# MIRAE ASSET Building on principles

Technology

Results Comment January 31, 2019

(Maintain)			Buy
Target Price (12M,	72	,500	
Share Price (01/30/1	9, W)	48	,400
Expected Return		50%	
OP (18F, Wbn) Consensus OP (18F,	,Wbn)		37 39
EPS Growth (18F, %) Market EPS Growth P/E (18F, x) Market P/E (18F, x) KOSDAQ	3.6 5.3 11.3 9.1 715.30		
Market Cap (Wbn) Shares Outstanding Free Float (%) Foreign Ownership Beta (12M) 52-Week Low 52-Week High		434 9 63.8 10.6 1.65 33,000 76,264	
<b>(%)</b> Absolute Relative	<b>1M</b> 28.4 21.3	<b>6M</b> -8.0 -1.0	<b>12M</b> -30.1 -10.0



Mirae Asset Daewoo Co., Ltd.

### [Display/Batteries]

Chuljoong Kim +822-3774-1464 chuljoong.kim@miraeasset.com

# Innox Advanced Materials (272290 KQ)

# Return of the OLED super-cycle

## 4Q18 review: Solid profitability

For 4Q18, Innox Advanced Materials posted revenue of W75.2bn (+2.7% QoQ) and operating profit of W10.7bn (+5.8% QoQ). Despite a slowdown in downstream industries, profits were solid.

FPCB revenue fell 20.6% QoQ, due to customers' inventory adjustments, while semiconductor materials revenue also dropped 23.5% QoQ, due to intensifying competition in semiconductor QFN. Meanwhile, revenue from the SmartFlex division (thermal conductive composite sheets and digitizers) expanded 73% QoQ, driven by increasing shipments for the Galaxy S10 since November 2018.

Notably, the OLED materials business continued to expand in 2018, with annual revenue of W97.5bn (+60% YoY). Revenue from small/mid-sized OLED materials for Korean customers' flagship models has been growing steadily. We expect the OLED materials business to continue its solid growth through 1Q19, when customers are scheduled to roll out new models.

### OLED materials likely to have a positive impact on margins

The revenue contribution of OLED materials increased from 19.8% in 2017 to 33.4% in 2018, and we project its share to rise to 40.6% in 2019. For small/mid-sized OLED materials, we expect the company to continue to grab market share from Japanese rivals. For large-sized OLED materials, we look for accelerating shipment growth in 2H19, when a key customer's Guangzhou plant (monthly production capacity of 60,000 units) will start operating.

Notably, unlike other business divisions (FPCB, etc.), OLED materials do not use PI films as a raw material, and therefore should have better margins. As OLED line utilization rates increase, we expect to see OLED materials margins improve.

For 2019, we estimate revenue of W351.6bn (+20.6% YoY) and operating profit of W52.7bn (+41% YoY).

# Maintain TP of W72,500; return of the OLED super-cycle

We maintain our Buy call and target price of W72,500 on Innox Advanced Materials. Our target price equals 15x (average P/E of global OLED materials suppliers) our 2019F EPS.

We believe the OLED market is entering another super-cycle. Samsung Display is planning investments in QD-OLED, and the imminent launch of foldable smartphones is raising expectations on medium/long-term demand growth. Despite lackluster market conditions, OLED materials vendors have performed well over the past two years. In our view, Innox Advanced Materials' high multiple is justified in light of the current OLED cycle.

FY (Dec.)	12/15	12/16	12/17	12/18F	12/19F	12/20F
Revenue (Wbn)	0	0	193	292	352	453
OP (Wbn)	0	0	22	37	53	72
OP margin (%)	-	-	11.4	12.7	15.1	15.9
NP (Wbn)	0	0	17	31	45	60
EPS (W)	0	0	3,226	3,340	4,830	6,502
ROE (%)	0.0	0.0	13.8	22.3	25.7	26.6
P/E (x)	-	-	25.8	11.3	10.0	7.4
P/B (x)	-	-	6.1	2.2	2.2	1.7
Dividend yield (%)	-	-	0.0	0.0	0.0	0.0

Note: All figures are based on consolidated K-IFRS; NP refers to net profit attributable to controlling interests Source: Company data, Mirae Asset Daewoo Research estimates

Analysts who prepared this report are registered as research analysts in Korea but not in any other jurisdiction, including the U.S. PLEASE SEE ANALYST CERTIFICATIONS AND IMPORTANT DISCLOSURES & DISCLAIMERS IN APPENDIX 1 AT THE END OF REPORT.

# Table 1. 4Q18 review

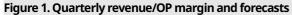
Table 1. 4Q18 review (Wbn, %, %p)											
				2Q18P							
	2Q17	1Q18	Preliminary	Mirae Asset Daewoo	Consensus	YoY	QoQ				
Revenue	80.4	73.2	75.2	89.5	80.0	-6.5	2.7				
Operating profit	7.0	10.0	10.6	12.5	10.4	50.9	5.8				
OP margin	8.7	13.7	14.1	14.0	13.0	5.4	0.4				
Pretax profit	5.6	10.4	11.9	13.3	10.5	111.4	15.2				
Net profit	5.1	8.7	8.4	10.5	7.9	65.4	-3.7				

Source: Company data, WISEfn, Mirae Asset Daewoo Research estimates

# Table 2. Quarterly and annual earnings

Table 2. Quarterly and annual earnings (Wb											(Wbn, %)
	1Q18	2Q18P	3Q18F	4Q18F	1Q19F	2Q19F	3Q19F	4Q19F	17	18F	19F
Revenue	80.8	62.3	73.3	75.2	76.8	79.1	94.7	101.0	307.1	291.6	351.6
FPCB	19.1	17.8	23.3	18.5	20.1	19.7	23.5	22.4	107.3	78.6	85.7
Semiconductor	11.0	10.3	10.7	8.2	9.0	9.0	9.9	9.9	42.5	40.2	37.8
SmartFlex	31.9	14.2	10.7	18.5	19.0	19.9	24.1	22.4	96.4	75.3	85.5
OLED	18.7	20.0	28.6	30.1	28.7	30.4	37.2	46.4	60.9	97.5	142.6
Proportion (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
FPCB	23.7	28.5	31.7	24.6	26.2	25.0	24.8	22.1	35.0	27.0	24.4
Semiconductor	13.6	16.5	14.6	10.9	11.7	11.4	10.4	9.8	13.8	13.8	10.8
SmartFlex	39.5	22.8	14.6	24.6	24.7	25.2	25.5	22.2	31.4	25.8	24.3
OLED	23.2	32.2	39.1	40.0	37.4	38.4	39.3	45.9	19.8	33.4	40.6
Operating profit	11.2	5.5	10.0	10.7	10.4	10.7	15.4	16.3	32.4	37.4	52.7
Pretax profit	10.4	6.2	10.4	11.9	11.2	11.4	16.1	17.1	24.5	39.0	55.7
Net profit	8.5	5.5	8.7	8.4	8.9	9.1	12.9	13.6	19.9	31.2	44.6
OP margin	13.9	8.8	13.7	14.2	13.6	13.5	16.2	16.1	10.5	12.8	15.0
Pretax margin	12.9	10.0	14.1	15.9	14.5	14.4	17.0	16.9	8.0	13.4	15.9
Net margin	10.5	8.9	11.9	11.2	11.6	11.6	13.6	13.5	6.5	10.7	12.7
Growth (QoQ/YoY)											
Revenue	0.6	-22.9	17.7	2.6	2.1	3.0	19.8	6.7	71.3	-5.1	20.6
FPCB	-34.9	-7.1	30.8	-20.6	8.9	-1.9	18.9	-4.8	33.7	-26.8	9.0
Semiconductor	6.9	-6.9	4.5	-23.5	9.5	0.5	9.5	0.5	16.3	-5.3	-6.0
SmartFlex	38.1	-55.6	-24.8	73.0	2.9	4.9	21.2	-7.2	225.8	-21.9	13.6
OLED	6.8	7.1	42.9	4.9	-4.6	5.9	22.5	24.6	85.3	60.1	46.3
Operating profit	62.5	-51.5	83.8	6.5	-2.5	2.6	43.8	6.2	81.5	15.5	41.0
Pretax profit	85.1	-40.2	66.0	15.2	-6.5	2.4	41.0	5.9	흑전	59.2	43.0
Net profit	67.2	-34.9	57.8	-3.9	6.3	2.4	41.0	5.9	290.0	56.5	43.0

Source: Company data, Mirae Asset Daewoo Research estimates



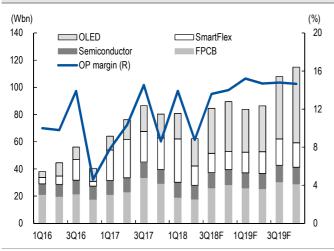
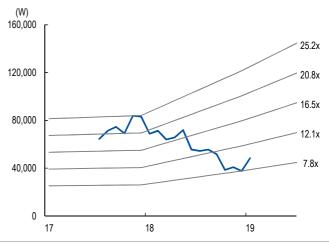


Figure 2. 12-month forward P/E band



Source: Mirae Asset Daewoo Research

Source: Mirae Asset Daewoo Research

## Innox Advanced Materials

# Innox Advanced Materials (272290 KQ/Buy/TP: W72,500)

# **Comprehensive Income Statement (Summarized)**

•				
(Wbn)	12/17	12/18F	12/19F	12/20F
Revenue	193	292	352	453
Cost of Sales	140	219	256	333
Gross Profit	53	73	96	120
SG&A Expenses	31	35	43	48
Operating Profit (Adj)	22	37	53	72
Operating Profit	22	37	53	72
Non-Operating Profit	-1	1	3	3
Net Financial Income	-1	-1	-1	-1
Net Gain from Inv in Associates	0	0	0	0
Pretax Profit	21	38	56	75
Income Tax	4	8	11	15
Profit from Continuing Operations	17	31	45	60
Profit from Discontinued Operations	0	0	0	0
Net Profit	17	31	45	60
Controlling Interests	17	31	45	60
Non-Controlling Interests	0	0	0	0
Total Comprehensive Profit	17	31	45	60
Controlling Interests	17	31	45	60
Non-Controlling Interests	0	0	0	0
EBITDA	28	48	65	83
FCF (Free Cash Flow)	11	-10	7	50
EBITDA Margin (%)	14.5	16.4	18.5	18.3
Operating Profit Margin (%)	11.4	12.7	15.1	15.9
Net Profit Margin (%)	8.8	10.6	12.8	13.2

# Statement of Financial Condition (Summarized)

(Wbn)	12/17	12/18F	12/19F	12/20F
Current Assets	117	184	225	311
Cash and Cash Equivalents	24	85	92	141
AR & Other Receivables	61	56	76	97
Inventories	28	36	49	62
Other Current Assets	4	7	8	11
Non-Current Assets	106	138	156	145
Investments in Associates	0	0	0	0
Property, Plant and Equipment	100	133	151	140
Intangible Assets	1	1	1	1
Total Assets	223	323	381	456
Current Liabilities	95	107	119	132
AP & Other Payables	20	25	33	42
Short-Term Financial Liabilities	53	71	71	71
Other Current Liabilities	22	11	15	19
Non-Current Liabilities	3	65	66	68
Long-Term Financial Liabilities	0	61	61	61
Other Non-Current Liabilities	3	4	5	7
Total Liabilities	98	171	185	200
Controlling Interests	125	151	196	256
Capital Stock	4	4	4	4
Capital Surplus	103	104	104	104
Retained Earnings	17	48	93	153
Non-Controlling Interests	0	0	0	0
Stockholders' Equity	125	151	196	256

# **Cash Flows (Summarized)**

(Wbn)	12/17	12/18F	12/19F	12/20F
Cash Flows from Op Activities	22	32	37	50
Net Profit	17	31	45	60
Non-Cash Income and Expense	22	20	24	27
Depreciation	5	10	12	11
Amortization	0	0	0	0
Others	17	10	12	16
Chg in Working Capital	-16	-7	-20	-22
Chg in AR & Other Receivables	-7	1	-19	-21
Chg in Inventories	0	-8	-12	-13
Chg in AP & Other Payables	-4	-2	4	5
Income Tax Paid	0	-11	-11	-15
Cash Flows from Inv Activities	-12	-43	-30	0
Chg in PP&E	-11	-42	-30	0
Chg in Intangible Assets	0	0	0	0
Chg in Financial Assets	0	-1	0	0
Others	-1	0	0	0
Cash Flows from Fin Activities	-18	73	0	0
Chg in Financial Liabilities	53	79	0	0
Chg in Equity	108	1	0	0
Dividends Paid	0	0	0	0
Others	-179	-7	0	0
Increase (Decrease) in Cash	-8	62	6	49
Beginning Balance	31	24	85	92
Ending Balance	24	85	92	141

Forecasts/Valuations (Summarized)

•				
	12/17	12/18F	12/19F	12/20F
P/E (x)	25.8	11.3	10.0	7.4
P/CF (x)	11.3	6.8	6.5	5.1
P/B (x)	6.1	2.2	2.2	1.7
EV/EBITDA (x)	27.9	8.0	7.3	5.1
EPS (W)	3,226	3,340	4,830	6,502
CFPS (W)	7,389	5,538	7,459	9,407
BPS (W)	13,679	17,016	21,845	28,348
DPS (W)	0	0	0	0
Payout ratio (%)	0.0	0.0	0.0	0.0
Dividend Yield (%)	0.0	0.0	0.0	0.0
Revenue Growth (%)	-	51.3	20.5	28.7
EBITDA Growth (%)	-	71.4	35.4	27.7
Operating Profit Growth (%)	-	68.2	43.2	35.8
EPS Growth (%)	-	3.5	44.6	34.6
Accounts Receivable Turnover (x)	3.4	5.2	5.4	5.3
Inventory Turnover (x)	6.9	9.1	8.3	8.2
Accounts Payable Turnover (x)	9.5	15.8	16.8	16.7
ROA (%)	7.8	11.3	12.7	14.3
ROE (%)	13.8	22.3	25.7	26.6
ROIC (%)	11.2	17.2	19.3	23.5
Liability to Equity Ratio (%)	77.9	113.1	94.3	78.0
Current Ratio (%)	122.6	172.9	188.9	234.9
Net Debt to Equity Ratio (%)	23.6	29.8	19.7	-4.2
Interest Coverage Ratio (x)	25.7	20.3	22.9	31.3

Source: Company data, Mirae Asset Daewoo Research estimates

# **APPENDIX 1**

## **Important Disclosures & Disclaimers**

#### 2-Year Rating and Target Price History

Company (Code)	Date	Rating	<b>Target Price</b>		
Innox Advanced Materials (272290)	07/29/2018	Buy	70,525	(W) 120,000 г	Innox Advanced Materials
	02/20/2018	Buy	97,275	-	
				100,000 -	4
				80,000 -	1 may man
				60,000 -	A there and when phares a second
				40,000	how we have
				20,000 -	▲ ▲
				0	
				Jan 17	Jan 18 Jan 19
				ι	

Stock Rating	js	Industry Ratings			
Buy	: Relative performance of 20% or greater	Overweight	: Fundamentals are favorable or improving		
Trading Buy	: Relative performance of 10% or greater, but with volatility	Neutral	: Fundamentals are steady without any material changes		
Hold	: Relative performance of -10% and 10%	Underweight	: Fundamentals are unfavorable or worsening		
Sell	: Relative performance of -10%				

Ratings and Target Price History (Share price (—), Target price (—), Not covered (■), Buy (▲), Trading Buy (■), Hold (●), Sell (♠))

\* Our investment rating is a guide to the relative return of the stock versus the market over the next 12 months.

\* Although it is not part of the official ratings at Mirae Asset Daewoo Co., Ltd., we may call a trading opportunity in case there is a technical or short-term material development.

\* The target price was determined by the research analyst through valuation methods discussed in this report, in part based on the analyst's estimate of future earnings.

\* The achievement of the target price may be impeded by risks related to the subject securities and companies, as well as general market and economic conditions.

#### **Equity Ratings Distribution & Investment Banking Services**

	Buy	Trading Buy	Hold	Sell			
Equity Ratings Distribution	81.28%	9.63%	9.09%	0.00%			
Investment Banking Services	84.61%	3.85%	11.54%	0.00%			
* Pasad on recommandations in the last 12 menths (as of December 21, 2019)							

\* Based on recommendations in the last 12-months (as of December 31, 2018)

#### **Disclosures**

As of the publication date, Mirae Asset Daewoo Co., Ltd. and/or its affiliates do not have any special interest with the subject company and do not own 1% or more of the subject company's shares outstanding.

#### **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 Daewoo Co., Ltd. ("Mirae Asset Daewoo") 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 Daewoo, 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 division. 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 Daewoo except as otherwise stated herein.

#### **Disclaimers**

This report was prepared by Mirae Asset Daewoo, 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 Daewoo 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 Daewoo 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 it 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 Daewoo 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 Daewoo, 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 Daewoo 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 Daewoo may make investment decisions that are inconsistent with the opinions and views expressed in this research report. Mirae Asset Daewoo, 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 Daewoo 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

#### Distribution

consent of Mirae Asset Daewoo.

<u>United Kingdom</u>: 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.

<u>United States</u>: Mirae Asset Daewoo 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 Daewoo 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 etrms 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 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.

<u>Hong Kong</u>: This report is distributed in Hong Kong 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. 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 (Cap. 571, Laws of Hong Kong) and any rules made thereunder and may not be redistributed in whole or in part in Hong Kong to any person.

<u>All Other Jurisdictions</u>: Customers in all other countries who wish to effect a transaction in any securities referenced in this report should contact Mirae Asset Daewoo 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 Daewoo and its affiliates to any registration or licensing requirement within such jurisdiction.

## **Mirae Asset Daewoo International Network**

### Mirae Asset Daewoo Co., Ltd. (Seoul)

Global 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 (USA) Inc.

810 Seventh Avenue, 37th Floor New York, NY 10019 USA

Tel: 1-212-407-1000

## PT. Mirae Asset Sekuritas Indonesia

Equity Tower Building Lt. 50 Sudirman Central Business District Jl. Jend. Sudirman, Kav. 52-53 Jakarta Selatan 12190 Indonesia Tel: 62-21-515-3281

#### Mirae Asset Securities Mongolia UTsK LLC

#406, Blue Sky Tower, Peace Avenue 17 1 Khoroo, Sukhbaatar District Ulaanbaatar 14240 Mongolia

#### Tel: 976-7011-0806

#### Shanghai Representative Office

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

Tel: 86-21-5013-6392

#### Mirae Asset Securities (HK) Ltd.

Suites 1109-1114, 11th Floor Two International Finance Centre 8 Finance Street, Central Hong Kong China Tel: 852-2845-6332

## Mirae Asset Wealth Management (USA) Inc.

555 S. Flower Street, Suite 4410, Los Angeles, California 90071

#### Tel: 1-213-262-3807

USA

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

Tel: 65-6671-9845

#### 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

#### 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 Securities (UK) Ltd.

41st Floor, Tower 42 25 Old Broad Street, London EC2N 1HQ United Kingdom

Tel: 44-20-7982-8000

#### Mirae Asset Wealth Management (Brazil) CCTVM

Rua Funchal, 418, 18th Floor, E-Tower Building Vila Olimpia Sao Paulo - SP 04551-060 Brasil Tel: 55-11-2789-2100

#### 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)

#### **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)