

**Game**

Initiation Report  
February 21, 2018

**(Initiate)** **Buy**

**Target Price (12M, W)** **300,000**

Share Price (02/20/18, W) **242,900**

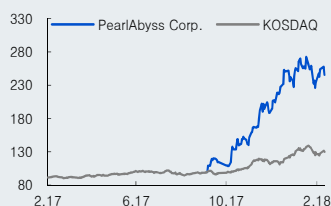
Expected Return **24%**

OP (18F, Wbn) 234  
Consensus OP (18F, Wbn) 182

EPS Growth (18F, %) 288.5  
Market EPS Growth (18F, %) 8.6  
P/E (18F, x) 14.6  
Market P/E (18F, x) 9.3  
KOSDAQ 864.41

Market Cap (Wbn) 2,931  
Shares Outstanding (mn) 12  
Free Float (%) 46.1  
Foreign Ownership (%) 5.8  
Beta (12M) 0.84  
52-Week Low 98,900  
52-Week High 269,600

(%)	1M	6M	12M
Absolute	-6.1	-	-
Relative	-4.5	-	-



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[Internet/Game/Advertising]

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# PearlAbyss Corp.

(263750 KQ)

## Aspiring to become multi-player

### Initiate coverage with Buy and TP of W300,000

We initiate our coverage on PearlAbyss with a Buy rating and target price of W300,000. Founded in 2010, PearlAbyss is a game developer well known for its flagship title, *Black Desert* (PC online MMORPG). Our investment recommendation is based on three key points: 1) platform expansion; 2) intellectual property (IP) diversification; and 3) an inexpensive valuation.

### 2018 to mark start of platform expansion into mobile and console games

We believe 2018 will mark the beginning of the company's full-fledged platform expansion.

**PC online:** PearlAbyss kicked off its PC online game business with the domestic launch of *Black Desert* in December 2014. The title's overseas service began the following year. The company initially relied on outside publishers to service the game in Japan/Russia (2015) and the US/Europe (2016). In 2017, however, the company shifted its strategy to direct servicing and currently services the game itself through its local subsidiaries in markets like Taiwan, Latin America, Turkey/Middle East, and Thailand/Southeast Asia. In 2017, the company derived its entire revenue from *Black Desert*, with 84% coming from overseas. This year, the game will also become available in China.

**Mobile:** The company plans to release *Black Desert Mobile* (mobile MMORPG) on February 28<sup>th</sup>. Since pre-registrations began on November 23<sup>rd</sup>, 2017, *Black Desert Mobile* has attracted four million pre-registrations—the second highest number ever for a domestic mobile title. During a three-day closed beta test (CBT) from February 9<sup>th</sup> to 11<sup>th</sup>, the mobile game garnered a positive response for its graphics, character customizing, and combat/attack effects. *Black Desert Mobile* will initially feature five characters, but is likely to add more through content updates, considering that the PC title has a total of 16 characters. The addition of characters should help extend the game's longevity.

**Console:** *Black Desert* will be launched on Microsoft's Xbox in North America/Europe during 1H18. The game's console version will subsequently become available on other platforms and in other regions. Console games represent 23% of the global game market, with North America/Europe making up the bulk (76%) of the global console market. PearlAbyss is developing new PC online titles with console versions in mind.

### Focus on *Black Desert Mobile* in short term, and game diversification in medium/long term

In the near term, we believe share price momentum will be determined by the potential success of *Black Desert Mobile's* domestic release. With expectations on the title already priced into share prices, if the title does better than expected, valuation would become cheaper, fueling further share price gains. In the medium and long term, we think business diversification and fundamental enhancement via the release of multi-platform (PC/mobile/console) titles and new IP titles will drive share price momentum.

FY (12)	12/15	06/16	12/17P	12/18F	12/19F	12/20F
Revenue (Wbn)	-	34	117	431	438	447
OP (Wbn)	-	28	65	234	236	238
OP margin (%)	-	82.4	55.1	54.3	53.9	53.2
NP (Wbn)	-	24	52	200	201	203
EPS (W)	-	2,379	4,276	16,614	16,678	16,785
ROE (%)	-	112.9	36.5	55.5	35.8	26.5
P/E (x)	-	-	57.9	14.6	14.6	14.5
P/B (x)	-	-	11.4	6.3	4.4	3.4
Dividend yield (%)	-	-	0.0	0.0	0.0	0.0

Note: All figures are based on consolidated K-IFRS; NP is attributable to controlling interests; annual figures are based on fiscal year ending in December and are annualized; figures before 2017 are based on fiscal year ending in June  
Source: Company data, Mirae Asset Daewoo Research

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## Earnings forecast

### Direct servicing and mobile title launch will lead to structural changes in earnings

There are two factors to consider when analyzing PearlAbyss' earnings.

1) PC online game service approach: The company has adopted a direct service approach (instead of using outside publishers) for *Black Desert* in countries it has entered since 2017. As a result, revenue recognition for the title has also changed from a net basis to a gross basis (see Table 6).

2) Mobile game launch: *Black Desert Mobile*, which will debut on February 28<sup>th</sup>, will be directly serviced by the company, meaning revenue will be booked on a gross basis. In terms of operating expenses, this will likely lead to structurally higher commission fees (paid to app stores) and marketing spending than before.

**Table 1. Earnings trends and forecast**

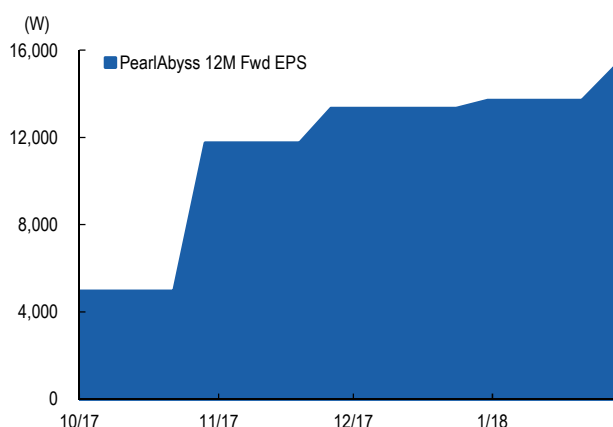
(Wbn, %)

	1Q17	2Q17	3Q17	4Q17	1Q18F	2Q18F	3Q18F	4Q18F	2016	2017	2018F
<b>Revenue</b>	<b>32</b>	<b>33</b>	<b>28</b>	<b>25</b>	<b>74</b>	<b>130</b>	<b>119</b>	<b>107</b>	<b>62</b>	<b>117</b>	<b>431</b>
<i>Black Desert</i> (PC)	31	32	26	24	28	30	28	34	57	112	120
- Domestic	5	4	4	5	5	5	5	4	16	18	18
- Overseas	26	27	22	19	23	25	23	30	42	94	101
New titles ( <i>Black Desert Mobile</i> , etc.)					45	99	90	72			306
Other	1	1	1	1	1	1	1	1	5	5	5
<b>Operating profit</b>	<b>21</b>	<b>22</b>	<b>15</b>	<b>6</b>	<b>34</b>	<b>76</b>	<b>68</b>	<b>56</b>	<b>45</b>	<b>65</b>	<b>234</b>
OP margin	65.7	66.8	54.7	25.6	46.5	57.9	57.2	52.6	72.6	55.1	54.4
<b>Net profit</b>	<b>15</b>	<b>20</b>	<b>14</b>	<b>1</b>	<b>30</b>	<b>66</b>	<b>60</b>	<b>44</b>	<b>40</b>	<b>50</b>	<b>200</b>
Net margin	47.8	59.4	49.1	4.6	41.2	50.5	49.9	41.3	65.7	42.2	46.4
<b>YoY</b>											
Revenue	91.6	93.1	117.9	62.7	132.7	295.3	332.9	331.0	183.8	90.3	267.6
<i>Black Desert</i> (PC)	84.2	112.9	130.1	67.7	-9.2	-4.8	6.9	42.7	182.4	96.9	6.7
- Domestic	77.9	39.5	-0.2	-7.8	0.9	14.3	9.4	-22.0	14.1	18.7	0.0
- Overseas	85.5	131.8	212.9	113.1	-11.0	-7.7	6.4	59.5	528.2	126.1	8.1
Other	-	-42.6	0.2	3.5	0.2	-1.7	3.3	-1.7	202.6	7.5	0.0
Operating profit	46.8	58.6	78.3	-22.0	64.9	242.7	352.4	786.3	273.1	44.8	264.3
Net profit	4.7	97.9	112.2	-88.3	100.5	235.6	339.7	3806.7	295.7	22.3	304.1

Notes: All figures are based on consolidated K-IFRS; annual figures are based on fiscal year ending in December and are annualized; figures before 2017 are based on fiscal year ending in June; *Black Desert Mobile's* daily average revenue is estimated at W1.5bn in 1Q18, W1.1bn in 2Q18, W0.9bn in 2H18

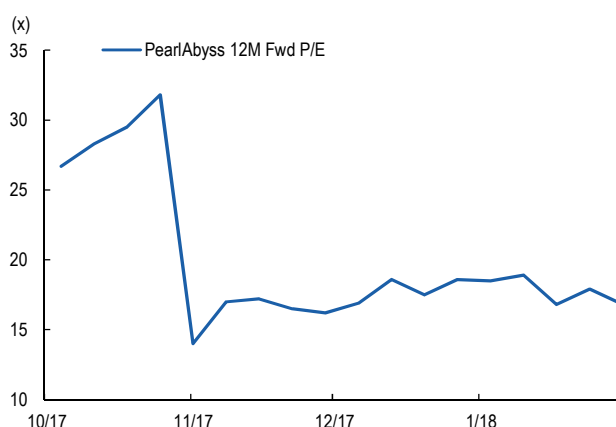
Sources: Company data, Mirae Asset Daewoo Research

**Figure 1. 12-month forward EPS consensus trend**



Source: Thomson Reuters, Mirae Asset Daewoo Research

**Figure 2. 12-month forward P/E trend**



Source: Thomson Reuters, Mirae Asset Daewoo Research

## Major games

**Figure 3. *Black Desert* (PC online game) currently being serviced in nearly 100 countries (after domestic launch in December 2014)**



Notes: MMORPG; developed by self-development engine for 4 years; partial charging system and package are on sale in North America/Europe/Taiwan/South America; accumulated sales volume are equivalent of W400bn  
 Source: Company data, Mirae Asset Daewoo Research

**Figure 4. *Black Desert Mobile* slated for Korean launch on February 28<sup>th</sup> (following February 9-11<sup>th</sup> CBT)**



Notes: CBT (Closed-Beta Test) has attracted four million pre-registrations  
 Source: Mirae Asset Daewoo Research

**Table 2. Long-term game release plans**

	1H18	2H18
Upcoming games	<i>Black Desert Mobile</i> will debut in Korea on Feb. 28	New PC/console game to be released (new IP; MMO + FPS + AOS genres)
	<i>Black Desert</i> console version (on Microsoft's Xbox) expected to launch during 1H18	New mobile game to be released (new IP; MMO + casual genres)
	2019	2021
Upcoming games	New PC/console game (new IP)	New PC/console game (new IP)

Notes: Actual release schedule is subject to change  
 Source: Company data, Mirae Asset Daewoo Research

## Valuation

### Revenue diversification through new title release to support re-rating

We present a target price of W300,000 on PearlAbyss, which we derived by applying the 2018F average P/E of major domestic/Western game companies to our net profit (controlling interest) estimate. Based on the February 20<sup>th</sup> closing price, the stock is trading at a 2018F P/E of 14.6x, a discount to the global gaming sector. Looking ahead, we believe revenue diversification through new title releases will serve as a catalyst for re-rating.

**Table 3. 12-month target price calculation**

(Wbn, x, W)

	Valuation			Notes
<b>Operating value (1)</b>	<b>3,401</b>			
	2018F NP attributable to controlling interests	Multiple		
	200	17.0	3,401	Based on 2018F average P/E of major domestic/Western game companies
<b>Investment asset value (2)</b>	<b>5</b>			
Available-for-sale financial assets	5			As of 4Q17
Investments in affiliates	1			As of 4Q17
<b>Total asset value (1+2=3)</b>	<b>3,406</b>			
Net debt (4)	-257			As of 4Q17
<b>Net asset value (3-4)</b>	<b>3,663</b>			
No. of shares ('000 shares)	12,066			Total shares outstanding (including treasury stock)
<b>Target price</b>	<b>300,000</b>			

Source: Mirae Asset Daewoo Research

**Table 4. Earnings and valuation comparison of global game companies**

(Wbn, x, %)

Company	Market cap	Revenue		Operating profit		Net profit		P/E		EV/EBITDA		P/B		ROE	
		17F	18F	17F	18F	17F	18F	17F	18F	17F	18F	17F	18F	17F	18F
Netmarble Games	12,244	2,425	2,597	510	514	363	365	51.5	39.0	24.7	17.1	3.9	2.8	11.6	7.3
NCsoft	8,600	1,758	2,491	585	998	444	734	22.3	11.8	13.9	6.9	3.6	2.6	19.8	25.5
PearlAbyss	2,931	117	431	65	234	52	200	57.9	14.6	42.6	10.6	11.4	6.3	36.5	55.5
Com2uS	1,931	512	573	197	211	145	156	12.1	12.4	5.2	5.1	2.2	2.1	20.8	18.6
NHN Entertainment	1,499	909	1,002	35	58	9	52	86.0	26.3	14.8	13.4	0.9	1.0	1.1	3.8
Activision Blizzard	56,967	7,934	8,147	1,480	2,851	309	2,201	43.7	26.8	19.0	17.9	5.1	4.8	2.9	16.1
Electronic Arts	41,492	5,566	5,623	1,406	1,788	1,111	1,424	28.1	29.4	17.2	19.5	6.8	9.0	25.9	30.6
Take-Two	13,144	2,045	2,201	105	533	77	425	68.7	33.2	14.1	21.9	6.1	7.9	8.3	26.2
Zynga	3,355	974	996	29	147	30	138	94.3	27.4	50.0	15.3	2.1	1.9	1.7	7.0
Ubisoft	9,975	1,840	2,216	222	378	136	279	40.9	35.7	7.1	9.4	4.0	5.9	10.0	14.4
Nintendo	66,691	5,194	10,339	312	1,595	1,089	1,298	30.3	43.9	57.2	32.9	2.5	4.3	8.5	10.3
Nexon	16,797	2,369	2,621	913	1,115	572	882	25.4	19.3	11.1	11.3	3.1	3.1	13.5	17.8
Square Enix	5,368	2,698	2,574	332	398	213	263	19.2	20.1	7.0	8.9	2.1	2.7	11.4	13.9
DeNA	2,927	1,527	1,419	246	273	327	206	10.6	14.0	7.3	5.6	1.4	1.1	14.7	8.3
GungHo Online	3,484	931	825	347	292	226	184	9.8	14.7	4.6	10.2	3.7	3.7	45.1	26.0
GREE	1,613	684	841	84	122	127	80	19.0	19.5	14.7	5.8	2.1	1.3	11.4	7.2
Tencent	581,067	40,254	56,282	14,143	17,358	10,931	14,336	52.2	39.9	37.3	28.7	14.5	10.7	30.9	30.1
NetEase	42,954	9,060	11,922	2,035	2,263	1,793	2,310	27.7	19.4	19.8	14.9	6.4	4.4	25.5	24.5
Kingsoft	4,844	887	1,233	147	241	201	283	18.7	17.7	18.7	12.8	2.7	2.4	13.5	13.2
Youzu Interactive	3,080	579	753	126	177	131	180	21.8	16.1	19.6	14.4	5.3	4.1	24.7	26.9
Changyou	1,527	656	592	102	130	123	138	11.2	10.5	2.0	3.6	1.5	1.2	9.0	11.1
Average								30.1	23.4	19.4	13.6	4.3	4.0	16.5	18.8

Notes: Data for domestic companies are based on Mirae estimates; data for overseas companies are based on consensus

Source: Bloomberg, Mirae Asset Daewoo Research

## About PearlAbyss

**Table 5. Company history**

	Details
Sep. 10, 2010	PearlAbyss established
<b>Dec. 17, 2014</b>	<b>Domestic OBT for <i>Black Desert</i></b>
May 14, 2015	<i>Black Desert</i> officially launched in Japan
Oct. 12, 2015	<i>Black Desert</i> officially launched in Russia
Mar. 3, 2016	<i>Black Desert</i> officially launched in North America/Europe
Nov. 17, 2016	Taiwan subsidiary established
Jan. 11, 2017	<i>Black Desert</i> officially launched in Taiwan
May 10, 2017	Acquired stake in RedFox Games (US game publishing company)
May 23, 2017	Submitted documents for IPO to KQ
May 24, 2017	Steam global service started
Jun. 23, 2017	Acquired stake in Nettetion (server/network engine technology); 20,000 preferred shares
Jun. 28, 2017	<i>Black Desert</i> officially launched in South America
Jul. 11, 2017	Acquired 100% stake in Nettetion (80,000 common shares), making it a fully-owned consolidated subsidiary
Aug. 14, 2017	Established PearlAbyss H.K. Limited in Hong Kong
Aug. 22, 2017	Established PearlAbyss EU B.V. in the Netherlands
Sep. 5, 2017	Established PearlAbyss SEA Pte. Ltd. in Singapore
Sep. 10, 2017	1.8mn common shares issued for public subscription before KOSDAQ listing
<b>Sep. 14, 2017</b>	<b>Listed on KOSDAQ</b>
Jan. 17, 2018	<i>Black Desert</i> officially launched in Thailand/Southeast Asia
Feb. 9, 2018	CBT version of <i>Black Desert Mobile</i> conducted for three days
<b>Feb. 28, 2018</b>	<b><i>Black Desert Mobile</i> expected to debut in domestic market</b>
Mar. 14, 2018	Six-month lockup to expire (28.5% of shares)
Mar. 31, 2018	Employee stock option to become exercisable (6.1% of shares)

Notes: Actual game release schedule is subject to change; major items listed

Source: Company data, Mirae Asset Daewoo Research

**Table 6. Structure of game service**

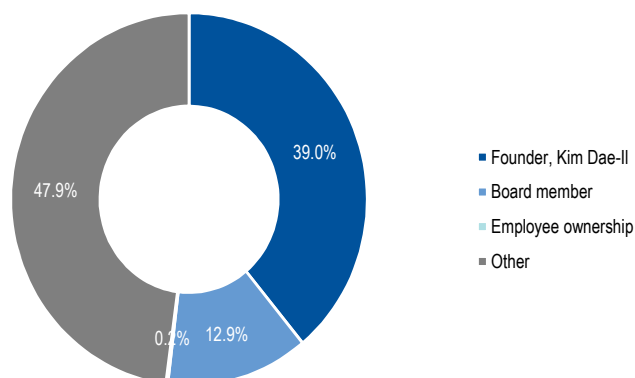
Title	Game distribution publisher
<b><i>Black Desert</i>(PC)</b>	Korea: Kakao Games (from Dec. 2014)
	Japan: GameOn (from May 2015)
	Russia: Syncopate (from Jan. 2015)
	North America/Europe: Kakao Games (from Mar. 2016)
	<b>Taiwan: Direct service, PearlAbyss Taiwan (subsidiary; from Jan. 2017)</b>
	<b>South America: Direct service, RedFox Games (subsidiary; from Jun. 2017)</b>
	<b>Turkey/Middle East: Direct service, PearlAbyss MEA (subsidiary; from Dec. 2017)</b>
<b><i>Black Desert Mobile</i></b>	<b>Thailand/Southeast: PearlAbyss SEA (subsidiary; from Jan. 2018; with marketing/operations partner Level Up Games)</b>
	China: Snail (potentially in 2018)
<b><i>Black Desert</i> Mobile</b>	<b>Korea: Direct Service, PearlAbyss (expected in Feb. 2018)</b>
	Overseas: Unannounced
<b><i>Black Desert</i>(console)</b>	North America/Europe: Microsoft Xbox (expected in 1H18)

Notes: Actual game release schedule is subject to change

Source: Company data, Mirae Asset Daewoo Research

## Ownership structure

**Figure 5. Shareholding structure**



Notes: As of Sep. 30, 2017; treasury stock equivalent of ₩20bn have been purchased during 6 months from 13, Feb. 2018  
Source: Company data, Mirae Asset Daewoo Research

**Table 7. Career of biggest shareholder and founder, Kim Dae-il**

	Details
Jul. 2016 to present	PearlAbyss chairman of board of directors
Sep. 2010 to Jul. 2016	PearlAbyss CEO (developed MMORPG <i>Black Desert</i> )
Aug. 2003 to Feb. 2010	NHN/NHN Games (developed MMORPGs <i>R2</i> and <i>C9</i> )
Feb. 2000 to Aug. 2003	Gamasoft (developed MMORPG <i>Ryl Online</i> )

Source: Company data, media reports, Mirae Asset Daewoo Research

**Table 8. Post-IPO lockup**

(shares, %)

	No. of shares	Equity stake	Lockup period: Expiry date
Largest shareholders, etc.	4,110,422	34.07	1 year: Sep. 14, 2018
	3,049,199	25.27	6 months: Mar. 14, 2018
Shares acquired from largest shareholder within one year	393,903	3.26	6 months: Mar. 14, 2018
ESOP	25,000	0.21	1 year: Sep. 14, 2018

Note: Shares for which lockup has expired are not shown

Source: Company data, Mirae Asset Daewoo Research

## Risk factors

### Key risk factors are new title-related volatility and rival games

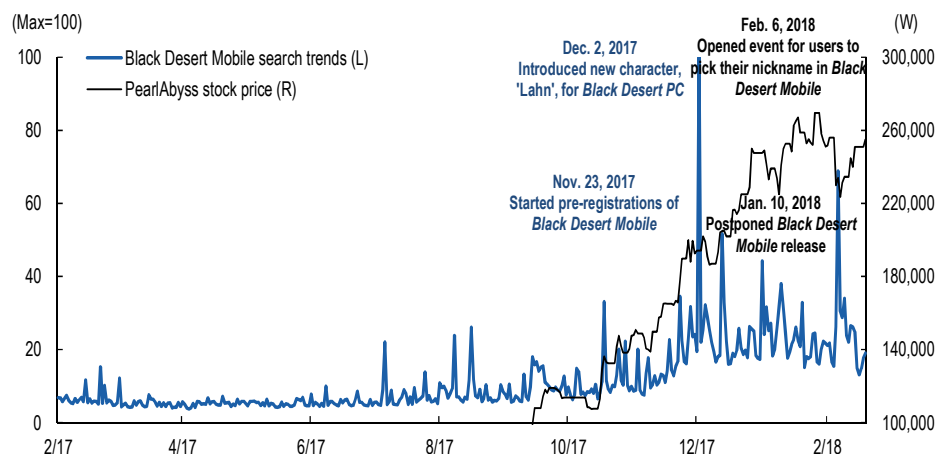
**New title performance:** The biggest source of momentum for game stocks is expectations on new titles. However, it is difficult to predict how well a new game will do. That said, a number of pre-launch events, such as pre-registrations, closed beta tests (CBT), and open beta tests (OBT), have lately been utilized for marketing purposes to raise the likelihood of success. If PearlAbyss' new title flops, the company could fail to recover its investment (marketing and development expenses). Moreover, even if its new title proves successful, the stock could come under profit-taking pressures as investors confirm the title's performance, as bullish expectations have already been priced in.

**Competition:** The mobile game industry currently faces intense competition. In the Korean market, the number of new mobile titles by major game companies is set to double YoY, with many of them geared towards large-scale MMORPGs. Gamevil and Nexon have already launched new MMORPGs in January, while upcoming mobile releases by Netmarble Games and NCsoft are also large-scale MMORPGs. Furthermore, mobile games from China, the US, and Japan have begun to enter the top rankings of the Korean charts. Marketing spending is also increasing, as companies promote their games on both online and offline (TV, billboards, etc.) channels.

**Rising expenses:** Compared with online game revenue, mobile game revenue tends to lead to a structural increase in variable expenses, such as commission fees to app stores and marketing expenses. The growing scale of mobile titles and content updates aimed at extending longevity are also driving up hiring and labor expenses, which could rise even further, due to new title developments. That said, the increase in expenses could be offset by the success of a new title, a long lifecycle, and overseas revenue.

**Stock supply/demand:** PearlAbyss was listed on the KOSDAQ on September 14<sup>th</sup>, 2017. On March 14<sup>th</sup>, 28.5% of the company's shares will become available for sale due to the expiry of a six-month lockup. On March 31<sup>st</sup>, 6.1% of the company's shares will become available for employee stock options (total shares available for stock options are 9.8%; the rest will be exercisable in June 2018 and March 2019). Some of these shares could be unloaded, putting upside pressures on supply (see Tables 5 and 8). That said, this could be partly absorbed by the company's current share repurchase program (W20bn for a six-month period starting February 13<sup>th</sup>).

**Figure 6. Black Desert Mobile search index vs. PearlAbyss' stock price trend: Bullish expectations for new titles already priced in**



Notes: Search trends are based on the sum of search volume in PC/mobile relative to *Black Desert Mobile*  
 Source: Naver Data Lab, Thomson Reuters, Mirae Asset Daewoo Research

## PearlAbyss Corp. (263750 KQ/Buy/TP: W300,000)

**Comprehensive Income Statement (Summarized)**

(Wbn)	12/17P	12/18F	12/19F	12/20F
<b>Revenue</b>	<b>117</b>	<b>431</b>	<b>438</b>	<b>447</b>
<b>Cost of Sales</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Gross Profit</b>	<b>117</b>	<b>431</b>	<b>438</b>	<b>447</b>
<b>SG&amp;A Expenses</b>	<b>53</b>	<b>196</b>	<b>202</b>	<b>209</b>
<b>Operating Profit (Adj)</b>	<b>65</b>	<b>234</b>	<b>236</b>	<b>238</b>
<b>Operating Profit</b>	<b>65</b>	<b>234</b>	<b>236</b>	<b>238</b>
<b>Non-Operating Profit</b>	<b>-4</b>	<b>-1</b>	<b>-2</b>	<b>-2</b>
Net Financial Income	1	1	1	1
Net Gain from Inv in Associates	0	0	0	0
Pretax Profit	60	233	234	236
Income Tax	8	33	33	33
Profit from Continuing Operations	52	200	201	203
Profit from Discontinued Operations	0	0	0	0
<b>Net Profit</b>	<b>52</b>	<b>200</b>	<b>201</b>	<b>203</b>
Controlling Interests	52	200	201	203
Non-Controlling Interests	0	0	0	0
<b>Total Comprehensive Profit</b>	<b>52</b>	<b>200</b>	<b>201</b>	<b>203</b>
Controlling Interests	52	200	201	203
Non-Controlling Interests	0	0	0	0
EBITDA	64	234	236	238
FCF (Free Cash Flow)	41	208	202	202
EBITDA Margin (%)	55.1	54.3	53.9	53.2
Operating Profit Margin (%)	55.1	54.3	53.9	53.2
Net Profit Margin (%)	44.4	46.4	45.9	45.4

**Cash Flows (Summarized)**

(Wbn)	12/17P	12/18F	12/19F	12/20F
<b>Cash Flows from Op Activities</b>	<b>47</b>	<b>208</b>	<b>202</b>	<b>202</b>
Net Profit	52	200	201	203
Non-Cash Income and Expense	8	32	32	32
Depreciation	0	0	0	0
Amortization	0	0	0	0
Others	8	32	32	32
Chg in Working Capital	-5	8	0	0
Chg in AR & Other Receivables	-8	-44	-1	-1
Chg in Inventories	0	0	0	0
Chg in AP & Other Payables	0	0	0	0
Income Tax Paid	-8	-33	-33	-33
<b>Cash Flows from Inv Activities</b>	<b>-29</b>	<b>-44</b>	<b>-1</b>	<b>-1</b>
Chg in PP&E	-6	0	0	0
Chg in Intangible Assets	-4	0	0	0
Chg in Financial Assets	-16	-44	-1	-1
Others	-3	0	0	0
<b>Cash Flows from Fin Activities</b>	<b>183</b>	<b>0</b>	<b>0</b>	<b>0</b>
Chg in Financial Liabilities	-	-	-	-
Chg in Equity	188	0	0	0
Dividends Paid	0	0	0	0
Others	-	-	-	-
<b>Increase (Decrease) in Cash</b>	<b>200</b>	<b>163</b>	<b>201</b>	<b>202</b>
Beginning Balance	31	231	394	595
Ending Balance	231	394	595	797

Notes: Annual figures are based on fiscal year ending in December and are annualized; figures before 2017 are based on fiscal year ending in June  
Source: Company data, Mirae Asset Daewoo Research estimates

**Statement of Financial Condition (Summarized)**

(Wbn)	12/17P	12/18F	12/19F	12/20F
<b>Current Assets</b>	<b>265</b>	<b>519</b>	<b>722</b>	<b>926</b>
Cash and Cash Equivalents	231	394	595	797
AR & Other Receivables	17	62	63	64
Inventories	0	0	0	0
Other Current Assets	17	63	64	65
<b>Non-Current Assets</b>	<b>17</b>	<b>19</b>	<b>19</b>	<b>18</b>
Investments in Associates	1	2	2	2
Property, Plant and Equipment	7	7	7	7
Intangible Assets	4	4	4	4
<b>Total Assets</b>	<b>283</b>	<b>538</b>	<b>740</b>	<b>945</b>
<b>Current Liabilities</b>	<b>20</b>	<b>72</b>	<b>73</b>	<b>75</b>
AP & Other Payables	9	32	33	34
Short-Term Financial Liabilities	0	0	0	0
Other Current Liabilities	11	40	40	41
<b>Non-Current Liabilities</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>5</b>
Long-Term Financial Liabilities	1	0	0	0
Other Non-Current Liabilities	1	4	5	5
<b>Total Liabilities</b>	<b>21</b>	<b>76</b>	<b>78</b>	<b>79</b>
<b>Controlling Interests</b>	<b>261</b>	<b>462</b>	<b>663</b>	<b>865</b>
Capital Stock	6	6	6	6
Capital Surplus	184	184	184	184
Retained Earnings	71	272	473	675
<b>Non-Controlling Interests</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Stockholders' Equity</b>	<b>261</b>	<b>462</b>	<b>663</b>	<b>865</b>

**Forecasts/Valuations (Summarized)**

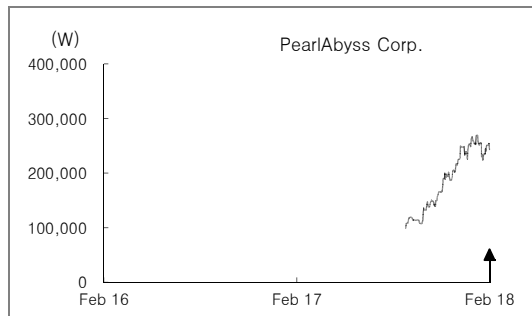
	12/17P	12/18F	12/19F	12/20F
P/E (x)	57.9	14.6	14.6	14.5
P/CF (x)	50.3	12.6	12.6	12.5
P/B (x)	11.4	6.3	4.4	3.4
EV/EBITDA (x)	42.6	10.6	9.6	8.7
EPS (W)	4,276	16,614	16,678	16,785
CFPS (W)	4,922	19,268	19,343	19,467
BPS (W)	21,640	38,254	54,931	71,716
DPS (W)	0	0	0	0
Payout ratio (%)	0.0	0.0	0.0	0.0
Dividend Yield (%)	0.0	0.0	0.0	0.0
Revenue Growth (%)	244.1	268.4	1.6	2.1
EBITDA Growth (%)	120.7	265.6	0.9	0.8
Operating Profit Growth (%)	128.6	265.6	0.9	0.8
EPS Growth (%)	79.7	288.5	0.4	0.6
Accounts Receivable Turnover (x)	9.2	11.1	7.1	7.1
Inventory Turnover (x)	0.0	0.0	0.0	0.0
Accounts Payable Turnover (x)	0.0	0.0	0.0	0.0
ROA (%)	31.6	48.9	31.5	24.0
ROE (%)	36.5	55.5	35.8	26.5
ROIC (%)	588.0	1,668.7	2,226.4	2,382.4
Liability to Equity Ratio (%)	8.2	16.5	11.7	9.2
Current Ratio (%)	1,353.2	722.3	987.5	1,241.7
Net Debt to Equity Ratio (%)	-94.4	-98.2	-98.8	-99.1
Interest Coverage Ratio (x)	0.0	0.0	0.0	0.0

# APPENDIX 1

## Important Disclosures & Disclaimers

### 2-Year Rating and Target Price History

Company (Code)	Date	Rating	Target Price
PearlAbyss Corp. (263750)	02/20/2018	Buy	300,000



### 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	75.50%	16.00%	8.50%	0.00%
Investment Banking Services	62.50%	33.33%	4.17%	0.00%

\* Based on recommendations in the last 12-months (as of December 31, 2017)

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