

BeiGene Ltd

Version 3 | Bloomberg: 6160 HK Equity | Reuters: 6160.HK

Refer to important disclosures at the end of this report

DBS Group Research . Equity

5 Mar 2020

BUY

Last Traded Price (4 Mar 2020): HK\$92.80 (HSI : 26,222)

Price Target 12-mth: HK\$130 (40.1% upside) (Prev HK\$144)

Analyst

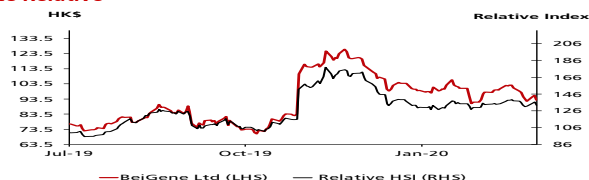
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What's New

- **FY19 net loss widened by 41% to US\$949m due to R&D and marketing expenses for new drugs, below consensus estimates**
- **Lower TP by 10% to HK\$130 mainly to reflect slower-than-expected clinical development of a product (Pamiparib)**
- **Maintain BUY for seven catalysts in 12 months related to clinical development of two key drugs and co-operation with Amgen**

Price Relative



Forecasts and Valuation

FY Dec (US\$m)	2018A	2019A	2020F	2021F
Turnover	198	428	386	844
EBITDA	(695)	(941)	(1,143)	(773)
Pre-tax Profit	(690)	(944)	(1,161)	(800)
Net Profit	(674)	(949)	(1,167)	(804)
Net Pft (Pre Ex) (core profit)	(676)	(956)	(1,167)	(804)
Net Profit Gth (Pre-ex) (%)	(625.8)	(41.4)	(22.1)	31.0
EPS (US\$)	(0.93)	(1.22)	(1.26)	(0.87)
EPS (HK\$)	(7.27)	(9.44)	(9.82)	(6.77)
Core EPS (US\$)	(0.94)	(1.22)	(1.26)	(0.87)
Core EPS (HK\$)	(7.29)	(9.52)	(9.82)	(6.77)
EPS Gth (%)	(445.4)	(30.0)	(4.0)	31.0
Core EPS Gth (%)	(447.0)	(30.6)	(3.2)	31.0
Diluted EPS (HK\$)	(7.27)	(9.44)	(9.82)	(6.77)
DPS (HK\$)	0.00	0.00	0.00	0.00
BV Per Share (HK\$)	18.76	9.58	20.96	14.19
PE (X)	nm	nm	nm	nm
P/Cash Flow (X)	nm	nm	nm	nm
P/Free CF (X)	nm	nm	nm	nm
EV/EBITDA (X)	nm	nm	nm	nm
Net Div Yield (%)	0.0	0.0	0.0	0.0
P/Book Value (X)	4.9	9.7	4.4	6.5
Net Debt/Equity (X)	CASH	CASH	CASH	CASH
ROAE (%)	(55.9)	(70.2)	(67.6)	(38.5)
Earnings Rev (%):			nm	nm
Consensus EPS (US\$)			(1.05)	(0.80)
Other Broker Recs:		B:13	S:1	H:0

Source of all data on this page: Company, DBS Bank (Hong Kong) Limited ("DBS HK"), Thomson Reuters

Ready to reap

An oncology drug developer with strong R&D capability.

Established in 2010, BeiGene is strong in the development of oncology drugs, as evidenced by two self-developed best-in-class drugs: i) Zanubrutinib (Zanu), a Bruton's Tyrosin Kinase inhibitor (BTKi) to treat B-cell blood cancer (2% of global cancer cases). BTKi is a new way to treat B-cell blood cancer. The best-selling BTKi is Ibrutinib. Zanu is safer than Ibrutinib as its usage results in a lower percentage of patients developing heart problems (2% vs 10%); ii) Tislelizumab, a programmed cell death-1 antibody (PD-1) which is a new immunotherapy product that could treat >9 cancers with Hodgkin's lymphoma as its first approved indication. In treating Hodgkin's lymphoma, it has the highest percentage of patients with complete cancer remission relative to other PD-1 drugs (61.4% vs 16-60%). Due to its R&D capability, Amgen (AMGN US) invested US\$2.7bn for a 20.5% stake in BeiGene in 4Q19.

Seven catalysts to drive share price in the next 12 months.

Despite net losses in 2013A-22F given huge R&D costs, positive product development leading to promising earnings prospects can boost its share price. We see seven catalysts in this respect, including positive development of PD-1 for four more types of cancers, Zanu for one more type of blood cancer, approval to launch Zanu in China, and co-development of over 20 drugs with Amgen.

Valuation:

Our TP of HK\$130 is based on the net present value (NPV) estimates of PD-1, Zanu, Pamiparib, 23 products injected by Amgen and products licensed from Celgene (CELG US).

Key Risks to Our View:

Failure at clinical trials; price cuts due to competition.

At A Glance

Issued Capital (m shrs)	801
Mkt Cap (HK\$m/US\$m)	74,333 / 11,960
Major Shareholders (%)	
Amgen Inc	20.6
Free Float (%)	79.4
3m Avg. Daily Val. (US\$m)	1.03
GICS Industry: Health Care / Pharmaceuticals, Biotechnology	



Live more, Bank less

BeiGene Ltd

WHAT'S NEW

Ready to reap

4Q19 net loss widened by 45% y-o-y to USD388m. The net loss was 20% larger than consensus estimate, mainly due to:

- 1) SG&A cost up by c.99% from USD72.5m in 4Q18 to USD143.4m in 4Q19, due to launch of Zanubrutinib in the US.
- 2) R&D costs in 4Q19 was USD283m, up 10% from USD257m in 4Q18. The increased R&D cost was mainly due to more late stage clinical trials in operation in FY19.

Considering the USD 2.8bn received from the share placement to Amgen (AMGN US), we estimate the company's net cash position would be USD3.7bn currently, representing c.30% of its current market cap.

Lower TP by 10% to HK\$130 mainly to reflect slower-than-expected clinical development of Pamiparib. Our TP is based on net present value (NPV) estimates of BeiGene's major products. We made the downward revision mainly because the clinical development of a major product Pamiparib is slower than expected.

Pamiparib is a Poly (ADP-ribose) polymerase inhibitor (PARPi) that has been tested in the treatment of multiple solid tumours like ovarian cancer, brain cancer and gastric cancer. BeiGene has completed phase 1 clinical trial for the treatment of gastric cancer. It initially planned to start phase 3 trial right after, which needed the participation of 540 patients. However, it only managed to obtain the cooperation of 120 patients. Hence, BeiGene decided to go for phase 2 instead, which required fewer patients than phase 3. Historically, the success rate (passing all the following trials and successfully launch the product) for phases 2 and 3 were 23% and 59% respectively. Due to the conversion of clinical trials from phase 3 to 2, we revised the success rate of Pamiparib in treating gastric cancer from 59% to 23% and delayed the estimated time of launch

from 2022 to 2024. As a result, the contribution of Pamiparib to our NPV estimates has decreased from 10% to 5%.

Also, we raised the SG&A cost for FY20-21E by 27%/6% to reflect higher-than-expected figure in 4Q19 when Zanubrutinib was launched.

The adjustments mentioned above result in a lower NPV and TP.

Maintain BUY for the 7 share price catalysts in next 12 months:

- 1) Positive phase 2 clinical readout of PD-1 antibody in treating liver cancer in 2020. Approximately 6% of global cancer related deaths was due to liver cancer.
- 2) Positive phase 3 clinical readout of PD-1 antibody in treating non-squamous non-small cell lung cancer in 2H20. Around 7% of cancer cases in China are non-squamous non-small cell lung cancer.
- 3) Positive phase 3 clinical readout of PD-1 antibody in treating esophageal cancer in 2H20 or 1Q21. Around 5% of global cancer related deaths was due to esophageal cancer.
- 4) Launch of PD-1 in China in 2020 to treat bladder cancer.
- 5) Positive phase 3 clinical readout of Zanubrutinib in treating chronic lymphocytic leukemia and small lymphocytic leukemia (CLL/SLL) compared to current first-line treatment in 2H20. (CLL/SLL makes up close to 1% of all cancer cases globally)
- 6) Launch of Zanubrutinib in China to treat blood cancers in 1H20.
- 7) Clinical development of about other 25 drugs including Pamiparib, a drug for ovarian cancer, and 23 drugs co-developed with Amgen.

BeiGene Ltd

Income Statement (US\$ m)

FY Dec	2018A	2019A	% cha	vov
Revenue	198	428		116.0
Cost of Goods Sold	(29)	(71)		148.0
Gross Profit	170	357		110.6
Other Opng (Exp)/Inc	(875)	(1,317)		50.5
Operating Profit	(706)	(960)		36.0
Other Non Opg (Exp)/Inc	0	0		nm
Associates & JV Inc	0	0		nm
Net Interest (Exp)/Inc	14	9		(34.5)
Exceptional Gain/(Loss)	2	7		260.0
Pre-tax Profit	(690)	(944)		(36.8)
Tax	16	(7)		(144.3)
Minority Interest	0	2		638.6
Net Profit	(674)	(949)		(40.8)
Net Profit before Except.	(676)	(956)		(41.4)
EBITDA	(695)	(941)		(35.4)
Margins & Ratio				
Gross Margins (%)	85.5	83.4		
Opg Profit Margin (%)	(356.1)	(224.2)		
Net Profit Margin (%)	(339.9)	(221.5)		

Source: Company, DBS HK

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CRITICAL FACTORS TO WATCH

Critical Factors

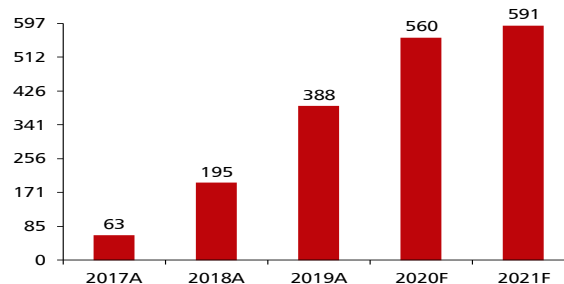
Zanubrutinib: clinical trial to prove it is better direct competitor Ibrutinib. Zanubrutinib (Zanu) is a Bruton's Tyrosin Kinase inhibitor (BTKi) to treat B-cell blood cancer (2% of global cancer cases). BTKi is a new way to treat B-cell blood cancer. The best-selling BTKi is Ibrutinib. Zanu is safer than Ibrutinib as its usage results in a lower percentage of patients developing heart problems (2% vs 10%). Zanu has been approved to be launched in the US in 2H19 for the treatment of mantle cell lymphoma (MCL, c.5% of B-cell blood cancer cases). To gain market share in the BTKi market going forward, it is important for BeiGene to prove that Zanu is better than Ibrutinib in the treatment of chronic lymphocytic leukemia and small lymphocytic leukemia (CLL/SLL) as CLL/SLL make up c.40% of B-cell blood cancer cases. We expect the release of clinical data in this respect in 2H20 and 1H21.

Sales of Zanubrutinib in the US. There are three BTKi available in the US, namely Ibrutinib from Janssen (JNJ US), Acalabrutinib from Astra Zeneca (AZN LN) and Zanubrutinib from BeiGene. The monthly costs of these drugs are USD13.5k, USD14.7k and USD13.5k respectively. Over 95% of the global BTK market was occupied by Ibrutinib in 2018. We believe the better safety profile of Zanu and its cheaper price relative to Acalabrutinib will help it grab market share quickly as more indications are approved in coming 3-5 years. We project Zanu's sales CAGR to be > 100% from 2020-26F.

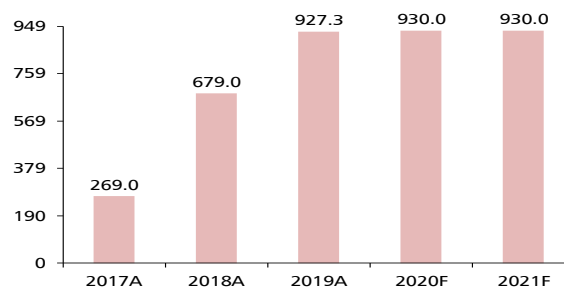
PD-1: indication expansion from Hodgkin's lymphoma to other cancers. BeiGene is conducting clinical trials to expand its PD-1 indication to non-small-cell lung cancer, esophageal squamous cell carcinoma, hepatocellular carcinoma, gastric cancer, nasopharyngeal carcinoma, and urothelial cancer. Release of positive clinical data would be a share price catalyst. We are expecting data for non-squamous non-small cell lung cancer, hepatocellular cancer and esophageal cancer, together with regulatory approvals for urothelial cancer in 2020.

Release of positive clinical data of other drugs under clinical trials. Other than PD-1 and Zanubrutinib, BeiGene has at least over 42 innovative drugs under development, including: Pamiparib, ZW25, anti-TIGIT antibody, and 23 products co-developed with Amgen. Positive clinical progress related to any of these drugs can drive BeiGene's share price.

Sales & admin expenses



R&D expenses

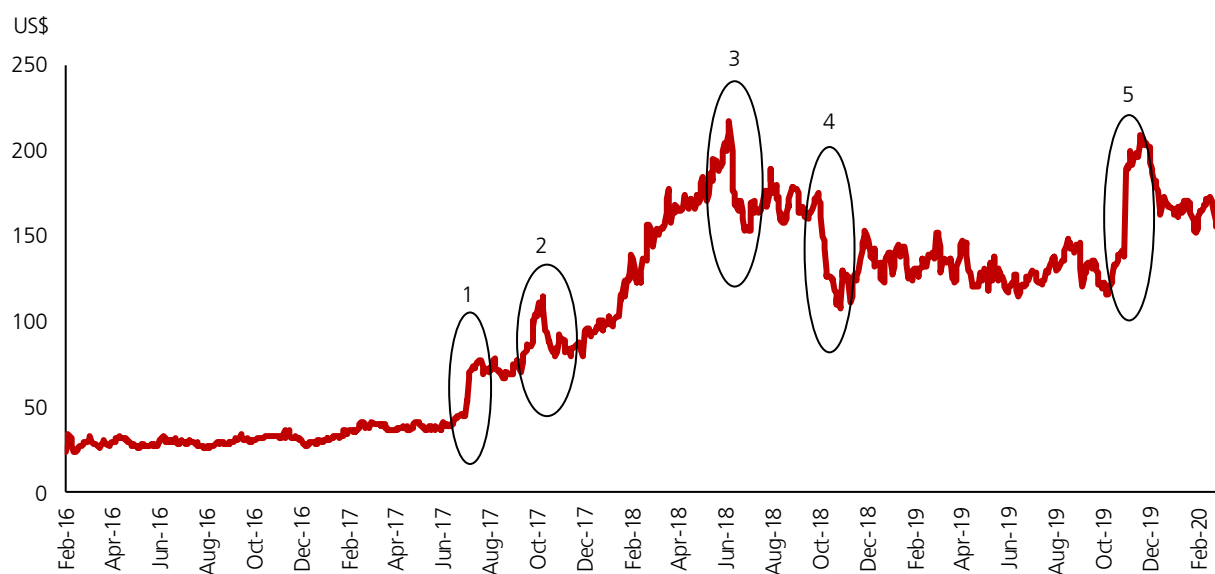


Source: Company, DBS HK

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Appendix 1: A look at Company's listed history – what drives its share price?

Turning points of share price



* The share price of BeiGene Ltd American Depositary Share (BGNE US) is shown in above graph to identify critical turning points.

1: Announcement of positive phase 1 clinical data of PD-1 in liver cancer and multiple phase 1 data of Zanubrutinib in June 2017. Announcement of collaboration with Celgene in July 2017, in which BeiGene has licensed out overseas rights of developing and commercialising PD-1 antibody to Celgene.

2: Presented positive phase I clinical data for PD-1 in Chinese patients with advanced tumours in September 2017.

3: No clinical results at ASCO 2018 while three domestic PD-1 makers all filed for NDA.

4: Movement in line with NASDAQ Biotechnology Index and Nasdaq Composite Index in Oct 2018

5: Announcement of the transaction with Amgen in Oct 2019. In Oct 2019, BeiGene announced that Amgen will invest US\$2.7bn for a 20.5% stake in BeiGene at US\$174.85 per ADS (equivalent to HK\$104 per share for stock traded in the Hong Kong stock market). Zanubrutinib was approved by US FDA in Nov 2019 to be launched in the US market.

Source: DBS HK

BeiGene Ltd

Balance Sheet:

The IPO in the US in 2016 helped the company raise US\$182m. The company issued additional stock offerings in 2016, 2017 and 2018 which raised US\$227m, US\$201m and US\$800m respectively. In 2018, the IPO in Hong Kong raised c.US\$900m. The deal with Amgen should help the company raise US\$2.8bn cash in 2020. With the launch of new products, we expect the company to turn profitable in 2023.

Share Price Drivers:

Release of potential positive clinical results for PD-1 to expand indications to eight more types of cancers. Positive clinical readouts of other products like Zanubrutinib, Pamiparib, AMG510, etc.

Key Risks:

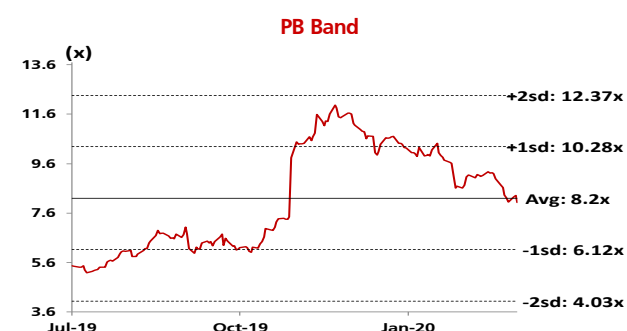
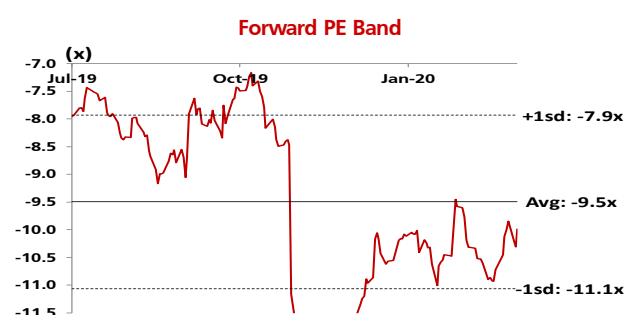
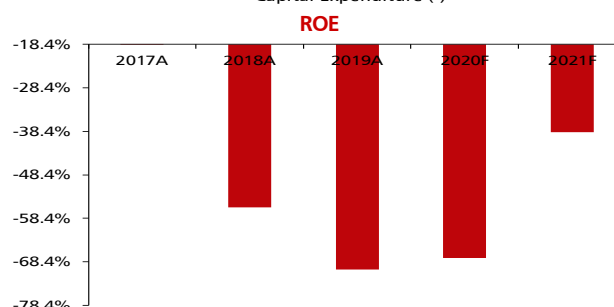
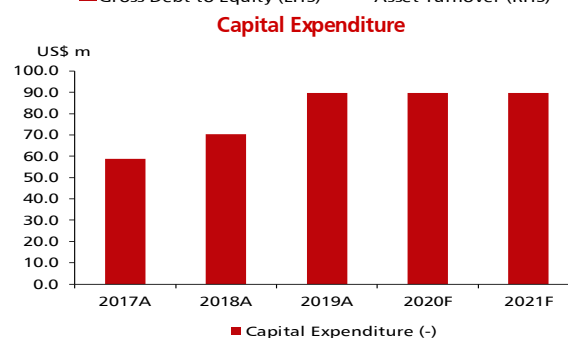
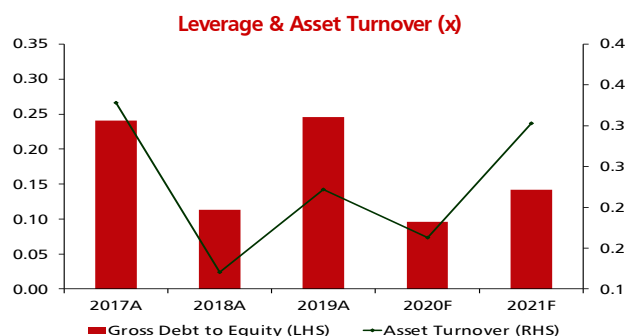
Failure of clinical trials; Price cuts due to competition; COVID-19 outbreak affects clinical trial developments.

Environmental, Social, Governance:

BeiGene is an environmentally friendly company. Its greenhouse gas emission/capita, water consumption/capita, hazardous waste/capita levels are at the low end among its peers (as at 2018). The company is building its brand in society. For customers, the company provides drugs to low-income patients who are suffering from multiple myeloma at a discounted price or for free (e.g. REVLIMID). We believe BeiGene is well recognised by the government for the clinical efficacy and profitability of its future antibody products, demonstrated by the funding granted by Ministry of Industry & Information Technology for construction of its PD-1 plant in Guangzhou. We believe BeiGene has good corporate governance practices as it strictly complies with government regulations to ensure legitimacy of its clinical trials and product safety. As for product quality and safety, BeiGene's production site is in strict compliance with requirements of the US Food and Drug Administration (FDA) and European regulations.

Company Background

Established in 2010, BeiGene is an innovative drug company focusing on discovery, development and commercialisation of anti-tumour drugs. Its R&D pipeline covers both targeted therapy drugs and immunotherapy drugs. The company gained the US FDA's approval to launch its first internally derived product (Zanubrutinib) in November 2019 and China NMPA approval to launch its PD-1 drug in December 2019. It also has several other drugs in different stages of clinical development. With R&D and manufacture sites in China, it aims to serve cancer patients on a global basis. BeiGene was listed on NASDAQ in 2016 and the HK Exchange in 2018.



Source: Company, DBS HK

BeiGene Ltd

Key Assumptions

FY Dec	2017A	2018A	2019A	2020F	2021F
Sales & admin expenses	62.6	195.4	388.2	559.8	591.0
R&D expenses	269.0	679.0	927.3	930.0	930.0

Source: Company, DBS HK

Segmental Breakdown (US\$ m)

FY Dec	2017A	2018A	2019A	2020F	2021F
Revenues (US\$ m)					
Tislelizumab (PD-1 anti-body)	0	0	0	74	295
Zanubrutinib	0	0	0	51	176
Pamiparib	0	0	0	0	1
In licensed products	24	131	223	261	372
Collaboration	214	67	206	0	0
Total	238	198	428	386	844
Gross margin (US\$ m)					
Total	233	170	357	322	718
Gross margin Margins (%)					
Total	97.9	85.5	83.4	83.5	85.0

Source: Company, DBS HK

Income Statement (US\$ m)

FY Dec	2017A	2018A	2019A	2020F	2021F
Revenue	238	198	428	386	844
Cost of Goods Sold	(5)	(29)	(71)	(64)	(127)
Gross Profit	233	170	357	322	718
Other Opng (Exp)/Inc	(332)	(875)	(1,317)	(1,491)	(1,522)
Operating Profit	(98)	(706)	(960)	(1,168)	(804)
Other Non Opng (Exp)/Inc	12	0	0	0	0
Associates & JV Inc	0	0	0	0	0
Net Interest (Exp)/Inc	(4)	14	9	8	4
Dividend Income	0	0	0	0	0
Exceptional Gain/(Loss)	0	2	7	0	0
Pre-tax Profit	(91)	(690)	(944)	(1,161)	(800)
Tax	(2)	16	(7)	(9)	(6)
Minority Interest	0	0	2	2	2
Preference Dividend	0	0	0	0	0
Net Profit	(93)	(674)	(949)	(1,167)	(804)
Net Profit before Except.	(93)	(676)	(956)	(1,167)	(804)
EBITDA	(82)	(695)	(941)	(1,143)	(773)
Growth					
Revenue Gth (%)	22,179.2	(16.8)	116.0	(9.8)	118.7
EBITDA Gth (%)	29.2	(746.0)	(35.4)	(21.4)	32.4
Opg Profit Gth (%)	(15.9)	616.8	36.0	21.7	(31.2)
Net Profit Gth (%)	21.9	(623.7)	(40.8)	(23.0)	31.0
Margins & Ratio					
Gross Margins (%)	97.9	85.5	83.4	83.5	85.0
Opg Profit Margin (%)	(41.3)	(356.1)	(224.2)	(302.7)	(95.3)
Net Profit Margin (%)	(39.1)	(339.9)	(221.5)	(302.2)	(95.3)
ROAE (%)	(18.2)	(55.9)	(70.2)	(67.6)	(38.5)
ROA (%)	(12.8)	(40.9)	(49.1)	(49.2)	(28.9)
ROCE (%)	(15.4)	(48.4)	(57.9)	(56.6)	(33.2)
Div Payout Ratio (%)	N/A	N/A	N/A	N/A	N/A
Net Interest Cover (x)	(24.0)	NM	NM	NM	NM

Source: Company, DBS HK

BeiGene Ltd

Interim Income Statement (US\$ m)

FY Dec	2H2017	1H2018	2H2018	1H2019	2H2019
Revenue	238	85	113	321	107
Cost of Goods Sold	(5)	(11)	(18)	(33)	(38)
Gross Profit	233	75	95	288	69
Other Oper. (Exp)/Inc	(222)	(348)	(527)	(548)	(769)
Operating Profit	11	(274)	(432)	(260)	(700)
Other Non Opg (Exp)/Inc	11	0	0	0	0
Associates & JV Inc	0	0	0	0	0
Net Interest (Exp)/Inc	(2)	3	11	7	2
Exceptional Gain/(Loss)	0	1	1	1	6
Pre-tax Profit	20	(270)	(420)	(251)	(692)
Tax	(2)	7	9	(3)	(4)
Minority Interest	0	1	(1)	1	1
Net Profit	18	(261)	(412)	(253)	(695)
Net profit bef Except.	18	(262)	(413)	(254)	(702)

Growth

Revenue Gth (%)	N/A	N/A	(52.7)	276.3	(5.2)
Opg Profit Gth (%)	(115.4)	150.0	(3,985.3)	(5.2)	62.3
Net Profit Gth (%)	N/A	(135.2)	N/A	3.2	(68.8)

Margins

Gross Margins (%)	97.9	87.3	84.1	89.7	64.4
Opg Profit Margins (%)	4.7	(320.9)	(382.3)	(80.8)	(654.3)
Net Profit Margins (%)	7.6	(306.4)	(364.9)	(78.8)	(649.7)

Source: Company, DBS HK

Balance Sheet (US\$ m)

FY Dec	2017A	2018A	2019A	2020F	2021F
Net Fixed Assets	75	202	289	354	414
Invts in Associates & JVs	0	0	0	0	0
Other LT Assets	58	104	150	114	113
Cash & ST Invts	838	1,796	983	2,478	1,638
Inventory	11	16	29	26	56
Debtors	29	50	71	64	140
Other Current Assets	36	82	90	90	90
Total Assets	1,046	2,250	1,612	3,126	2,451
ST Debt	9	9	0	0	0
Creditors	70	113	122	110	241
Other Current Liab	71	124	188	188	188
LT Debt	155	190	241	241	241
Other LT Liabilities	57	60	83	83	83
Shareholder's Equity	670	1,739	962	2,490	1,686
Minority Interests	14	14	16	14	12
Total Cap. & Liab.	1,046	2,250	1,612	3,126	2,451
Non-Cash Wkg. Capital	(65)	(90)	(121)	(118)	(143)
Net Cash/(Debt)	673	1,598	742	2,237	1,397
Debtors Turn (avg days)	22.5	72.8	51.4	63.7	44.0
Creditors Turn (avg days)	69,059.4	1,823.9	818.4	1,113.0	672.6
Inventory Turn (avg days)	9,234.8	270.7	155.5	259.4	156.8
Asset Turnover (x)	0.3	0.1	0.2	0.2	0.3
Current Ratio (x)	6.1	7.9	3.8	8.9	4.5
Quick Ratio (x)	5.8	7.5	3.4	8.5	4.1
Net Debt/Equity (X)	CASH	CASH	CASH	CASH	CASH
Net Debt/Equity ex MI (X)	CASH	CASH	CASH	CASH	CASH
Capex to Debt (%)	35.7	35.4	37.2	37.2	37.2
Z-Score (X)	NA	NA	NA	NA	NA

Source: Company, DBS HK

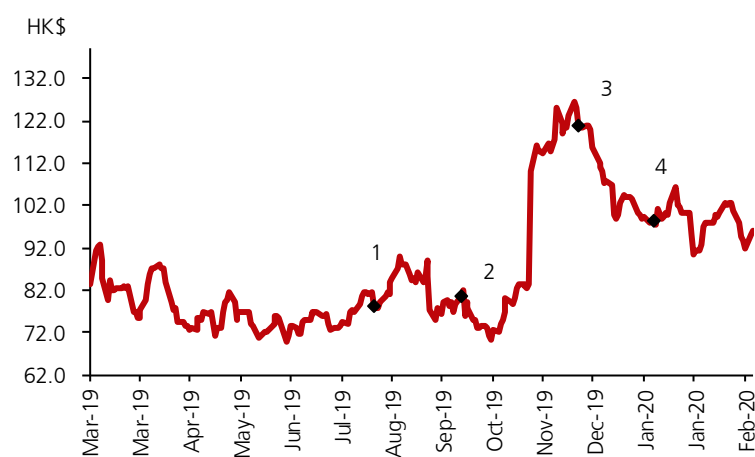
Cash Flow Statement (US\$ m)

FY Dec	2017A	2018A	2019A	2020F	2021F
Pre-Tax Profit	(91)	(690)	(944)	(1,161)	(800)
Dep. & Amort.	5	10	19	26	31
Tax Paid	(2)	16	(7)	(9)	(6)
Assoc. & JV Inc/(loss)	0	0	0	0	0
(Pft)/ Loss on disposal of FAs	0	0	0	0	0
Chg in Wkg.Cap.	57	69	10	(2)	25
Other Operating CF	44	47	172	(8)	(4)
Net Operating CF	13	(548)	(750)	(1,154)	(754)
Capital Exp.(net)	(59)	(70)	(90)	(90)	(90)
Other Invt.(net)	(310)	(459)	713	0	0
Invt. in Assoc. & JV	0	0	0	0	0
Div from Assoc & JV	0	0	0	0	0
Other Investing CF	12	(108)	(69)	8	4
Net Investing CF	(356)	(638)	554	(82)	(86)
Div Paid	0	0	0	0	0
Chg in Gross Debt	0	34	35	0	0
Capital Issues	189	1,633	0	2,728	0
Other Financing CF	301	24	51	0	0
Net Financing CF	490	1,691	86	2,728	0
Currency Adjustments	5	(4)	(10)	0	0
Chg in Cash	152	501	(120)	1,492	(840)
Opg CFPS (US\$)	(0.08)	(0.86)	(0.97)	(1.25)	(0.84)
Free CFPS (US\$)	(0.08)	(0.86)	(1.08)	(1.35)	(0.91)

Source: Company, DBS HK

BeiGene Ltd

Target Price & Ratings History



S.No.	Date	Closing Price	12-mth Target Price	Rating
1:	6-Aug-19	HK\$78.15	HK\$104.00	Buy
2:	23-Sep-19	HK\$78.80	HK\$104.0	Buy
3:	27-Nov-19	HK\$124.90	HK\$144.00	Buy
4:	8-Jan-20	HK\$98.50	HK\$144.0	Buy

Source: DBS HK

Analyst: Mark KONG CFA,

Michael PAN PhD,

DBS HK recommendations are based on an Absolute Total Return* Rating system, defined as follows:

STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)

BUY (>15% total return over the next 12 months for small caps, >10% for large caps)

HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)

SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

**Share price appreciation + dividends*

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