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Industry Introduction

Health care demand in Southeast Asia (SEA) is increasing rapidly, driven by population growth rates that are expected to surpass those of other regions. Most of SEA’s spending on health care comes from the public sector as governments strive to meet their average citizen’s government spending. This results in huge spending on local healthcare establishment. The healthcare industry is thus extremely sensitive to government health policies.

Singapore’s private healthcare sector experiences substantial growth and this is largely due to a rising demand of medical tourism in the region. In recent years, SEA prides itself as a regional center of excellence for general surgery and medicine and specialist services, including cardiology and organ transplants. Singapore’s excellent balance of advance medical care while maintaining a relatively affordable cost compared to other regions allows it to attract a high demand of patients from around the world.

Singapore’s public healthcare is regarded as a phenomenon in the region as the government spends an equivalent of only 3% of GDP on healthcare relative to other developed nations such as United States which expends up to 18% of its GDP. Termed “affordable excellence”, Singaporean are able to choose their providers at all levels of care.

The sector is divided into public and private segments, with public sector providing 20% of primary care and 1900 private clinics making up the remaining 80%. As for hospitalization care, the public sector services 80% of the patients through two integrated care networks, with an additional 13 private hospitals accounting for the remaining 20% of inpatient admissions. Singapore has 11800 hospital beds or 3.7 per 1000 people, a comfortable margin. In 2014, Singapore was ranked the most efficient in the world.

Further breakdown of the sector allows us to arrive at sub sector of healthcare service providers, medical devices & equipment manufacturer, medical insurance as well as pharmaceuticals & biomedical related segment.

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1 Most Efficient Health Care 2014, Bloomberg], accessdate 11/30/2014
Performance of STI healthcare at a glance

The healthcare sector has long been regarded as a defensive sector for investors to weather general economic or market downturns. Regardless of state of economy, people continuously require healthcare. They are therefore considered to be more stable and less vulnerable to a bear market.

The FTSE ST Healthcare Index has returned 35% more than STI in the past few years, with valuations hitting all time high.

The sector is current facing pressure to consolidate due to a fall in demand for medical tourism due to slower global economic growth. With more SEA countries setting up private hospitals providing premium hospital care, there is an oversupply in the private sector. In addition, a hike in labour cost is making the sector less profitable. The combination of excessive supply and falling demand has led to mediocre earnings which places significant pressure on share prices.
Key Performance Index

Average Length of Stay (ALOS)
The Average Length of Stay measures how long, on average, patients stay in the hospital after having a specific procedure, such as an appendectomy. Reducing length of stay of patients purportedly yields large cost savings, it releases significant capacity in the healthcare system. Hospitals usually experience far more variations in patterns of patient discharge than patient admissions due to the system design behind processes management such as ward rounds, inpatient tests and pharmacy. This results in highly unpredictable length of stay. The category can further be broken down into different average lengths of stays after different medical procedures for more consistency during comparison. For instance, ALOS after acute myocardial infarction, ALOS after normal delivery. The most efficient hospitals can achieve 4 to 5 days for averages across all causes.

Operating Expenses/Net Operating Income per Adjusted Discharge
The operating expenses per adjusted discharge is the cost of providing services to the average patient. Whereas Net operating income per adjusted discharge is the amount of money that a hospital is able to earn from the average patient visit. Both provides a good litmus test for profitability of the hospital operations, in terms of efficiency and revenue generation capacity. As an investor, it is important for us to measure growth when we value a hospital operation or healthcare related service operation. To look at this value is akin to breaking down growth to the fundamental unit, the average revenue provided by each patient.

Average Emergency Room (ER) Patient Waiting Time
The typical amount of time required for a patient to check in, and wait to see a physician, or physician's assistant, in the hospital's Emergency Room. While data can sometimes be hard to collect, it is a good measure of how efficient the hospital functions. A usually unnoticed but vital reflection of service standard. A hospital with quick response time for emergency cases will always be preferred over another that delays a life and death situation. Another reason to take note of this indicator is due to the fact that emergency room operations contribute a significant portion of revenue for a hospital. As an investor, any indicator that provides the slightest hint to bottom line numbers is vital.

Operating margin
Widely regarded as one of the most important financial ratios for any industry, the operating margin is important for healthcare service providers too. It compares net operating income to total operating revenue. Singapore’s healthcare service providers have a range of margins varying from as low as 6% to as high as 40%. Many local providers are heading overseas in search of growth as the local market saturates, whether they will succeed overseas is still questionable.
Sub Sectors

Clinics & Specialist centres

The pillar of primary healthcare, clinics provide the majority of the healthcare needs of the population. Clinics forms the monopolistic competition market structure, each operating in niche markets, usually restricted by their geographical proximity. Specialist centres serve another niche market, specific operations and treatments that cannot be provided elsewhere. Both clinics and specialist centres are unlikely to experience supply and demand impacts of larger economic trends such as fewer medical tourists or a new government hospital. However, they might become the subject of attention with med-tech sector picking up speed. They may become the primary target for adoption of new mass market medical technologies and software.

Public and Private hospitals

Singaporeans who contribute to 94% of healthcare expenditure prefer public health care services because of the subsidies that come with it. The figure beside shows the difference between the average patients spend in a private hospital and public hospital in a day. Private hospitals could cause up to 5 times as much as the public hospitals. The data was obtained from MOH. And the figures were calculated by taking total spending during the course of stay divided by the number of days, thereby arriving at the average spent a day at the hospital.

Seeing as Singaporean patients could get the same or similar treatments at a much cheaper price, they would not prefer to spend it on private healthcare which is so much more expensive. This is one of the biggest challenges for a private healthcare firm such as RMG.

![Average spent per day](chart.png)

*Blue represents public healthcare expenditure

*Green represents private healthcare expenditure

Source: MOH

There are also many schemes when it comes to the private healthcare providers. For example, there is the Community Health Assistance Scheme (CHAS) which was introduced in 2012. The scheme enables Singapore Citizens from lower- to-middle income households, as well as all Pioneers (people aged 65 and above), to receive subsidies for medical and dental care at participating General Practitioner (GP) and dental clinics. This, is one of the biggest limiting factors for private healthcare providers who are not part of the scheme.

Many private healthcare providers however, have registered with MOH and are now taking part in the scheme as well. This includes Raffles Medical and Q&M dental group.
Macroeconomic factors affecting health-care providers

Rising affluence

Rising affluence in Singapore and neighbouring countries in the region leads to an increase in the willingness of people to spend on private healthcare.

The GNI in Singapore has risen in the past 5 years, it was $37 080 and it rose to $55 150 (USD) in 2014. This shows that individuals’ income have been increasing steadily and they are now able to afford private healthcare.

This table shows the private health expenditure as a percentage of total GDP in Singapore over the last 10 years. The percentage has steadily increased since 2006. Coupled with the ageing population and longer life expectancy, consumption in private healthcare is expected to continue growing.

The GNI in neighbouring countries have also been on the rise. Indonesia and the Phillipines have been encountering a rise in GNI which means a rise in the people’s personal income. And they will therefore choose to engage in seeking medical treatment more effectively and perfect at a more cost effective manner, such as Singapore.

Ageing population and longer life expectancy

With an ageing population and longer life expectancy in Singapore, healthcare needs would increase, along with long-term care expenditure for the elderly. Residents aged 65 and above accounted for 11.05% of Singapore’s resident population as of mid-2014. Resident ratio declined to 6.0 in 2014 and is expected to fall further as the population continues to age. Singaporeans are also living longer, leading to a higher demand for healthcare services for the elderly.

The increased longevity is unprecedented, with people across the world living much longer in much larger numbers than ever before, due to better nutrition and much improved healthcare. In most countries, the increase is continuing, with no certainty as to the outcome. While the consequence is many more years of active and healthy life, it also means more years of being dependent on some level of care. The generally falling birth rate also contributes, contributing over time to a changing age profile, where the elderly contribute an ever greater proportion of society. Both trends are characteristic of much of the world, not just the most developed countries.

[Graph showing residents aged 65 and above as a % of total population]

Source: World Health Organisation
This table shows the residents aged 65 and above as a percentage of total population. It has been rising steadily since 2006 and is expected to continue rising. The growing number of elderly will reflect by causing demand for healthcare to increase.

Longer, healthier lives mean we can work longer. With more flexible working arrangements, more jobs can be done by older workers, enabling them to top up their pensions by working as much or little as they choose. For instance, given training and support, the fit old can care for the infirm older. Much of the additional cost of supporting any increase in the number of older people who are infirm should be offset by the reduced cost of less childcare.

The view that to look after ever more old people we need ever more young people, who will grow old in turn and need yet more still to support them, is an ecologically unsustainable social pyramid scheme, benefiting the present generation at the expense of the next.

The problems of a stable or reducing population are insignificant compared to those certain to be caused by indefinite growth.

**Increasing Medical Tourism**

Tourism is one of the largest and fastest growing industries of Singapore. More than 10.2 million tourists visit Singapore every year. The Government is promoting Singapore as the world’s best medical tourism hub. A survey conducted in the year 2014 has shown that more than 200,000 international citizens visit Singapore every year to receive medical care and avail medical services from the hospitals and clinics of the country. An estimate has projected that more than one million tourists will visit Singapore by the end of 2015 only to enjoy the medical facilities of the country. The total earnings of the Singapore government from medical tourism by the end of the current year is projected at 3 billion USD.

Singapore was ranked 1st in Asia according to Bloomberg’s “Most Efficient Health Care list of 2014.”, which measures the overall efficiency of a country which considers life expectancies, Health-care cost as a percentage of GDP and other relevant factors.

Many factors are influencing the growth and surrounding regulations of patients travelling for medical care:

- Evolving medical tourism guidelines and international accreditation
- Expanding and increasing sophistication of foreign medical tourism operations
- Increasing provincial and local provider interest in supporting medical tourism through legislation and policy
- Increasing demand for outpatient surgery and a drive to reduce wait times
- Emerging consumer interest in medical tourism options
- Economic constraints and changing financial incentives

Adding to the emerging state of medical tourism is a growing policy and public attention to wait lists for key services, increasing consumer willingness to travel for health care services, and renewed direct-to-consumer marketing by medical tourism companies and foreign destinations. While the global economy remains unfavorable, Singapore remains one of the most attractive destinations with huge potential growth.
Unique Characteristics of Healthcare Services Sector

Government Regulations

The impact of government new initiative and regulation cannot be understated in the context of Singapore. Any intervention or incentive provided by government is likely to tilt the competition in favour of public healthcare service providers. Let us take a look at the impact of increase in government spending on private healthcare:

<table>
<thead>
<tr>
<th>Private Dental Services</th>
<th>Private Clinic Chains</th>
<th>Private Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Development on research could enhance dental services: - new treatments - cheaper cost of treatments</td>
<td>a) Small percentage spent on private clinics as well (CHAS scheme) b) Increase in spending on public healthcare could make patients choose public clinics instead</td>
<td>a) Small percentage of government spending on private hospitals. They are working with Public hospitals to allow for patients to be admitted to private hospitals in the Emergency Departments b) Increase government spending on public hospitals, make patients choose public hospitals. c) Payment by medisave &amp; medishield provides additional incentive</td>
</tr>
<tr>
<td>b) When government increases operational expenditure, upgrading public dental services.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Insurance Providers

As of November 2013, a new scheme, labelled as Private Medical Insurance Scheme (PMIS) allows residents to use their Medi-save savings to buy insurance plans, which covers private hospital bills. This provides additional insurance protection on top of the standard protection offered by Medi-save. We believe that such new initiatives will lead to increased expenditure in private sector. Many Singaporeans value the time savings and quality care provided by private sector and they are willing to pay a premium for that. Therefore it is not surprising that with more insurance providers extending coverage to private healthcare providers, there will also be an increase in demand for them too.

Med-Tech

The Medical Technology sector is an important part of Singapore’s developing Biomedical Sciences (BMS) industry. In 2011, Singapore’s medical technology sector accounted for SGD 4.3 billion in output while creating around 9000 jobs. Singapore provides excellent IP protection and enforcement which has attracted numerous MNCs to set up research centres. In addition Spring Singapore has recently announced a 60 million investment in Med-Tech start-ups. While a national brand has yet to emerge, we firmly believe that breakthrough in the med-tech segment will shake the healthcare sector from top to bottom.
Case Study – Raffles Medical Group (R01.SI)

Current Price: SGD 4.21
Target Price: SGD 4.44 (+5.4%)

Raffles Medical Group is Singapore’s largest private healthcare provider, offering integrated healthcare services. The company runs a hospital and a network of clinics with family physicians, specialists and dental surgeons.

Key Financials:

<table>
<thead>
<tr>
<th></th>
<th>FY12A</th>
<th>FY13A</th>
<th>FY14A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Capitalization (mil)</td>
<td>2670</td>
<td>2670</td>
<td>2670</td>
</tr>
<tr>
<td>Shares Outstanding (mil)</td>
<td>573.4</td>
<td>573.4</td>
<td>573.4</td>
</tr>
<tr>
<td>A.D. Value Traded (SGD)</td>
<td>419167</td>
<td>419167</td>
<td>419167</td>
</tr>
<tr>
<td>Dividend Yield (%)</td>
<td>1.26%</td>
<td>1.26%</td>
<td>1.26%</td>
</tr>
<tr>
<td>52-Wk High</td>
<td>4.99</td>
<td>4.99</td>
<td>4.99</td>
</tr>
<tr>
<td>52-Wk Low</td>
<td>3.75</td>
<td>3.75</td>
<td>3.75</td>
</tr>
<tr>
<td>P/E (ttm)</td>
<td>38.29</td>
<td>38.29</td>
<td>38.29</td>
</tr>
<tr>
<td>(USD mil)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P/B (x)</td>
<td>2.85</td>
<td>3.65</td>
<td>4.03</td>
</tr>
<tr>
<td>ROE (%)</td>
<td>16.17%</td>
<td>19.44%</td>
<td>13.10%</td>
</tr>
<tr>
<td>Div Yield (%)</td>
<td>0.88%</td>
<td>0.99%</td>
<td>1.80%</td>
</tr>
<tr>
<td>Net D/E</td>
<td>0.05</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>EBITDA (mil)</td>
<td>75</td>
<td>104</td>
<td>91</td>
</tr>
<tr>
<td>P/E (x)</td>
<td>31.11</td>
<td>26.80</td>
<td>38.6</td>
</tr>
</tbody>
</table>

Source: Bloomberg

Stable Financials

As the saying goes: “cash is king”. RMG has kept its finances as healthy as their patients. As of now it has maintained a net cash and cash equivalent value of above SGD 100 million on its balance sheet for 4 consecutive years. It has negligible level of debt and no long term obligations. This enables RMG to exercise greater financial leverage should the need arises during its expansion.

Strong Core Businesses & Good Branding

Carrying the Raffles brand, the implied message is that “we offer only the best”. As a trusted brand, it has a huge network of clinics, hospitals and specialist units. The rooms within Raffles Hospital are outfitted to the standards of five star hotels. Such quality of service attracts medical tourists who flock to RMG for ease and convenience. As RMG is set to expand overseas, we have confidence that the brand effect will carry over and generate more profits. With a load of experience and talented staff, RMG is able to establish core competency as an integrated healthcare provider that is almost unrivalled regionally. The extent of services provided and economies of scale will translate to sustainable profit margins in the long run.

Potential Catalysts through Acquisitions & Collaboration

Shanghai RMG has entered into framework agreement with Shanghai Binjiang International Tourism Development Co. Ltd to collaborate on the proposed development of an integrated international hospital in the central business zone of Qiantan, Pudong NewDistrict in Shanghai, China. RMG is also negotiating on a proposed collaboration with China Merchants Shekou Industrial Zone to develop an integrated international hospital in Shenzhen, China. We expect private hospital volume
to increase, driven by government initiatives and rising affluence. Healthcare business is less likely to be impacted by weakness in Chinese demand.

**Competitive advantage in B2B Segment**

As the leader in corporate segment, and has grown consistently over the years. We expect Raffles medical to secure first mover advantage in China over foreign competitors to ink contracts with government and companies. While large pharmaceuticals from US and Europe face significant barrier to entry for their drugs, healthcare services provider sector has yet to encounter such resistance in terms of regulation. Raffles has taken a collaborative approach, which further reduces difficulty.

**High PE ratio**

While healthcare sector tend to have a higher than average PE ratio than other sectors, Raffles Medical’s 32 PE ratio is way above industry average of 20. The downward pressure is very high and chances are that the stock will undergo consolidation for a period until earnings prove the valuations are justified.
Case Study – Singapore O&G (41X.SI)

Current Price: SGD 0.815
Target Price: SGD 0.45 (-44.7%)

Singapore O&G Ltd operates specialist health care facilities catered toward woman in Singapore. The Company provides services in obstetric, gynecology, gyne-oncology, breast and surgical care.

Key Financials:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Capitalization (mil)</td>
<td>177.67 SGD</td>
</tr>
<tr>
<td>Shares Outstanding (mil)</td>
<td>218</td>
</tr>
<tr>
<td>A.D. Value Traded (SGD)</td>
<td>NA</td>
</tr>
<tr>
<td>Dividend Yield (%)</td>
<td>1.08%</td>
</tr>
<tr>
<td>52-Wk High</td>
<td>0.83 SGD</td>
</tr>
<tr>
<td>52-Wk Low</td>
<td>0.25 SGD</td>
</tr>
<tr>
<td>P/E (ttm)</td>
<td>NA</td>
</tr>
</tbody>
</table>

*Company recently IPO, data insufficient

Risk of IPO Fever

Historically speaking IPO companies tend to have agreements that lock-in institutional funding for the first 6 months after IPO. However uncertainty arises after that period, for instance the case of ISEC Healthcare Ltd, its shares plunged after first 6 months of trading.

![ISEC Healthcare Stock movement](image)
Dividend policy

In the prospectus, the company stated that it is the firm’s intention is to pay out 90% of its after-tax profit for the whole of 2015. This raises questions with respect to how it will utilize its already limited retained earnings to create growth. This may be seen as an attempt to attract buyers for IPO shares however once the effect tapers off the stock may face large amount of selloffs.

Niche market concern

As a specialist in women healthcare related services, the amount of diversification and upscaling is limited, due to the recent economic instability, the company’s bottom line will be tested as demands bottoms out. Based on statistics given by Singapore tourism board, there is a fall of 38% in revenue from Indonesian medical tourists as well as a total fall of 25% for total medical tourism receipts. The weakening demand will likely detriment the growth of revenue of medical sector holistically and niche markets are likely to see even larger decreases.

Mean reversion

At its listing price of S$0.25, the firm has a historical price-to-earnings (PE) ratio of 12.3, which is cheap relative to its industry peers, however at the current price of S$0.81, it is no longer a value purchase and investors should be cautious of selloffs in the coming months.
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