Game

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Risks gone, growth story lives on

1) Investment highlights

- Pearl Abyss's 4Q18 earnings results missed consensus expectations, due mainly to cost burdens from: 1)
 the hiring of additional staff at the parent company and the welcoming of additional employees after
 acquiring CCP Games, an Icelandic video game developer; and 2) an increase in commissions which
 include advisory fees for the CCP Games acquisition and cloud server costs.
- Beginning with the release of *Black Desert Mobile* in Japan in February, Pearl Abyss is slated to launch *Black Desert Xbox* in March. The game is also set to tap into global markets, starting with North America and Europe in 2Q19 and Southeast Asia in 3Q19. We expect revenue to grow further when China begins to issue game licenses again.
- Black Desert Mobile's Japanese launch date is set for Feb 26, and pre-subscription orders have been
 picking up rapidly. Looking at the example of *Lineage 2 Revolution* when it was released in Japan, those
 who pre-ordered the game tended to display a higher retention rate than post-release buyers.
- In February, the company plans to accelerate marketing including TV and billboard ads, targeting bigger
 and wider audiences, and pre-subscription orders should reach 1mn by the release date. We believe
 Black Desert has great potential to be a hit in Japan because many Japanese gamers are familiar with
 the game's IP and have a tendency to appreciate details, which the game offers in abundance.
- Its in-house game developing projects—dubbed project "K" and "V" with a target for 2020 release—will be based on the next-generation game engine (to be completed in 1H19) which can cover all platforms such as PCs, mobile devices, and consoles. We believe the company's mid/long-term growth story is intact, as platform diversification becomes more important in the game sector.

2) Major issues and earnings outlook

- Pearl Abyss posted 4Q18 consolidated revenue of KRW99.1bn (+300% YoY, -15% QoQ) and operating
 profit of KRW18.2bn (+180% YoY, -70% QoQ), which was below expectations. The lower-than-expected
 results have to do with labor cost hikes from headcount additions and higher commissions stemming
 from advisory fees over the CCP Games deal and cloud server costs.
- In 4Q18, we assume Black Desert generated daily revenue of KRW440mn in Korea and KRW230mn in Taiwan. We now estimate the daily revenue from these two regions will average KRW550mn in 2019.
 Our assumptions for other regions soon after launch are KRW800mn in Japan, KRW340mn in North America/Europe, and KRW150mn in Southeast Asia.

3) Share price outlook and valuation

 The shares pulled back recently on concerns over 4Q18 earnings deterioration. With the results out now, uncertainty has diminished and we expect the stock to move to price in expectations for the company's growth story overseas. We maintain BUY and keep our target price intact at KRW255,000.

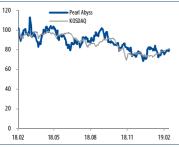
Share price (KRW, Feb 14) 202,900 1) Ir

Upside (%)			25.7
Market cap (KRW bn)			2,626
Shares outstanding ('00	00)		12,943
Paid-in capital (KRW bn)/ Face value (KRW)			6/500
52-week high/low (KRW)		284,200	/172,200
60-day avg. daily T/O (F	60-day avg. daily T/O (KRW bn)		12
Foreign ownership (%)			10.45
Major shareholders (%))	Kim D	ae II and
		9 oth	ers 46.68
Price performance	1M	3M	6M
Absolute (%)	-0.7	9.2	-14.8
Relative (%p)	-7.9	-1.0	-13.0

(KRW)	18F EPS	19F EPS	TP
Previous	1,276	1,861	255,000
Revised	1,182	1,702	255,000
Consensus	1,285	1,874	271,154
Difference	-8.0%	-9.2%	-6.0%

12-month price performance

K-IFRS, consolidated



Source: WiseFn, Hyundai Motor Securities

Earnings forecasts and valuations

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	Sales	OP	NP	EBITDA	EPS	Growth	P/E	P/B	EV/EBITDA	ROE	Div. yield
	(KRW bn)	(KRW bn)	(KRW bn)	(KRW bn)	(KRW)	(%YoY)	(x)	(x)	(x)	(%)	(%)
2016	34	28	24	29	3,173	N/A	0.0	0.0	-0.9	112.9	N/A
2017	52	22	15	23	1,293	-59.2	191.5	10.9	120.3	9.9	0.0
2018F	404	167	145	172	11,819	814.0	17.6	6.6	13.7	42.5	0.0
2019F	611	287	220	300	17,018	44.0	11.9	4.2	6.9	42.4	0.0
2020F	673	348	278	362	21,459	26.1	9.5	2.9	5.0	36.2	0.0

Note: K-IFRS, consolidated



Fig 1. 4Q18 earnings review

(KRW bn, %)		Quarterly result	:S	Cha	nge	HMS est	imates	Con	sensus
	4017	3Q18	4Q18P	(%YoY)	(%QoQ)	4Q18	%diff	4Q18	%diff
Revenue	25	117	99	300.0	-15.3	112	-11.4	112	-11.5
Operating profit	7	60	18	181.2	-69.8	31	-41.6	37	-50.5
Pretax profit	2	59	20	1162.0	-65.7	31	-34.1	38	-46.4
Net profit	1	52	14	1060.3	-73.7	25	-45.8	32	-57.3

Note: K-IFRS, consolidated Source: Company data, WiseFn, Hyundai Motor Securities

Fig 2. Earnings revisions

(KRW bn)	Revised		Previous		%change	
	18F	19F	18F	19F	18F	19F
Revenue	404	611	417	647	-3.1	-5.5
Operating profit	167	287	180	294	-7.2	-2.3
Pretax profit operations	174	278	185	285	-5.7	-2.5
Net profit	145	220	157	241	-7.3	-8.6

Source: Company data, Hyundai Motor Securities

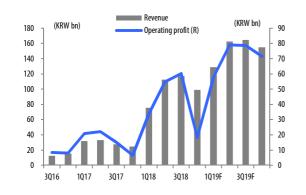
Fig 3. Quarterly earnings trends and outlook

(KRW bn)	1018	2Q18	3Q18	4Q18P	1Q19F	2Q19F	3Q19F	4Q19F
Revenue	76	113	117	99	129	162	164	155
Black Desert Online	34	30	27	25	24	23	22	22
Domestic	6	4	5	4	4	4	4	4
Abroad	28	26	22	21	20	19	19	18
Black Desert Mobile	42	83	90	61	82	115	119	112
Domestic	42	83	76	40	38	36	35	33
Abroad			14	21	44	79	84	79
Black Desert Console					7	4	3	3
CCP Games				13	16	20	20	18
Operating expense	42	58	57	81	71	84	86	84
Labor cost	10	15	12	22	21	22	23	24
Commission	18	30	31	41	32	42	43	41
Marketing cost	11	9	10	9	12	11	12	11
Depreciation cost	1	1	1	3	3	3	3	3
Others	3	3	3	6	4	5	5	5
Operating profit	34	55	60	18	58	79	79	72
OP margin (%)	44.5	48.7	51.6	18.3	44.7	48.6	47.8	46.1
Pretax profit	34	61	59	20	54	77	76	71
Pretax margin (%)	45.4	54.1	50.2	20.2	42.2	47.3	46.0	45.7
Net profit	28	52	52	14	44	62	60	55
Net margin (%)	36.9	46.3	44.2	13.7	34.0	38.1	36.4	35.2

Note: K-IFRS, consolidated

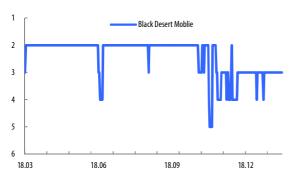
Source: Company data, Hyundai Motor Securities

Fig 4. Revenue and operating profit trends



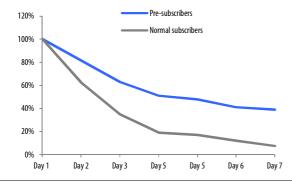
Source: Company data, Hyundai Motor Securities

Fig 6. Black Desert revenue ranking on Korea Google Play



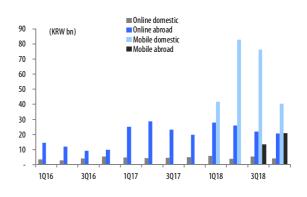
Source: Company data, Hyundai Motor Securities

Fig 8. L2R pre/normal subscribers' retention rates



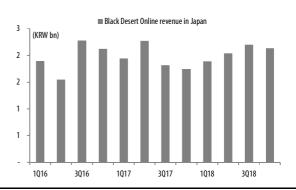
Source: Company data, Hyundai Motor Securities

Fig 5. Revenue by platform



Source: Wisefn, Hyundai Motor Securities

Fig 7. Black Desert Online revenue trend in Japan



Source: Company data, Hyundai Motor Securities

Fig 9. L2R/Black Desert Mobile pre-subscription order trends

	Lineage2 Revolution	Black Desert Moblile				
Date	Pre-subscription orders('000)	Date	Pre-subscription orders('000)			
04/28	Start	1/8	Start			
5/8	50	1/11	100			
5/8	70	1/17	200			
6/16	520	1/22	300			
7/12	720	2/4	500			
8/1	1,000					
8/23	1,630					

Source: Company data, Hyundai Motor Securities

Income statement					
(KRW bn)	2016	2017	2018P	2019F	2020F
Sales	34	52	404	611	673
Change (%)	N/A	55.5	671.7	51.2	10.1
Cost of goods sold	0	0	0	0	0
% of sales	0.0	0.0	0.0	0.0	0.0
Gross profit	34	52	404	611	673
Gross margin (%)	100.0	100.0	100.0	100.0	100.0
Change (%)	N/A	55.5	671.7	51.2	10.1
SG&A expenses	6	31	237	324	324
% of sales	16.5	58.7	58.7	53.1	48.2
EBITDA	29	23	172	300	362
EBITDA margin (%)	84.6	43.3	42.6	49.1	53.8
Change (%)	N/A	-20.5	660.3	74.1	20.6
Operating profit	28	22	167	287	348
Operating margin (%)	83.5	41.3	41.3	46.9	51.8
Change (%)	N/A	-23.0	670.0	71.9	21.5
Non-operating profit	0	-4	8	-9	4
Interest income	1	1	14	9	15
Interest expenses	1	5	6	19	11
Other non-operating income	0	0	0	0	0
Subsidiaries/affiliate income	0	0	0	0	0
Pretax profit from cont ops	28	18	174	278	352
Pretax margin (%)	84.3	33.8	43.0	45.5	52.3
Change (%)	N/A	-37.7	882.9	59.7	26.7
Income tax	4	3	29	58	74
Profit from continuing ops	24	15	145	220	278
Profit from discontinuing ops	0	0	0	0	0
Net profit	24	15	145	220	278
Net margin (%)	72.5	28.1	35.9	36.0	41.3
Change (%)	N/A	-39.7	886.2	51.6	26.1
NP from controlling interest	24	15	145	220	278
NP from non-controlling interest	0	0	0	0	0
Other comprehensive income	0	-1	0	0	0
Total comprehensive income	24	14	145	220	278

Balance sheet					
(KRW bn)	2016	2017	2018P	2019F	2020F
Current assets	40	280	504	726	1,002
Cash and cash equivalents	31	241	386	541	684
Short-term investment assets	0	21	69	109	245
Accounts receivable	9	16	39	61	59
Inventory assets	0	0	0	0	0
Other current assets	0	2	10	15	15
Non-current assets	4	17	75	82	81
Tangible assets	1	6	33	33	34
Intangible assets	0	4	8	7	6
Investment assets	0	3	13	20	20
Other non-current assets	2	3	21	21	21
Other financial assets	0	0	0	0	0
Total assets	44	297	579	808	1,084
Current liabilities	9	20	63	68	146
Short-term debt	0	0	20	0	0
Accounts payable	0	0	0	0	0
Current portion of long-term debt	0	0	0	0	80
Other current debt	9	20	43	68	66
Non-current liabilities	14	2	107	110	30
Bonds	0	0	0	0	0
Long-term debt	0	0	80	80	0
LT financial debt (incl. lease)	6	0	20	20	20
Other non-current debt	8	2	7	10	10
Other financial liabilities	0	0	0	0	0
Total liabilities	23	21	170	178	177
Owners of parent equity	22	275	409	629	907
Paid-in capital	0	6	6	6	6
Capital surplus	1	181	192	192	192
Capital adjustment, etc.	0	3	-19	-19	-19
Other accumul earnings and comp income	0	-1	-1	-1	-1
Retained earnings	20	85	230	451	728
Non-controlling interest	0	0	0	0	0
Total equity	22	275	409	629	907

Cash flow					
(KRW bn)	2016	2017	2018P	2019F	2020F
Operating cash flow	23	27	151	239	289
Net profit	24	15	145	220	278
Depreciation on tangible assets	0	1	5	12	13
Amortization on intangible assets	0	0	1	1	1
FX-related profit	0	4	0	5	-2
Dec (inc) in working capital	-5	7	-25	1	0
Others	3	0	24	0	0
Investing cash flow	-1	-8	-88	-64	-147
Dec (inc) in investment assets	0	-3	-10	-7	1
Decrease in tangible assets	0	0	0	0	0
Increase in tangible assets	-1	-4	-11	-13	-13
Others	0	-1	-67	-44	-134
Financing cash flow	0	179	83	-20	0
Increase (decrease) in debt	6	-6	120	-20	-80
Increase (decrease) in bond	0	0	0	0	0
Increase in capital	2	186	11	0	0
Dividend	0	0	0	0	0
Others	-8	-1	-48	0	80
Other cash flow	0	-3	0	0	0
Increase (decrease) in cash	22	194	146	155	142
Beginning cash	9	47	241	386	541
Ending cash	31	241	386	541	684

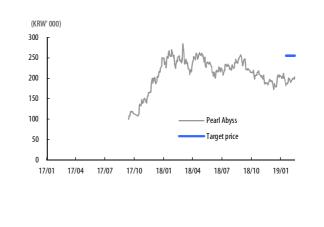
Key financial data					
(KRW, x, %)	2016	2017	2018P	2019F	2020F
EPS (based on net profit)	3,173	1,293	11,819	17,018	21,459
EPS (based on parent net profit)	3,173	1,293	11,819	17,018	21,459
BPS (based on total equity)	2,107	22,807	31,600	48,618	70,078
BPS (based on owners of parent equity)	2,107	22,807	31,600	48,618	70,078
DPS	0	0	0	0	0
P/E (based on net profit)	0.0	191.5	17.6	11.9	9.5
P/E (based on parent net profit)	0.0	191.5	17.6	11.9	9.5
P/B (based on total equity)	0.0	10.9	6.6	4.2	2.9
P/B (based on owners of parent equity)	0.0	10.9	6.6	4.2	2.9
EV/EBITDA (reported)	-0.9	120.3	13.7	6.9	5.0
Dividend yield	N/A	0.0	0.0	0.0	0.0
Growth (%)					
EPS (based on net profit)	N/A	-59.2	814.0	44.0	26.1
EPS (based on parent net profit)	N/A	-59.2	814.0	44.0	26.1
Profitability (%)					
ROE (based on net profit)	112.9	9.9	42.5	42.4	36.2
ROE (based on parent net profit)	112.9	9.9	42.5	42.4	36.2
ROA	55.1	8.6	33.2	31.8	29.4
Stability (%)					
Total liabilities/equity	105.0	7.8	41.6	28.3	19.5
Net debt/equity	Net cash				
Interest coverage	81.0	3,009.6	122.4	35.9	51.3

Note: K-IFRS, consolidated

Investment rating and target price history

D-4-	D. din	TD	Differe	ence (%)
Date	Rating	TP	Average	High/Low
19/01/18	BUY	255,000	-23.6	-20.8
19/02/15	BUY	255,000	-	-

Two-year price chart



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Stock ratings distribution (January 1-December 31, 2018)

Rating	Count	% of rating category
BUY	147	92.45
MARKETPERFORM	12	7.55
SELL	0	0.0

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