

# Studio Dragon (253450 KS)

# Media sector leader to emerge as KOSDAQ bellwether

# **BUY** (Maintain)

CP (Nov. 21) KRW83,400 KRW100,000 TP (6 months) Upside 19.9%

SeJong Hong 2 (82-2) 3772-1584 sejonghong@shinhan.com

**Hanny Lee** (82-2) 3772-1506 

KOSPI		2,096.60p
KOSDAQ		635.99p
Market cap	KRW2,343.1bn/USD	2,055.4mn
Par value		KRW500
Outstanding shares		28.1mn
Free float	7.1	mn(25.3%)
52-week high/low	KRW114,100/	KRW54,000
60-day avg. trading	volume 1	16,366shrs
60-day avg. turnove	r KF	RW8,418mn
Foreign ownership		2.60%
Major shareholders		
CJ	ENM and 5 others	74.33%
Absolute performano	ce 3M	33.7%
	6 M	4.1%
	12M	-20.4%
Relative performance	e 3 M	29.4%
to KOSDAQ	6 M	15.3%
	12M	-12.9%

- 4Q19 consolidated OP forecast at KRW5.5bn (+625.5% YoY)
- Stake sale and multi-year partnership deal sealed with Netflix
- Retain BUY and target price of KRW100,000 for media sector top pick

### 4Q19 consolidated OP forecast at KRW5.5bn (+625.5% YoY)

Studio Dragon is expected to post consolidated sales of KRW94bn (-7.9% YoY) and operating profit of KRW5.5bn (+625.5% YoY) for 4Q19. We believe market expectations for operating profit need to be revised down from current KRW11.8bn considering the following factors. First, most of the revenue from the highly-anticipated drama Crash Landing on You, scheduled to start on December 14 on Netflix, will likely be booked in 1020. Second, VOD (video on demand) revenue has been relatively weak as Melting Me Softly, another highly-anticipated drama series, fell short of expectations at a peak viewership of 3.2%. Third, revenue from a second Netflix original series is expected to be booked in 1H2O.

For 2020, consolidated sales are forecast at KRW536.5bn (+15.3% YoY) and operating profit at KRW62bn (+62.3% YoY). We now believe the next season of Arthdal Chronicles will start in 1H21 vs. our original forecast of 3Q20, and expect related revenue to be booked in 2021 instead of 2020.

# Stake sale and multi-year partnership deal sealed with Netflix

Netflix, faced with content shortages, has signed a three-year agreement beginning in 2020 with Studio Dragon for the supply of at least 21 dramas including original series production and Korean drama distribution rights. Studio Dragon sold a total of 8 drama series to Netflix in 2019. While the number of dramas supplied to Netflix per year will be similar under the new partnership deal, price levels are expected to significantly increase. The partnership will help Netflix secure contents in advance for competition in the Americas, and allow Studio Dragon to add a steady source of revenue. The agreement includes the sale of a 4.99% stake in Studio Dragon held by CJ ENM to Netflix. The limited stake sale should allow CJ ENM to seek other business opportunities with its remaining stake while helping to strengthen the partnership with Netflix.

### Retain BUY and target price of KRW100,000 for media sector top pick

Our target price for Studio Dragon remains unchanged at KRW100,000, based on 2020F operating profit of KRW62bn excluding China earnings (net profit of KRW55.5bn) and a target PER of 50x. We retain BUY for our media sector top pick, alongside Jcontentree, on forecasts for: 1) revenue growth from overseas OTT platforms including Netflix; 2) over 60% YoY growth in operating profit in 2020; and 3) sharp rise in profitability once China eases restrictions on Korean media contents. We believe the media sector leader is set to emerge as a KOSDAQ bellwether.

Year to	Sales	OP	Pre-tax	NP	EPS	Growth	BPS	PER	EV/EBITDA	PBR	ROE	Net debt
December	(bn KRW)	(bn KRW)	(bn KRW)	(bn KRW)	(KRW)	(%)	(KRW)	(x)	(x)	(x)	(%)	ratio (%)
2017	286.8	33.0	30.3	23.8	1,050	84.5	13,141	61.9	22.1	4.9	9.5	(49.5)
2018	379.6	39.9	45.6	35.8	1,278	21.7	14,305	72.3	21.2	6.5	9.3	(38.2)
2019F	465.2	38.2	46.6	45.2	1,611	26.1	15,916	51.8	9.9	5.2	10.7	(44.0)
2020F	536.5	62.0	73.0	55.5	1,977	22.7	17,893	42.2	8.9	4.7	11.7	(46.7)
2021F	618.1	82.8	94.8	72.1	2,569	29.9	20,462	32.5	7.9	4.1	13.4	(50.5)

Source: Company data, Shinhan Investment Corp. / Note: TB = turn black, TR = turn red, RR = remain red

Shinhan Investment Corp. does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Analysts employed by Shinhan Investment Corp., or a non-US affiliate thereof, are not registered/qualified as research analysts with FINRA, may not be associated persons of the member and may not be subject to FINRA restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. For analyst certification and important disclosures, refer to the Compliance & Disclosure







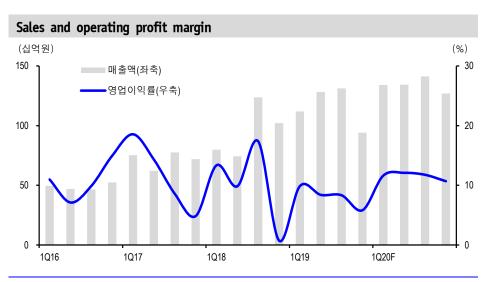












Source: Company data, Shinhan Investment Corp.

Earnings trend and	Earnings trend and outlook (K-IFRS consolidated)															
(bn KRW)	1018	2018	3Q18	4Q18	1019	2019	3Q19	4Q19F	1Q20F	2Q20F	3Q20F	4Q20F	2017	2018	2019F	2020F
<earnings forecasts=""></earnings>																
Total revenue	79.9	74.3	123.7	102.1	111.8	128.2	131.2	94.0	134.0	134.3	141.3	126.9	286.8	379.5	465.2	536.5
Production revenue	40.7	34.1	48.9	54.4	44.1	58.1	52.8	45.0	47.3	61.4	55.9	46.8	131.2	178.1	200.0	211.5
- Global platforms	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	1.5	0.0	1.5	2.3	0.0	0.0	0.8	5.3
Distribution revenue	32.1	28.8	63.4	38.1	56.2	60.3	60.0	40.9	64.9	62.1	64.4	56.7	111.8	162.1	217.4	248.0
Other (PPL) revenue	7.1	11.4	11.4	9.5	11.5	9.8	10.4	8.0	11.8	10.8	11.0	8.4	43.7	39.4	39.8	42.0
<0verseas operations>																
Overseas distribution revenue	22.7	16.5	46.2	25.2	42.6	42.2	43.9	28.8	50.2	42.3	44.4	42.1	67.2	110.2	157.5	178.9
Share in distribution revenue (%)	70.8	57.2	72.9	66.0	75.9	70.0	73.1	70.5	77.4	68.1	68.9	74.3	60.1	68.0	72.5	72.2
Japan	3.5	4.5	3.4	4.2	10.3	5.9	3.2	5.6	11.3	7.1	3.9	6.8	18.7	15.6	25.0	29.1
Asia including China	8.9	10.5	10.4	14.3	21.6	12.7	19.3	17.6	24.8	17.2	21.3	20.1	39.9	43.8	71.3	83.5
China	0.0	0.0	0.0	1.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.8	0.0
Americas	0.2	0.3	0.3	1.1	0.4	0.5	5.2	2.5	2.4	2.4	4.5	4.5	8.2	1.9	8.6	13.8
Others .	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.4	0.4	0.4	0.5
COGS	66.2	63.7	98.9	95.3	96.8	112.8	115.9	84.0	114.0	112.7	119.6	108.4	239.8	324.0	409.6	454.7
SG&A	3.0	3.3	3.3	6.0	4.0	4.6	4.4	4.5	4.5	5.4	5.1	4.9	14.1	15.7	17.5	19.9
OP	10.7	7.3	21.5	0.8	11.0	10.8	10.9	5.5	15.6	16.2	16.6	13.6	33.0	39.9	38.2	62.0
Pre-tax profit	10.8	11.0	22.0	2.0	13.2	11.9	13.1	8.4	17.7	18.3	19.8	17.2	30.3	45.6	46.6	73.0
NP	7.9	8.9	17.3	2.1	9.2	7.3	11.5	6.9	13.4	13.9	15.0	13.1	23.8	35.8	34.9	55.5
<% YoY growth>																
Sales	6.0	19.6	59.6	42.0	40.0	72.6	6.1	(7.9)	19.8	4.7	7.7	35.0	46.7	32.3	22.5	15.3
OP	(23.7)	(17.8)	223.0	(78.3)	3.5	47.4	(49.1)	625.5	41.3	50.8	52.2	147.8	55.4	20.9	(5.0)	62.3
NP	(41.3)	216.8	206.3	3.1	17.2	(17.3)	(33.5)	233.3	45.9	89.6	30.5	90.3	83.3	50.2	(3.3)	58.7
<margin, %=""></margin,>																
OPM	13.3	9.8	17.4	0.7	9.9	8.4	8.3	5.8	11.6	12.1	11.8	10.7	11.5	10.5	8.2	11.6
NPM	9.8	11.9	14.0	2.0	8.2	5.7	8.8	7.3	10.0	10.4	10.6	10.3	8.3	9.4	7.5	10.3

Source: Company data, Shinhan Investment Corp.

Note: Distribution rights revenue from Netflix included in overseas distribution revenue; China revenue assumed to be zero for 2020

Shinhan Investment Corp.

PER valuation:					
(bn KRW)	Value	(bn KRW)	Value	(bn KRW)	Value
2019F NP	45.2	2020F NP	55.5	2021F NP	72.1
EPS (KRW)	1,611	EPS (KRW)	1,977	EPS (KRW)	2,569
Target price (KRW)	81,000	Target price (KRW)	100,000	Target price (KRW)	128,000
Target PER (x)	50	Target PER (x)	50	Target PER (x)	50
		Current price	83,400		
		Current PER	42.2		

Source: Shinhan Investment Corp.

Note: Target PER based on past 2-year average PER (low) in view of uncertainty in China earnings and decline in profitability from increasing production costs. Studio Dragon continues to see steady distribution revenue growth from Netflix and should be able to deliver sharp profit growth in 2020 even without the addition of earnings from China.

PER trend			
(x)	2017	2018	Past 2-year average
PER (high)	77.4	96.6	87.0
PER (low)	52.7	45.4	49.0
PER (average)	60.3	75.9	68.1

Source: Shinhan Investment Corp.



Source: Bloomberg, Shinhan Investment Corp.

4Q19 foreca	4Q19 forecast									
(bn KRW)	4Q19F	3Q19	% QoQ	4 <b>Q</b> 18	% YoY	Previous	Consensus			
Sales	94.0	131.2	(28.4)	101.7	(7.9)	95.3	122.2			
OP	5.5	10.9	(49.5)	0.4	625.5	7.3	11.8			
NP	6.9	11.5	(40.0)	1.7	233.3	8.3	10.4			
OPM (%)	5.8	8.3		0.4		7.6	9.7			
NPM (%)	7.3	8.8		1.7		8.7	8.5			

Source: Company data, FnGuide, Shinhan Investment Corp.

Statement of financial position

Year to December (bn KRW)	2017	2018	2019F	2020F	2021F
Total assets	459.5	512.4	587.9	656.3	739.9
Current assets	289.8	247.2	309.3	376.5	452.1
Cash and equivalents	51.3	153.0	195.9	234.0	288.9
Accounts receivable	54.9	68.8	86.0	111.8	128.7
Inventories	1.3	0.6	0.7	0.8	0.9
Non-current assets	169.6	265.2	278.6	279.8	287.8
Tangible assets	1.1	1.0	0.8	0.8	0.6
Intangible assets	127.5	198.5	211.4	212.0	219.4
Investment assets	3.8	3.7	4.5	5.1	5.8
Other financial assets	0.0	0.0	0.0	0.0	0.0
Total liabilities	91.0	111.1	141.4	154.4	165.9
Current liabilities	90.7	108.2	138.4	151.2	162.6
Short-term borrowings	0.0	0.0	0.0	0.0	0.0
Accounts payable	6.1	19.6	20.5	21.5	22.5
Current portion of long-term debt	10.0	0.0	0.0	0.0	0.0
Non-current liabilities	0.3	2.9	3.0	3.2	3.3
Bonds	0.0	0.0	0.0	0.0	0.0
Long-term borrowings	0.0	2.1	2.1	2.1	2.1
Other financial liabilities	0.0	0.0	0.0	0.0	0.0
Total shareholders' equity	368.4	401.3	446.5	501.9	574.0
Capital stock	14.0	14.0	14.0	14.0	14.0
Capital surplus	319.6	320.1	320.1	320.1	320.1
Other capital	2.7	0.3	0.3	0.3	0.3
Accumulated other comprehensive income	0.0	(8.0)	(8.0)	(8.0)	(8.0)
Retained earnings	32.1	67.6	112.8	168.3	240.4
Controlling interest equity	368.4	401.3	446.5	501.9	574.0
Non-controlling interest equity	0.0	0.0	0.0	0.0	0.0
*Total debt	10.1	2.1	2.1	2.1	2.1
*Net debt (cash)	(182.5)	(153.4)	(196.3)	(234.6)	(289.6)

<b>.</b>	•		•	•
Statement	ΛŤ	compret	IANCIVA	income

Year to December (bn KRW)	2017	2018	2019F	2020F	2021F
Sales	286.8	379.6	465.2	536.5	618.1
Growth (%)	85.7	32.4	22.6	15.3	15.2
COGS	239.7	324.0	409.6	454.7	513.0
Gross profit	47.1	55.6	55.7	81.9	105.1
GPM (%)	16.4	14.6	12.0	15.3	17.0
SG&A	14.2	15.7	17.5	19.9	22.3
Operating profit	33.0	39.9	38.2	62.0	82.8
Growth (%)	98.3	21.0	(4.3)	62.3	33.6
OPM (%)	11.5	10.5	8.2	11.6	13.4
Non-operating profit	(2.7)	5.7	8.4	11.0	12.0
Financial profit	(2.5)	6.1	8.7	9.5	10.5
Other non-operating profit	(0.2)	(0.3)	(0.3)	1.5	1.5
Equity method gain (loss)	0.0	0.0	0.0	0.0	0.0
Pre-tax profit	30.3	45.6	46.6	73.0	94.8
Income tax	6.4	9.8	1.4	17.5	22.8
Continuing operations	23.8	35.8	45.2	55.5	72.1
Discontinued operations	0.0	0.0	0.0	0.0	0.0
Net profit	23.8	35.8	45.2	55.5	72.1
Growth (%)	192.9	50.3	26.1	22.7	29.9
NPM (%)	8.3	9.4	9.7	10.3	11.7
Controlling interest	23.8	35.8	45.2	55.5	72.1
Non-controlling interest	0.0	0.0	0.0	0.0	0.0
Comprehensive income	23.8	34.7	45.2	55.5	72.1
Controlling interest	23.8	34.7	45.2	55.5	72.1
Non-controlling interest	0.0	0.0	0.0	0.0	0.0
EBITDA	74.3	115.2	216.3	238.0	260.8
Growth (%)	91.4	55.1	87.8	10.1	9.6
EBITDA margin (%)	25.9	30.3	46.5	44.4	42.2

## Statement of cash flow

Year to December (bn KRW)	2017	2018	2019F	2020F	2021F
Cash flow from operations	(7.2)	(29.1)	228.2	208.4	233.0
Net profit	23.8	35.8	45.2	55.5	72.1
Depreciation expense	0.3	0.3	0.4	0.3	0.3
Amortization expense	41.0	75.0	177.7	175.7	177.8
FX translation loss (gain)	0.8	(0.5)	0.0	0.0	0.0
Asset disposal loss (gain)	(0.0)	0.0	0.0	0.0	0.0
Equity method loss (gain)	0.0	0.0	0.0	0.0	0.0
Change in working capital	(72.9)	(139.4)	8.6	(18.7)	(11.7)
(Payment of income tax)	(10.4)	(9.7)	(1.4)	(17.5)	(22.8)
Others	10.2	9.4	(2.3)	13.1	17.3
Cash flow from investments	(141.0)	140.6	(188.0)	(172.8)	(180.7)
Increase in tangible assets	(0.1)	(0.2)	(0.3)	(0.4)	(0.1)
Decrease in tangible assets	0.1	0.0	0.1	0.1	0.1
Change in intangible assets	(0.2)	(0.1)	(190.6)	(176.3)	(185.2)
Change in investment assets	0.0	0.0	(0.7)	(0.6)	(0.7)
Others	(140.8)	140.9	3.5	4.4	5.2
Free cash flow	44.0	143.7	225.9	206.6	231.6
Cash flow from financing	188.1	(9.7)	(0.0)	(0.0)	(0.0)
Change in borrowings	(18.1)	(10.0)	0.0	0.0	0.0
Change in treasury stock	0.0	0.0	0.0	0.0	0.0
Dividends	0.0	0.0	0.0	0.0	0.0
Others	206.2	0.3	0.0	0.0	0.0
Other cash flow	0.0	0.0	2.6	2.6	2.6
Change in consolidated scope	0.0	0.0	0.0	0.0	0.0
Change in FX rates	(0.1)	(0.1)	0.0	0.0	0.0
Change in total cash	39.8	101.7	42.8	38.1	54.9
Beginning cash	11.5	51.3	153.0	195.9	234.0
Ending cash	51.3	153.0	195.9	234.0	288.9

Source: Company data, Shinhan Investment Corp.

# **Key ratios**

Year to December	2017	2018	2019F	2020F	2021F
EPS (KRW)	1,050	1,278	1,611	1,977	2,569
EPS of controlling interest (KRW)	1,050	1,278	1,611	1,977	2,569
BPS (KRW)	13,141	14,305	15,916	17,893	20,462
BPS of controlling interest (KRW)	13,141	14,305	15,916	17,893	20,462
DPS (KRW)	0	0	0	0	0
PER (x)	61.9	72.3	51.8	42.2	32.5
PER of controlling interest (x)	61.9	72.3	51.8	42.2	32.5
PBR (x)	4.9	6.5	5.2	4.7	4.1
PBR of controlling interest (x)	4.9	6.5	5.2	4.7	4.1
EV/EBITDA (x)	22.1	21.2	9.9	8.9	7.9
Dividend payout ratio (%)	0.0	0.0	0.0	0.0	0.0
Dividend yield (%)	0.0	0.0	0.0	0.0	0.0
Profitability					
EBITDA margin (%)	25.9	30.3	46.5	44.4	42.2
OPM (%)	11.5	10.5	8.2	11.6	13.4
NPM (%)	8.3	9.4	9.7	10.3	11.7
ROA (%)	6.8	7.4	8.2	8.9	10.3
ROE (%)	9.5	9.3	10.7	11.7	13.4
ROIC (%)	18.0	14.8	20.6	24.9	30.6
Stability					
Debt to equity ratio (%)	24.7	27.7	31.7	30.8	28.9
Net debt ratio (%)	(49.5)	(38.2)	(44.0)	(46.7)	(50.5)
Cash ratio (%)	56.6	141.4	141.5	154.8	177.7
Interest coverage ratio (x)	19.0	343.0	934.7	1,517.3	2,027.5
Activity (%)					
Working capital turnover (times)	57.1	(183.6)	(17.7)	(22.6)	(56.1)
Inventory turnover (days)	0.8	0.9	0.5	0.5	0.5
Receivable turnover (days)	58.5	59.5	60.7	67.3	71.0

Source: Company data, Shinhan Investment Corp.



# Studio Dragon (253450 KS)

Share performa	nce		
(KRW)		(Indexe	ed,Nov-18=100)
130,000 - KOSD	AQ Index = 100		<b>120</b>
110,000	my		- 110
90,000	Commenty.	My M	100
70,000 -	<b>\</b>	my have	90 80
50,000		400	<del> </del> 70
11/18	03/19	07/19	11/19
Studio Drago	on (LHS) —— Re	lative performance	to KOSDAQ (RHS)

Date	Rating	Target price	Target price gap (%)		
		(KRW)	Average	Max/Min	
2017.11.23	BUY	53,000	20.8	35.5	
2017.12.10	BUY	67,000	(6.9)	(1.8)	
2018.01.09	BUY	73,000	(6.2)	1.9	
2018.01.18	BUY	82,000	(2.2)	6.1	
2018.02.08	BUY	95,000	(15.1)	(6.7)	
2018.03.04	BUY	104,000	(9.9)	(5.3)	
2018.04.01	BUY	118,000	(23.0)	(16.4)	
2018.05.22	BUY	132,000	(19.3)	(11.3)	
2018.06.22	BUY	146,000	(28.3)	(17.9)	
2018.12.23		6M later	(37.5)	(34.0)	
2019.02.07	BUY	128,000	(27.6)	(23.2)	
2019.05.10	BUY	120,000	(36.9)	(30.6)	
2019.06.07	BUY	104,000	(35.8)	(29.0)	
2019.08.09	BUY	85,000	(26.9)	(17.4)	
2019.09.16	BUY	93,000	(24.5)	(13.9)	
2019.11.08	BUY	100,000	-	-	

Target pri	ice				
(KRW)					
170,000 -					-BUY
130,000 -		4	WH KNOW	1	Trading BUY
90,000 -			I. A. M. WANT	איי ייין איי ייין	-HOLD
50,000 - 11,	<b>/</b> 16	11/17	11/18	11,	-SELL /19
т	P (LHS)	—— Studio	Dragon (LHS)		Rating (RHS)

Note: Calculation of target price gap based on past 6 months

Rating Distribut	tion - SHIC	Universe (as of 20 N	lovember 20:	19)			
BUY (BUY)	96.1%	Trading BUY (HOLD)	0.98%	HOLD (HOLD)	2.93%	SELL (SELL)	0%

Rating Distribution - SHIC Investment Banking Clients (as of 20 November 2019)							
BUY (BUY)	100%	Trading BUY (HOLD)	0%	HOLD (HOLD)	0%	SELL (SELL)	0%

SHIC Ratings (as of 1 April 2017)				
Stock	Sector			
<ul> <li>BUY: Expected 6-month gain of 10% or more</li> <li>Trading BUY: Expected 6-month gain of 10% to loss of 10%</li> <li>HOLD: Expected 6-month loss of 10% to 20%</li> <li>SELL: Expected 6-month loss of 20% or more</li> </ul>	<ul> <li>OVERWEIGHT: Based on market cap, largest share of sector stocks under coverage is rated BUY</li> <li>NEUTRAL: Based on market cap, largest share of sector stocks under coverage is rated Trading BUY or HOLD</li> <li>UNDERWEIGHT: Based on market cap, largest share of sector stocks under coverage is rated SELL</li> </ul>			

# **Compliance & Disclosure Notice**

#### **Analyst Certification**

• The following analysts hereby certify that their views about the companies and securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: SeJong Hong, Hanny Lee

#### **Important Disclosures & Disclaimers**

- As of the date of publication, Shinhan Investment Corp. does not beneficially own 1% or more of any class of common equity securities of the following companies mentioned in this report: Studio Dragon
- Shinhan Investment Corp. or one of its affiliates has not managed or co-managed a public offering of securities for the companies mentioned in this report in the past 12 months.
- During the last 12 months, the companies mentioned in this report were not an investment banking client of Shinhan Investment Corp. and/or one or more of its affiliates.
- Shinhan Investment Corp. or one of its affiliates has not received compensation for investment banking services from such companies in the past 12 months.
- Shinhan Investment Corp. or one of its affiliates does not expect to receive or intends to seek compensation for investment banking services from such companies or one of their affiliates in the next three months.
- Shinhan Investment Corp. or one of its affiliates, and/or their respective officers, directors or employees may have interests, or long or short positions, and may at any time make purchases or sales as a principal or agent of the securities of the companies mentioned in this report.
- As of the date of publication, research analysts responsible for this report and members of their households do not have any financial interest in the debt or equity securities of the companies mentioned in this report.
- Research analysts responsible for this report receive compensation based upon, among other factors, the overall profitability of Shinhan Investment Corp., including profits derived from investment banking. The analysts responsible for this report may also receive compensation based upon, among other factors, the overall profitability of sales and trading businesses relating to the class of securities or financial instruments for which such analysts are responsible.
- All opinions and estimates regarding the companies and their securities are accurate representations of the research analysts' judgments, and may differ from actual results.
- This report is intended to provide information to assist investment decisions only, and should not be used or construed as an offer or a solicitation of an offer to buy or sell any securities. The information herein has been obtained from sources deemed reliable, but such information has not been independently verified and no guarantee, representation or warranty, expressed or implied, is made as to its accuracy, completeness or correctness. Shinhan Investment Corp. makes a best effort but does not guarantee the accuracy, completeness or correctness of information and opinions translated into English from original Korean language materials. Shinhan Investment Corp. accepts no liability whatsoever for any direct, indirect and/or consequential loss arising from any use of this material or its contents. Stock selection and final investment decisions should be made at the investor's own and sole discretion.
- This report is distributed to our customers only, and any unauthorized use, duplication, or redistribution of this report is strictly prohibited.
- Investing in any Korean securities or related financial instruments discussed in this research report may present certain risks. The securities of Korean issuers may not be registered with, or be subject to the regulations of, the US Securities and Exchange Commission. Information on Korean securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect within the US. The value of any investment or income from any securities or related financial instruments discussed in this research report denominated in currencies other than the Korean won is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related financial instruments.

#### **Distribution**

- United States: This report is distributed in the US by Shinhan Investment America, Inc., a member of FINRA/SIPC, and is only intended for major US institutional investors as defined in Rule 15a-6(a)(2) of the US Securities Exchange Act of 1934. All US persons that receive this document by their acceptance thereof represent and warrant that they are major US institutional investors and have not received this report under any express or implied understanding that they will direct commission income to Shinhan Investment Corp. or its affiliates. Pursuant to Rule 15a-6(a)(3), any US recipient of this document wishing to effect a transaction in any securities discussed herein should contact and place orders with Shinhan Investment America, Inc., which accepts responsibility for the contents of this report in the US. The securities described herein may not have been registered under the US Securities Act of 1933, as amended, and, in such case, may not be offered or sold in the US or to US persons unless they have been registered or are in compliance with an exemption from registration requirements.
- All Other Jurisdictions: Customers in all other countries who wish to effect a transaction in any securities referenced in this report should contact Shinhan Investment Corp. 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 Shinhan Investment Corp. and its affiliates to any registration or licensing requirement within such jurisdiction.

Shinhan Investment Corp. policies regarding conflicts of interest are available at: http://file.shinhaninvest.com/filedoc/clause/conflictofinterest.pdf

