THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

FINM Project

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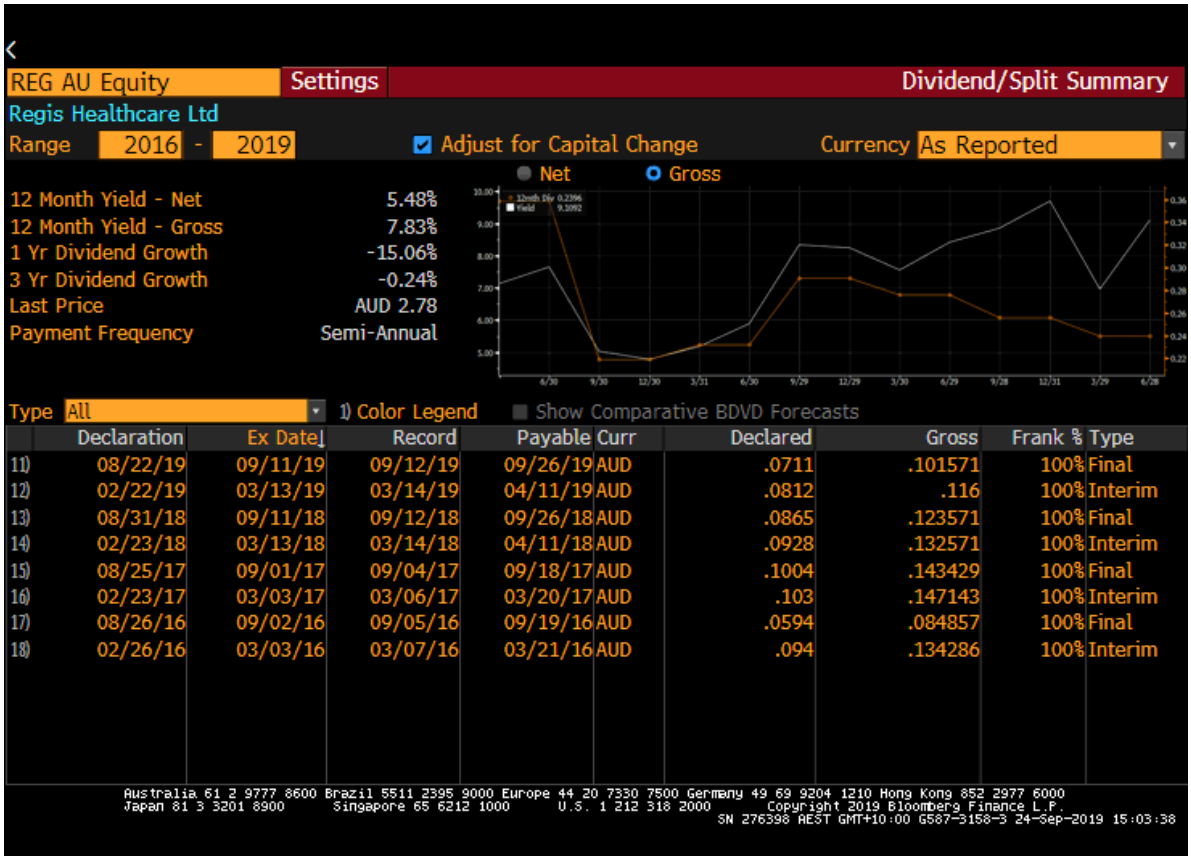
Part 1 Stock Valuation: Regis Healthcare LTD.

1. Summary

Regis Healthcare Limited is one of the leading healthcare companies in Australia. Aiming at helping aged residents live well, it provides diversified services and facilities related to aged care including ageing-in-place, dementia care, palliative care, respite care etc. Regis has built 63 aged care facilities and around 7000 operation places nationwide to deliver premium quality services to over 6500 residents at present. The market capital of Regis is the largest compared with other peer companies over Australia. It targets at middle and high level of aged care market.

It was established in early 1990s and has grown rapidly to be the largest aged care provider in Australia. Main services of Regis cover aged care facilities, retirement village, home care and other services. Aged care offers developed accommodation, therapy, medication assistance and other personal care services for older people. Regis will help to make the customized plan in terms of different needs. Aged care targets at people who cannot live independently. Different from aged care facilities, retirement village is more like a new home provided for social requirement. Older people can meet new friends and communicate with each other in retirement village. Home care offers in home services rather than in facility services. It is prepared for those who want to stay at home but still need companionship or help.

Regis is committed to be the dynamic, innovative and creative industry leader to provide superior aged care services around Australia. With its robust development pipeline, revenue of Regis keeps growing in recent 4 years (JPMorgan, 2019). Although market occupancy deteriorated, it is still the leader over peer providers. Due to the large demand for aged care, Regis plans to continue expansionary investment in its pipeline. (283 words)


REG AU Equity
Settings
Dividend/Split Summary
Regis Healthcare Ltd
Range 2016 - 2019
Adjust for Capital Change
Currency As Reported
Net
Gross
12 Month Yield - Net 5.48%
12 Month Yield - Gross 7.83%
1 Yr Dividend Growth -15.06%
3 Yr Dividend Growth -0.24%
Last Price AUD 2.78
Payment Frequency Semi-Annual
Type All
1) Color Legend
Show Comparative BDVD Forecasts
Declaration Ex Date Record Payable Curr Declared Gross Frank % Type
11) 08/22/19 09/11/19 09/12/19 09/26/19 AUD .0711 .101571 100% Final
12) 02/22/19 03/13/19 03/14/19 04/11/19 AUD .0812 .116 100% Interim
13) 08/31/18 09/11/18 09/12/18 09/26/18 AUD .0865 .123571 100% Final
14) 02/23/18 03/13/18 03/14/18 04/11/18 AUD .0928 .132571 100% Interim
15) 08/25/17 09/01/17 09/04/17 09/18/17 AUD .1004 .143429 100% Final
16) 02/23/17 03/03/17 03/06/17 03/20/17 AUD .103 .147143 100% Interim
17) 08/26/16 09/02/16 09/05/16 09/19/16 AUD .0594 .084857 100% Final
18) 02/26/16 03/03/16 03/07/16 03/21/16 AUD .094 .134286 100% Interim
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000
Copyright 2019 Bloomberg Finance L.P.
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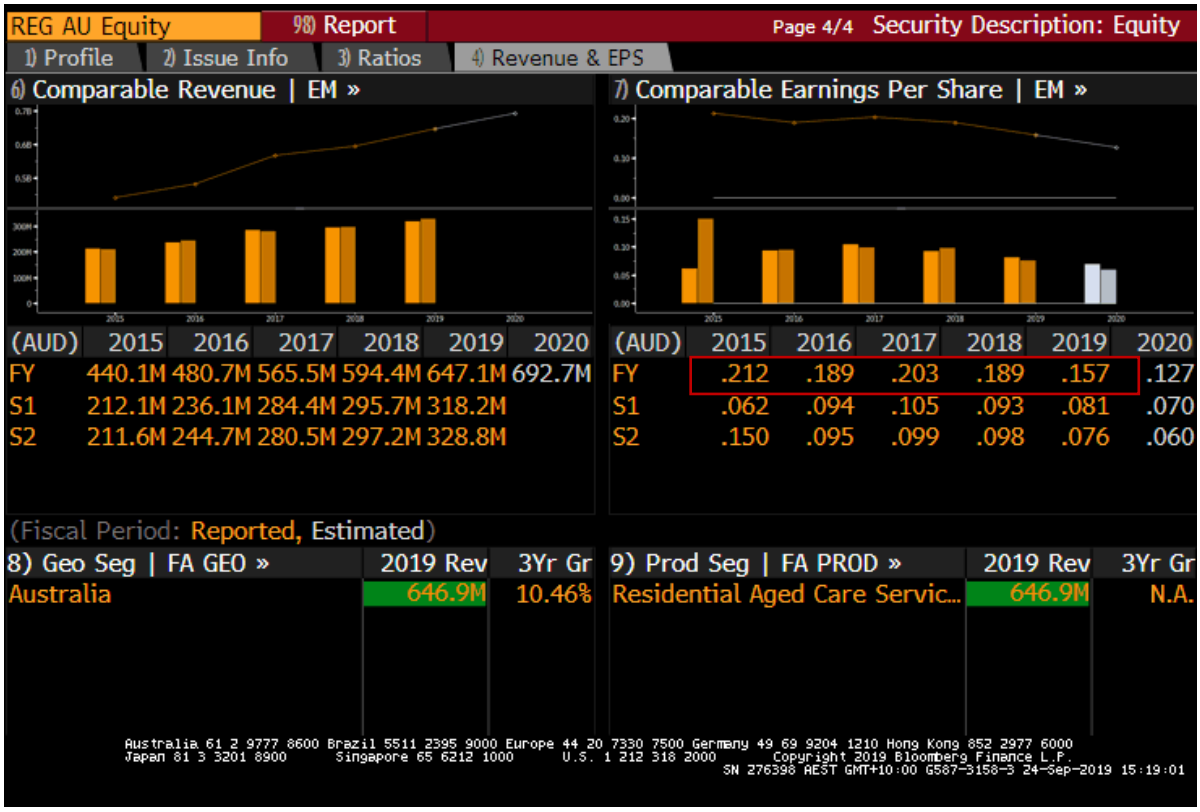
2. (1)

Figure 2-1


REG AU Equity
98) Report
Page 4/4 Security Description: Equity
1) Profile
2) Issue Info
3) Ratios
4) Revenue & EPS
6) Comparable Revenue | EM »
7) Comparable Earnings Per Share | EM »
(AUD) 2015 2016 2017 2018 2019 2020
FY 440.1M 480.7M 565.5M 594.4M 647.1M 692.7M
S1 212.1M 236.1M 284.4M 295.7M 318.2M
S2 211.6M 244.7M 280.5M 297.2M 328.8M
(AUD) 2015 2016 2017 2018 2019 2020
FY .212 .189 .203 .189 .157 .127
S1 .062 .094 .105 .093 .081 .070
S2 .150 .095 .099 .098 .076 .060
(Fiscal Period: Reported, Estimated)
8) Geo Seg | FA GEO » 2019 Rev 3Yr Gr
Australia 646.9M 10.46%
9) Prod Seg | FA PROD » 2019 Rev 3Yr Gr
Residential Aged Care Servic... 646.9M N.A.
Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000
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SN 276398 AEST GMT+10:00 G587-3158-3 24-Sep-2019 15:19:01

From Figure 2-1 above, comparable earnings per share is used to calculate historical geometric growth rate for Regis because it is one of the most important factors that investors concern about. Fiscal year (FY) 2019 is from 30th June 2018 to 30th June 2019, so it is reported data (orange number) rather than estimated data (white number).

Compound growth rate formula is:

$$\mathrm{FV}_n = \mathrm{PV}(1+\mathrm{g})^n$$

Where FV is future value, PV is present value, n is period and g is growth rate. Here we use 2016 as base year to calculate historical geometric growth rate. It is compound annual growth rate (CAGR). Because all of the interest rate is kind of growth rate, we can substitute i into g.

So, the growth rate is:

$$g = \left(\frac{.157}{.212}\right)^{1/4} - 1 = -0.0723$$

It shows that the historical geometric growth rate these four years for Regis is -7.23%.

Historical geometric growth rate highlights the time of value. It is an indicative rate for investment.

(2)

Figure 2-2

Key Changes (FYE Jun)

	Prev	Curr
Adj. EPS - 20E (A$)	0.14	0.13
Adj. EPS - 21E (A$)	0.15	0.14
Net income growth - 20E	(11.6%)	(19.1%)
Net income growth - 21E	4.9%	11.3%
EBITDA growth - 20E	(4.2%)	(5.9%)
EBITDA growth - 21E	2.5%	3.9%

Table above is from J.P.Morgan FY19 report for Regis Healthcare. Two columns are previous (FY19) and current data (20E). From the table, it's easy to see the estimated growth rate of adjust EPS is negative.

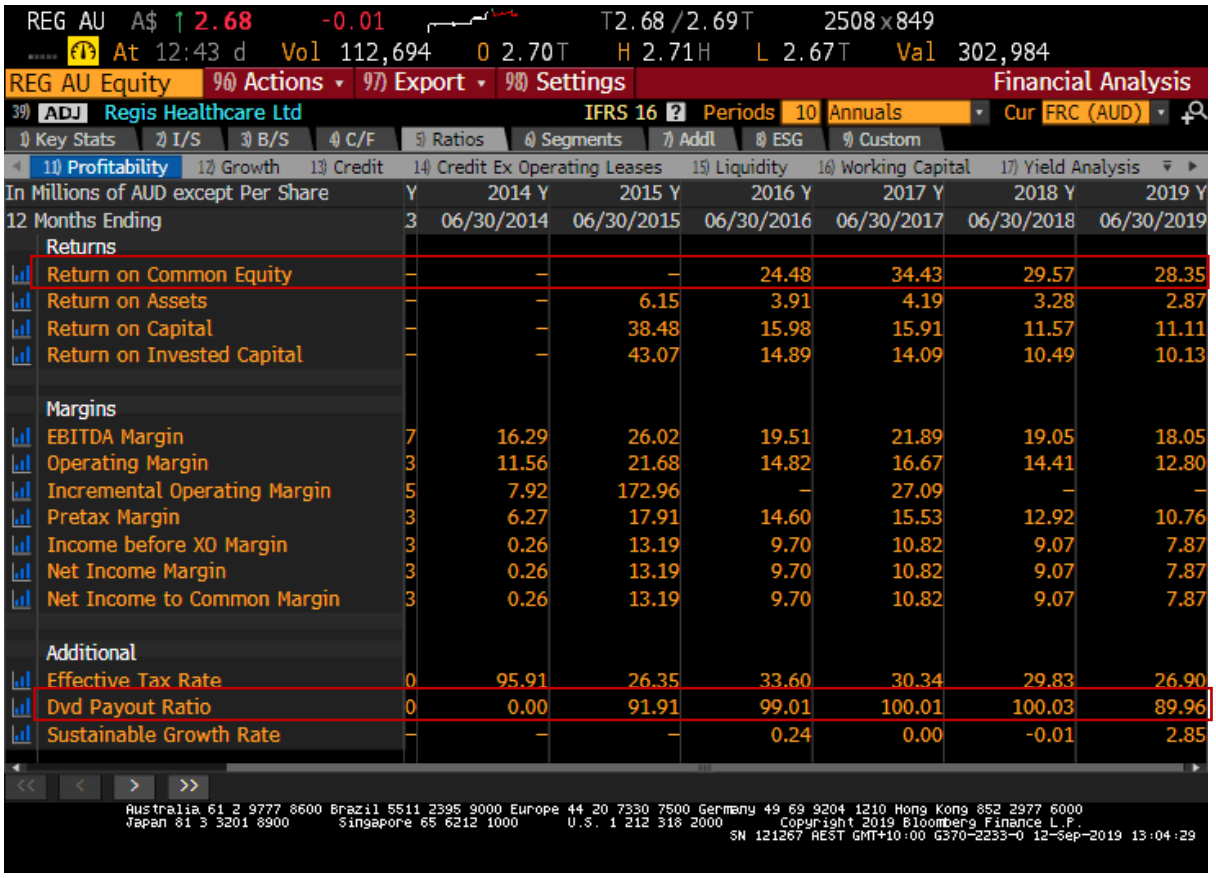
$$g = \left(\frac{0.13}{0.14}\right) - 1 = -0.0714$$

In the opinion of analysts, future earnings per share is 0.13 AUD, and the growth rate is -7.14% which is similar to historical geometric growth rate.

Analysts take management, pipeline and many other factors into account. The growth rate they estimate can be more comprehensive.

(3)

Figure 2-3



The function of Retention ration (RR) and return on equity (ROE) gives us the sustainable growth rate which is useful in long-term planning. Sustainable growth rate (SGR) indicates the growth rate that a company sustains the same capital structure without selling additional equity (Parrino, 2018). Return on equity is recorded from 2016. 2019Y means data from 30th

June 2018 to 30th June 2019. Retention rate is (1- dvd payout ratio). Whole process of function is showing below:

$$\text{Growth rate in } 2016 \;=\; \text{RR}_{2016} * \text{ ROE} = (1 - 0.9901) * 0.2448 \;=\; 0.0024$$

$$\text{Growth rate in } 2017 \;=\; \text{RR}_{2017} * \text{ ROE} = (1 - 1.01) * 0.3443 = -0.0034$$

$$\text{Growth rate in } 2018 \;=\; \text{RR}_{2018} * \text{ ROE} = (1 - 1.03) * 0.2957 \;= -0.0089$$

$$\text{Growth rate in } 2019 \;=\; \text{RR}_{2019} * \text{ ROE} = (1 - 0.8996) * 0.2835 \;= 0.0285$$

The average growth rate therefore should be:

$$g = \frac{1}{4} * (0.0024 - 0.0034 - 0.0089 + 0.0285) \;= 0.0047$$

It indicates that the sustainable growth rate is 0.47%

SGR is a rate to measure endogenous growth capability of a company. It assumes Regis will not sell new equity or change its operational efficiency to maximize the growth rate of 0.47%.

Each approach has its own merits. Historical geometric growth rate is useful for investors because it provides information on time value and earnings of shares. SGR in conducive to manage the company because it shows problems of long-term development.

3.

Historical geometric growth rate takes compounding into account. Because the earnings change over time, it is important to consider the value of time. But it cannot reflect the fluctuation of growth rate.

Analysts give us a professional result; the growth rate is reliable for their deliberate research. However, different analyst has different opinion. Humans are subjective.

SGR tells managers whether they should sell new equity or if they have cash shortage problem. But it doesn't provide information about how fast the company should grow.

Influenced by Aged Care Act reform in 2018, Regis lost a sixth of its value. It makes sense that estimated growth rate is negative. SGR is important for reflecting a long-term trend of a

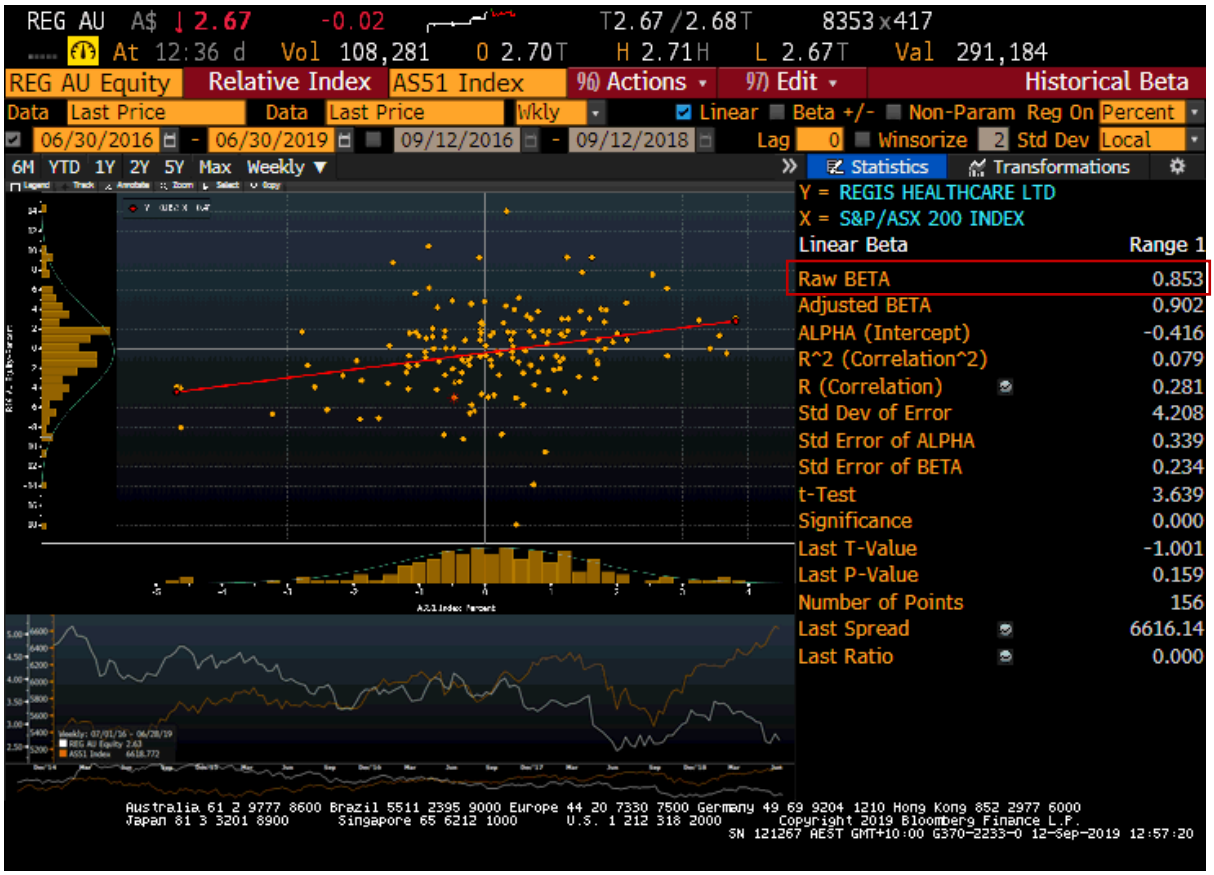
firm's growth. It's reasonable to combine approach 1 and approach 3 with 50% weights for both:

$$g = -0.0723 * 0.5 + 0.0047 * 0.5 = -0.0338$$

Because SGR is an index of long-term planning, the growth rate is supposed to remain in a long time. Furthermore, Regis is a healthcare facility company, it takes a lot of time for Regis to earn money from new-built facility. Therefore, we believe -3.38% growth rate will remain for 2-3 years. Thereafter, growth rate of Regis will increase largely for its appropriate management and new-built projects. (199 words)

4.

Figure 4



To estimate price share, we need to calculate required rate of return first. Capital Asset Pricing Model (CAPM) is the model of risk and expected return by which we can compute rate of return. Beta above is to measure systematic risk which is 0.853 for Regis. It indicates

the Regis's share is less volatile than ASX200. We let expected return on market minus risk-free rate to calculate market risk premium. From question 3, the estimated growth rate is 0.0338. Supposing risk-free rate is 0.74% and ASX200 index has a return of 13.06%, the expected return is:

$$R_i = R_f + \beta(R_m - R_f) = 0.0074 + 0.853 * (0.1306 - 0.0074) = 0.1125$$

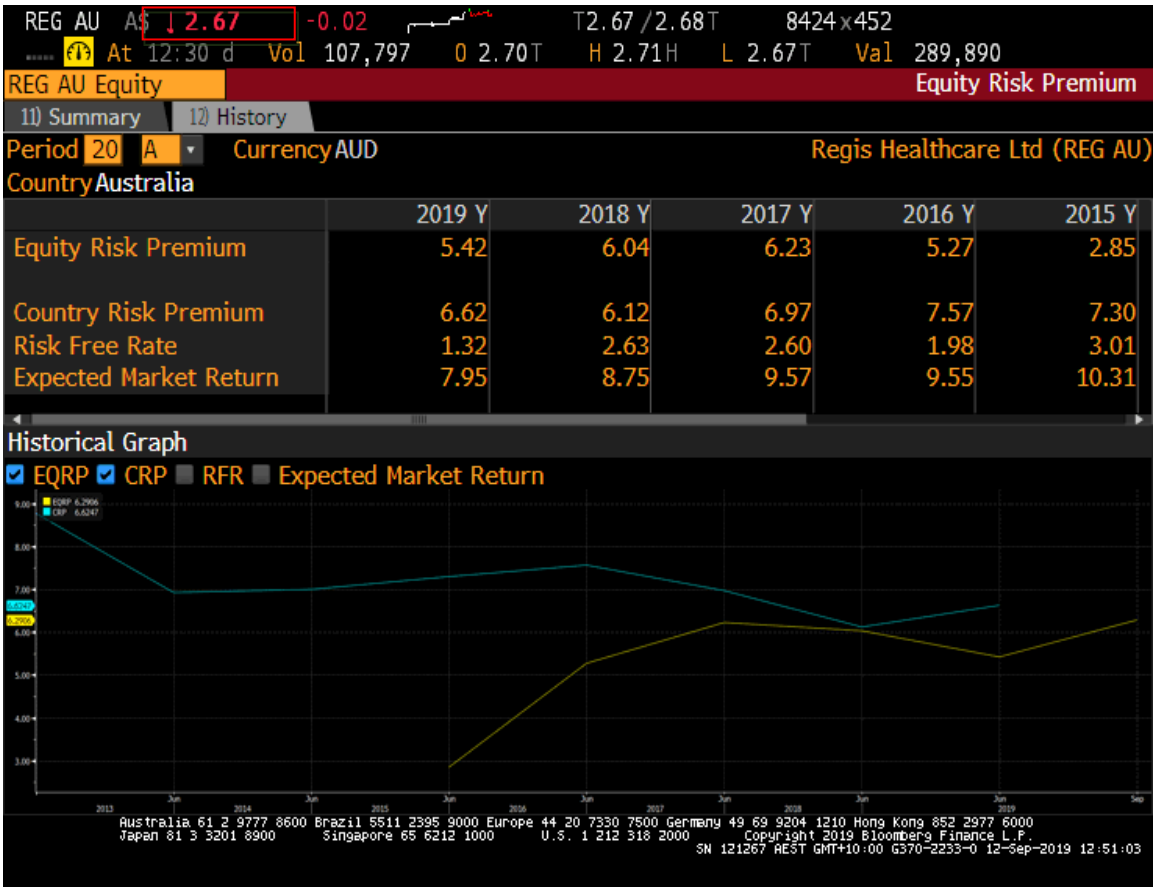
It shows the required rate of return is 11.25%. We can then measure the price share with Dividend Discount Model (DDM):

$$Price\ per\ share = \frac{D_1}{k_e - g} = \frac{D_0 * (1+g)}{k_e - g} = \frac{0.18 * (1 - 0.0338)}{0.1125 + 0.0338} = 1.19$$

The price per share of Regis is 1.19 AUD.

5.

Figure 5



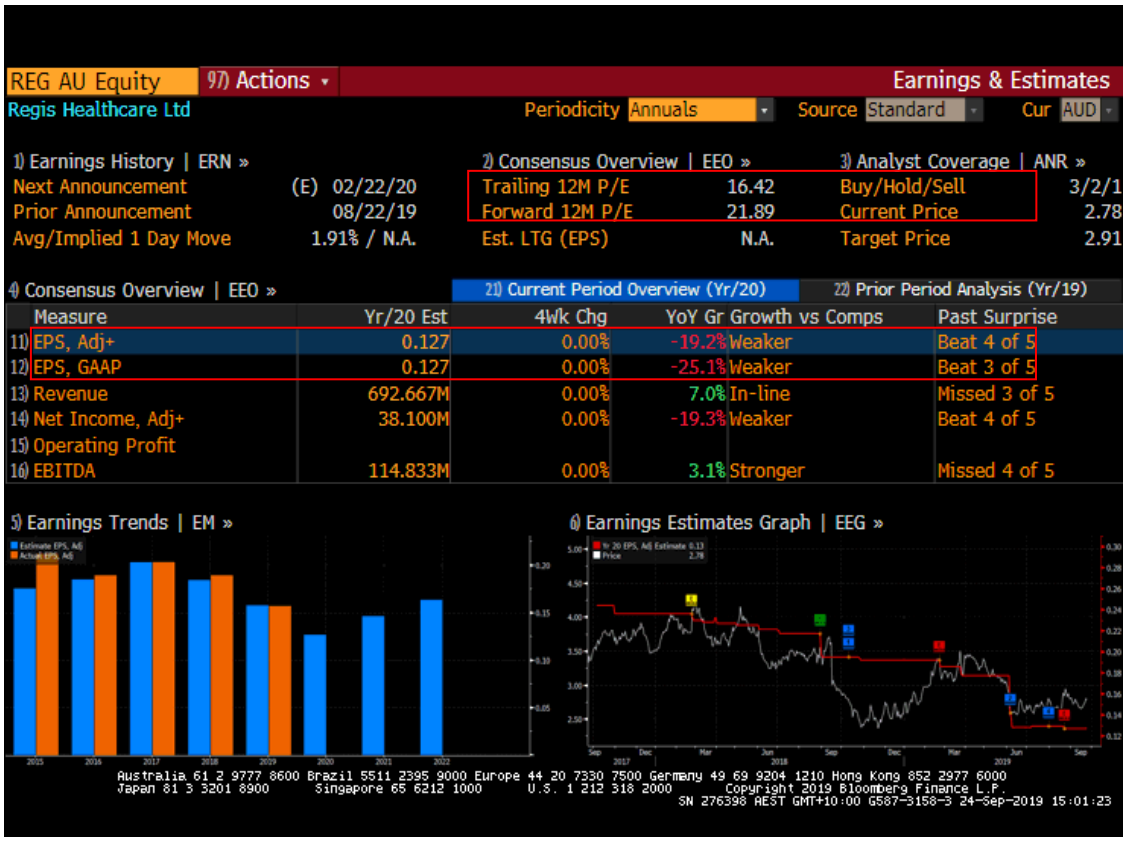
From question 4, the estimated share price is 1.19 AUD under DDM which is smaller than market price (2.67 AUD). We know that the P/E ratio equals price per share divided by earning per share. Assuming the earning is constant, lower price means lower P/E value, which indicates that company is more likely to increase its value in the future, the price therefore will go up as well. Because the price we computed is the expected value rather than real value, standard error exists and also people estimate it is price will go up in the future, it may be different from market value. Besides, we use the data from 2016 to 2019, which is a small range of samples, and we combine SGR and geometric growth rate with half weight assigned separately which may be not align with share growth rate in reality. Therefore the result is only the theoretical price considering long term growth. Moreover, the real price will be affected by market stability, market interest rate change and other factors as well. (175 words)

6.

Sensitivity Analysis (A$)					
SGR / Discount Rate	-20%	-10%	0	10%	20%
-20%	7.24	11.88	33.56	-40.77	-12.7
-10%	4.77	6.43	9.9	21.3	-135.7
0	3.59	4.49	5.07	8.44	950
10%	2.83	3.35	4.09	5.26	13.79
20%	2.21	2.7	3.17	3.822	6.93

We conduct sensitivity analysis by changing the discount rate and sustainable growth rate 10% and 20% up and down (Yellow part is invalid due to negative value). Data above shows that how price change when discount rate and SGR change ±10% and ±20% (X axis is change in SGR, Y axis is the change in discount rate). We can find that, when SGR and discount rate change in the same level (both 20% or both 10%), the change of price is more sensitive which means it changes larger than different level (10% and 20% respectively). Moreover, we know that when discount rate remains constant (when change of DR=0), 1% change in sustainable growth rate will make stock price rise or fall by 2.9%. Similarly, when change of SGR equals to zero, 1% change in discount rate will move stock price up or down by 2.5%. (147 words)

7.



(a)

$$\text{Forward Price} - \text{Earnings ratio} = \frac{\text{share price}}{\text{estimate future earnings per share}} = \frac{2.78}{0.127} = 21.70$$

$$\text{Trailing Price} - \text{Earnings ratio} = \frac{\text{current share price}}{\text{EPS}} = \frac{2.63}{1.60} = 16.44$$

The first one tells us about the anticipated ratio of share price and earing in next year, the second one tells us about the current ratio of share price and earing. Both factors are important to estimate the company's potential value. Above data shows that expected future value of Regis company and dividend will increase.

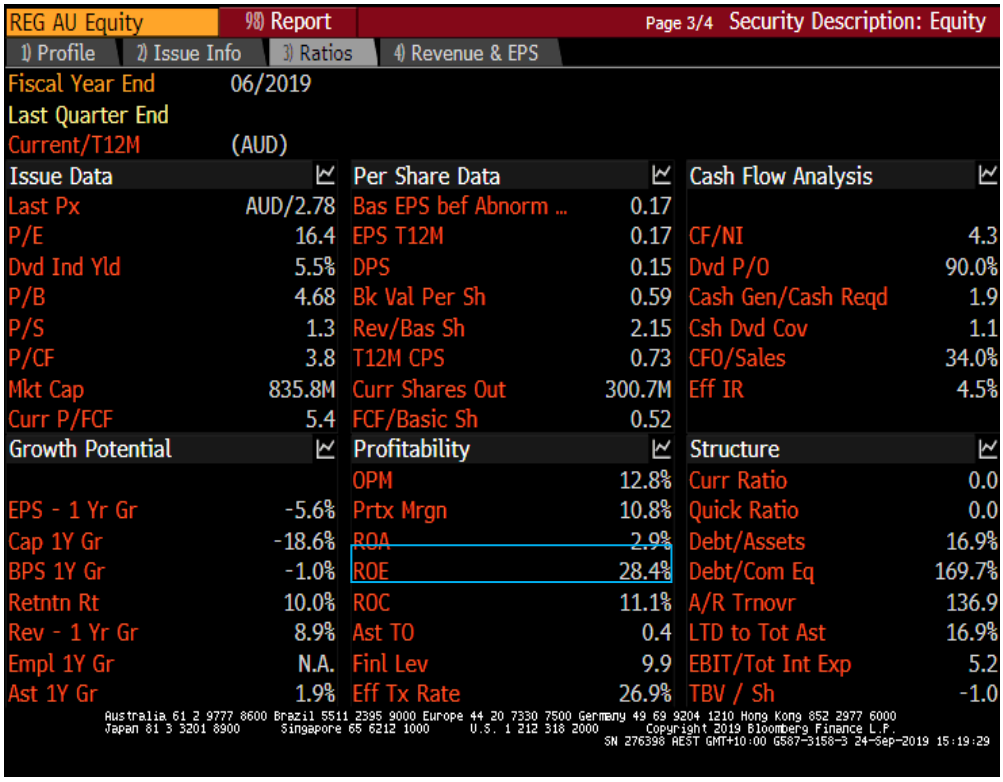
(b) If growth rate is constant, the share price next year will be:

$$P = p_0 * (1 + R) = 0.14$$

Therefore, Forward Price-Earnings ratio = 2.63/0.14 = 18.79

(c) We find the average industry ratio of Regis healthcare LTD is 28.91%, which is higher than the Forward Price-Earnings ratio 20.70% we can make a conclusion that the value of this company is underestimated, and the stock price will be upward in the future.

8.



The ROE reflects the ability of its own capital to obtain a net income. Theocratically, if ROE is greater, the company has more powerful ability of earning, namely, the profit of shareholder will be greater. but if ROE is greater than around 35% (Big tree pattern, 2019) means that the company may be at risk. The original ROE of company is 28.4%+5%=33.4%<35% which means company will benefit of increasing ROE in an appropriate range. However, it's a relative high rate of return on equity, we therefore will take negative financial strategies, such as minimize cash outflow and maximize cash inflow. Moreover, through financial reduction to realize the low cost, low return and high distribution. All above implement will decrease the share price. Because more dividends mean the price will decrease in a short period due to the dividend split, but the total value of company does not change, it is also a good choice to invest this company. In other words, more dividends indicate that the company will bring more benefit for shareholders. (173 words)

9. Summary

Three approaches applied to estimate the growth rate of Regis Healthcare in this report. Historical geometric growth rate has a similar result to analysts' consensus growth rate because they both pay attention to earnings per share which provide much information for investors. Sustainable growth rate focuses on the endogenous growth rate of the company. It shows a flat positive growth of Regis. We combine historical geometric growth rate and sustainable growth rate to compute the share price under the model of CAPM and DDM.

Through sensitive analysis, Forward/Trailing Price- Earing ratio and ROE, we can draw a conclusion that the company Regis healthcare Ltd has a great potential to increase their stock price and it is a good company for investing. Comparing the real market stock price with the expected shock price we find the second index is lower which means in the future the stock price will go up. the sensitive analysis shows that one percentage change of sustainable growth rate is higher than one percentage change of discount rate. Lower Forward/Trailing Price - Earnings ratio means company has lower price or high earing per share, both indexes are important to estimate the value of company. The company's ROE is 33.4% lower than 35% means that there are almost maximum profit and comparative lower risk and we deduce that company will have better welfare, management system and more dividend. (230 words)

Reference

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