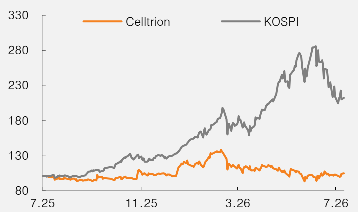
MIRAE ASSET Securities

Equity Research
July 28, 2026

(Maintain)	Buy
Target price	▲ W280,000
Current price (7/27/26)	W178,700
Upside	56.7%

OP (26F, Wbn)	1,776
Consensus OP (26F, Wbn)	1,784
EPS growth (26F, %)	59.9
Market EPS growth (26F, %)	262.0
P/E (26F, x)	26.4
Market P/E (26F, x)	6.9
KOSPI	6,755.75
Market cap (Wbn)	41,557
Shares (mn)	233
Free float (%)	65.2
Foreign ownership (%)	24.8
Beta (12M)	0.23
52-week low (W)	159,400
52-week high (W)	236,862

(%)	1M	6M	12M
Absolute	7.7	-11.4	5.3
Relative	34.1	-33.3	-50.2



Mirae Asset Securities Co., Ltd.

Seung-min Kim
sm.kim.a@miraeasset.com

068270 KS · Pharma/Biotech

Celltrion

Top-tier performance, yet still undervalued vs. peers

Raise TP to W280,000 (from W260,000); maintain Buy

We derived our target price for Celltrion by applying a target EV/EBITDA of 28x to our 12-month forward EBITDA estimate of W2.29tr. We slightly increased our earnings estimates following stronger-than-expected 2Q26 results driven by a rising mix of high-margin new biosimilars. Reflecting stronger-than-expected growth and profitability from these newer biosimilars, we raised our profit forecasts by more than our revenue forecasts.

Based on the 2026 consensus EBITDA, Celltrion is currently trading at around 20x EV/EBITDA. While this appears to represent a premium to Sandoz (14x), the global leader in biosimilars, a direct comparison is misleading due to the differences in their business mix. Sandoz generates roughly 65% of its revenue from its generics business, while biosimilars—its primary growth driver—account for only about 33%. Given that pure generics companies rarely command EV/EBITDA multiples above 10x, we estimate that the implied multiple for Sandoz's biosimilar business is in the high-20x range.

Celltrion also outperforms Sandoz in terms of profitability. Sandoz is still in the process of expanding its in-house production capacity after relying primarily on CMO production, whereas Celltrion established an in-house manufacturing system from the outset, enabling it to achieve superior production efficiency and cost competitiveness. These factors suggest that the stock remains undervalued relative to the implied valuation of Sandoz's biosimilar business and justify our target EV/EBITDA of 28x.

The global biosimilar market is increasingly consolidating around a small number of top-tier companies with fully integrated capabilities spanning product development, regulatory approvals, in-house manufacturing, supply reliability, and commercial portfolios. Market concentration became even more pronounced in 2023-25, with three leading players from the US, Europe, and Korea further strengthening their dominance. While emerging companies from China and India are stepping up biosimilar development ahead of the next wave of major patent expirations starting in 2028, it remains unclear whether they can achieve the product quality, manufacturing capabilities, supply reliability, and commercialization competitiveness needed to compete with established leaders within such a short timeframe. Rather than signaling intensifying competition, we believe the emergence of new entrants primarily reflects the biosimilar market's compelling long-term structural growth potential.

(Dec.)	2024	2025	2026F	2027F	2028F
Revenue (Wbn)	3,557	4,162	5,387	5,988	6,587
OP (Wbn)	492	1,168	1,776	2,055	2,391
OP margin (%)	13.8	28.1	33.0	34.3	36.3
NP (Wbn)	423	1,030	1,592	1,733	2,075
EPS (W)	1,703	4,238	6,775	7,452	8,922
ROE (%)	2.5	5.9	8.9	8.9	9.8
P/E (x)	101.1	40.7	26.4	24.0	20.0
P/B (x)	2.2	2.2	2.0	1.9	1.7
Dividend yield (%)	0.4	0.4	0.4	0.4	0.4

Notes: Under consolidated K-IFRS; NP is attributable to owners of the parent
Source: Company data, Mirae Asset Securities Research estimates

2Q26 review and full-year outlook

For 2Q26, Celltrion posted consolidated revenue of W1.39tr (+45% YoY, +22% QoQ), operating profit of W451.8bn (+86% YoY, +40% QoQ), and an OP margin of 32.4% (+7.2%p YoY).

The key driver was mix improvement centered on high-margin new products. New products accounted for 65% of total biologics revenue (W1.26tr), while the combined revenue from five new products increased 4.7x YoY. Operating leverage from revenue growth also became more pronounced, driving a sharp improvement in OP margin to 32.4% (vs. 8.3% in 2Q24 and 25.2% in 2Q25).

Remsima SC (W199.6bn; +20% QoQ) and Yuflyma (W195.4bn; +42% QoQ) remained key growth drivers, supported by market share gains in Europe and the company's low wholesale acquisition cost (low-WAC) strategy in the US. Meanwhile, the five products launched since 2024—Steqeyma, Omlyclo, Stoboclo/Osenvelt, Avtozma, and Eydenzelt—generated combined revenue of W314.4bn (+49% QoQ), collectively emerging as a new growth driver. In particular, Omlyclo (W116.7bn; +756% YoY) delivered stellar growth, capturing a 21% market share in Europe just three quarters after launch on the back of its first-mover advantage. Stoboclo/Osenvelt (W73.5bn) and Avtozma (W63.7bn) also recorded robust sales growth on the back of public tender wins in Europe.

For 2026, we expect Celltrion to deliver consolidated revenue of W5.39tr (+31% YoY) and operating profit of W1.78tr (+52% YoY), up 3% and 9% from our previous estimates, respectively. While revenue from legacy biosimilars (Remsima IV, Truxima, and Herzuma) is likely to decline, we expect strong growth from high-margin new biosimilars. Additionally, Celltrion's collaboration with Pfizer leaves room for Zymfentra sales to surprise to the upside.

Table 1. Celltrion: 2Q26 review (Wbn, %, %p)

	2Q25	1Q26	2Q26P			Growth	
			Preliminary	Consensus	Diff.	YoY	QoQ
Revenue	962	1,145	1,394	1,244	12.0	45.0	21.7
GP	544	686	864	787	9.8	58.8	26.0
GP margin	56.6	59.9	62.0	63.3	-1.3	5.4	3.5
OP	243	322	452	401	12.8	86.3	40.4
OP margin	25.2	28.1	32.4	32.2	0.2	7.2	15.3
NP	63	350	372	326	14.1	487.4	6.3

Source: Fnguide, Mirae Asset Securities Research

Table 2. Valuation table (Wbn)

	Value	
12m forward EBITDA	2,291	
Target EV/EBITDA	28	Multiple of Vertex Pharmaceuticals during its high-growth phase
EV	63,683	
Net debt	2,422	2026F
Fair value	61,261	
No. of shares ('000)	218,613	
Target price (W)	280,224	TP: W280,000 (+8% vs. previous TP of W260,000)
Current price (W)	178,700	
Upside	56.7%	

Source: Mirae Asset Securities Research

Table 3. Peer valuation table: Leading biosimilar/generics players (Wtr, Wbn, %, x)

Company	Market cap	Revenue		OP		OP margin		NP		ROE		P/E		P/B		P/S		EV/EBITDA	
		FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2
Celltrion	39.0	5,361	6,140	1,779	2,080	33.2	33.9	1,489	1,660	7.9	8.3	27.8	24.8	2.2	2.1	7.7	6.7	20.6	17.7
Sandoz	49.4	17,762	18,635	3,543	3,954	19.9	21.2	2,031	2,501	16.7	16.8	19.1	16.9	3.2	2.8	2.8	2.7	14.1	12.3
Organon	5.2	8,981	9,144	2,506	2,595	27.9	28.4	1,311	1,402	59.4	40.9	4.0	3.8	2.4	1.5	0.6	0.6	5.7	5.1
Alvotech	1.8	908	1,125	213	320	23.4	28.5		146				13.5			1.9	1.6	12.3	8.5
Teva	52.6	24,239	25,209	5,614	7,532	23.2	29.9	3,505	5,401	27.1	32.6	15.2	10.0	4.1	3.3	2.2	2.1	10.7	7.9
Aurobindo	13.4	5,993	6,643	949	1,082	15.8	16.3	687	797	10.9	11.2	19.8	17.3	2.2	1.9	2.2	2.0	10.4	9.0
Biocon	10.7	3,027	3,472	361	481	11.9	13.9	186	287	3.3	4.9	54.8	35.6	1.8	1.7	3.5	3.1	18.1	14.7
Avg.						22.2	24.6			20.9	19.1	23.4	17.4	2.6	2.2	3.0	2.7	13.1	10.7

Source: Bloomberg, Mirae Asset Securities Research

Table 4. Earnings forecast revisions (Wbn, %)

	Previous		Revised		Chg.	
	2026F	2027F	2026F	2027F	2026F	2027F
Revenue	5,253	5,912	5,387	5,988	2.6	1.3
OP	1,632	1,950	1,776	2,055	8.8	5.4
EBITDA	1,927	2,259	2,071	2,364	7.5	4.7

Source: Mirae Asset Securities Research

Table 5. Quarterly and annual earnings (Wbn, %)

	1Q25	2Q25	3Q25	4Q25	1Q26	2Q26P	3Q26F	4Q26F	2025	2026F	2027F
Revenue	842	962	1,029	1,284	1,145	1,394	1,406	1,443	4,116	5,387	5,988
YoY	14.2	9.9	16.7	20.7	36.0	45.0	36.6	12.4	15.8	30.9	11.2
Zymfentra	13	23	28	58	53	47	88	102	122	290	455
YoY			334.9	107.5	294.0	106.6	214.2	75.6	233.7	137.1	57.1
Remsima SC	135	161	185	236	157	200	198	192	717	746	861
YoY	20.4	44.9	8.3	39.0	16.1	23.9	6.9	-18.6	27.1	4.1	15.3
Remsima IV	238	261	265	285	214	253	249	233	1,050	949	857
YoY	-20.4	-28.1	-16.4	-1.3	-10.3	-3.1	-6.2	-18.2	-17.3	-9.6	-9.7
Truxima	129	103	126	169	138	152	61	56	527	406	375
YoY	28.1	-11	23.9	28.0	6.0	48.1	-51.8	-66.9	17.1	-23.0	-7.6
Herzuma	54	51	49	64	43	34	55	43	217	175	146
YoY	44.4	-17.8	0.6	30.9	-20.9	-33.9	12.2	-31.6	10.7	-19.6	-16.5
Yuflyma	118	137	144	104	114	195	156	160	503	625	690
YoY	75.4	71.8	52.3	-3.3	-2.9	42.2	8.1	53.8	44.1	24.3	10.4
Vegzelma	59	80	75	155	46	69	127	83	369	325	412
YoY	71.1	99.8	8.2	100.9	-22.5	-13.9	69.8	-46.4	67.0	-11.9	26.8
Steqeyma	21	354	35	42	40	50	70	65	134	225	259
YoY			2,106.3	148.2	88.2	41.5	98.3	54.0	620.4	67.8	15.0
Stoboclo/Osenvelt	1	7	20	71	69	74	50	31	99	223	257
YoY						906.8	150.0	-56.3		125.7	15.0
Omlyclo	1	22	28	49	72	117	125	120	99	434	507
YoY						437.8	348.0	143.1		336.6	17.0
Avtozma	0	1	4	14	25	64	66	70	19	225	311
YoY						6,977.8	1,400.0	408.0		1,076.4	38.3
Eydenzelt	0	2	2	6	7	10	30	55	9	102	230
YoY						477.8	1,775.0	900.0		1,044.9	125.7
CMO				0	96	50	57	156	0	358	328
YoY											
Pharm/Chemical	68	72	63	70	69	72	69	71	274	281	279
YoY	-15.7	-23.8	-3.1	-11.5	2.2	0.1	8.7	0.7	-14.5	2.8	-0.8
Other	6	6	4	8	5	7	6	7	25	25	23
YoY		6.9	-33.3	44.4	-18.8	12.9	38.6	-16.3	7.4	0.1	-5.7
GP	443	544	626	854	686	864	893	902	2,467	3,344	3,757
YoY	44.4	48.0	35.1	57.0	54.9	58.8	42.6	5.6	46.7	35.6	12.3
Gross margin	52.6	56.6	60.8	66.5	59.9	62.0	63.5	62.5	59.9	62.1	62.7
OP	149	243	301	475	322	452	510	493	1,169	1,776	2,055
YoY	867.9	234.5	45.1	141.9	115.4	86.3	69.0	3.7	137.5	52.0	15.7
OP margin	17.7	25.2	29.3	37.0	28.1	32.4	36.2	34.2	28.4	33.0	34.3
EBITDA	220	319	375	542	398	531	585	558	1,456	2,071	2,364
YoY	49.9	55.9	32.2	96.9	80.8	66.2	56.1	2.9	60.0	42.3	14.1
EBITDA margin	26.2	33.2	36.4	42.2	34.8	38.1	41.6	38.6	35.4	38.4	39.5
NP	108	63	332	528	350	372	433	441	1,032	1,595	1,736
YoY	421.6	-19.3	294.7	124.1	222.9	487.4	30.4	-16.5	146.2	54.7	8.8
Net margin	12.9	6.6	32.3	41.1	30.6	26.7	30.8	30.5	25.1	29.6	29.0

Source: Company data, Mirae Asset Securities Research

Celltrion (068270 KS)

Income statement (summarized)

(Wbn)	2025	2026F	2027F	2028F
Revenue	**4,162**	**5,387**	**5,988**	**6,587**
Cost of revenue	**1,695**	**2,043**	**2,231**	**2,306**
GP	**2,467**	**3,344**	**3,757**	**4,281**
SG&A expenses	**1,299**	**1,568**	**1,702**	**1,891**
OP (adj.)	**1,168**	**1,776**	**2,055**	**2,391**
OP	**1,168**	**1,776**	**2,055**	**2,391**
Non-operating profit	**-14**	**58**	**36**	**13**
Net financial income	-52	-52	-20	13
Net income from associates	-14	0	0	0
Pretax profit	1,154	1,834	2,091	2,404
Income tax	122	238	355	325
Profit from continuing operations	1,031	1,595	1,736	2,079
Profit from discontinued operations	0	0	0	0
NP	**1,031**	**1,595**	**1,736**	**2,079**
Attributable to owners	1,030	1,592	1,733	2,075
Attributable to minority interests	2	3	3	4
Total comprehensive income	**779**	**1,595**	**1,736**	**2,079**
Attributable to owners	777	1,592	1,732	2,074
Attributable to minority interests	2	4	4	5
EBITDA	1,456	2,071	2,364	2,708
FCF	538	2,065	1,660	2,001
EBITDA margin (%)	35.0	38.4	39.5	41.1
OP margin (%)	28.1	33.0	34.3	36.3
Net margin (%)	24.7	29.6	28.9	31.5

Balance sheet (summarized)

(Wbn)	2025	2026F	2027F	2028F
Current assets	**6,205**	**8,592**	**10,638**	**13,035**
Cash & equivalents	1,119	3,397	4,864	6,683
AR & other receivables	1,834	2,373	2,637	2,901
Inventory	2,803	2,243	2,493	2,742
Other current assets	449	579	644	709
Non-current assets	**16,130**	**15,866**	**15,572**	**15,271**
Investments in associates	106	137	152	168
PP&E	1,703	1,604	1,496	1,382
Intangible assets	13,778	13,582	13,381	13,179
Total assets	**22,335**	**24,458**	**26,211**	**28,306**
Current liabilities	**4,454**	**5,111**	**5,276**	**5,439**
AP & other payables	437	566	629	692
Short-term financial liabilities	3,326	3,653	3,654	3,656
Other current liabilities	691	892	993	1,091
Non-current liabilities	**529**	**563**	**579**	**596**
Long-term financial liabilities	412	413	413	413
Other non-current liabilities	117	150	166	183
Total liabilities	**4,982**	**5,674**	**5,855**	**6,035**
Equity attributable to owners	**17,209**	**18,637**	**20,206**	**22,117**
Capital stock	239	239	239	239
Capital surplus	14,215	14,215	14,215	14,215
Retained earnings	4,407	5,836	7,405	9,316
Minority interests	**144**	**147**	**150**	**154**
Shareholders' equity	**17,353**	**18,784**	**20,356**	**22,271**

Cash flow statement (summarized)

(Wbn)	2025	2026F	2027F	2028F
Operating cash flow	**646**	**2,065**	**1,660**	**2,001**
NP	1,031	1,595	1,736	2,079
Non-cash income/expenses	553	416	661	629
Depreciation	93	99	108	114
Amortization	195	197	200	203
Other	265	120	353	312
Chg. in working capital	-495	292	-383	-381
Chg. in AR & other receivables	-344	-527	-258	-258
Chg. in inventory	-135	561	-250	-249
Chg. in AP & other payables	-149	37	18	18
Income tax	-444	-238	-355	-325
Cash flow from investing activities	**-860**	**162**	**66**	**99**
Chg. in PP&E	-108	0	0	0
Chg. in intangible assets	-223	0	0	0
Chg. in financial assets	30	-35	-17	-17
Other	-559	197	83	116
Cash flow from financing activities	**339**	**63**	**-266**	**-266**
Chg. in financial liabilities	1,531	326	1	1
Chg. in equity	-604	0	0	0
Dividends	-154	-164	-164	-164
Other	-434	-99	-103	-103
Chg. in cash	**123**	**2,278**	**1,467**	**1,819**
Beginning balance	996	1,119	3,397	4,864
Ending balance	1,119	3,397	4,864	6,683

Source: Company data, Mirae Asset Securities Research estimates

Key valuation metrics/ratios

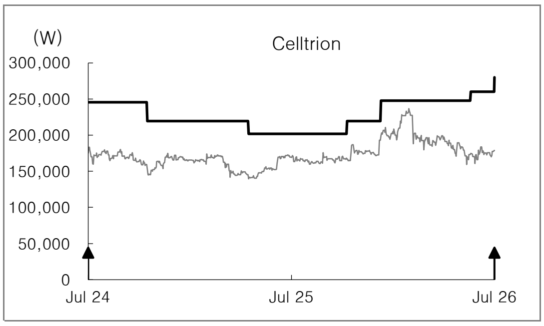
	2025	2026F	2027F	2028F
P/E (x)	40.7	26.4	24.0	20.0
P/CF (x)	26.4	20.9	17.3	15.3
P/B (x)	2.2	2.0	1.9	1.7
EV/EBITDA (x)	30.5	20.4	17.2	14.4
EPS (W)	4,238	6,775	7,452	8,922
CFPS (W)	6,523	8,556	10,308	11,642
BPS (W)	80,029	89,539	96,286	104,504
DPS (W)	715	715	715	715
Dividend payout ratio (%)	15.9	10.3	9.4	7.9
Dividend yield (%)	0.4	0.4	0.4	0.4
Revenue growth (%)	17.0	29.4	11.2	10.0
EBITDA growth (%)	60.0	42.3	14.1	14.5
OP growth (%)	137.5	52.0	15.7	16.3
EPS growth (%)	148.8	59.9	10.0	19.7
AR turnover (x)	2.8	2.6	2.4	2.4
Inventory turnover (x)	1.5	2.1	2.5	2.5
AP turnover (x)	17.0	14.3	13.1	12.3
ROA (%)	4.8	6.8	6.9	7.6
ROE (%)	5.9	8.9	8.9	9.8
ROIC (%)	5.5	8.1	9.0	10.9
Debt-to-equity ratio (%)	28.7	30.2	28.8	27.1
Current ratio (%)	139.3	168.1	201.7	239.6
Net debt-to-equity ratio (%)	14.4	2.7	-4.8	-12.6
Interest coverage ratio (x)	15.5	17.9	19.9	23.2

Appendix 1

Important disclosures and disclaimers

Two-year rating and TP history

Company	Date	Rating	TP (W)
Celltrion (068270)	07/28/26	Buy	280,000
	06/15/26	Buy	260,000
	01/05/26	Buy	247,823
	11/05/25	Buy	219,228
	05/12/25	Buy	201,983
	11/11/24	Buy	219,218
	07/01/24	Buy	245,524



Stock ratings		Sector ratings	
Buy	Expected 12-month return: +20% or greater	Overweight	Expected to outperform the market over 12 months
Hold	Expected 12-month return: Greater than -10% and less than +10%	Neutral	Expected to perform in line with the market over 12 months
Sell	Expected 12-month return: -10% or less	Underweight	Expected to underperform the market over 12 months

As of May 12, 2025, the Trading Buy rating category has been removed from our investment rating system.
Stocks expected to deliver a 12-month return between +10% and less than +20% may be rated either Buy or Hold at the discretion of the research analyst.

Rating and TP history: Share price (—), TP (▬), Not Rated (■), Buy (▲), Trading Buy (■), Hold (●), Sell (♦)
* Our investment rating is a guide to the expected return of the stock over the next 12 months.
* Outside of the official ratings of Mirae Asset Securities Co., Ltd., analysts may call trading opportunities should technical or short-term material developments arise.
* The TP was determined by the research analyst through valuation methods discussed in this report, in part based on estimates of future earnings.
* TP achievement may be impeded by risks related to the subject securities and companies, as well as general market and economic conditions.

Ratings distribution and investment banking services

	Buy	Trading Buy	Hold	Sell
Ratings distribution	83.02%	0%	16.35%	0.63%
Investment banking services	86.67%	0%	13.33%	0%

* Based on recommendations in the last 12-months (as of June 30, 2026)

Disclosures

As of the publication date, Mirae Asset Securities Co., Ltd. has acted as a liquidity provider for equity-linked warrants backed by shares of Celltrion as an underlying asset; other than this, Mirae Asset Securities has no other special interests in the covered companies.

Analyst certification

The research analysts who prepared this report (the "Analysts") are registered with the Korea Financial Investment Association and are subject to Korean securities regulations. They are neither registered as research analysts in any other jurisdiction nor subject to the laws or regulations thereof. Each Analyst responsible for the preparation of this report certifies that (i) all views expressed in this report accurately reflect the personal views of the Analyst about any and all of the issuers and securities named in this report and (ii) no part of the compensation of the Analyst was, is, or will be directly or indirectly related to the specific recommendations or views contained in this report. Mirae Asset Securities Co., Ltd. ("Mirae Asset Securities") policy prohibits its Analysts and members of their households from owning securities of any company in the Analyst's area of coverage, and the Analysts do not serve as an officer, director, or advisory board member of the subject companies. Except as otherwise specified herein, the Analysts have not received any compensation or any other benefits from the subject companies in the past 12 months and have not been promised the same in connection with this report. Like all employees of Mirae Asset Securities, the Analysts receive compensation that is determined by overall firm profitability, which includes revenues from, among other business units, the institutional equities, investment banking, proprietary trading, and private client divisions. At the time of publication of this report, the Analysts do not know or have reason to know of any actual, material conflict of interest of the Analyst or Mirae Asset Securities except as otherwise stated herein.

Disclaimers

This report was prepared by Mirae Asset Securities, a broker-dealer registered in the Republic of Korea and a member of the Korea Exchange. Information and opinions contained herein have been compiled in good faith and from sources believed to be reliable, but such information has not been independently verified and Mirae Asset Securities makes no guarantee, representation or warranty, express or implied, as to the fairness, accuracy, completeness, or correctness of the information and opinions contained herein or of any translation into English from the Korean language. In case of an English translation of a report prepared in the Korean language, the original Korean language report may have been made available to investors in advance of this report.
The intended recipients of this report are sophisticated institutional investors who have substantial knowledge of the local business environment, its common practices, laws, and accounting principles, and no person whose receipt or use of this report would violate any laws or regulations or subject Mirae Asset Securities or any of its affiliates to registration or licensing requirements in any jurisdiction shall receive or make any use hereof.
This report is for general information purposes only and is not and shall not be construed as an offer or a solicitation of an offer to effect transactions in any securities or other financial instruments. The report does not constitute investment advice to any person, and such person shall not be treated as a client of Mirae Asset Securities by virtue of receiving this report. This report does not take into account the particular investment objectives, financial situations, or needs of individual clients. The report is not to be relied upon in substitution for the exercise of independent judgment. Information and opinions contained herein are as of the date hereof and are subject to change without notice. The price and value of the investments referred to in this report and the income from them may depreciate or appreciate, and investors may incur losses on investments. Past performance is not a guide to future performance. Future

returns are not guaranteed, and a loss of original capital may occur. Mirae Asset Securities, its affiliates, and their directors, officers, employees, and agents do not accept any liability for any loss arising out of the use hereof.
Mirae Asset Securities may have issued other reports that are inconsistent with, and reach different conclusions from, the opinions presented in this report. The reports may reflect different assumptions, views, and analytical methods of the analysts who prepared them. Mirae Asset Securities may make investment decisions that are inconsistent with the opinions and views expressed in this research report. Mirae Asset Securities, its affiliates, and their directors, officers, employees, and agents may have long or short positions in any of the subject securities at any time and may make a purchase or sale, or offer to make a purchase or sale, of any such securities or other financial instruments from time to time in the open market or otherwise, in each case either as principals or agents. Mirae Asset Securities and its affiliates may have had, or may be expecting to enter into, business relationships with the subject companies to provide investment banking, market-making, or other financial services as are permitted under applicable laws and regulations.
No part of this document may be copied or reproduced in any manner or form or redistributed or published, in whole or in part, without the prior written consent of Mirae Asset Securities. For further information regarding company-specific information as it pertains to the representations and disclosures in this Appendix 1, please contact compliance@miraeasset.us.com or +1 (212) 407-1000.

Distribution
United Kingdom: This report is being distributed by Mirae Asset Securities (UK) Ltd. in the United Kingdom only to (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"), and (ii) high net worth companies and other persons to whom it may lawfully be communicated, falling within Article 49(2)(A) to (E) of the Order (all such persons together being referred to as "Relevant Persons"). This report is directed only at Relevant Persons. Any person who is not a Relevant Person should not act or rely on this report or any of its contents.
United States: Mirae Asset Securities is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This report is distributed in the U.S. by Mirae Asset Securities (USA) Inc., a member of FINRA/SIPC, to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6(b)(4) under the U.S. Securities Exchange Act of 1934, as amended. All U.S. persons that receive this document by their acceptance hereof represent and warrant that they are a major U.S. institutional investor and have not received this report under any express or implied understanding that they will direct commission income to Mirae Asset Securities or its affiliates. Any U.S. recipient of this document wishing to effect a transaction in any securities discussed herein should contact and place orders with Mirae Asset Securities (USA) Inc. Mirae Asset Securities (USA) Inc. accepts responsibility for the contents of this report in the U.S., subject to the terms hereof, to the extent that it is delivered to a U.S. person other than a major U.S. institutional investor. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through Mirae Asset Securities. The securities described in this report may not have been registered under the U.S. Securities Act of 1933, as amended, and, in such case, may not be offered or sold in the U.S. or to U.S. persons absent registration or an applicable exemption from the registration requirements.
Hong Kong SAR: This report is distributed in Hong Kong SAR by Mirae Asset Securities (HK) Limited, which is regulated by the Hong Kong Securities and Futures Commission. The contents of this report have not been reviewed by any regulatory authority in Hong Kong SAR. This report is for distribution only to professional investors within the meaning of Part I of Schedule 1 to the Securities and Futures Ordinance of Hong Kong SAR (Cap. 571, Laws of Hong Kong SAR) and any rules made thereunder and may not be redistributed in whole or in part in Hong Kong SAR to any person.
India: This report is being distributed by Mirae Asset Capital Markets (India) Private Limited ("MACM") in India to the customers based in India and is personal information only for those authorised recipient(s). MACM is inter alia a Securities and Exchange Board of India ("SEBI") registered Research Analyst in India and is not registered outside India. MACM and Mirae Asset, Korea are group entities. MACM makes no guarantee, representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information and opinions contained herein. The user assumes the entire risk of any use made of this information. This report has been provided for assistance only and is not intended to be and must not alone be taken as the basis for an investment decision. Recipient must read the entire Appendix 1 to the report carefully for Important Disclosures & Disclaimers.
All other jurisdictions: Customers in all other countries who wish to effect a transaction in any securities referenced in this report should contact Mirae Asset Securities or its affiliates only if distribution to or use by such customer of this report would not violate applicable laws and regulations and not subject Mirae Asset Securities and its affiliates to any registration or licensing requirement within such jurisdiction.

Mirae Asset Securities International Network

Mirae Asset Securities Co., Ltd. (Seoul)
One-Asia Equity Sales Team
Mirae Asset Center 1 Building
26 Eulji-ro 5-gil, Jung-gu, Seoul 04539
Korea

Tel: 82-2-3774-2124

Mirae Asset Securities (HK) Ltd.
Units 8501, 8507-8508, 85/F
International Commerce Centre
1 Austin Road West
Kowloon
Hong Kong SAR
Tel: 852-2845-6332

Mirae Asset Securities (UK) Ltd.
41st Floor, Tower 42
25 Old Broad Street,
London EC2N 1HQ
United Kingdom

Tel: 44-20-7982-8000

Mirae Asset Securities (USA) Inc.
810 Seventh Avenue, 37th Floor
New York, NY 10019
USA

Tel: 1-212-407-1000

Mirae Asset Wealth Management (Brazil) CCTVM
Rua Funchal, 418, 18th Floor, E-Tower Building
Vila Olimpia
Sao Paulo - SP
04551-060
Brazil
Tel: 55-11-2789-2100

PT. Mirae Asset Sekuritas Indonesia
District 8, Treasury Tower Building Lt. 50
Sudirman Central Business District
Jl. Jend. Sudirman, Kav. 52-54
Jakarta Selatan 12190
Indonesia
Tel: 62-21-5088-7000

Mirae Asset Securities (Singapore) Pte. Ltd.
6 Battery Road, #11-01
Singapore 049909
Republic of Singapore

Tel: 65-6671-9845

Mirae Asset Securities (Vietnam) LLC
7F, Saigon Royal Building
91 Pasteur St.
District 1, Ben Nghe Ward, Ho Chi Minh City
Vietnam

Tel: 84-8-3911-0633 (ext.110)

Mirae Asset Securities Mongolia UTsK LLC
#406, Blue Sky Tower, Peace Avenue 17
1 Khoroo, Sukhbaatar District
Ulaanbaatar 14240
Mongolia

Tel: 976-7011-0806

Mirae Asset Investment Advisory (Beijing) Co., Ltd
2401B, 24th Floor, East Tower, Twin Towers
B12 Jianguomenwai Avenue, Chaoyang District
Beijing 100022
China

Tel: 86-10-6567-9699

Beijing Representative Office
2401A, 24th Floor, East Tower, Twin Towers
B12 Jianguomenwai Avenue, Chaoyang District
Beijing 100022
China

Tel: 86-10-6567-9699 (ext. 3300)

Shanghai Representative Office
38T31, 38F, Shanghai World Financial Center
100 Century Avenue, Pudong New Area
Shanghai 200120
China

Tel: 86-21-5013-6392

Ho Chi Minh Representative Office
7F, Saigon Royal Building
91 Pasteur St.
District 1, Ben Nghe Ward, Ho Chi Minh City
Vietnam

Tel: 84-8-3910-7715

Mirae Asset Capital Markets (India) Pvt Ltd
1st Floor, Tower 4, Equinox Business Park,
LBS Marg, Off BKC, Kurla (West), Mumbai - 400 070
India

Tel: 91-22-62661300 / 48821300