MIRAE ASSET
Building on principles

Game

Company Report
November 28, 2018

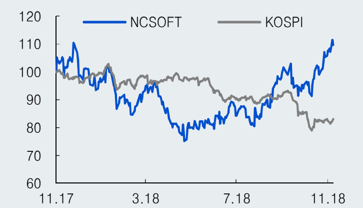
NCsoft
(036570 KS)

Beginning of multi-year rally; bank on 85.7% game success rate

(Maintain)	Buy
Target Price (12M, W)	**700,000**
Share Price (11/27/18, W)	485,000
Expected Return	44%

OP (18F, Wbn)	635
Consensus OP (18F, Wbn)	629
EPS Growth (18F, %)	3.3
Market EPS Growth (18F, %)	10.6
P/E (18F, x)	23.4
Market P/E (18F, x)	8.3
KOSPI	2,099.42
Market Cap (Wbn)	10,640
Shares Outstanding (mn)	22
Free Float (%)	81.8
Foreign Ownership (%)	50.6
Beta (12M)	1.13
52-Week Low	332,500
52-Week High	493,000

(%)	1M	6M	12M
Absolute	18.4	33.2	5.4
Relative	14.4	56.2	25.9



Mirae Asset Daewoo Co., Ltd.

[Internet]

Chang-kwean Kim
+822-3774-1614
changkwean.kim@miraeasset.com

1) High success rate; 2) long life cycle; and 3) strong market positioning

We believe investors view NCsoft as a compelling global game stock for three reasons:

1) The company's large-scale titles have a success rate of 85.7% (six out of seven have been commercial hits). Titles developed by the company's domestic studio have a 100% success rate. Given this track record, we think it is likely the market will price in expectations on the five new mobile titles set to be released in 2019.

2) In addition to the 1998 PC title *Lineage*, the mobile title *Lineage M* (launched in 2017) has also proven to have a sustained life cycle, as demonstrated by the 3Q18 earnings results. We expect *Lineage* and *Lineage M* to drive earnings again in 4Q18 on the back of update effects.

3) NCsoft has established a strong position in the RPG market, which makes up the majority of revenue in the global game market. In particular, the MMORPG genre has high entry barriers, including massive development costs (which can range from tens of billions to hundreds of billions of won), a lengthy development period, and a pool of specialized developers and operators.

Buy at the beginning of a year when new titles are released

Timing is particularly important when it comes to investing in gaming stocks, as new release schedules (a key risk) tend to change frequently. NCsoft's *Lineage II M* looks almost certain to be released in 1H19. The title has already been pushed back by more than a year, and management has reaffirmed through multiple channels its commitment to roll out the game. A website dedicated to the game has also been launched. We believe pre-marketing is imminent.

NCsoft's stock has always provided a good investment opportunity during the year of a new title release, whether because of expectations prior to a new release or the commercial success of the new title.

Attractive valuation; Maintain Buy and TP of W700,000

We believe NCsoft is also favorably positioned to benefit from structural industry developments. In addition to five new mobile titles, the company is expected to successively roll out four new PC titles (including Project TL), as well as console games, in the coming years. We are seeing changes in the global industry that are favorable to the company's overseas expansion, including the proliferation of online distribution providers and the rise of cross-platform play (which allows gamers to play simultaneously across multiple platforms).

Meanwhile, foreign ownership in NCsoft is increasing. We believe foreign investors are turning to NCsoft as an alternative to Chinese game stocks, which have sold off on regulations, and US game stocks, which have become overpriced on 2019 expectations. As a gaming company, NCsoft should also benefit from depressed economic conditions and the new 52-hour workweek system. We maintain our Buy rating and target price of W700,000 on NCsoft. We derived our target price by applying to our conservative 2019 EPS estimate a P/E of 24.1x, the upper end of the stock's valuation during the year of its most recent release.

FY (12)	12/15	12/16	12/17	12/18F	12/19F	12/20F
Revenue (Wbn)	838	984	1,759	1,712	2,091	2,329
OP (Wbn)	237	329	585	635	880	1,071
OP margin (%)	28.3	33.4	33.3	37.1	42.1	46.0
NP (Wbn)	165	272	441	456	637	758
EPS (W)	7,542	12,416	20,104	20,768	29,057	34,555
ROE (%)	10.6	14.9	19.1	15.9	19.5	19.9
P/E (x)	28.2	19.9	22.3	23.4	16.7	14.0
P/B (x)	2.6	2.7	3.4	3.3	2.9	2.5
Dividend yield (%)	1.3	1.5	1.6	1.5	1.5	1.5

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

C O N T E N T S

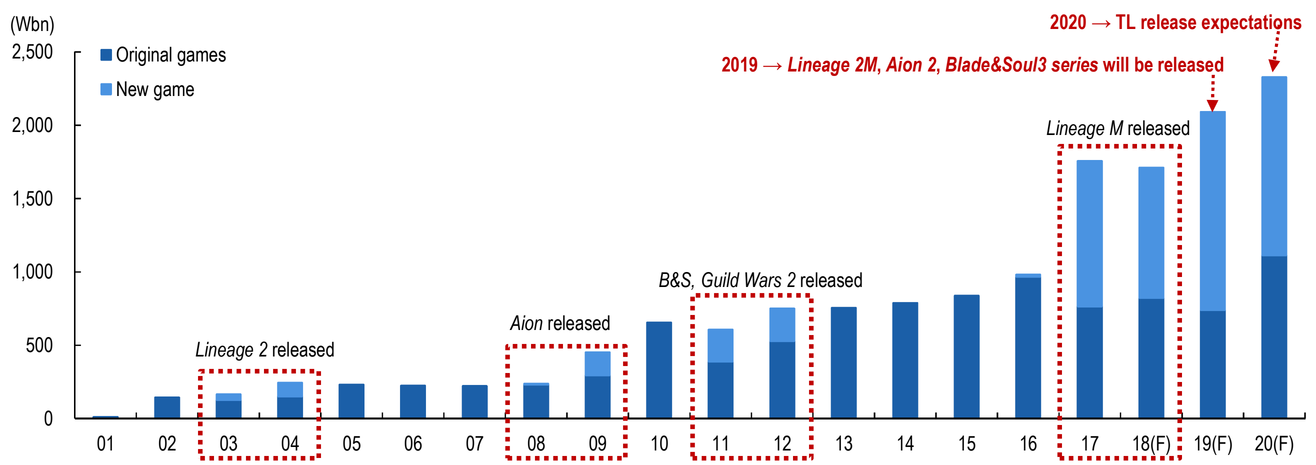
I. Why NCsoft?

1. High success rate: 85.7%, or 100% based on domestic studios

During the past 20 years, from 1998 to 2018, NCsoft has rolled out a total of seven large-scale titles developed by domestic and overseas studios: *Lineage* (1998), *Lineage II* (2003), *Tabula Rasa* (2007), *Aion* (2008), *Guild Wars 2* (2012), *Blade & Soul* (2012), and its first big mobile title, *Lineage M* (2017). Among them, the only game that flopped was *Tabula Rasa*, which was developed by Richard Garriott (now infamous for his leave of absence in space). As seen in Figures 1-3, six of the seven large-scale titles have been commercial hits, implying a success rate of 85.7%.

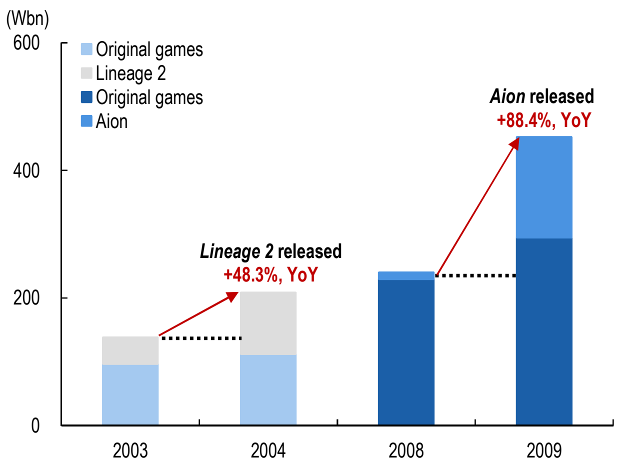
The five titles made by the company's domestic studios had caused sharp fluctuations in share prices due to repeated delays in their release schedules, but ultimately proved to be commercial successes. Based on domestic studios alone, the success rate is 100%. Exports to Taiwan, China, and Japan were also successful.

Figure 1. Annual revenue trend and forecast



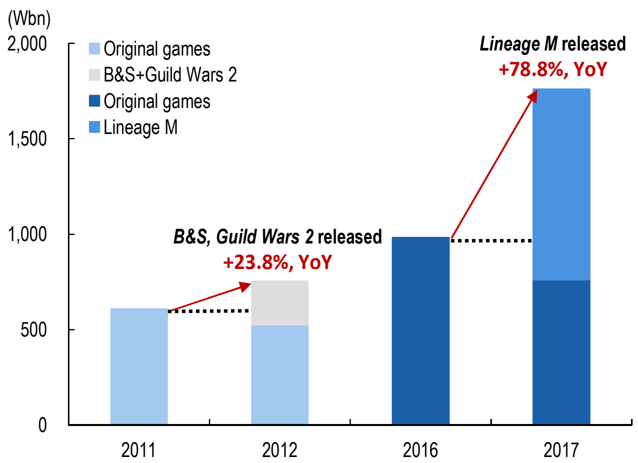
Note: 2018-2020 revenue is based on our estimates
Source: Company data, Mirae Asset Daewoo Research

Figure 2. Revenue growth following launch of *Lineage 2* and *Aion*



Source: Company data, Mirae Asset Daewoo Research

Figure 3. Revenue growth following launch of *Blade & Soul*, *Guild Wars*, and *Lineage M*



Source: Company data, Mirae Asset Daewoo Research

2. Extended lifecycle

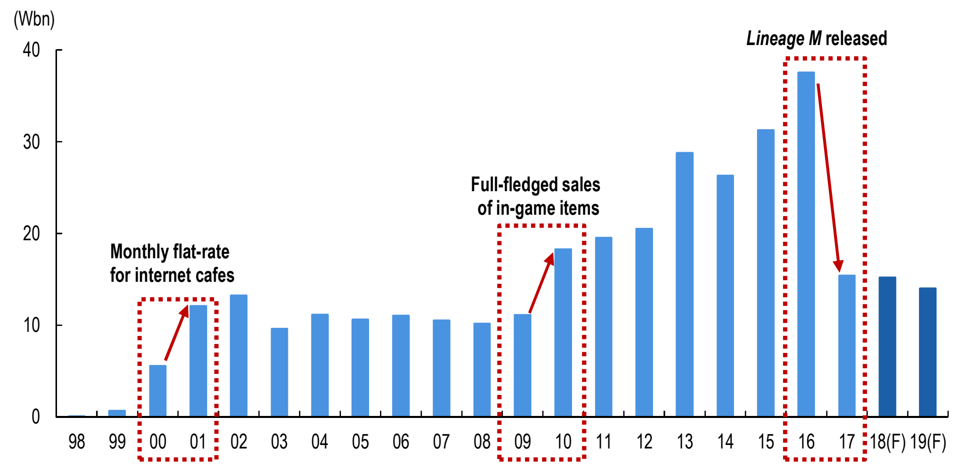
This year marks the 20th anniversary of the release of *Lineage.* At one point, around 87% of *Lineage* players were 30 or older, and 44% were in their 40s and 50s. Through *Lineage*, NCsoft demonstrated its capability to operate MMORPGs, remodel existing games via updates, and produce compelling content.

Like the PC version, the mobile title *Lineage M* is also proving to have a long lifecycle. *Lineage M* players are mostly 30 to 44 years old, suggesting the mobile title is successfully attracting new, younger players. As of October 2018, the number of *Lineage M* players aged 45 or older was only 16% of that of players aged 30 to 44.

The longevity of the PC title *Lineage* can also be attributed to the evolution of the game's profit model, which has shifted from monthly subscriptions to PC café fees and in-game item sales. NCsoft's two decades of experience in operating *Lineage*, knowhow in various profit models, and ability to respond to external challenges, such as regulations against age/charging limits, give us confidence that *Lineage M* will continue to deliver stable earnings.

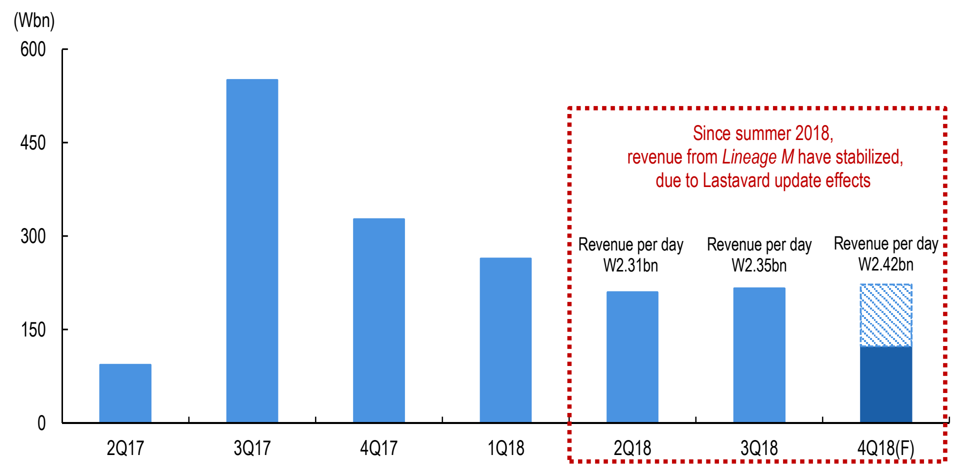
As shown in Figure 5, the daily average revenue of *Lineage M* increased from W2.31bn in 2Q18 to W2.35bn in 3Q18. This contrasts with other mobile MMORPGs, which have suffered sharp revenue declines only months after their release. Based on the daily average figure through mid-November, we estimate *Lineage M* daily average revenue will grow to W2.42bn in 4Q18.

Figure 4. Annual *Lineage* revenue trend and forecast



Note: 2018-2019 revenue is based on our estimates
Source: Mirae Asset Daewoo Research

Figure 5. Quarterly *Lineage M* revenue trend and forecast



Note: *Lineage M*'s 4Q18 daily average revenue is the simple average of SensorTower's estimates (Oct. 1st-Nov. 23rd), which is different from our estimate
Source: Company data, SensorTower, Mirae Asset Daewoo Research

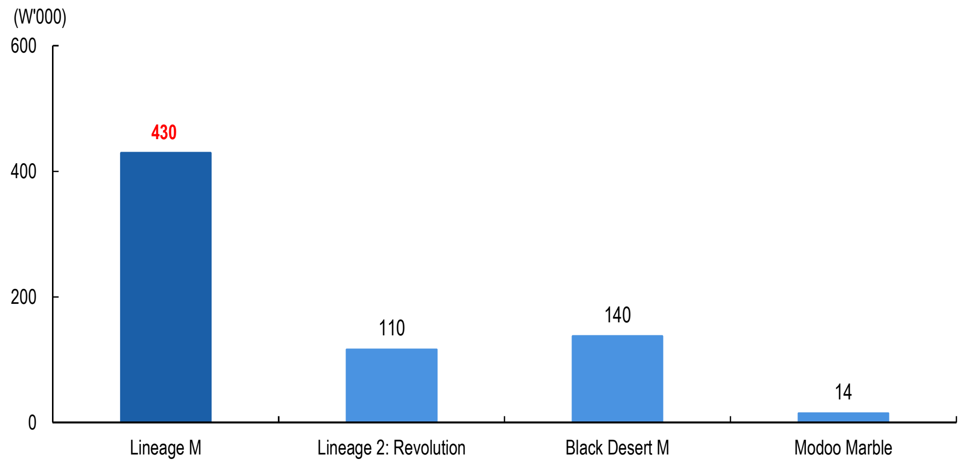
3. Strong market positioning: Leadership in hardcore games

NCsoft's MMORPGs, especially *Lineage*, generate a higher ARPU than other games, as seen in Table 1. This underscores the characteristics of the gamers who play *Lineage*. MMORPG is a genre widely popular among hardcore gamers, which account for less than 10% of all gamers.

Hardcore gamers tend to become highly invested in games and spend more time and money on them. Because of their strong loyalty and heavy spending, hardcore gamers are considered the most important customer group for the gaming industry.

Figure 6 shows the ARPU estimates of major games, which we simply calculated by dividing October 2018 revenues (based on data from a market researcher) by the number of active users (based on data from another market researcher). *Lineage M* has an ARPU three to four times that of a rival MMORPG and 31 times that of casual game *Everybody's Marble*. We believe that NCsoft has strong market positioning and can be described as the "Apple" of the gaming world.

Figure 6. ARPU by major game (as of October 2018)



Source: SensorTower, Mirae Asset Daewoo Research

Table 1. Estimates for ARPU and revenue per time spent

	Lineage	*Lineage* 2	*Aion*	*Blade & Soul*	
Quarterly revenue (Wmn)	78,211	15,619	16,775	24,919	**Based on domestic revenue in 1Q15**
Monthly average revenue (Wmn)	26,070	5,206	5,592	8,306	
% of PC café revenue	10%	15%	20%	30%	% of PC café revenue is estimated based on past data in consideration of the characteristics of each game
Monthly average revenue excluding PC café revenue (Wmn)	23,463	4,425	4,473	5,814	
Monthly average active users ('000 persons)	102	29	26	60	Different from the company's user data due to the limited number of samples
Peak concurrent users	220	62	55	129	Based on the company's data for *Lineage* and our estimates for the other games
('000 persons)	2.2				No. of *Lineage*'s monthly average active users: Number of peak concurrent users provided by the company = 1:2.2 Based on this multiple, we estimated the number of peak concurrent users for the other games
Mirae Asset Daewoo coefficient estimate	2	2	2	2	The ratio of the number of peak concurrent users to total number of users
Total users ('000 persons)	440	125	110	258	
Monthly ARPU (W'000)	53.3	35.5	40.5	22.6	
Monthly average time spent ('000 minutes)	408,309	52,982	166,239	91,245	
Monthly average time spent ('000 hours)	6,805	883	2,771	1,521	
Monthly average time spent per user (hours)	15.5	7.1	25.1	5.9	
ARPU per time spent (W)	3,448	5,011	1,615	3,823	

Note: Due to small sample size and resulting low level of confidence, we used our estimates (based on the above statistics) for comparison purposes only
Source: Company data, Koreanclick, Mirae Asset Daewoo Research

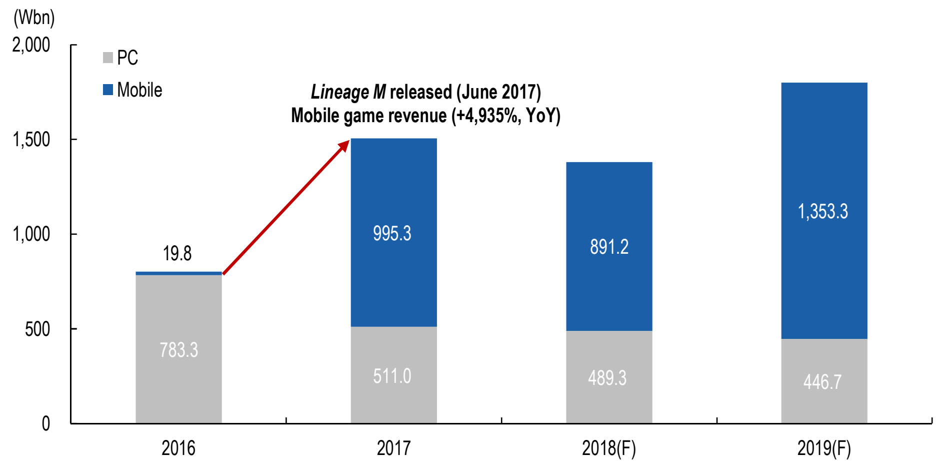
II. Business quest: Mobile → global → console

NCsoft was out of favor in the stock market during the period of rapid mobile-game market expansion, due to delays to its mobile game launches. However, the company has emerged as the leading mobile game company in the domestic market, with its *Lineage M* accounting for 25.2% of Google Play market revenue from January to October in 2018 (versus 7.5% for *Black Desert Mobile*).

As seen in Figure 7, the mobile segment has become NCsoft's key revenue source. Of note, the company's management stated during its recent media day event in November that mobile games currently under development target both domestic and overseas markets. They also added that the company will unveil two *Lineage*-based PC games (including *The Lineage*) and two intellectual-property-based PC games (which are being developed with conversion to console in mind).

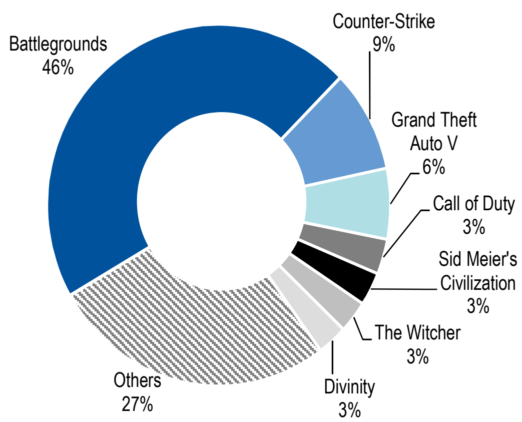
The global PC/console game market is eight times greater than the Korean PC/console market (see Figure 11). Digital distribution platforms, such as Steam, are proliferating, and favorable industry changes, including the expansion of cross platforms where users can enjoy the same game on differing platform (PC, mobile, console, etc.) are playing out.

Figure 7. First quest → Mobile expansion in 2017



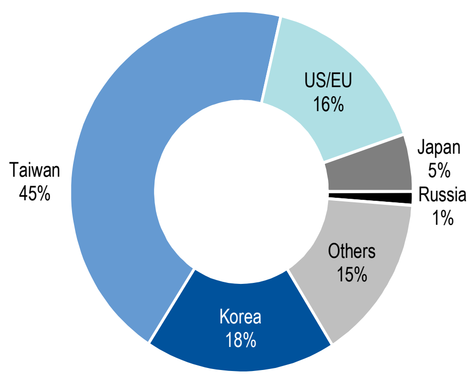
Source: Company data, Mirae Asset Daewoo Research

Figure 8. Revenue share on Steam by game in 2017



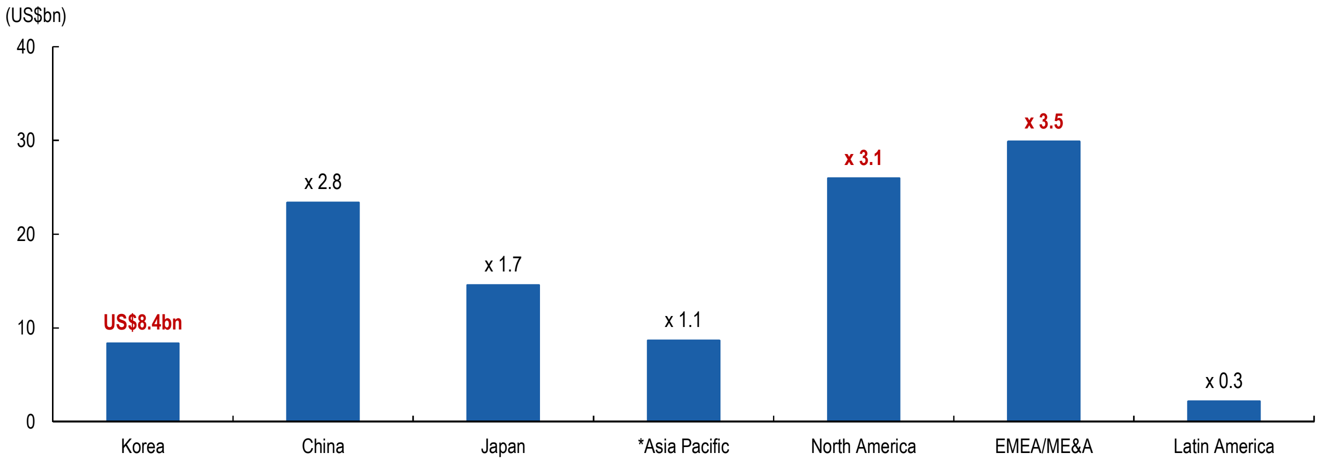
Source: Statista, Mirae Asset Daewoo Research

Figure 9. Pearl Abyss' revenue breakdown by region in 2018



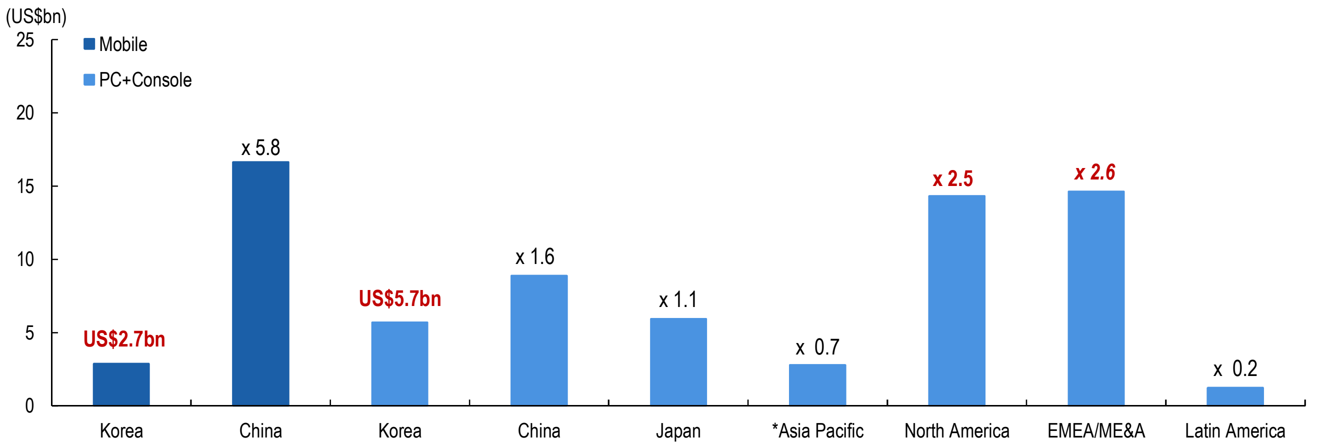
Note: Based on our estimates (excluding Black Desert Mobile)
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 10. Korean game market vs. global markets in 2018



Note: *Korea, Japan and China are excluded in Asia Pacific
Source: PwC, Mirae Asset Daewoo Research

Figure 11. Korean game market vs. global markets in 2019



Note: *Korea, Japan and China are excluded in Asia Pacific
Source: PwC, Mirae Asset Daewoo Research

III. Now is the time to buy

1. Share momentum emerges before the release of new titles

Here are three basic rules when considering an investment in gaming stocks:

1. Expectations for major titles are always priced in before they are released. Aggressive selling is recommended when the market begins to reflect expectations for new launches, before the beginning of the service. Once up and running, new titles may prove unsuccessful. If excessive expectations have been reflected, the loss of share momentum will likely weigh on share prices.

2. The success of commercialization depends on the timing of new launches and market responses. Any delay in major launches is a strong sell signal, as it undermines the credibility of the publisher's informal guideline on the release schedule.

3. Conservative investors should invest in the quarter, when new launches begin to translate into earnings. A good entry point, where uncertainties related to commercial success and release dates have been removed, is right before the earnings release for the quarter, when new titles are released. The key point to watch is whether current share prices properly reflect revenue contribution from new titles. Of course, expected return on investments is relatively low.

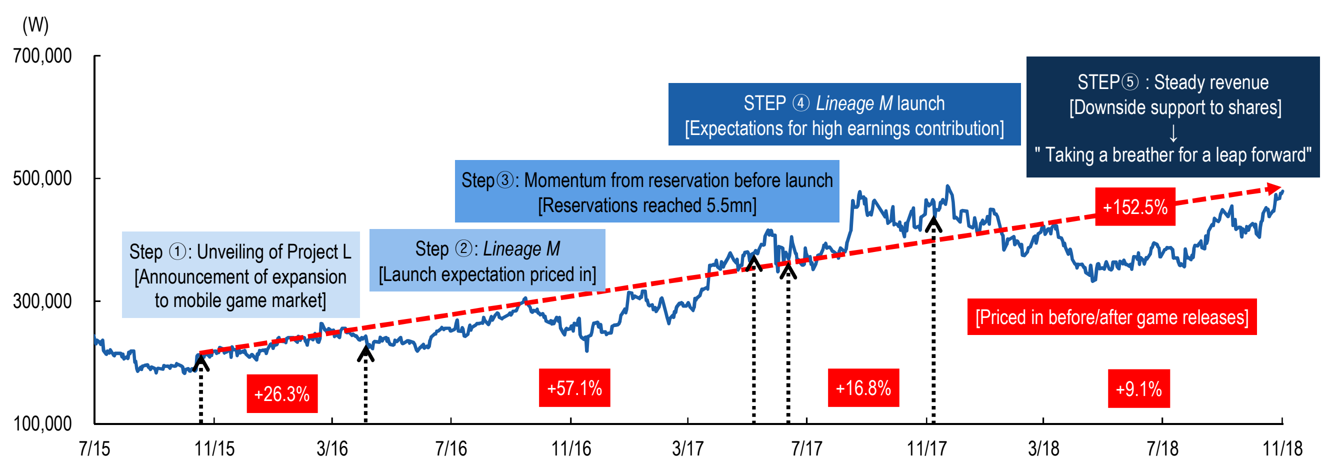
NCsoft's shares have enjoyed a boost from expectations for new games before they are released or after they proved successful (see Figure 14-18). The more successful was the latest release, the more likely expectations for new launches were priced in. In the case where the latest release performed poorly in the market or experienced delays in release schedules, share prices did not rise until the start of the service.

Table 2. NCsoft's new title lineup

Release schedule	Title	Platform
1H19	*Project TL CBT*	PC/Console
	Lineage 2M	Mobile
2H19	*Aion 2*	Mobile
	Blade & Soul 2	Mobile
	Blade & Soul M	Mobile
	Blade & Soul S	Mobile
2020	*Project TL*	PC/Console

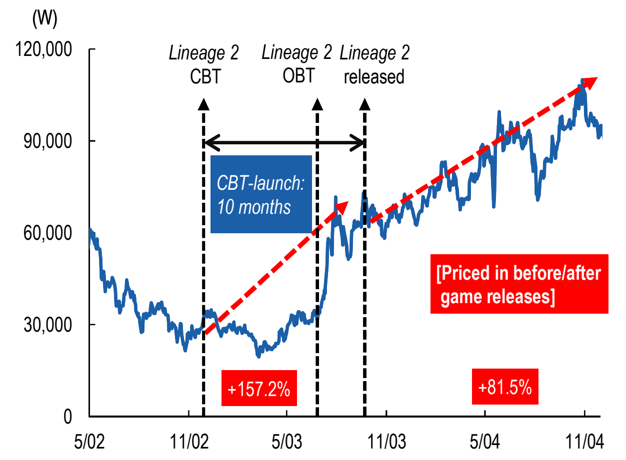
Source: NCsoft, Mirae Asset Daewoo Research

Figure 12. *Lineage M*: Expectations for release and share performance (Jul. 2015-Nov. 2018)



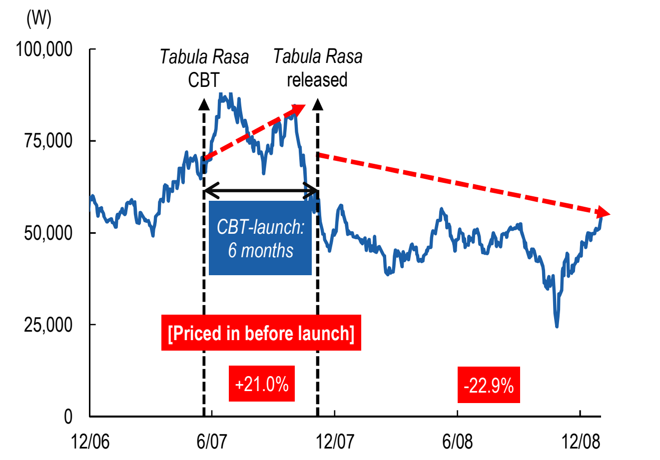
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 13. *Lineage II*: Share momentum before and after release



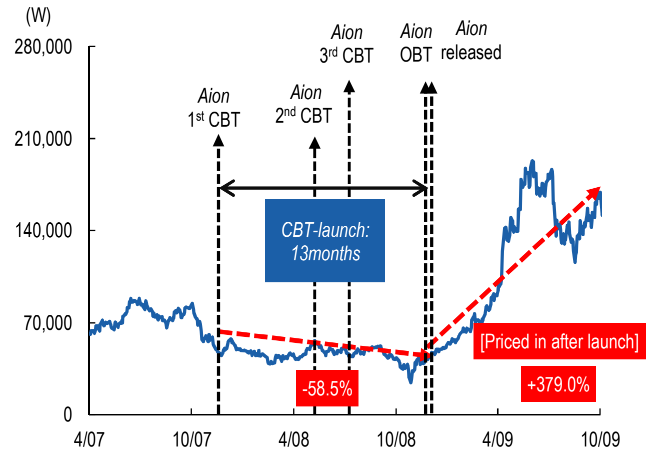
Note: CBT (02/11/30), OBT (2003/07/09), service launch (2003/10/01)
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 14. *Tabula Rasa*: Share momentum before release



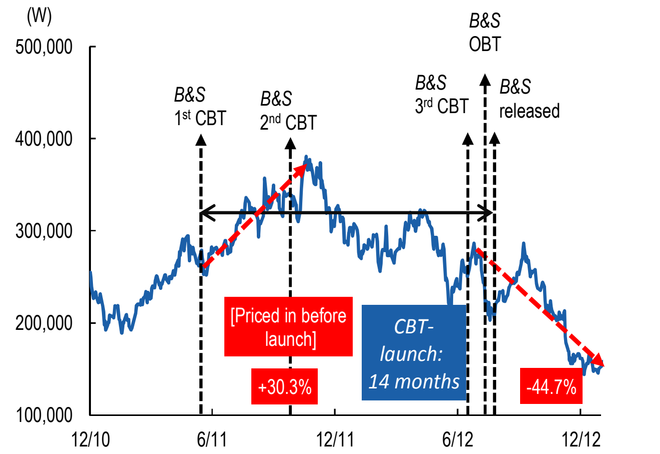
Note: CBT (07/05/02), service launch (07/11/02)
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 15. *Aion*: Share momentum after release



Note: CBT1 (07/10/27), CBT2 (08/04/08), CBT3 (08/07/01), OBT (08/11/11), service launch (08/11/25)
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 16. *Blade & Soul*: Share momentum before release



Note: CBT1 (11/04/27), CBT2 (11/08/29), CBT3 (12/05/09), OBT (12/06/21), service launch (12/06/30)
Source: Bloomberg, Mirae Asset Daewoo Research

2. Best timing for investment

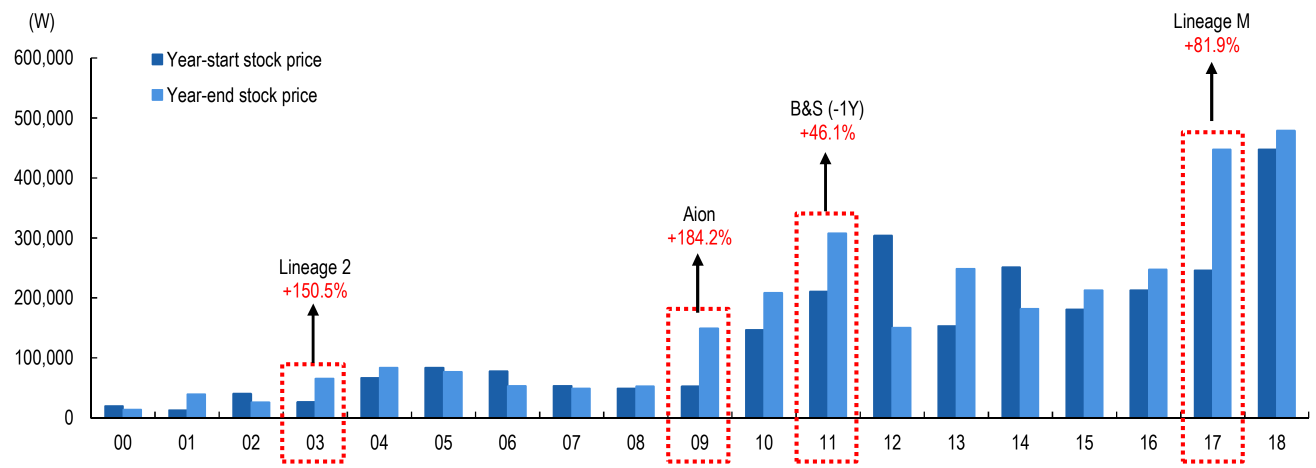
Currently, share prices of NCsoft hinge on the timing of *Lineage II M*'s release. Past experience shows that the most important factor that determines the release schedule is not the extent to which a new title can meet the expectations of investors and gamers, but the level of confidence that the management has in its commercial success.

Accordingly, NCsoft's new titles have a high success rate, but shares of NCsoft have fluctuated, due to delays in release schedules. Figures 19 and 20 show that buying the stock at the beginning of a year, when new titles were released makes a good investment strategy.

Although the firm's new title releases were concentrated later in the year, as evidenced by *Lineage II* (October), *Tabula Rasa* (November), *Aion* (November), *Blade & Soul* (June) and *Lineage M* (June), the stock ended the year at high levels on expectations fueled by pre-release marketing and NCsoft's good track record.

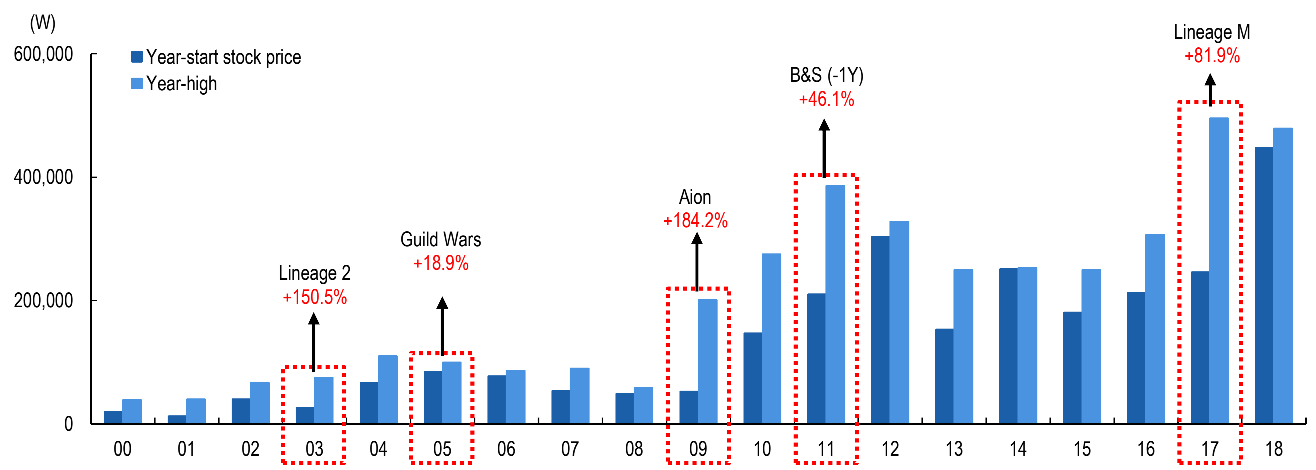
NCsoft announced that it would release five mobile titles in 2019 (see Table 2). Also, during the 3Q18 earnings call, management conservatively said *Lineage II M* is to be released in 1H19.

Figure 17. NCsoft's share performance: Year-beginning vs. year-end



Note: End-2018 share price is based on the closing price of November 23 (W474,000)
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 18. NCsoft's share performance: Year-beginning price vs. intra-year highs



Note: Intra-year highs of 2018 are based on the intra-day high of November 22 (W482,500)
Source: Bloomberg, Mirae Asset Daewoo Research

IV. Earnings outlook

NCsoft's 3Q18 earnings beat the market consensus (see Table 3). Revenue from *Lineage M* grew QoQ, despite a tough comparison with 2Q18, when one-time incentive payment from *Lineage M*'s Taiwanese publisher was recognized. Another highlight of the 3Q18 earnings is existing PC games' YoY revenue growth.

In 3Q18, revenues from *Lineage* grew 14% YoY, *Lineage II* remained flattish and *Aion* expanded 61% YoY. Notably, revenue from PC-based *Lineage,* which is the largest revenue contributor next to *Lineage M,* returned to positive growth, overcoming cannibalization by *Lineage M*.

Despite declines in July and August, revenue from *Lineage M* grew 2.9% QoQ to W216bn in 3Q18, supported, albeit briefly, by the effects of major updates on September 28. *Lineage M* continues to enjoy improvement in in-game atmosphere and a healthy inflow of new players in 4Q18, helped by updates, such as the new *Warrior* class, and an integrated battlefield, *Lastavard*.

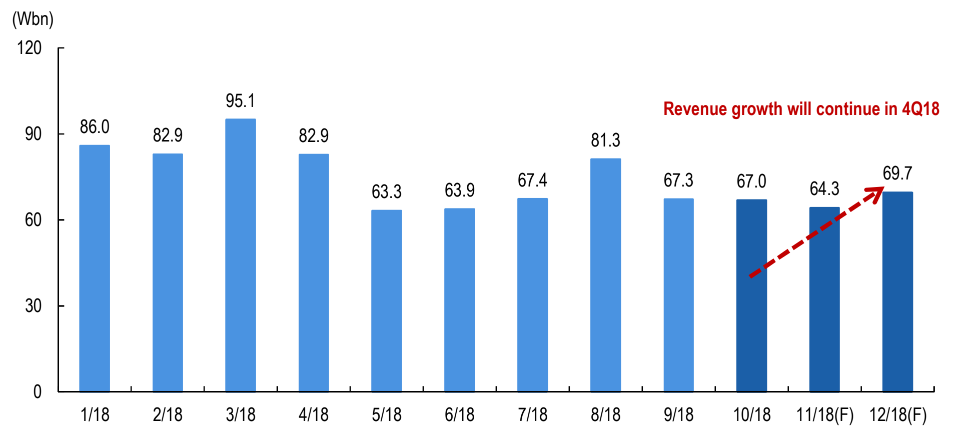
On the 3Q18 earnings conference call, management said user indicators for *Lineage M* continued to rise in October. We expect revenue from *Lineage* to expand YoY in 4Q18, in light of the scheduled release of a remastered edition of *Lineage* during the 20th anniversary conference to be held on November 29.

Table 3. Quarterly and annual earnings (Wbn, %)

	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18F	2017	2018F	2019F
Sales	240	259	727	533	475	436	404	397	1,759	1,712	2,091
Lineage	51	34	35	34	28	42	40	41	154	152	140
Lineage 2	18	17	16	15	14	13	16	15	66	58	53
Aion	13	11	10	13	19	16	16	17	47	68	67
Blade & Soul	45	39	38	40	34	31	30	31	161	126	104
Guild Wars 2	14	14	20	35	24	20	21	21	83	85	82
Mobile game	23	94	551	327	264	210	216	201	995	891	1,353
Others	11	15	13	11	8	13	12	11	50	44	47
Royalties	64	36	44	60	84	92	52	59	203	287	245
OP	30	38	328	189	204	160	139	133	585	635	880
OPM	12.7	14.5	45.1	35.5	42.9	36.5	34.4	33.5	33.3	37.1	42.1
NI	17	31	275	121	119	140	94	105	444	459	642
Net margin	7.3	11.9	37.8	22.6	25.1	32.1	23.4	26.5	25.2	26.8	30.7
YoY growth											
Sales	-0.6	7.5	234.3	87.4	98.3	68.8	-44.5	-25.6	78.8	-2.7	22.1
Lineage	-34.8	-64.2	-57.8	-71.5	-45.1	24.5	14.0	22.9	-58.9	-1.5	-7.7
Lineage 2	7.7	-12.6	-24.1	-26.0	-22.7	-19.9	0.0	-1.8	-14.7	-11.8	-8.8
Aion	-33.9	-38.5	-36.8	-29.6	41.1	44.3	61.1	37.5	-34.6	45.2	-2.0
Blade & Soul	-17.5	-20.2	-5.2	0.5	-23.9	-21.4	-20.8	-20.6	-11.6	-21.8	-17.8
Guild Wars 2	-53.4	-14.7	31.5	134.8	66.2	46.6	4.0	-41.1	8.1	2.7	-3.8
Mobile game		51113.1	110771.6	1613.2	1028.2	124.0	-60.7	-38.6	4935.0	-10.5	51.8
Others	-1.5	-14.9	-22.2	-17.4	-24.8	-15.6	-6.5	2.2	-15.1	-11.3	6.4
Royalties	116.1	33.8	80.2	43.2	32.5	155.8	18.3	-0.3	66.0	41.8	-14.7
OP	-59.8	-56.4	403.4	86.0	569.1	324.8	-57.6	-29.8	77.8	8.6	38.6
NI	-73.7	-65.9	474.3	80.7	584.9	355.0	-65.7	-12.9	63.6	3.4	39.8

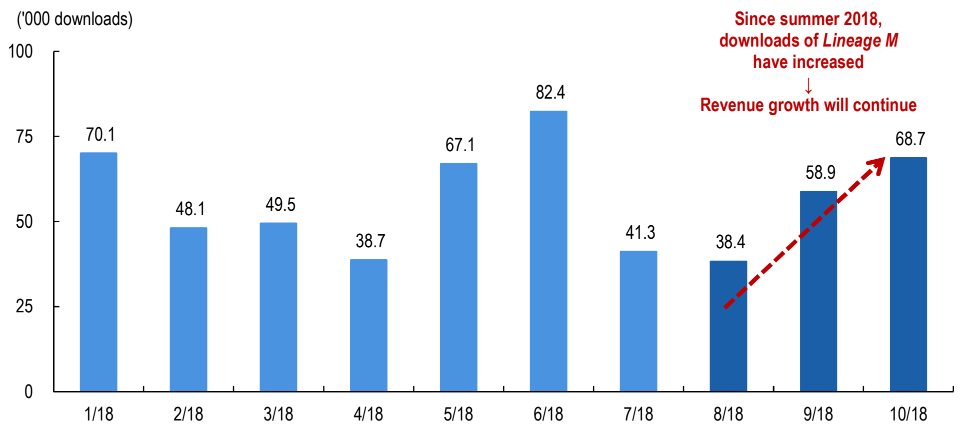
Source: Mirae Asset Daewoo Research

Figure 19. *Lineage M*: Monthly revenue



Note: *Lineage M*'s revenue from October to December 2018 is a simple average of SensorTower's estimates from October 1 to November 23, 2018, which are not consistent with our estimates
Source: SensorTower, Mirae Asset Daewoo Research

Figure 20. *Lineage M*: Monthly downloads



Note: *Lineage M*'s download counts from October to December 2018 is a simple average of SensorTower's estimates from October 1 to November 23, 2018, which are not consistent with our estimates
Source: SensorTower, Mirae Asset Daewoo Research

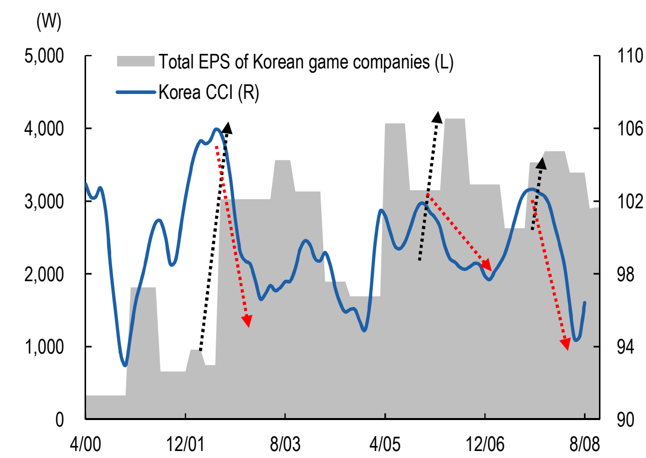
V. Beneficiary of depressed economic conditions and new 52-hour workweek system

The Korean online gaming industry was born during the 1997 Asian financial crisis and expanded in earnest in 2003, when the household debt bubble burst. Shares of NCsoft soared 20-fold during the 2008-2009 global financial crisis, with the release of *Aion*.

While the economic slowdown and resulting weakness in consumer spending have weighed on domestic-oriented industries, the gaming industry's earnings are inversely correlated to economic conditions (see Figure 23-26). The gaming industry is inelastic to economic conditions in domestic and major global markets, such as the US, Japan, and China.

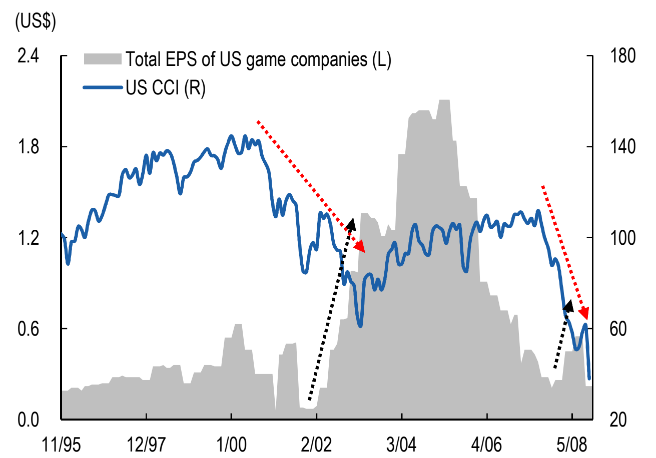
The gaming industry's low sensitivity to economic indicators is due to the very nature of the entertainment business, where earnings hinge on the performance of individual projects, rather than the overall economy.

Figure 21. Major Korean gaming companies' combined EPS & CCI



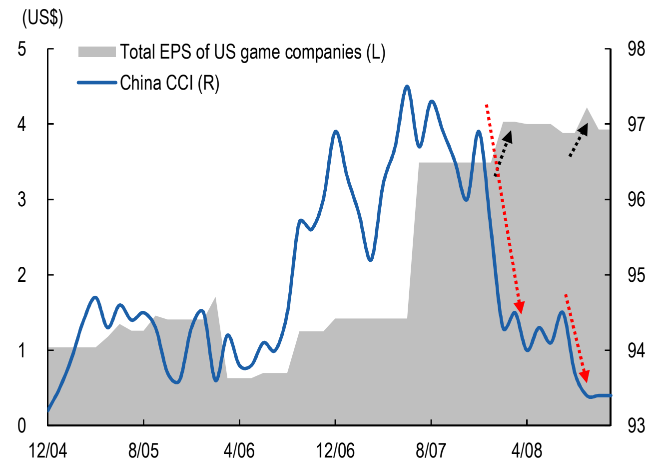
Note: Based on NCsoft and, CJ Internet; CCI stands for Consumer Confidence Index
Source: Thomson Reuters, Mirae Asset Daewoo Research

Figure 22. Major US gaming companies' combined EPS & CCI



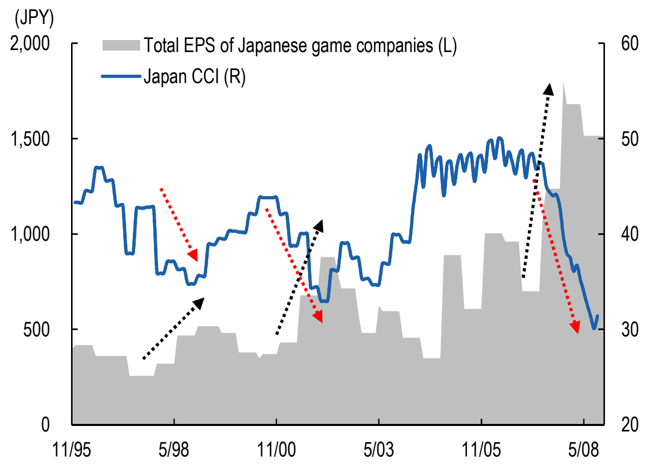
Note: Based on Activision Blizzard and Electronic Arts; CCI stands for Consumer Confidence Index
Source: Thomson Reuters, Mirae Asset Daewoo Research

Figure 23. Major Chinese gaming companies' combined EPS & CCI



Note: Based on Shanda and The9; CCI stands for Consumer Confidence Index
Source: Thomson Reuters, Mirae Asset Daewoo Research

Figure 24. Major Japanese gaming companies' combined EPS & CCI



Note: Based on Nintendo and Sega Sammy; CCI stands for Consumer Confidence Index
Source: Thomson Reuters, Mirae Asset Daewoo Research

VI. Valuation

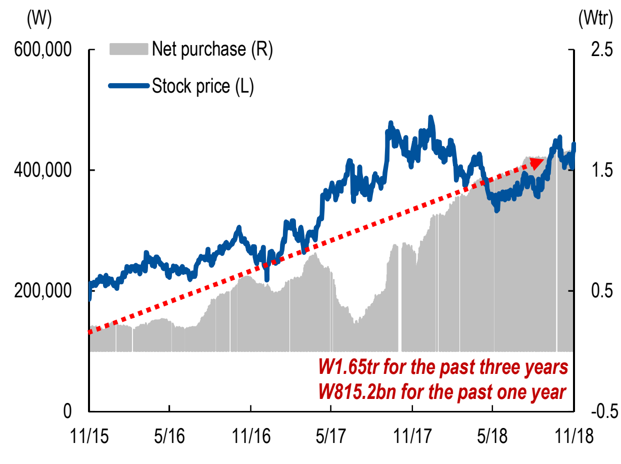
1. Equity ownership of institutional and individual investors is only 10.9%

Foreign ownership of NCsoft is increasing. Foreign investors have accumulated W1.65tr in NCsoft shares over the past three years and have net-bought W815.2bn in NCsoft shares since early 2018, even when an outflow of foreign funds from the Korean equity market accelerated.

Foreign ownership of NCsoft has increased by 5.9%p to 50.4%, as of November 23, up from 44.4% in early 2018. Excluding foreign investors such as BlackRock and Schroders, the shares held by major shareholders amount to 38.7%, which include Taek-Jin Kim (12%), the National Pension Service (11.7%), Netmarble Games (7.1%), and treasury shares (6.1%).

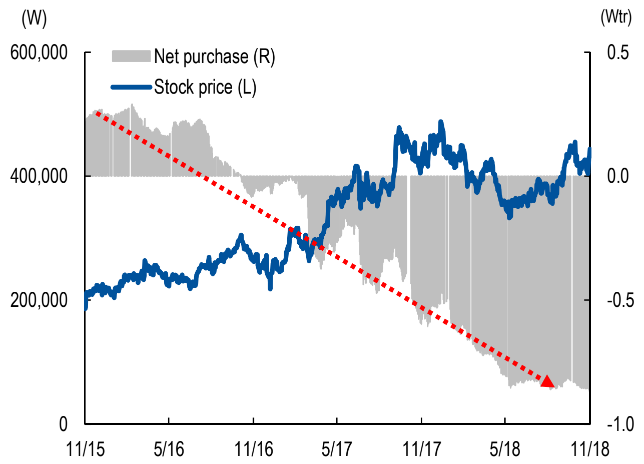
Excluding major shareholders and foreign investors, the combined equity stake of other institutional investors and retail investors is only 10.9%. Currently, share prices of NCsoft are approaching record high levels, and share supply-and-demand dynamics are likely to be favorable when the confirmation of release schedules increases the level of expectations for new launches.

Figure 25. Foreign investors net bought W1.65tr of NCsoft shares over the past three years



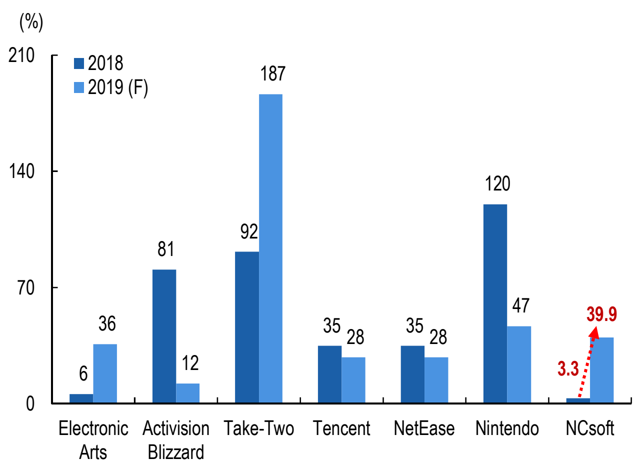
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 26. Institutional investors net-sold W850bn over the past three years



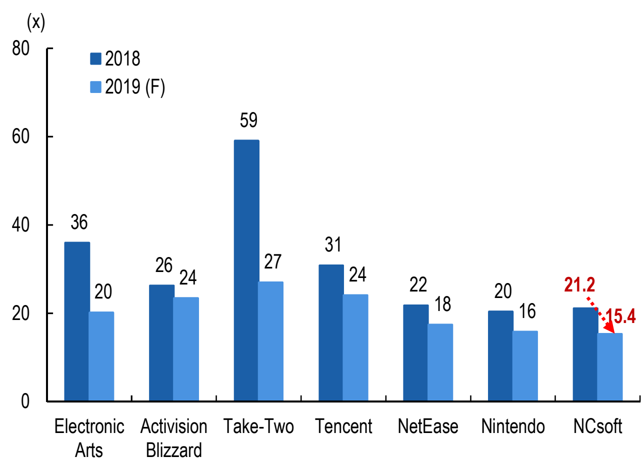
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 27. NCsoft is likely to display stronger EPS growth compared with peers



Note: NCsoft' EPS is based on our estimate
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 28. NCsoft is trading at a P/E of low 20x levels, a discount to global peers



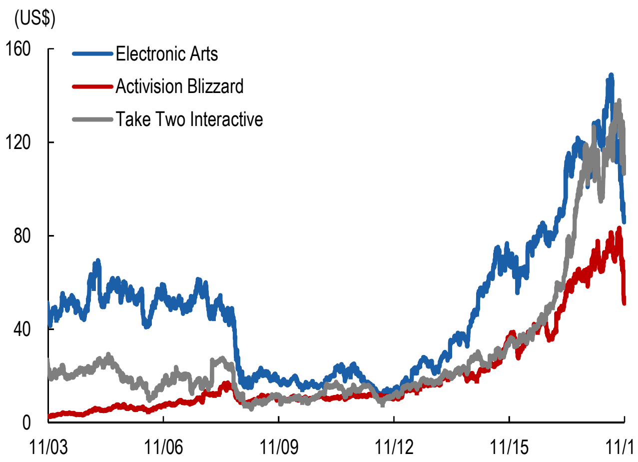
Note: NCsoft's P/E is based on our estimate
Source: Bloomberg, Mirae Asset Daewoo Research

Table 4. Global peer group valuation (Wbn, x, %)

Company	MKT CAP	Sales		OP		NI		EV/EBITDA		PER		PBR		ROE	
		18F	19F	18F	19F	18F	19F	18F	19F	18F	19F	18F	19F	18F	19F
Netmarble (KR)	10530	2121.6	2777.6	294.7	583.5	245	430.9	19.7	11	42.3	24.3	2.3	2.1	5.6	9.1
NCsoft	10618.5	1711.9	2090.6	635.1	880.2	459.2	641.9	12.6	10.2	21.2	15.4	3.6	3.1	16.5	19.4
Com2Us	1709.9	491.9	626.6	155.2	208.8	136.7	171.5	5.9	4.4	12.5	9.9	1.9	1.6	16.6	17.9
NHN Entertainment	1087.8	1257.3	1457.4	74	89.7	123.7	99	4.5	3.8	8.7	10.9	0.7	0.6	7.9	5.9
Pearl Abyss	2459.2	431.5	668.8	205.4	321	180.2	260.9	10.3	6.6	13.2	9.3	5.4	3.5	52.1	47.4
Webzen	603.8	239.5	247.5	73.2	78.5	58	63	6	5.7	10.4	9.5	1.8	1.5	19.4	17.2
DoubleU Games	1083.9	490.3	555.6	142.4	179	97.7	119.9	8.5	7.1	10.9	8.9	2.1	1.7	22	22
WeMade	428.4	122.3	136.5	0.9	7.9	10.3	11.3	39.1	18	114.8	31.1	1.4	1.4	3.5	3.7
Activision Blizzard (US)	43170.8	8374.1	8668.6	2855	3061.3	2285.7	2471.5	13.9	12.7	26.3	23.5	3.4	2.9	18.6	17.2
Electronic Arts	28234	5849.1	6395.1	1879.7	2179.8	1590.6	1799.8	11.9	10.5	36	20.2	4.6	4.1	26.4	25.4
Take Two Interactive	13580.1	3339.9	3260.8	822.8	909.4	663.2	698.2	14.3	13.1	59.1	27	5.1	4.1	25.1	18.6
Zynga	3390.5	1018.8	1185.7	180.1	186.6	157.4	164.2	14.1	13.1	21	21.2	1.9	1.8	7.8	8.7
Glumobile	1096.2	419.4	490.3	42	56.1	43.7	59.2	22.2	15.9	25.7	19.6	5.7	5.2	21.1	27.4
Ubisoft (FR)	9715.1	2680.5	2976.7	565.5	669.6	446.9	547.1	8.1	7	22.8	19.2	6	4.5	26.6	23.6
Nintendo (JP)	46017.7	12659.7	14232.9	2715.1	3641.9	2038	2636.5	13	9.6	20.4	15.9	2.7	2.5	14.8	17.1
Nexon	10379.4	2601.7	2809.7	1070.9	1177.7	1029.2	977.3	5.8	5.3	10	10.5	1.9	1.6	20	15.6
Square Enix	4115.9	2614.4	2809.3	335.8	447.7	244.1	302.5	7.1	5.4	16.5	13.1	1.9	1.7	11.6	14.2
DeNA	3193	1354.3	1410	175	209.6	133.3	153.9	7.2	6.2	23	20	1.1	1.1	5.4	5.8
Gungho Online	2300	793.4	767.5	216.1	196.7	136.5	127.4	7.5	8.3	13	14.1	2.5	2.1	20.1	17.3
GREE	1148.5	786.3	825.9	94.7	106.8	69	74.9	2.7	2.5	16.1	14.8	1	0.9	6.3	6.5
Tencent (CH)	406220.1	51096.1	66646.3	16552.9	19115.4	12514.9	15407.8	21.3	18.3	30.9	24.1	7.4	5.8	26.7	24.2
NetEase	33513.5	10985.3	13690.7	1247.8	1553.2	1435	1722.2	19.3	15.3	21.8	17.5	3.9	3.4	14.7	15.6
Kingsoft	2484.3	917.4	1261.1	-15	73.5	35.9	133.2	29.6	8	49	15.8	1.2	1.2	2.5	5.9
Youzu Interactive	2263.2	611.8	758.7	147.3	186.4	153.6	187	14.5	12.1	14.7	12.1	2.8	2.3	19	19.1
Changyou	1082	536.3	525.9	126.2	111.2	104.5	118.5	2.7	2.9	10.3	9.2	1.3	1.2	11	11.3

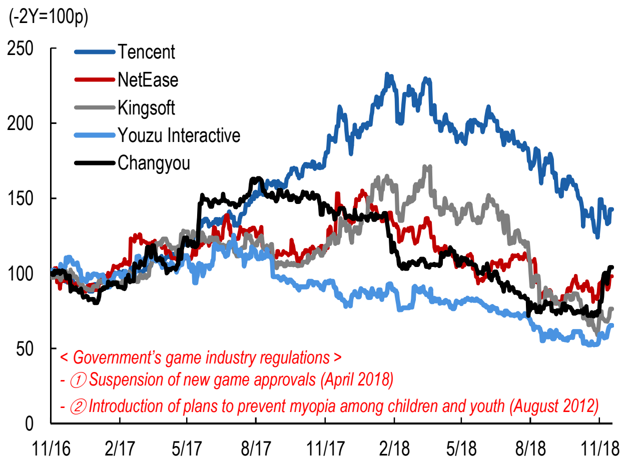
Note: Market capital, sales, operating profit and net income are based on consensus estimates (in Korean won) as of November 23rd, 2018
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 29. Share performance of US gaming companies (Sept. 2003-Nov. 2018)



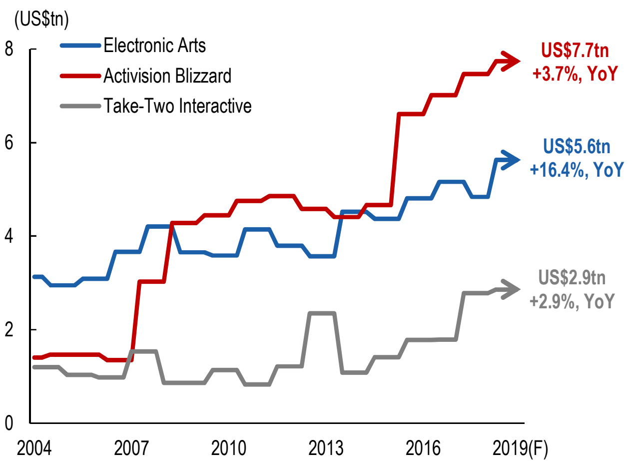
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 30. Share performance of Chinese gaming companies (Nov. 2016-Nov. 2018)



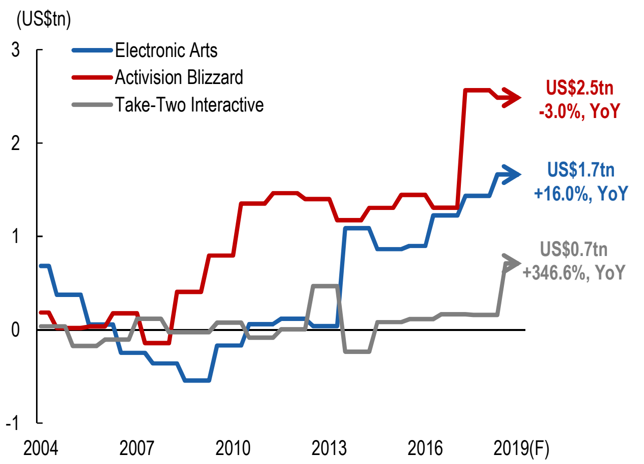
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 31. US gaming companies' revenue trend and outlook (Jan. 2004-Dec. 2019)



Note: 4Q18F-2019F revenue is based on the Bloomberg consensus
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 32. US gaming companies' operating profit trend and outlook (Jan. 2004-Dec. 2019)



Note: 4Q18F-2019F revenue is based on the Bloomberg consensus
Source: Bloomberg, Mirae Asset Daewoo Research

2. A compelling global game stock

Figures 31, 33, and 34 provide a glimpse into recent developments in foreign investments in gaming companies. The movement of global gaming companies' valuations has been interesting (see Table 4). Among US gaming companies, shares of EA, Take-two and Activision Blizzard have rallied since 2013, supported by steady earnings improvements.

The gaming industry entered the online space in 2013 with the release of new gaming consoles such as PlayStation 4 and Xbox 2 and the penetration of high-speed internet. As a result, eSports has emerged as a new global trend, and new revenue models, such as in-game item sales and monthly subscriptions, have come into place, and RPGs such as *Grand Theft Auto* and *Red Dead Redemption* have become the mainstream genre.

Against this backdrop, valuations of global gaming companies, which have the ability to build game franchises with solid IP (e.g., characters, game stories), are trading at a high P/E, whereas those without franchises are trading at a low P/E. Notably, leaders in the RPG genre, such as Activision Blizzard (publisher of *World of Warcraft*) and Take-Two (*Grand Theft Auto* and *Red Dead Redemption*), are trading at a higher valuation than their peers in soccer, baseball, and shooting games.

3. Buy on a high P/E and sell on a low P/E

The P/E ratio of NCsoft has been range-bound between 20x and 50x over the past 20 years. Despite steady increases in annual revenue and operating profit, its P/E took a dive in the wake of the following events:

1) Dashed expectations for new launches: Share prices plunged when expectations for new titles were not met, as releases of new titles (e.g., *Tabula Rasa*) were put off, or revenue from new titles (e.g., *Blade & Soul*) was weaker than expected. Shares of NCsoft traded at a low P/E due to the loss of share momentum, even though existing games continued to make earnings contributions and new revenue streams were added.

2) Earnings surprise driven by new titles: Shares of NCsoft soared from W20,000 to W100,000 right before *Aion* was released in November 2008, which led to debates over a share price bubble. Revenue from *Aion* was recognized from 1Q09 in earnest, driving end-2009 EPS to W8,560. While share prices of NCsoft more than quadrupled, P/E was only 11.6x.

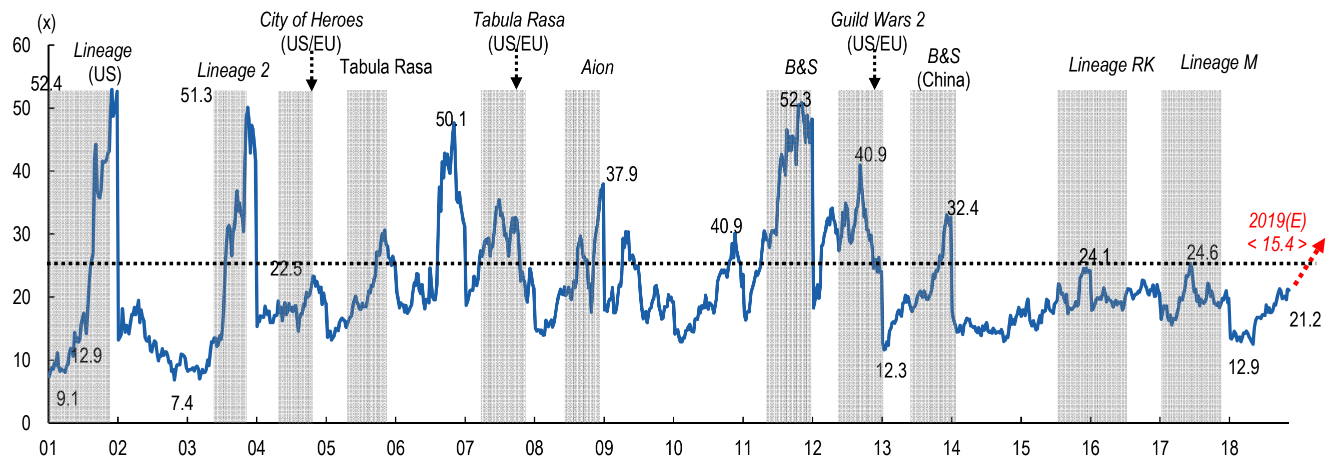
On the other hand, P/E soared in the run up to new launches, reflecting expectations for future revenue contribution from new titles. Shares of NCsoft fluctuated during 2001 and 2003, before *Lineage II* was released to make full-year earnings contribution. That is, share performance hinged on release schedules.

The stock's P/E valuation surged from 30x to 50x, driven by expectations for new titles prior to the release of *Tabula Rasa* in Korea and the launch of *Blade & Soul* in Korea and China,

NCsoft did not see a sharp increase in P/E during 2013 and 2016, as earnings steadily expanded, supported by *Lineage*'s robust in-game item sales amid a void in new title releases. Expectations for *Lineage M* were priced in before its release in June 2017; however, EPS expanded 61.9% YoY in 2017 on the back of *Lineage M*'s stronger-than-expected performance, making the pace of P/E hikes look moderate relative to that of share gains.

At the current point, the most conservative way to derive NCsoft's target price is applying the 2018F EPS to a P/E of 24x, the upper end of the stock's valuation during the year of its most recent release. The second-most-conservative way is to apply the 2019F EPS to a P/E of 24x. When *Lineage II M*'s success is confirmed and the release date is approaching, we may derive our target price by applying the 2018F EPS to a P/E of 30x (the lower end of the historic valuation range during the years of new title launches) or applying the 2019F EPS to a P/E of more than 30x.

Figure 33. NCsoft's P/E trend: Expectations reach highest levels right before new title releases



Source: Bloomberg, Mirae Asset Daewoo Research

NCsoft (036570 KS/Buy/TP: W700,000)

Comprehensive Income Statement (Summarized)

(Wbn)	12/17	12/18F	12/19F	12/20F
Revenue	**1,759**	**1,712**	**2,091**	**2,329**
Cost of Sales	**212**	**206**	**251**	**280**
Gross Profit	**1,547**	**1,506**	**1,840**	**2,049**
SG&A Expenses	**962**	**871**	**959**	**978**
Operating Profit (Adj)	**585**	**635**	**880**	**1,071**
Operating Profit	**585**	**635**	**880**	**1,071**
Non-Operating Profit	**25**	**47**	**36**	**40**
Net Financial Income	16	23	28	34
Net Gain from Inv in Associates	-2	0	0	0
Pretax Profit	610	682	916	1,111
Income Tax	166	223	274	347
Profit from Continuing Operations	444	459	642	763
Profit from Discontinued Operations	0	0	0	0
Net Profit	444	459	642	763
Controlling Interests	441	456	637	758
Non-Controlling Interests	3	3	4	5
Total Comprehensive Profit	**919**	**459**	**642**	**763**
Controlling Interests	916	458	640	761
Non-Controlling Interests	3	1	2	2
EBITDA	615	661	903	1,091
FCF (Free Cash Flow)	566	475	756	841
EBITDA Margin (%)	35.0	38.6	43.2	46.8
Operating Profit Margin (%)	33.3	37.1	42.1	46.0
Net Profit Margin (%)	25.1	26.6	30.5	32.5

Statement of Financial Condition (Summarized)

(Wbn)	12/17	12/18F	12/19F	12/20F
Current Assets	**1,773**	**2,122**	**2,488**	**3,028**
Cash and Cash Equivalents	187	579	605	930
AR & Other Receivables	198	191	233	260
Inventories	1	0	1	1
Other Current Assets	1,387	1,352	1,649	1,837
Non-Current Assets	**1,754**	**1,692**	**1,957**	**2,118**
Investments in Associates	34	33	40	45
Property, Plant and Equipment	229	205	185	167
Intangible Assets	52	50	47	45
Total Assets	**3,527**	**3,813**	**4,445**	**5,146**
Current Liabilities	**456**	**444**	**542**	**604**
AP & Other Payables	43	41	51	56
Short-Term Financial Liabilities	0	0	0	0
Other Current Liabilities	413	403	491	548
Non-Current Liabilities	**342**	**336**	**378**	**404**
Long-Term Financial Liabilities	150	150	150	150
Other Non-Current Liabilities	192	186	228	254
Total Liabilities	**797**	**780**	**920**	**1,007**
Controlling Interests	**2,721**	**3,022**	**3,509**	**4,118**
Capital Stock	11	11	11	11
Capital Surplus	433	433	433	433
Retained Earnings	1,906	2,207	2,694	3,303
Non-Controlling Interests	**8**	**11**	**16**	**21**
Stockholders' Equity	**2,729**	**3,033**	**3,525**	**4,139**

Cash Flows (Summarized)

(Wbn)	12/17	12/18F	12/19F	12/20F
Cash Flows from Op Activities	595	475	756	841
Net Profit	444	459	642	763
Non-Cash Income and Expense	185	225	267	332
Depreciation	27	24	21	18
Amortization	3	3	2	2
Others	155	198	244	312
Chg in Working Capital	11	-10	90	57
Chg in AR & Other Receivables	-42	5	-42	-26
Chg in Inventories	0	0	0	0
Chg in AP & Other Payables	-4	0	0	0
Income Tax Paid	**-63**	**-223**	**-274**	**-347**
Cash Flows from Inv Activities	-460	71	-573	-361
Chg in PP&E	-28	0	0	0
Chg in Intangible Assets	-4	0	0	0
Chg in Financial Assets	-1,263	71	-573	-361
Others	**835**	**0**	**0**	**0**
Cash Flows from Fin Activities	-80	-155	-150	-150
Chg in Financial Liabilities	0	0	0	0
Chg in Equity	1	0	0	0
Dividends Paid	-81	-155	-150	-150
Others	**0**	**0**	**0**	**0**
Increase (Decrease) in Cash	42	392	26	326
Beginning Balance	145	187	579	605
Ending Balance	**187**	**579**	**605**	**930**

Forecasts/Valuations (Summarized)

	12/17	12/18F	12/19F	12/20F
P/E (x)	22.3	23.4	16.7	14.0
P/CF (x)	15.6	15.6	11.7	9.7
P/B (x)	3.4	3.3	2.9	2.5
EV/EBITDA (x)	13.7	13.5	9.5	7.4
EPS (W)	20,104	20,768	29,057	34,555
CFPS (W)	28,692	31,153	41,450	49,908
BPS (W)	131,144	144,861	167,085	194,806
DPS (W)	7,280	7,280	7,280	7,280
Payout ratio (%)	34.8	32.7	23.4	19.6
Dividend Yield (%)	1.6	1.5	1.5	1.5
Revenue Growth (%)	78.8	-2.7	22.1	11.4
EBITDA Growth (%)	70.4	7.5	36.6	20.8
Operating Profit Growth (%)	77.8	8.5	38.6	21.7
EPS Growth (%)	61.9	3.3	39.9	18.9
Accounts Receivable Turnover (x)	10.0	9.0	10.0	9.6
Inventory Turnover (x)	2,983.9	3,380.8	3,768.2	3,611.8
Accounts Payable Turnover (x)	48.4	100.1	111.6	106.9
ROA (%)	15.1	12.5	15.5	15.9
ROE (%)	19.1	15.9	19.5	19.9
ROIC (%)	271.5	533.7	2,023.5	-2,577.6
Liability to Equity Ratio (%)	29.2	25.7	26.1	24.3
Current Ratio (%)	388.9	478.2	459.2	501.7
Net Debt to Equity Ratio (%)	-51.1	-57.7	-58.7	-62.3
Interest Coverage Ratio (x)	179.6	194.9	270.1	328.5

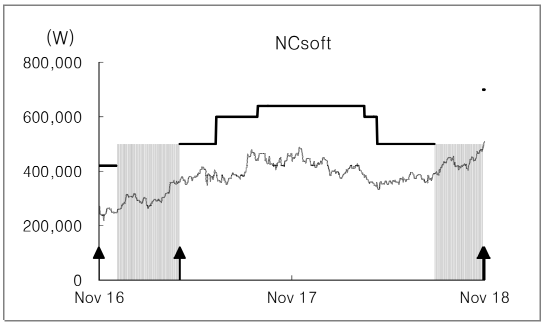
Source: Company data, Mirae Asset Daewoo Research estimates

APPENDIX 1

Important Disclosures & Disclaimers

2-Year Rating and Target Price History

Company (Code)	Date	Rating	Target Price
NCsoft(036570)	11/26/2018	Buy	700,000
	08/27/2018	No Coverage	
	05/10/2018	Buy	500,000
	04/16/2018	Buy	600,000
	09/26/2017	Buy	640,000
	07/09/2017	Buy	600,000
	05/01/2017	Buy	500,000
	01/02/2017	No Coverage	
	03/11/2016	Buy	420,000



Stock Ratings	
Buy	: Relative performance of 20% or greater
Trading Buy	: Relative performance of 10% or greater, but with volatility
Hold	: Relative performance of -10% and 10%
Sell	: Relative performance of -10%

Industry Ratings	
Overweight	: Fundamentals are favorable or improving
Neutral	: Fundamentals are steady without any material changes
Underweight	: Fundamentals are unfavorable or worsening

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	73.71%	13.92%	12.37%	0.00%
Investment Banking Services	82.61%	4.35%	13.04%	0.00%

* Based on recommendations in the last 12-months (as of September 30, 2018)

Disclosures

As of the publication date, Mirae Asset Daewoo Co., Ltd. has acted as a liquidity provider for equity-linked warrants backed by shares of NCsoft as an underlying asset; other than this, Mirae Asset Daewoo 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 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 consent of Mirae Asset Daewoo.

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 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 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 Daewoo. 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: 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.
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 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 (HK) Ltd.
Suites 1109-1114, 11th Floor
Two International Finance Centre
8 Finance Street, Central
Hong Kong
China
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 (USA) Inc.
555 S. Flower Street, Suite 4410,
Los Angeles, California 90071
USA

Tel: 1-213-262-3807

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

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 (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