Worli, Mumbai- 400 018, India; Tel: +91 22 4037 4037, Fax: +91 22 4037 4111; CIN No: U74140MH2007PTC169116, SEBI Registration No. for Stock Broking activities : BSE INB011299030, NSE INB231299034, INF231299034, INE 231299034, MCX: INE261299034; SEBI Registration No. for Merchant Banking : INM000011419; SEBI Registration No. for Research: INH000001014 and Nlplc, Madrid Branch ('Nlplc, Madrid'). 'CNS Thailand' next to an analyst's name on the front page of a research report indicates that the analyst is employed by Capital Nomura Securities Public Company Limited ('CNS') to provide research assistance services to NSL under an agreement between CNS and NSL. 'NSFSPL' next to an employee's name on the front page of a research report indicates that the individual is employed by Nomura Structured Finance Services Private Limited to provide assistance to certain Nomura entities under inter-company agreements. The "BDO-NS" (which stands for "BDO Nomura Securities, Inc.") placed next to an analyst's name on the front page of a research report indicates that the analyst is employed by BDO Unibank Inc. ("BDO Unibank") who has been seconded to BDO-NS, to provide research assistance services to NSL under an agreement between BDO Unibank, NSL and BDO-NS. BDO-NS is a Philippines securities dealer, which is a joint venture between BDO Unibank and the Nomura Group.

THIS MATERIAL IS: (I) FOR YOUR PRIVATE INFORMATION, AND WE ARE NOT SOLICITING ANY ACTION BASED UPON IT; (II) NOT TO BE CONSTRUED AS AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITY IN ANY JURISDICTION WHERE SUCH OFFER OR SOLICITATION WOULD BE ILLEGAL; AND (III) OTHER THAN DISCLOSURES RELATING TO THE NOMURA GROUP, BASED UPON INFORMATION FROM SOURCES THAT WE CONSIDER RELIABLE, BUT HAS NOT BEEN INDEPENDENTLY VERIFIED BY NOMURA GROUP.

Other than disclosures relating to the Nomura Group, the Nomura Group does not warrant or represent that the document is accurate, complete, reliable, fit for any particular purpose or merchantable and does not accept liability for any act (or decision not to act) resulting from use of this document and related data. To the maximum extent permissible all warranties and other assurances by the Nomura Group are hereby excluded and the Nomura Group shall have no liability for the use, misuse, or distribution of this information.

Opinions or estimates expressed are current opinions as of the original publication date appearing on this material and the information, including the opinions and estimates contained herein, are subject to change without notice. The Nomura Group is under no duty to update this document. Any comments or statements made herein are those of the author(s) and may differ from views held by other parties within Nomura Group. Clients should consider whether any advice or recommendation in this report is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The Nomura Group does not provide tax advice.

The Nomura Group, and/or its officers, directors and employees, may, to the extent permitted by applicable law and/or regulation, deal as principal, agent, or otherwise, or have long or short positions in, or buy or sell, the securities, commodities or instruments, or options or other derivative instruments based thereon, of issuers or securities mentioned herein. The Nomura Group companies may also act as market maker or liquidity provider (within the meaning of applicable regulations in the UK) in the financial instruments of the issuer. Where the activity of market maker is carried out in accordance with the definition given to it by specific laws and regulations of the US or other jurisdictions, this will be separately disclosed within the specific issuer disclosures.

This document may contain information obtained from third parties, including ratings from credit ratings agencies such as Standard & Poor's. Reproduction and distribution of third-party content in any form is prohibited except with the prior written permission of the related third-party. Third-party content providers do not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. Third-party content providers give no express or implied warranties, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use. Third-party content providers shall not be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs) in connection with any use of their content, including ratings. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice.

Any MSCI sourced information in this document is the exclusive property of MSCI Inc. ('MSCI'). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, re-disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI and the MSCI indexes are services marks of MSCI and its affiliates.

The intellectual property right and any other rights, in Russell/Nomura Japan Equity Index belong to Nomura Securities Co., Ltd. ("Nomura") and Frank Russell Company ("Russell"). Nomura and Russell do not guarantee accuracy, completeness, reliability, usefulness, marketability, merchantability or fitness of the Index, and do not account for business activities or services that any index user and/or its affiliates undertakes with the use of the Index.

Investors should consider this document as only a single factor in making their investment decision and, as such, the report should not be viewed as identifying or suggesting all risks, direct or indirect, that may be associated with any investment decision. Nomura Group produces a number of different types of research product including, among others, fundamental analysis and quantitative analysis; recommendations contained in one type of research product may differ from recommendations contained in other types of research product, whether as a result of differing time horizons, methodologies or otherwise. The Nomura Group publishes research product in a number of different ways including the posting of product on the Nomura Group portals and/or distribution directly to clients. Different groups of clients may receive different products and services from the research department depending on their individual requirements.

Figures presented herein may refer to past performance or simulations based on past performance which are not reliable indicators of future performance. Where the information contains an indication of future performance, such forecasts may not be a reliable indicator of future performance. Moreover, simulations are based on models and simplifying assumptions which may oversimplify and not reflect the future distribution of returns.

Certain securities are subject to fluctuations in exchange rates that could have an adverse effect on the value or price of, or income derived from, the investment.

With respect to Fixed Income Research: Recommendations fall into two categories: tactical, which typically last up to three months; or strategic, which typically last from 6-12 months. However, trade recommendations may be reviewed at any time as circumstances change. 'Stop loss' levels for trades are also provided; which, if hit, closes the trade recommendation automatically. Prices and yields shown in recommendations

are taken at the time of submission for publication and are based on either indicative Bloomberg, Reuters or Nomura prices and yields at that time. The prices and yields shown are not necessarily those at which the trade recommendation can be implemented.

The securities described herein may not have been registered under the US Securities Act of 1933 (the '1933 Act'), and, in such case, may not be offered or sold in the US or to US persons unless they have been registered under the 1933 Act, or except in compliance with an exemption from the registration requirements of the 1933 Act. Unless governing law permits otherwise, any transaction should be executed via a Nomura entity in your home jurisdiction.

This document has been approved for distribution in the UK and European Economic Area as investment research by Nlplc. Nlplc is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Nlplc is a member of the London Stock Exchange. This document does not constitute a personal recommendation within the meaning of applicable regulations in the UK, or take into account the particular investment objectives, financial situations, or needs of individual investors. This document is intended only for investors who are 'eligible counterparties' or 'professional clients' for the purposes of applicable regulations in the UK, and may not, therefore, be redistributed to persons who are 'retail clients' for such purposes. This document has been approved by NIHK, which is regulated by the Hong Kong Securities and Futures Commission, for distribution in Hong Kong by NIHK. This document has been approved for distribution in Australia by NAL, which is authorized and regulated in Australia by the ASIC. This document has also been approved for distribution in Malaysia by NSM. In Singapore, this document has been distributed by NSL. NSL accepts legal responsibility for the content of this document, where it concerns securities, futures and foreign exchange, issued by their foreign affiliates in respect of recipients who are not accredited, expert or institutional investors as defined by the Securities and Futures Act (Chapter 289). Recipients of this document in Singapore should contact NSL in respect of matters arising from, or in connection with, this document. Unless prohibited by the provisions of Regulation S of the 1933 Act, this material is distributed in the US, by NSI, a US-registered broker-dealer, which accepts responsibility for its contents in accordance with the provisions of Rule 15a-6, under the US Securities Exchange Act of 1934. The entity that prepared this document permits its separately operated affiliates within the Nomura Group to make copies of such documents available to their clients.

This document has not been approved for distribution to persons other than 'Authorised Persons', 'Exempt Persons' or 'Institutions' (as defined by the Capital Markets Authority) in the Kingdom of Saudi Arabia ('Saudi Arabia') or 'professional clients' (as defined by the Dubai Financial Services Authority) in the United Arab Emirates ('UAE') or a 'Market Counterparty' or 'Business Customers' (as defined by the Qatar Financial Centre Regulatory Authority) in the State of Qatar ('Qatar') by Nomura Saudi Arabia, Nlplc or any other member of the Nomura Group, as the case may be. Neither this document nor any copy thereof may be taken or transmitted or distributed, directly or indirectly, by any person other than those authorised to do so into Saudi Arabia or in the UAE or in Qatar or to any person other than 'Authorised Persons', 'Exempt Persons' or 'Institutions' located in Saudi Arabia or 'professional clients' in the UAE or a 'Market Counterparty' or 'Business Customers' in Qatar. By accepting to receive this document, you represent that you are not located in Saudi Arabia or that you are an 'Authorised Person', an 'Exempt Person' or an 'Institution' in Saudi Arabia or that you are a 'professional client' in the UAE or a 'Market Counterparty' or 'Business Customers' in Qatar and agree to comply with these restrictions. Any failure to comply with these restrictions may constitute a violation of the laws of the UAE or Saudi Arabia or Qatar.

Notice to Canadian Investors: This research report is not a personal recommendation and does not take into account the investment objectives, financial situation or particular needs of any particular individual or account. It is made available to you in reliance on NI 31-103, section 8.25.

For report with reference of TAIWAN public companies or authored by Taiwan based research analyst:

THIS DOCUMENT IS SOLELY FOR REFERENCE ONLY. You should independently evaluate the investment risks and are solely responsible for your investment decisions. NO PORTION OF THE REPORT MAY BE REPRODUCED OR QUOTED BY THE PRESS OR ANY OTHER PERSON WITHOUT WRITTEN AUTHORIZATION FROM NOMURA GROUP. Pursuant to Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers and/or other applicable laws or regulations in Taiwan, you are prohibited to provide the reports to others (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities in connection with the reports which may involve conflicts of interests. INFORMATION ON SECURITIES / INSTRUMENTS NOT EXECUTABLE BY NOMURA INTERNATIONAL (HONG KONG) LTD., TAIPEI BRANCH IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT BE CONSTRUED AS A RECOMMENDATION OR A SOLICITATION TO TRADE IN SUCH SECURITIES / INSTRUMENTS.

NO PART OF THIS MATERIAL MAY BE (I) COPIED, PHOTOCOPIED, OR DUPLICATED IN ANY FORM, BY ANY MEANS; OR (II) REDISTRIBUTED WITHOUT THE PRIOR WRITTEN CONSENT OF A MEMBER OF THE NOMURA GROUP. If this document has been distributed by electronic transmission, such as e-mail, then such transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this document, which may arise as a result of electronic transmission. If verification is required, please request a hard-copy version.

The Nomura Group manages conflicts with respect to the production of research through its compliance policies and procedures (including, but not limited to, Conflicts of Interest, Chinese Wall and Confidentiality policies) as well as through the maintenance of Chinese walls and employee training.

Additional information regarding the methodologies or models used in the production of any investment recommendations contained within this document is available upon request by contacting the Research Analysts listed on the front page. Disclosures information is available upon request and disclosure information is available at the Nomura Disclosure web

page: <http://go.nomuranow.com/research/globalresearchportal/pages/disclosures/disclosures.aspx>

Copyright © 2017 Nomura Securities Co., Ltd. All rights reserved.