

NMC Health: A Trip to the UAE

SHORT @ £24.77

NMC Health – [View All Notes and Models](#)

Recommendation: **Short (No Change)**

Price: £24.77	2-Year Price Target: £13.50	Forecast Return: ~45%
3m Average Daily Volume: \$20m	Market Cap: £5bn	Ticker: NMC LN
Valuation Metric: FY'20 EV/EBITDA	Current Multiple: 14x	Target Multiple: 10x

Investment Thesis

- **Levered roll-up (underlying net debt/EBITDA: +3.8x) with organic growth slowing, poor cash conversion, unsustainable margins, and accounting and corporate governance red flags.**
- **Net debt is \$1.5bn but that excludes ~\$360m of other liabilities with over half due this year. Given the limited asset backing and high customer concentration, we see this as too high. NMC also runs with a high cash balance (~\$500m) whilst the implied cost of borrowing is ~7%.**
- **NMC's core markets (Abu Dhabi and Dubai) are maturing and saturated, which will likely dampen NMC's growth going forward, and margins are likely to fall.**
- **We struggle to reconcile the \$101m of growth capex reported for FY'18 with what we saw on the ground – which we calculate at no more than \$30m. Historical cash conversion has been poor (45% of EBIT from 2013-18 made it to FCFF), although we acknowledge NMC has added capacity throughout this period.**
- **Given all these issues, NMC should trade at a discount to peers, on 10x EV/EBITDA for FY'20 to reflect these risks. We see ~45% downside from here.**

A key part of our process is to actually get out in the field and see where the earnings power of a company comes from. With that in mind, we went on a site visit to the UAE. The company very kindly hosted us for part of this visit, on 19 June 2019. We update clients on this site visit and further work we have undertaken since we last wrote on NMC:

- Visited NMC's six hospitals and three core construction projects, Mediclinic's latest hospital, and had a meeting with the Health Authority of Abu Dhabi.
- Analysed the current capacity and planned additions to the market and looked closer at the insurance policies driving the market.

Overall, we reiterate our Short recommendation on NMC with a reduced target price of £13.50 providing ~45% downside.

Key Takeaways from Our Visit and Further Work

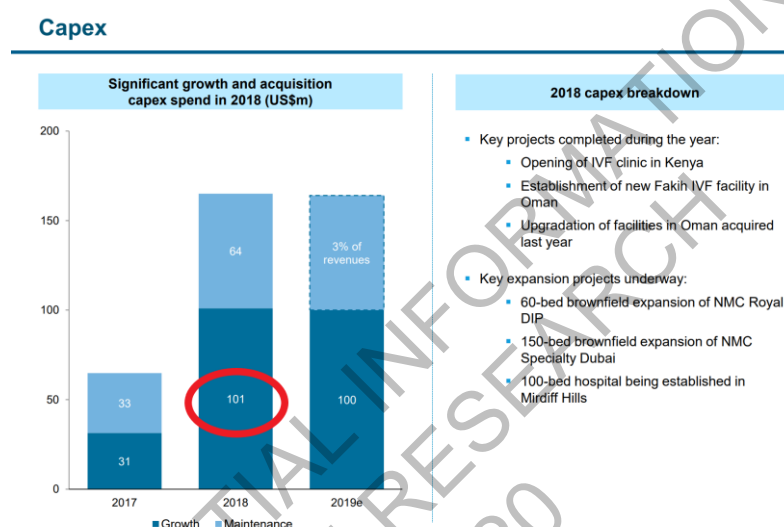
- In FY'18, NMC outlined bringing forward three core projects that led to much higher capex (8% of sales) versus reported maintenance capex (3% of sales). Our visit to these sites (19 June 2019) implies the work undertaken to date is limited and would have been even less at the time of results. Of the projects explicitly mentioned, we estimate no more than \$30m of growth capex was spent on these projects relative to the \$101m growth capex stated in the FY'18 presentation.
- **Operational hospitals we visited were clean, well-maintained, and quite busy.** The hospitals cater to a wide spectrum of the market, with NMC Royal Khalifa City targeting the local Emirati population and NMC Speciality Abu Dhabi more aimed at the volume expat market.
- **Significant new capacity is coming in Dubai and there are signs of overcapacity in Abu Dhabi,** so NMC is likely to struggle to maintain its very impressive margin.

- **NMC's increasing reliance on 'Other Income' is concerning.** Whilst the annual report clearly states that this relates to advertising and promotion that is undertaken for its distribution partners at 11% of sales, it equates on our estimates to 33% of sales on the FMC goods it relates to. Importantly for FY'18, there was \$33.9m additional 'Other Income', a 5x increase from \$6.1m the year before — investors should apply a lower multiple for these earnings.

Growth Capex Mismatch

NMC's growth capex for FY'18 (\$101m) was a significant jump relative to FY'17 (\$31m) and was explained at the results presentation as shown in Exhibit 1. We are struggling to reconcile this growth capex with what we saw when we visited the ongoing projects and our estimates of the cost of the projects outlined.

Exhibit 1: NMC's \$101m of Growth Capex for FY'18



Source: NMC FY'18 Presentation

Our independent estimate of the capex for these projects for FY'18 is no more than \$30m and our calculation is as follows:

- Key expansion project
 1. <\$5m for NMC Royal DIP expansion: There were a small number of workers onsite but little work looks like it has been done on this site.
 2. <\$15m for NMC Speciality Dubai expansion: Whilst more progress has been made on this site, it is far from finished and was only partially constructed as of FY'18.
 3. <\$5m for Mirdiff Hills: Work is not expected to start on this site until **July 2019** and from trade websites we believe tendering for the fit out is yet to be launched.

We provide more details to support our estimated calculation below.

- Key projects completed
 1. <\$2m for two new IVF clinics
 2. <\$3m for upgrading the Oman facility

In the UAE, hospitals are either constructed from scratch (e.g. NMC Royal Khalifa City, Mediclinic Park View) or existing buildings, such as offices, are converted to be used as hospitals and typically leased (e.g. NMC DIP, NMC Royal Women's). The cost per sqm is significantly lower on conversions: we estimate at 40-50% of the cost of newly constructed sites once fitted with medical equipment based on calls with experts within the industry.

Exhibits 2 and 3 show the breakdown of our estimated \$2-3k per sqm total capex for a greenfield site and \$1,600 per sqm for a refurbishment. We have supplemented this analysis with several expert calls.

Exhibit 2: The Analyst Estimates of Capex per Sqm

	\$ per sqm								
	Construction			Medical Equipment			Total		
	Low	Avg	High	Low	Avg.	High	Low	Avg	High
Greenfield	2,000	2,500	3,000	682	833	1,000	2,682	3,333	4,000
Conversion	600	800	1,200	682	833	1,000	1,282	1,633	2,200

Source: The Analyst Estimates, Completed July 2019

Exhibit 3: Actual Capex per Sqm on Projects

	Project Start	Project End	Type	Sq m	Budget Capex	Actual Capex (excl. land)	Capex per sqm
					\$m	\$m	
NMC Royal DIP	2013	2014	Conversion	17,695	35.00	37.00	2091
NMC Royal Khalifia City	2012	2016	New	75,000	200.00	200.00	2667
Mediclinic Parkview	2015	2018	New	58,000	167.32	167.32	2885

Source: Company Data, The Analyst Estimates, Completed July 2019

1. NMC DIP Extension (~\$5m)

When we visited the NMC DIP Extension site, it looked like minimal capex had been spent on this site. It looked virtually unchanged from the Google Maps image from 2016, before NMC leased the asset (Exhibits 4 and 5). It does not look like extensive internal works have been made and we estimate less than \$5m of capex would have been spent on this site as of FY'18.

We estimate that the cost to get this site operational would be ~\$17.5m: we estimate that the building is 10,000 sqm, the cost to convert it is \$1,000 per sqm, and it could be fitted with medical equipment for ~\$750 per sqm.

Exhibit 4: NMC's DIP Extension in 2016 before NMC Leased the Building



Source: Google Maps, Accessed on 20 June 2019

Exhibit 5: Little Change from On-the-Ground Visit

Source: The Analyst Lens 18 June 2019

2. NMC Specialty Dubai Extension (<\$15m)

We estimate less than \$15m of capex would have been spent on this project as of FY'18. Unlike some of NMC's hospitals, NMC is paying for the construction of the building.

We have plotted the total land footprint and estimate it at 2,000 sqm with seven storeys, making it a total 14,000 sqm of floor space when finished. As shown by the images below the shell and core of the building was not yet complete when we visited it on 18 June 2019. We estimate only four floors of the seven-floor building were complete as of FY'18 from satellite images and trade websites.

Our calculation of less than \$15m of capex spent on this project up until FY'18 is as follows:

- \$42m project value (14,000sqm x \$3,000 per sqm)
- 40-50% of project value is the shell and core (structure, façade, and mechanical elements)
- 30% of shell and core complete as of FY'18. From our due diligence, we believe only the shell of 4 of the 7 floors were constructed as of FY'18 with the façade, roof, interiors, and all the mechanical services to be added.

Exhibit 6: Shell Only Now Nearing Completion as of 18 June 2019

Source: Google Maps, Accessed 20 June 2019 and The Analyst Lens 18 June 2019

3. NMC Mirdiff Hospital (<\$5m)

NMC confirmed it will be leasing a building on a new high-end development in Dubai (Mirdiff) for a 100-bed greenfield site, although work is not expected to start on this project until **July 2019**. NMC will only be paying for the fit out of this building (confirmed in an email from IR on 20 June 2019). Therefore, the total capex incurred until FY'18 would be for fees paid up until that point, which we estimate at less than \$5m.

Conclusion

The projects outlined at the FY'18 presentation come in our estimates to less than \$30m, leaving potentially \$71m of unexplained growth capex that NMC was unable to confirm. We have spoken to the company about our concerns (26 June 2019) and the company would not provide further granularity on the three core capex projects and are keen that we emphasise that these figures reflect The Analyst estimates and not NMC's.

UAE Market Is Saturated and More Capacity to Come

NMC does not disclose revenues by country, but from its ESG report, we can deduce approximately where NMC generates most of its revenue. We estimate NMC's core revenue-generating geographies are as follows: Abu Dhabi (~60%), Dubai (~20%), and other regions (~20%).

Exhibit 7: Patient Split and Revenues Estimated by The Analyst

	FY'18 Patients	FY'18E Revenues
Abu Dhabi	50.4%	60.0%
Dubai	16.6%	20.0%
Sharjah	7.7%	5.1%
UK	3.2%	4.8%
Undisclosed	15.3%	3.3%
Spain	0.1%	2.5%
Saudi	4.1%	2.5%
Muscat	2.6%	1.7%

Source: NMC ESG Report 2018

Our work on the Abu Dhabi market suggests it is saturated, with more capacity coming. Despite Emiratis (locals) only accounting for 18% of the population, we estimate they account for >45% of the total hospital revenues. The number of insurance incidences per Emirati is double the number of insurance incidences compared to the rest of the expat middle-income Abu Dhabi population.

We believe **over-testing** is a significant problem in the market, especially amongst the Emiratis, as no patient is going to refuse what they perceive as a better service (given it is free). This makes Emiratis very attractive customers, but as we discuss below, is unlikely to be sustainable as the health authority clamps down.

Given the potential issues faced in Abu Dhabi, Dubai is a region of growing importance to NMC with 310 beds coming online in the next couple of years (Exhibit 1). **We see the Dubai market as less attractive given its lower proportion of Emiratis (9% of the population) and the insurance coverage for non-government employees is a lot less generous with 10% co-payments in private hospitals discouraging patients from visiting hospitals for minor ailments.**

In Saudi Arabia, NMC has 664 beds, although occupancy rates are lower (excluding the CARE properties). We see the market remaining tough for several years driven by regulatory change and an oversupply of beds. We believe the objectives of General Organization for Social Insurance (GOSI) are different from NMC's. In the Memorandum of Understanding signed with GOSI, **the JV targets to spend \$1.6bn** over the next five years (\$320m a year), which will translate to \$163m per year for NMC's share in the JV, continuing to drain cash flow.

Abu Dhabi (~60% FY'18 Healthcare Sales)

NMC's position within the Abu Dhabi market is quite strong, being the largest group after SEHA, the government-run hospitals. But it is far from dominant as VPS and Mediclinic have similar market shares. The market in our opinion suffers from two issues:

1. **Saturation**, with capacity still coming into the market.
2. Over-testing of patients that the government is looking to stop.

Overcapacity in the Market

The number of inpatient beds is a good metric to assess overall capacity within the market. The number of beds across the whole region has increased by 35% in 3 years (June 2014-June 2017) with considerable capacity coming into the market from both the expansion of existing hospitals and creation of new hospitals. We see the number of inpatient beds across the region increasing ~ 10% per year. **We do not believe the market can sustain that level of supply growth and do not see NMC benefiting from the increased specialisation.**

Exhibit 8: Abu Dhabi Hospital Group Market Share

2017	Inpatient Episodes		Outpatient Episodes		Beds	
SEHA	106,544	47%	2,136,585	18%	2,473	48%
NMC	25,658	11%	1,070,364	9%	554	11%
VPS Healthcare	25,106	11%	5,340,970	44%	357	7%
Mediclinic	19,322	9%	958,070	8%	355	7%
Mubadala	10,923	5%	447,264	4%	294	6%
Independents	9,234	4%	600,099	5%	217	4%
United Eastern Medical Ser	7,195	3%	82,755	1%	117	2%
CURE International	7,028	3%	139,634	1%	101	2%
Ahalia Medical Group	5,511	2%	636,632	5%	173	3%
Universal Hospitals	4,070	2%	294,942	2%	86	2%
Al Salama Group	2,124	1%	175,215	1%	16	0%
Emirates Healthcare Comp	1,972	1%	129,267	1%	25	0%
Abeer Medical Group	287	0%	36,738	0%	13	0%
Avivo Group	256	0%	48,116	0%	22	0%
Spaulding Rehab	232	0%	1,419	0%	180	4%
Dublin Health Services	55	0%	24,174	0%	0	0%
Amana Healthcare	21	0%	44	0%	129	3%
Total	225,538		12,122,288		5,112	

Source: HAAD Statistics 2017, The Analyst Estimates, Completed July 2019

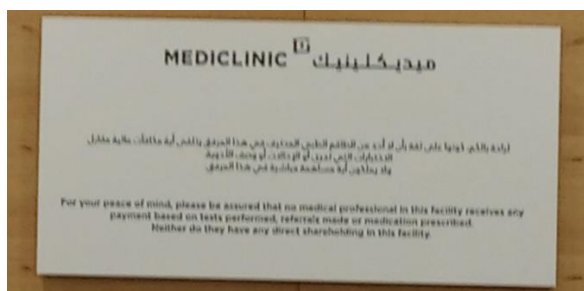
Over-testing of Patients

We believe the government recognises the **over-treatment** of patients and is actively looking to reduce it. The government began by introducing a **co-pay for Emiratis patients** (which we believe accounts for >45% of hospital revenues), whereby the patient would have to pay 20% of the treatment costs at private hospitals. However, the Emiratis were not happy and the change was quickly rolled back. Still, since then, the Health Authority of Abu Dhabi is stepping up the monitoring of doctors, blacklisting those that are clear outliers in terms of statistics, and closing hospitals that consistently may abuse the system. From our expert calls, we understand the government has also been pushing down prices for procedures.

A large part of the over-testing problem is the **incentives** in place; it is widespread within the industry in Abu Dhabi that doctors receive a cut of the revenue they undertake, incentivising unnecessary testing and treatment. Mediclinic highlights that it does not participate in such activities and whilst we believe NMC does provide some incentives to doctor based on medical KPIs (e.g. medical satisfaction etc.), we do not think it is unique in doing this. Long-term, we see the government continuing to clamp down on such incentives. **Ultimately, we believe this could have consequences on NMC's margins as, if the company is undertaking excessive testing, it is likely to come through at a high margin.**

When we raised the subject of over-testing with NMC on our call on 26 June 2019, management told us that doctors receive a base salary and incentives are based on KPIs such as patient satisfaction, not revenues.

Exhibit 9: Mediclinic Highlights Its Ethics at Parkview: 'No Doctor Receives Any Payment on [Procedures]'



Source: The Analyst Lens 18 June 2019

Dubai (20% of FY'18 Healthcare Sales)

With the Abu Dhabi market more saturated, NMC has been shifting its focus Dubai. NMC has 350 beds planned over the next couple of years, adding ~7% to the whole market. **There are a couple of reasons why we think this expansion will dilute margins:**

1. Given the fixed cost nature of running hospitals, large capacity growth in the Dubai market is likely to outstrip demand growth, lead to lower occupancy rates, and reduce margins.
2. Dubai market does not benefit from the Abu Dhabi equivalent of Thiqa (highest-margin patients and over-users) and thus will be a less profitable market.

Large Capacity Growth in Dubai

NMC's market positioning within this market is weaker, with an estimated 6% of the outpatient and inpatient market as of 2017.

Exhibit 10: Dubai Hospital Group Market Share

2017	Inpatient Episodes	Outpatient Episodes	Beds
DHA Hospitals	78,862	26%	2,257,393
Independents	56,991	19%	1,046,993
Mediclinic	36,564	12%	384,753
NMC	18,871	6%	366,973
Medcare	18,197	6%	311,000
Aster Hospitals	17,974	6%	408,404
Zulekha Healthcare Group	11,848	4%	304,905
Saudi German Hospitals Group	10,350	3%	361,150
Prime Healthcare Group	8,850	3%	142,112
HMS Co	8,766	3%	130,722
Thumbay Group	6,558	2%	105,246
Dr Sulaiman Al Habib Medical Group	6,516	2%	228,101
Belhoul Lifecare	5,414	2%	193,619
VPS Healthcare	4,835	2%	92,177
Lifeline	4,164	1%	94,671
Emirates Healthcare Company	2,705	1%	82,979
Dubai London Clinic	1,823	1%	56,937
Total	299,288	6,568,135	4,505

Source: DHA Statistics 2017, The Analyst Estimates Completed July 2019

There are currently 41 hospitals in Dubai (35 private and six public), up from 32 total hospitals in 2017. Within the next two years, the total number of hospitals is expected to increase to ~42 and nine are expanding, adding large bed capacity to the market. **We believe this will cause pressure on margins, leading to an oversaturated market, lower occupancy rates, and lower margins for all players.** The basis of this assumption is:

- 5-7% underlying market growth is driven 50/50 between population growth and additional higher value specialist services.
- 10-15% annual capacity growth over the next couple of years.

Small Thiqa Equivalent

Only 9% of the population are Emiratis and less than 40% of those benefit from a very comprehensive insurance plan equivalent to Thiqa (Enaya), which is reserved only for government officials. The remaining Emiratis are entitled to Saada insurance, which requires a 10% co-payment, limiting the willingness for patients to go for unnecessary tests and treatments and making this market less attractive than when serving the Thiqa patients in Abu Dhabi. **This can be seen in the number of outpatients in the Dubai market, which is half of Abu Dhabi despite it having a similar population.**

Structural Reasons Why the UAE Has Low Spending per Capita

The UAE's relatively low spending on healthcare at \$1.7k per capita versus the UK and Germany at \$3.3k and \$4.7k is seen by investors as an exciting opportunity for growth; however, we are less optimistic in the medium term. **The over-65 population is much smaller at 1.2% in Dubai and Abu Dhabi versus 18% in the UK and 21% in Germany, and their relative spending on healthcare is 2-2.5x that of the under-65s.** The unwillingness of expats to remain in the country during retirement is unlikely to change anytime given the visa requirement to own property in excess of \$550k in order to obtain an extended residency visa.

Saudi Arabia (2.5% of FY'18 Healthcare Sales)

We believe this market will be tough for NMC for several reasons:

- The number of beds per 1,000 people is already higher than the UAE at 2.2 versus 1.3 and not far away from the UK (2.6 beds per 1,000 capita). The Saudi population, like the UAE, is relatively young with only 3% of the population over 65 – meaning the number of beds per capita should be lower than a country like the UK where it is 18% (explained above).
- The GDP per capita in Saudi is only \$21k versus Abu Dhabi at \$61k, implying healthcare spending in absolute terms will be much lower.
- There are many competitors with four listed players (excluding Care) in Saudi today, generating only 14% margins (NOPAT pre-rental) versus NMC's 28% given the headwinds with Saudisation program and a fall in the expat population caused by the expat levy.

NMC and its joint venture partner, the General Organisation for Social Insurance, has big plans for the Saudi market, with the target for NMC to spend \$163m per year in expansion, which will continue to put pressure on cash flow.

Whilst we see the market as tough and highly competitive, we do acknowledge the government is keen to push further privatisation of the sector. In time, this could lead to further growth for private hospital groups, which is expected to be beneficial for NMC.

Margins Too Good to Last

- NMC's margins relative to local and international peers are exceptionally high at almost double (NOPAT pre-rental expenses, adjusted for overheads).

- These margins are even more impressive given the growth that NMC has seen over the last five years; typically operators sacrifice margin when growing aggressively.
- We do not believe these margins are sustainable, especially given they have been achieved with higher invested capital turn and also because NMC leases most of its assets.

Exhibit 11: Exceptionally High Margins Despite Aggressive Expansion

Company	EBITDAR	EBITR	NOPATR
NMC Healthcare Division	33.0%	28.6%	28.0%
Mediclinic Middle East Division	18.0%	13.0%	13.0%
Mouwasat	30.7%	24.2%	23.0%
Dallah Healthcare	18.7%	12.4%	11.7%
Al Hammadi	26.2%	16.7%	14.4%
MEHACO - Saudi German Hospitals	18.1%	11.7%	11.2%
CARE	21.0%	11.6%	8.7%
IHH Healthcare	23.8%	15.6%	10.2%
Raffles Medical	23.7%	20.0%	16.8%
Bumrungrad Hospital	34.6%	28.1%	23.2%
Bangkok Dusit Medical Services	23.0%	16.1%	12.5%
HCA Healthcare	19.9%	15.0%	11.2%
Universal Health	16.1%	11.9%	9.3%
Tenet Healthcare	14.4%	10.0%	7.3%
Average	24.6%	18.0%	15.7%

Source: Annual Reports and The Analyst Estimates, Completed July 2019

Increase in Other Income Is a Red Flag

NMC generated \$89m from 'Other Income' in FY'18. We have several concerns around 'Other Income':

- 'Non-promotional' other income jumped 5x to \$34m with only \$6.4m explained in the audited accounts as arising from contingent consideration. The company has since informed us (26 June 2019) that only ~\$16.4m of the \$33.9m flowed into EBIT, and this amount arises from: \$6.4m from the reversal of the contingent consideration, \$5m of 'normal other income', and \$5m from a one-off 'Aspen medical contract'. The balance of \$17.5m is related to income in O&M contracts that have associated costs in SG&A. Whether 50% or 100% of it came into EBIT, the 'Other Operating Income' has increased substantially and investors should pay a discount for this income stream.
- The remaining \$55m relates to promotional reimbursements in relation to distribution agreements with suppliers. That is a large sum relative to the revenues (11%). We were informed that these relate to reimbursements from FMCG suppliers. However, we believe, based on historic disclosure, that 30-40% of revenues within distribution related to FMCG, implying ~30% of the price of the FMC goods sold by NMC is marketing expenses. We see this as exceptionally high.

Exhibit 12: Other Income Increasingly Contributing to EBIT

	FY'13	FY'14	FY'15	FY'16	FY'17	FY'18
Other Income (Total)	26.96	30.44	36.65	46.47	53.20	89.21
Other Income (Promotional)	23.92	30.18	35.26	36.65	47.11	55.31
(% of distribution sales)	9%	10%	10%	9%	10%	11%
Other Income (Not Promotional)	3.04	0.26	1.39	9.82	6.10	33.90
(% of group EBIT if at 100% margin)	3.7%	0.3%	1.3%	5.3%	2.2%	8.9%
(% of group EBIT if at 50% margin)	1.8%	0.1%	0.6%	2.7%	1.1%	4.5%

Source: DHA Statistics 2017, The Analyst Estimates, Completed July 2019

Actual Net Debt versus Reported

NMC's reported net debt (\$1.5bn) versus what we calculate as the underlying net debt (\$1.9bn) is shown below with \$203m of liabilities due this year. Most of these are one-off in nature and hence are likely to cause a working capital outflow in FY'19. This combined with the margin declines we are forecasting and the guided growth capex of £100m in FY'19 would result in minimal FCFE generation. FCFE would actually turn negative once the Saudi JV investment and continued acquisition spending is included, ultimately requiring NMC to take on more debt.

Exhibit 13: The Analyst Estimate of Net Debt

	FY'18			
	Current		Non Current	Total
Cash/deposits	-491	+	0	= -491
Gross Debt	549	+	1,444	= 1,993
Reported Net Debt	58	+	1,444	= 1,502
Restricted cash	13	+	0	= 13
Other payable	7	+	16	= 22
Option redemption payable	26	+	20	= 46
Amount due to related parties	48	+	0	= 48
Post employment plans	7	+	55	= 62
Other trade payables	80	+	0	= 80
Accrued expenses	23	+	0	= 23
Equity component of convert	0	+	66	= 66
Total Other Liabilities	203	+	157	= 360
The Analyst Net Debt	261	+	1,601	= 1,862

Source: The Analyst Estimates Completed July 2019

Conclusion

As our work on NMC continues, we are gaining conviction in our short case given increasing concerns on cash flow, capex numbers, evidence on the ground, and the unsustainability of margins.

We decrease our target price to £13.50, providing ~45% downside from here.

Appendix: NMC's Assets

Appendix Exhibit 1: NMC Royal Women's Hospital



Source: The Analyst Lens 18 June 2019

Appendix Exhibit 2: NMC DIP



Source: The Analyst Lens 18 June 2019

Appendix Exhibit 3: NMC Royal



Source: The Analyst Lens 18 June 2019

Appendix Exhibit 4: NMC Speciality Abu Dhabi



Source: The Analyst Lens 18 June 2019

Appendix Exhibit 5: NMC Provita



Source: The Analyst Lens 18 June 2019

Important Information and Disclaimers

The accompanying documents have been prepared and issued by The Analyst Research LLP ("The Analyst"). This research is confidential and is intended only for use by persons to whom it has been directly distributed by The Analyst. This research is strictly confidential and must not be distributed to any third party by the recipient named in the watermark.

The Analyst is a limited liability partnership authorised and regulated by the Financial Conduct Authority ("FCA") of the United Kingdom (firm reference number 605593) and registered as an investment adviser in the United States of America by the U.S. Securities and Exchange Commission (registration number 801-76777). Registered office: Arthur House, Chorlton Street, Manchester, M1 3FH. Trading address: 35 Bedford Road, London, SW4 7EF.

THE ACCOMPANYING DOCUMENTS ARE MARKETING COMMUNICATIONS. The documents are not independent investment research and have not been prepared in accordance with legal requirements designed to promote the independence of investment research and, in producing these documents, The Analyst is not, and has not been, subject to any prohibition on dealing ahead of the dissemination of these documents.

The accompanying documents are intended only to promote the investment research and related advisory services of The Analyst, by using examples and case-studies to give potential clients of The Analyst a sample of The Analyst's investment research services and how such services will be provided. The examples used may be actual investment research issued previously and/or research in relation to hypothetical situations.

WITHOUT PREJUDICE TO THE FOREGOING, THESE MARKETING DOCUMENTS DO NOT RECOMMEND OR SUGGEST ANY INVESTMENT STRATEGY, DO NOT CONSTITUTE INVESTMENT ADVICE AND MUST NOT BE TREATED AS DOING SO BY RECIPIENTS OF THIS DOCUMENT.

The accompanying documents are issued by The Analyst only to and/or are directed only at (and The Analyst's services will be made available only to) persons who are "professional clients" or "eligible counterparties" (as defined in the rules of the FCA). Persons of any other description (including, without limitation, persons who are "retail clients" for the purposes of the FCA Rules) must not act or rely on this material, and the services of The Analyst will not be available to such persons.

All content within these marketing documents (including text, trademarks, illustrations, photographs, graphics, designs, arrangements etc.) are protected by copyright and other protective laws. The marketing documents should not be passed on, duplicated nor reproduced in whole or in part under any circumstances without The Analyst's express written consent.

The information in the accompanying documents is provided for information purposes only and is not comprehensive. These accompanying documents are not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation which would subject The Analyst to any registration or licensing requirement within such jurisdiction. The financial instruments described in these accompanying documents research may not be eligible for sale in all jurisdictions or to certain categories of investors.

The Analyst gives no undertaking that it will update any of the information, data and opinions in this document. The Analyst may at its discretion decide to provide you with further data or material but makes no representation that such further data or material will be calculated or produced on the same basis, or in the same format, as this material.

The Analyst's methodology for determining valuations and price targets may include, but are not restricted to, the following methodologies: analyses of market risk, growth rate, revenue stream, discounted cash flow ("DCF"), earnings before interest, tax, depreciation and amortisation ("EBITDA"), earnings per share ("EPS"), cash flow ("CF"), free cash flow ("FCF"), enterprise value ("EV")/EBITDA, price-earnings ratio ("PE"), PE/growth, price/CF, price/FCF, premium (discount)/average group EV/EBITDA, premium (discount)/average group PE, sum-of-the-parts ("SOTP"), net asset value ("NAV"), dividend returns and return on equity ("ROE").

The investments described in the accompanying documents place an investor's capital at risk (i.e. an investor might lose some or all of the amount invested). Past performance is not necessarily a guide to future performance and an investor may not get back the amount originally invested. The price, value of, and income from, any of the financial instruments mentioned can rise as well as fall and may be affected by changes in economic, financial and political factors. The accompanying documents do not seek to provide an exhaustive statement of the risks associated with the investments or types of investments referred to. All information is provided AS IS with no warranties and confers no rights. If a financial instrument is denominated in a currency other than the investor's home currency, a change in exchange rates may adversely affect the price of, value of, or income derived from the financial instrument described in this report. In addition, investors in securities such as American Depositary Receipts ("ADR's"), whose values are affected by the currency of the underlying security, effectively assume currency risk. Please note that in particular the bases and levels of taxation may change.

Any prices stated in this research are for information purposes only and do not represent valuations for individual securities or other instruments. There is no representation that any transaction can or could have been affected at those prices. Different assumptions, made by The Analyst or any other source, may yield substantially different results. The accompanying documents are intended to be for information and marketing purposes only and are not intended to constitute, and should not be construed as, investment advice. These documents have no regard for the specific investment objectives, financial situation or needs of any person. Recipients of these documents should seek their own independent financial advice. They are not and should not be construed as a recommendation, offer or solicitation for the purchase or sale of any financial instrument.

No liability is accepted by The Analyst for the reliability, accuracy or completeness of such information. In no event will The Analyst be liable to any person for any direct, indirect, special or consequential losses or damages of any kind arising out of any use of or reliance on the information in the accompanying documents, including without limitation, any loss of profit, business interruption, loss of programs or data on your equipment or otherwise. This does not exclude or restrict any duty or liability that The Analyst has to its customers under the relevant regulatory systems.