



# Coway

| Bloomberg Code (021240 KS) | Reuters Code (021240.KS)

31 May 2022

[Household goods]

## Safe investment to turn to in times of uncertainty

**Sanghoon Cho**

☎ (82-2) 3772-2578

✉ sanghoonpure.cho@shinhan.com



**BUY**  
(Maintain)



CP (May. 30)  
**KRW71,300**



TP (6 months)  
**KRW100,000**



Upside  
**40.3%**

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 Notice at the end of this report.

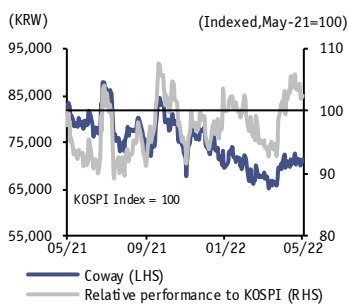


**Shinhan Investment Corp.**

Rating	BUY (Maintain)
TP (6 months)	KRW100,000
Upside	40.3%

KOSPI	2,669.66p
KOSDAQ	886.44p
Market cap	KRW5,261.9bn/USD4,615.7mn
Par value	KRW500
Outstanding shares	73.8mn
Free float	54.0mn(73.2%)
52-week high/low	KRW87,600/KRW65,100
60-day avg. trading volume	150,371shrs
60-day avg. turnover	KRW10,294mn
Foreign ownership	61.16%
Major shareholders	
Netmarble and 6 others	25.11%
NPS	7.52%
Absolute performance	
3M	-1.1%
6M	5.3%
12M	-12.2%
Relative performance to KOSPI	
3M	0.0%
6M	12.0%
12M	4.9%

### Share performance



### 1Q22 earnings in line with consensus

Coway posted operating profit of KRW172.7bn (+1.1% YoY) on sales of KRW928bn (+5.6% YoY) for 1Q22, meeting market expectations. In the domestic market, innovative product launches and increased marketing efforts led to growth in sales from home appliances by 3.9% YoY and rental contracts by 10% YoY. Overseas earnings were also solid in 1Q22. The Malaysian subsidiary reported 9% YoY growth in sales and a 4% YoY decline in operating profit, but we believe sales and operating profit actually increased by 16% and 26% YoY, respectively, after factoring out the impact of accounting changes for finance leases. In the US, sales edged up by 7% YoY due to a temporary slowdown in growth of sales channels. Operating profit dropped 58% YoY, hit by higher logistics costs and import duties.

### Domestic negatives removed; overseas subsidiaries humming along

Coway's domestic earnings remained sluggish over the past two years. COVID-19 restrictions made face-to-face interactions difficult, labor costs climbed, and customer service workers went on labor strikes. Moreover, the company was late in responding to growing demand for non-face-to-face self-management products and services amid the prolonged pandemic. Now, however, Coway is starting to regain market leadership backed by its strengths in R&D. Relaxing social distancing measures are also expected to have positive impact on domestic earnings. Meanwhile, stable earnings flowing in from overseas units are helping to reduce the earnings volatility caused by domestic operations. After reporting visible growth in earnings for the previous year, the Malaysian unit continues to benefit from solid demand and expansion of product range beyond water purifiers. In the US, sales through Amazon have been recovering since April amid visible improvement in brand power.

### Retain BUY and target price of 100,000

We retain our BUY rating and target price of KRW100,000 for Coway, in view of its attractive business model that guarantees steady cash flows regardless of external market conditions. Sales and operating profit are forecast to grow at a CAGR of 10% and 12%, respectively, over the next three years. Operating margin from domestic operations dropped 1.5%p YoY to 16% in 2021 due to the increase in wages and marketing spend, but should rebound by 1.0%p YoY to 17% this year on the recovery in business conditions and market leadership. We expect rapid growth in overseas markets to continue in 2022, with overseas subsidiaries to account for 26% in company-wide sales and 28% in operating profit backed by product category expansion in Malaysia and brand power improvement in the US.

Year to December	Sales (bn KRW)	OP (bn KRW)	Pre-tax (bn KRW)	NP (bn KRW)	EPS (KRW)	Growth (%)	BPS (KRW)	PER (x)	EV/EBITDA (x)	PBR (x)	ROE (%)	Net debt ratio (%)
2020	3,237.4	606.4	540.4	404.9	5,486	21.6	20,207	13.3	5.0	3.6	31.5	22.1
2021	3,664.3	640.2	658.6	465.7	6,310	15.0	25,825	11.8	5.0	2.9	27.4	16.8
2022F	3,968.6	689.6	693.8	511.8	6,935	9.9	31,576	10.1	4.4	2.2	24.2	8.1
2023F	4,442.3	773.4	766.4	576.0	7,805	12.5	38,114	9.0	4.2	1.8	22.4	1.1
2024F	4,934.2	891.8	891.5	670.2	9,081	16.3	45,924	7.7	3.9	1.5	21.6	1.7

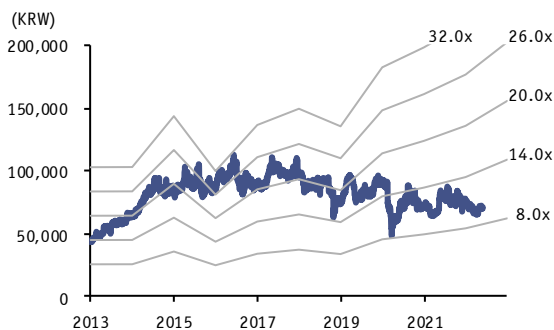
Source: Company data, Shinhan Investment Corp. / Note: TB = turn black, TR = turn red, RR = remain red

## Target price calculation

(bn KRW)	2021	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F
EBIT	640	690	773	892	901	910	919	928	937	947	956
- Tax on EBIT	188	181	193	223	225	227	230	232	234	237	239
- Capex	276	331	366	400	404	408	412	416	420	425	429
- Change in net working capital	(144)	101	9	8	8	8	8	8	8	8	8
+ Depreciation expense	514	527	469	444	448	453	457	462	466	471	476
+ Amortization expense	8	9	9	9	9	9	9	9	9	9	9
FCFF	843	613	683	714	721	728	735	743	750	758	765
Terminal value	8,480										
Terminal growth	1.0%										
NPV of FCFF	4,343										
PV of terminal value	3,236										
Enterprise value	7,579										
Fair value (KRW)	102,476										
Target price (KRW)	100,000										
Current price (KRW)	71,300										
Upside (%)	40.3										

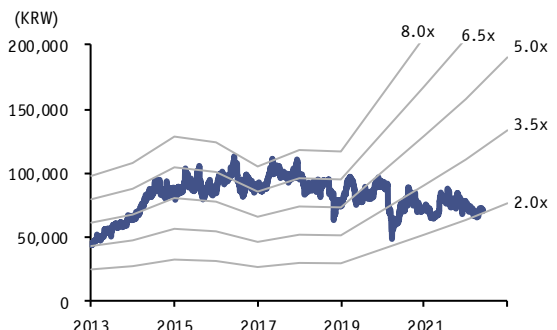
Source: Shinhan Investment Corp.

## 12-month forward PER band



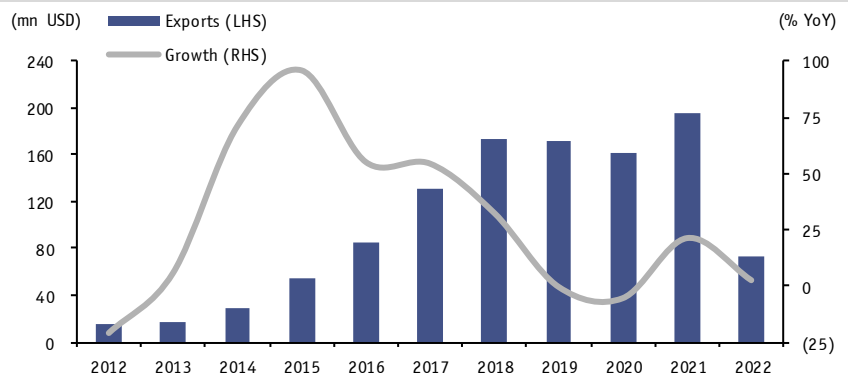
Source: QuantiWise, Shinhan Investment Corp.

## 12-month forward PBR band



Source: QuantiWise, Shinhan Investment Corp.

## Korean water purifier exports to Malaysia



Source: KITA / Note: YTD-April figures for 2022

Earnings trend and outlook											
(bn KRW)	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22F	3Q22F	4Q22F	2021	2022F	2023F
<b>Consolidated sales</b>	<b>879</b>	<b>905</b>	<b>934</b>	<b>946</b>	<b>928</b>	<b>996</b>	<b>1,006</b>	<b>1,039</b>	<b>3,664</b>	<b>3,969</b>	<b>4,442</b>
Parent sales	675	711	686	743	710	748	702	780	2,815	2,940	3,109
Home appliances	535	556	553	589	556	563	558	608	2,232	2,284	2,352
Rental	394	389	380	379	365	381	378	376	1,542	1,500	1,504
Finance lease	98	127	137	181	160	149	150	207	543	665	748
Membership	24	24	23	23	23	21	20	20	93	83	73
Lump-sum payment	19	16	12	7	9	12	10	5	54	36	27
Exports	125	140	120	142	141	171	132	162	526	607	716
Cosmetics	12	12	10	9	9	11	9	8	43	36	28
Other parent sales	3	3	3	3	3	3	3	3	13	13	13
Other sales	204	195	248	203	218	248	304	259	850	1,028	1,333
<b>Sales growth (% YoY)</b>											
<b>Consolidated sales</b>	<b>14.3</b>	<b>12.4</b>	<b>16.7</b>	<b>9.7</b>	<b>5.6</b>	<b>10.0</b>	<b>7.7</b>	<b>9.9</b>	<b>13.2</b>	<b>8.3</b>	<b>11.9</b>
Parent sales	7.4	8.5	7.0	11.3	5.2	5.2	2.3	5.1	8.6	4.5	5.7
Home appliances	1.7	1.0	9.5	10.6	3.9	1.3	0.9	3.2	5.6	2.3	2.9
Rental	(1.9)	(4.1)	(4.8)	(2.8)	(7.4)	(2.0)	(0.7)	(0.7)	(3.4)	(2.7)	0.2
Finance lease	42.2	46.2	139.0	98.9	63.2	16.8	9.7	14.4	78.5	22.6	12.4
Membership	(2.3)	(8.4)	(6.2)	(6.2)	(6.0)	(12.7)	(12.7)	(12.7)	(5.8)	(11.0)	(12.7)
Lump-sum payment	(39.1)	(50.5)	(47.1)	(75.8)	(54.3)	(23.0)	(23.0)	(23.0)	(52.8)	(34.0)	(23.0)
Exports	52.3	64.2	(0.3)	20.8	13.6	22.5	10.0	14.6	30.0	15.4	17.9
Cosmetics	(32.9)	(30.3)	(25.4)	(24.4)	(21.3)	(12.4)	(15.3)	(18.7)	(28.7)	(16.8)	(21.4)
Other parent sales	1.2	23.4	36.4	(41.9)	1.0	(0.2)	5.5	(9.8)	(5.3)	(0.8)	1.8
Other sales	45.4	29.6	55.8	4.0	6.7	27.2	22.6	27.5	31.8	21.0	29.7
<b>OP</b>	<b>171</b>	<b>166</b>	<b>164</b>	<b>139</b>	<b>173</b>	<b>175</b>	<b>174</b>	<b>168</b>	<b>640</b>	<b>690</b>	<b>773</b>
Parent OP	112	123	104	113	143	127	110	118	452	499	532
Other OP	59	44	59	27	30	48	64	49	189	191	242
<b>OPM (%)</b>	<b>19.4</b>	<b>18.4</b>	<b>17.5</b>	<b>14.7</b>	<b>18.6</b>	<b>17.6</b>	<b>17.3</b>	<b>16.1</b>	<b>17.5</b>	<b>17.4</b>	<b>17.4</b>
Parent OPM	16.6	17.2	15.2	15.2	20.2	17.0	15.7	15.2	16.0	17.0	17.1
Other OPM	28.7	22.6	24.0	13.1	13.6	19.4	21.1	19.0	22.2	18.6	18.1
<b>OP growth (% YoY)</b>	<b>23.0</b>	<b>(1.6)</b>	<b>(2.9)</b>	<b>7.3</b>	<b>1.1</b>	<b>5.1</b>	<b>6.4</b>	<b>20.4</b>	<b>5.6</b>	<b>7.7</b>	<b>12.2</b>
Parent OP growth	(3.2)	(9.9)	(16.4)	42.8	27.8	3.6	5.4	5.1	(0.8)	10.4	6.6
Other OP growth	153.4	32.3	35.8	(47.8)	(49.7)	9.2	8.2	85.6	24.9	1.3	26.7
<b>Pretax profit</b>	<b>175</b>	<b>160</b>	<b>186</b>	<b>138</b>	<b>192</b>	<b>165</b>	<b>174</b>	<b>163</b>	<b>659</b>	<b>694</b>	<b>766</b>
Corporate income tax	49	44	49	51	57	41	44	41	193	182	192
<b>NP</b>	<b>126</b>	<b>116</b>	<b>136</b>	<b>87</b>	<b>135</b>	<b>124</b>	<b>131</b>	<b>122</b>	<b>465</b>	<b>511</b>	<b>575</b>
NPM (%)	14.3	12.8	14.6	9.2	14.5	12.4	13.0	11.7	12.7	12.9	12.9

Source: Shinhan Investment Corp.

### Statement of financial position

Year to December (bn KRW)	2020	2021	2022F	2023F	2024F
<b>Total assets</b>	<b>3,029.0</b>	<b>3,800.6</b>	<b>4,220.3</b>	<b>4,756.2</b>	<b>5,397.2</b>
Current assets	896.9	1,106.5	1,331.8	1,547.7	1,777.4
Cash and equivalents	115.8	73.1	187.7	325.6	465.2
Accounts receivable	317.0	249.1	325.6	351.1	378.9
Inventories	134.0	235.0	248.6	271.2	299.0
Non-current assets	2,132.2	2,694.2	2,888.6	3,208.5	3,619.8
Tangible assets	1,225.1	1,159.9	957.0	846.5	793.6
Intangible assets	140.4	182.9	180.3	179.1	179.6
Investment assets	14.7	59.4	58.4	58.9	59.5
Other financial assets	0.0	0.0	0.0	0.0	0.0
<b>Total liabilities</b>	<b>1,539.0</b>	<b>1,896.2</b>	<b>1,891.5</b>	<b>1,944.9</b>	<b>2,009.5</b>
Current liabilities	1,417.3	1,293.2	1,286.1	1,336.4	1,398.9
Short-term borrowings	700.1	386.8	394.6	402.5	410.5
Accounts payable	68.7	87.6	88.4	101.6	112.2
Current portion of long-term debt	0.5	1.5	1.5	1.5	1.5
Non-current liabilities	121.7	603.0	605.4	608.4	610.6
Bonds	0.0	419.0	420.0	420.0	420.0
Long-term borrowings	29.0	76.8	76.8	76.8	76.8
Other financial liabilities	0.0	0.0	0.0	0.0	0.0
<b>Total shareholders' equity</b>	<b>1,490.0</b>	<b>1,904.4</b>	<b>2,328.8</b>	<b>2,811.4</b>	<b>3,387.7</b>
Capital stock	40.7	40.7	40.7	40.7	40.7
Capital surplus	147.8	147.8	147.8	147.8	147.8
Other capital	(48.1)	(48.0)	(48.0)	(48.0)	(48.0)
Accumulated other comprehensive income	(14.2)	8.1	8.1	8.1	8.1
Retained earnings	1,365.2	1,757.3	2,181.7	2,664.3	3,240.6
<b>Controlling interest equity</b>	<b>1,491.3</b>	<b>1,905.9</b>	<b>2,330.3</b>	<b>2,812.9</b>	<b>3,389.2</b>
Non-controlling interest equity	(1.3)	(1.5)	(1.5)	(1.5)	(1.5)
*Total debt	743.6	902.7	911.4	919.3	927.4
*Net debt (cash)	330.0	319.4	188.1	31.3	56.4

### Statement of cash flow

Year to December (bn KRW)	2020	2021	2022F	2023F	2024F
<b>Cash flow from operations</b>	<b>562.8</b>	<b>331.3</b>	<b>639.3</b>	<b>701.0</b>	<b>738.0</b>
Net profit	404.7	465.5	511.5	574.8	668.6
Depreciation expense	534.3	514.3	527.1	469.3	443.7
Amortization expense	9.0	8.2	9.1	8.8	8.7
FX translation loss (gain)	21.7	(11.1)	(8.0)	0.9	(6.1)
Asset disposal loss (gain)	77.6	53.7	(5.3)	(1.8)	(2.3)
Equity method loss (gain)	0.0	4.7	0.0	0.0	0.0
Change in working capital	(567.0)	(829.0)	(382.8)	(337.6)	(349.1)
(Payment of income tax)	(190.9)	(168.1)	(197.8)	(192.0)	(217.5)
Others	273.4	293.1	185.5	178.6	192.0
<b>Cash flow from investments</b>	<b>(323.1)</b>	<b>(367.8)</b>	<b>(375.9)</b>	<b>(405.2)</b>	<b>(439.1)</b>
Increase in tangible assets	(325.2)	(275.6)	(330.7)	(366.5)	(400.1)
Decrease in tangible assets	0.2	0.2	0.0	0.0	0.0
Change in intangible assets	(1.3)	(9.8)	2.6	1.2	(0.5)
Change in investment assets	1.7	(44.9)	(47.8)	(39.9)	(38.6)
Others	1.5	(37.7)	0.0	0.0	0.1
<b>Free cash flow</b>	<b>674.3</b>	<b>843.3</b>	<b>613.2</b>	<b>683.2</b>	<b>713.7</b>
<b>Cash flow from financing</b>	<b>(181.6)</b>	<b>(8.5)</b>	<b>(148.8)</b>	<b>(157.9)</b>	<b>(159.2)</b>
Change in borrowings	(181.5)	94.6	7.7	7.9	8.0
Change in treasury stock	0.0	0.0	0.0	0.0	0.0
Dividends	0.0	(87.1)	(92.3)	(92.3)	(92.3)
Others	(0.1)	(16.0)	(64.2)	(73.5)	(74.9)
Other cash flow	0.0	0.0	0.0	0.0	0.0
Change in consolidated scope	0.0	0.0	0.0	0.0	0.0
Change in FX rates	(2.9)	2.3	0.0	0.0	0.0
<b>Change in total cash</b>	<b>55.3</b>	<b>(42.7)</b>	<b>114.5</b>	<b>137.9</b>	<b>139.7</b>
Beginning cash	60.5	115.8	73.1	187.7	325.6
Ending cash	115.8	73.1	187.7	325.6	465.2

Source: Company data, Shinhan Investment Corp.

### Statement of comprehensive income

Year to December (bn KRW)	2020	2021	2022F	2023F	2024F
<b>Sales</b>	<b>3,237.4</b>	<b>3,664.3</b>	<b>3,968.6</b>	<b>4,442.3</b>	<b>4,934.2</b>
Growth (%)	7.2	13.2	8.3	11.9	11.1
<b>COGS</b>	<b>1,043.9</b>	<b>1,275.3</b>	<b>1,382.1</b>	<b>1,535.6</b>	<b>1,694.3</b>
<b>Gross profit</b>	<b>2,193.5</b>	<b>2,388.9</b>	<b>2,586.4</b>	<b>2,906.8</b>	<b>3,239.9</b>
GPM (%)	67.8	65.2	65.2	65.4	65.7
<b>SG&amp;A</b>	<b>1,587.1</b>	<b>1,748.7</b>	<b>1,896.9</b>	<b>2,133.4</b>	<b>2,348.1</b>
<b>Operating profit</b>	<b>606.4</b>	<b>640.2</b>	<b>689.6</b>	<b>773.4</b>	<b>891.8</b>
Growth (%)	32.3	5.6	7.7	12.2	15.3
OPM (%)	18.7	17.5	17.4	17.4	18.1
Non-operating profit	(66.1)	18.3	4.3	(7.0)	(0.3)
Financial profit	(20.0)	(16.9)	(6.8)	(12.1)	(2.5)
Other non-operating profit	(46.1)	39.9	13.8	5.1	2.1
Equity method gain (loss)	0.0	(4.7)	(2.7)	0.0	0.0
<b>Pre-tax profit</b>	<b>540.4</b>	<b>658.6</b>	<b>693.8</b>	<b>766.4</b>	<b>891.5</b>
Income tax	135.7	193.1	182.4	191.6	222.9
Continuing operations	404.7	465.5	511.5	574.8	668.6
Discontinued operations	0.0	0.0	0.0	0.0	0.0
<b>Net profit</b>	<b>404.7</b>	<b>465.5</b>	<b>511.5</b>	<b>574.8</b>	<b>668.6</b>
Growth (%)	21.8	15.0	9.9	12.4	16.3
NPM (%)	12.5	12.7	12.9	12.9	13.6
Controlling interest	404.9	465.7	511.8	576.0	670.2
Non-controlling interest	(0.2)	(0.2)	(0.4)	(1.2)	(1.6)
Comprehensive income	395.5	501.3	516.5	579.5	675.4
Controlling interest	395.7	501.5	516.8	579.8	675.7
Non-controlling interest	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)
<b>EBITDA</b>	<b>1,149.7</b>	<b>1,162.8</b>	<b>1,225.8</b>	<b>1,251.5</b>	<b>1,344.3</b>
Growth (%)	18.1	1.1	5.4	2.1	7.4
EBITDA margin (%)	35.5	31.7	30.9	28.2	27.2

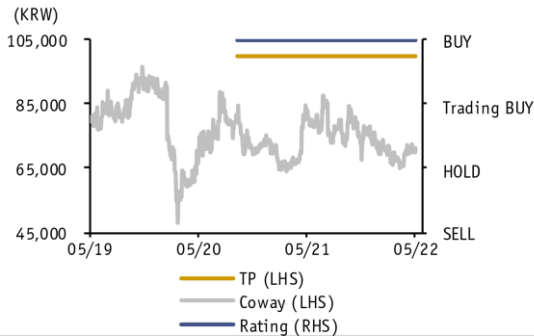
### Key ratios

Year to December	2020	2021	2022F	2023F	2024F
EPS (KRW)	5,484	6,307	6,930	7,789	9,060
EPS of controlling interest (KRW)	5,486	6,310	6,935	7,805	9,081
BPS (KRW)	20,190	25,806	31,556	38,095	45,904
BPS of controlling interest (KRW)	20,207	25,825	31,576	38,114	45,924
DPS (KRW)	1,200	1,250	1,250	1,250	1,250
PER (x)	13.3	11.8	10.1	9.0	7.7
PER of controlling interest (x)	13.3	11.8	10.1	9.0	7.7
PBR (x)	3.6	2.9	2.2	1.8	1.5
PBR of controlling interest (x)	3.6	2.9	2.2	1.8	1.5
EV/EBITDA (x)	5.0	5.0	4.4	4.2	3.9
Dividend payout ratio (%)	21.5	19.5	17.7	15.7	13.5
Dividend yield (%)	1.7	1.7	1.8	1.8	1.8
<b>Profitability</b>					
EBITDA margin (%)	35.5	31.7	30.9	28.2	27.2
OPM (%)	18.7	17.5	17.4	17.4	18.1
NPM (%)	12.5	12.7	12.9	12.9	13.6
ROA (%)	13.8	13.6	12.8	12.8	13.2
ROE (%)	31.5	27.4	24.2	22.4	21.6
ROIC (%)	37.1	39.9	56.2	69.8	88.3
<b>Stability</b>					
Debt to equity ratio (%)	103.3	99.6	81.2	69.2	59.3
Net debt ratio (%)	22.1	16.8	8.1	1.1	1.7
Cash ratio (%)	8.2	5.7	14.6	24.4	33.3
Interest coverage ratio (x)	28.6	35.8	32.2	38.3	45.0
<b>Activity (%)</b>					
Working capital turnover (times)	(14.9)	(12.6)	(12.7)	(17.3)	(19.8)
Inventory turnover (days)	13.9	18.4	22.2	21.4	21.1
Receivable turnover (days)	35.4	28.2	26.4	27.8	27.0

Source: Company data, Shinhan Investment Corp.

## Target price & rating history

### Coway (021240 KS)



Date	Rating	Target price (KRW)	Target price gap (%)	
			Average	Max/Min
2020.10.07	BUY	100,000	(29.0)	(15.5)
2021.04.08		6M later	(23.3)	(12.4)
2021.10.09		6M later	(26.3)	(15.7)
2022.04.10		6M later	-	-

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

### Rating Distribution - SHIC Universe (as of 27 May 2022)

BUY (BUY)	96.92%	Trading BUY (HOLD)	1.76%	HOLD (HOLD)	1.32%	SELL (SELL)	0.00%
-----------	--------	--------------------	-------	-------------	-------	-------------	-------

### Rating Distribution - SHIC Investment Banking Clients (as of 27 May 2022)

BUY (BUY)	100.00%	Trading BUY (HOLD)	0.00%	HOLD (HOLD)	0.00%	SELL (SELL)	0.00%
-----------	---------	--------------------	-------	-------------	-------	-------------	-------

### SHIC Ratings (as of 1 April 2017)

#### Stock

- ◆ BUY: Expected 6-month gain of 10% or more
- ◆ Trading BUY: Expected 6-month gain of 10% to loss of 10%
- ◆ HOLD: Expected 6-month loss of 10% to 20%
- ◆ SELL: Expected 6-month loss of 20% or more

#### Sector

- ◆ OVERWEIGHT: Based on market cap, largest share of sector stocks under coverage is rated BUY
- ◆ NEUTRAL: Based on market cap, largest share of sector stocks under coverage is rated Trading BUY or HOLD
- ◆ UNDERWEIGHT: Based on market cap, largest share of sector stocks under coverage is rated SELL



## 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: Sanghoon Cho

### Important Disclosures & Disclaimers

- ◆ 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.
- ◆ 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: Coway
- ◆ 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>