

Gravity Co Ltd – South Korean developer of online games with great potential for revenue growth in the next two years due to the release of two new successful mobile games, undervalued by P / Sales

Gravity is a South Korean developer of online games that are played in many countries, especially Japan, Taiwan and Thailand. The main product of the company is the MMORPG "Ragnarok Online".

The key revenue stream of Gravity now is the provision of intellectual rights for the development of mobile games by third-party companies (72% of revenue). The online PC gaming segment generates 24% of the company's revenue. Gravity's main asset is the intellectual property rights to the "Ragnarok" universe.



Gravity's main game is highly rated by gamers. On the Ragnarok Online page, the game has 79 Metascore points and 8.2 / 10 as an average user rating. New mobile games hold high positions in the App Store and Google Play in the markets of presence



Metascore
Generally favorable reviews
based on **5 Critic Reviews**

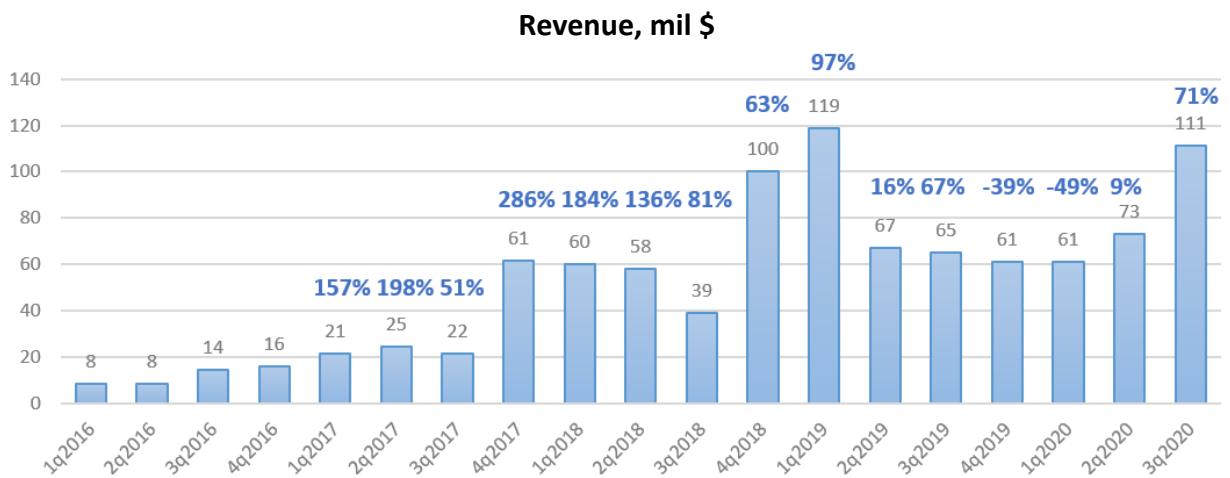
What's this?



User Score
Generally favorable reviews
based on **118 Ratings**



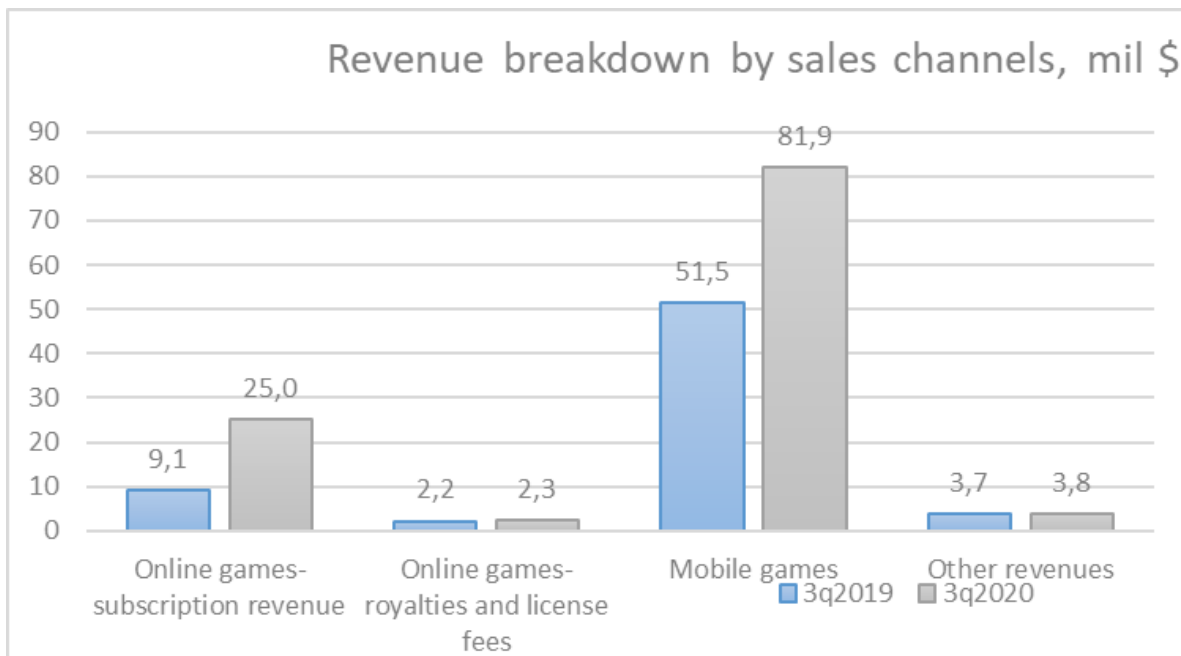
Growing revenue from new products and the transition to mobile games



Revenue growth in the 3rd quarter 2020 was 70.8% (YoY) (historically - 71.5%). The rise was fueled by the launch of a new mobile game, "Ragnarok Origin" (hereafter Origin),

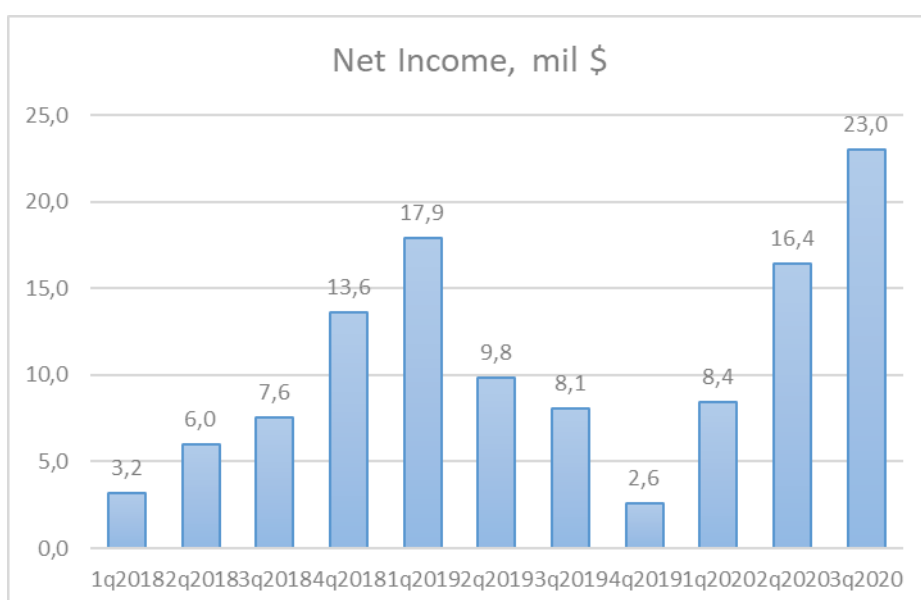
in Korea this July. In three months, the game managed to become the top 10 on Google Play and the App Store in the ranking of the highest grossing games.

Jumps in the dynamics of revenue are typical for the gamedev industry, where new products are rarely released. In this case, it is necessary to look at what is behind the growth in Q3 and assess the prospects.



The growth in online gaming subscription revenue was fueled by the 2020Q3 relaunch of Ragnarok Online in Thailand and Brazil and an increase in US revenue from Ragnarok Online.

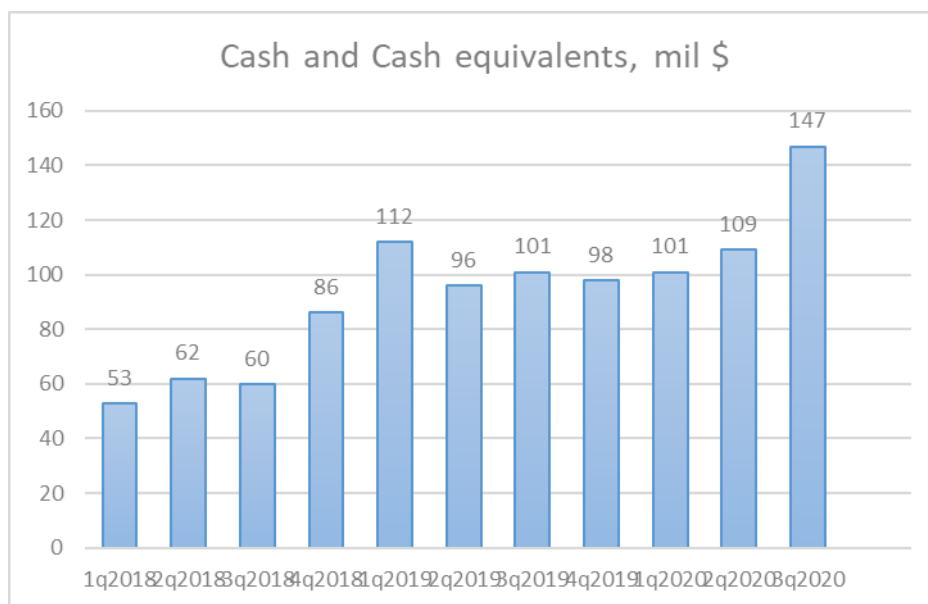
Positive dynamics of net profit and cash



Gravity first showed profit in Q3 2016 and has consistently ended each reporting period with a positive P&L since then.

The free cash flow yield is 4% (LTM), the annualized figure based on the last quarter is **12%**.

Gravity is steadily increasing its cash balance. As of the 3rd quarter of 2020, the company has \$ 148 million of cash and equivalents, which is 13% of the capitalization.



Growth prospects: successful launch of two games in the first regions, entry into China and a diversified pipeline

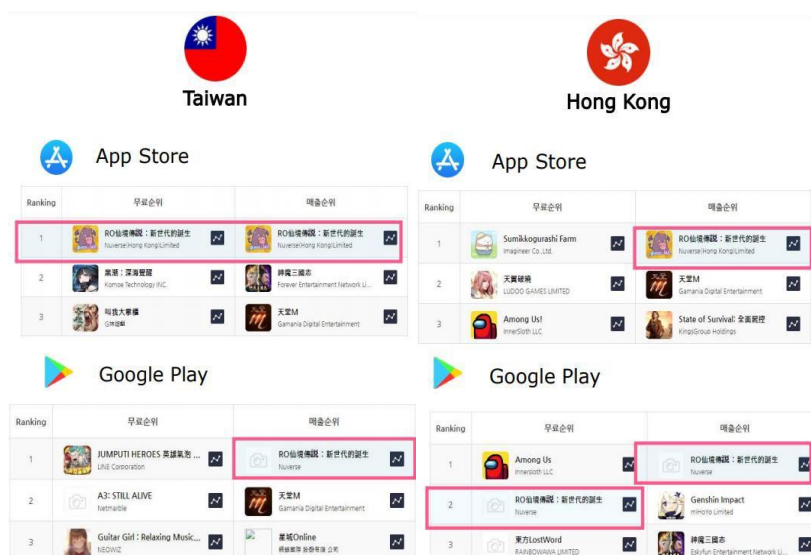
1. Two new perspective projects

The Origin mobile game, which has shown success in Korea, will launch in Japan in the first half of 2021, where it may show same success.

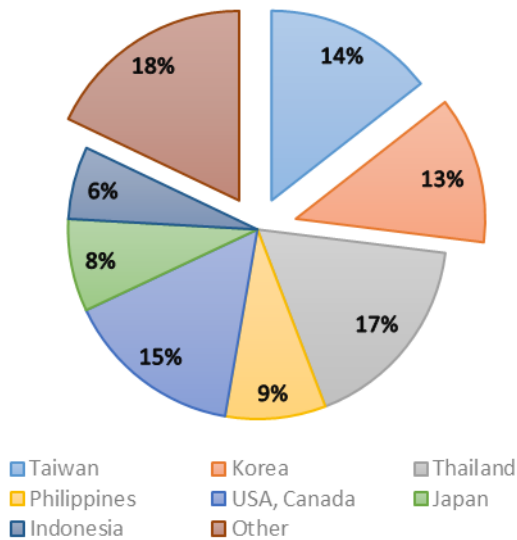


Ragnarok X: Next Generation (hereinafter

XNEXT), a new mobile game from Gravity, which launched on October 15th with 800,000 pre-registrations, ranked the top 1 highest grossing free game in Hong Kong and Taiwan. We will see the first revenue from this game in Q4. Judging by the reviews and ratings, the effect will be similar. In addition, XNEXT is going to launch in other countries of the Southeast Asia region in the first half of 2021.



2019 Revenue, %

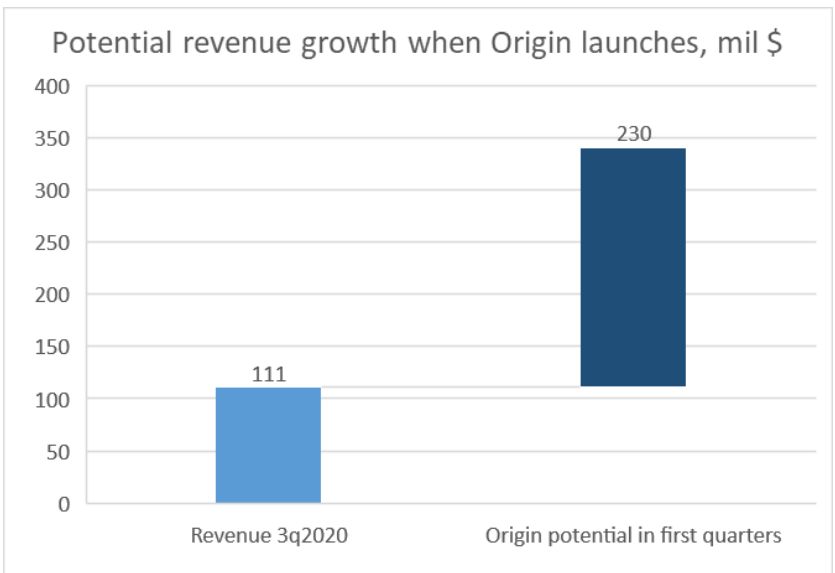


Previously, it took Gravity about 2 years to introduce games in all of its markets of presence. In MMORPG game development, most of the time is spent on taking into account reviews in the current regions, finalizing shortcomings and localizing for each of the markets. This ensures income stability.

The potential for new market entry is clearly illustrated in the diagram on the left. On revenue for 2019, broken down by region, triangles highlight the shares to which games have already entered. Thus, the unpainted shares are potential revenue for Gravity.

The launch of Origin at 13% of the total "volume" gave about \$ 30 million in one quarter. In this case, it can be assumed that entering other markets for

this game will bring in **\$ 230 million in the first quarters after launch**. The revenue growth potential in the first quarter of the launch is shown in the waterfall chart on the right. In mid-21st, we will see \$ 18M in Japan and \$ 182M in worldwide over the next 2 years.



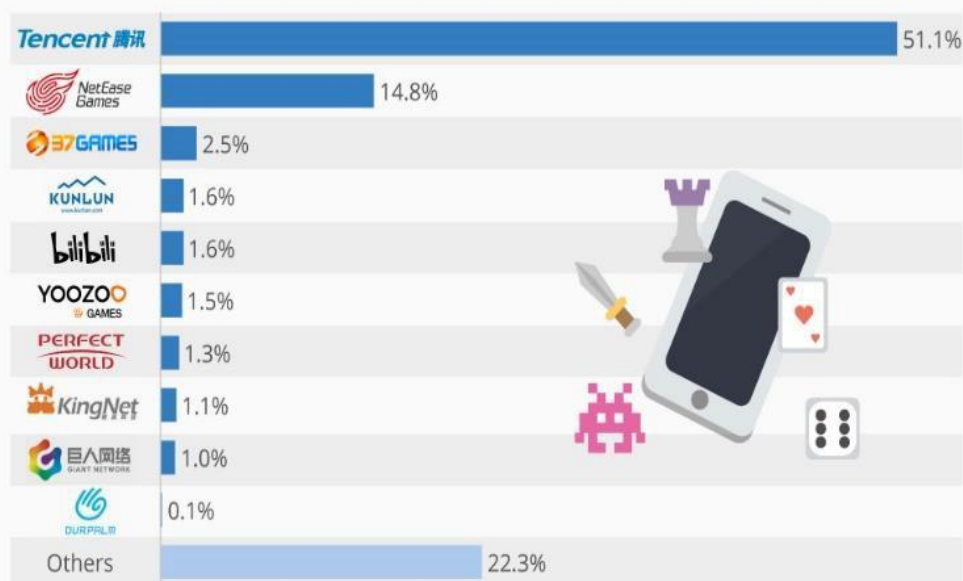
XNEXT, which is currently released in Taiwan and some of the countries in the "rest" category, occupies from 14 to 32%, which will allow making similar forecasts in the next quarter after the publication of the first revenue for the game.

2. Potential approval of Origin in China

Gravity has contracted Tencent (one of the largest players in the mobile games market: Clash of Clans, PUBG Mobile) to release Origin in China, which significantly increases the chances of getting approval. As of 2018, Tencent had 51.1% of the mobile games market share. Prior to the agreement, the possibility of a Gravity release in China was questioned due to the Chinese government's strict censorship policy.

Tencent dominates China's mobile gaming market

Market share of listed video game companies in China as of Q1 '18, by mobile gaming revenue*



* Excluding companies whose Q1 2018 financial report is not published as of June 2018.



@StatistaCharts

Source: iResearch

statista

3. Diversified pipeline

Parallel development and launch work is underway on 9 titles (*last updated 05/12/2021*)

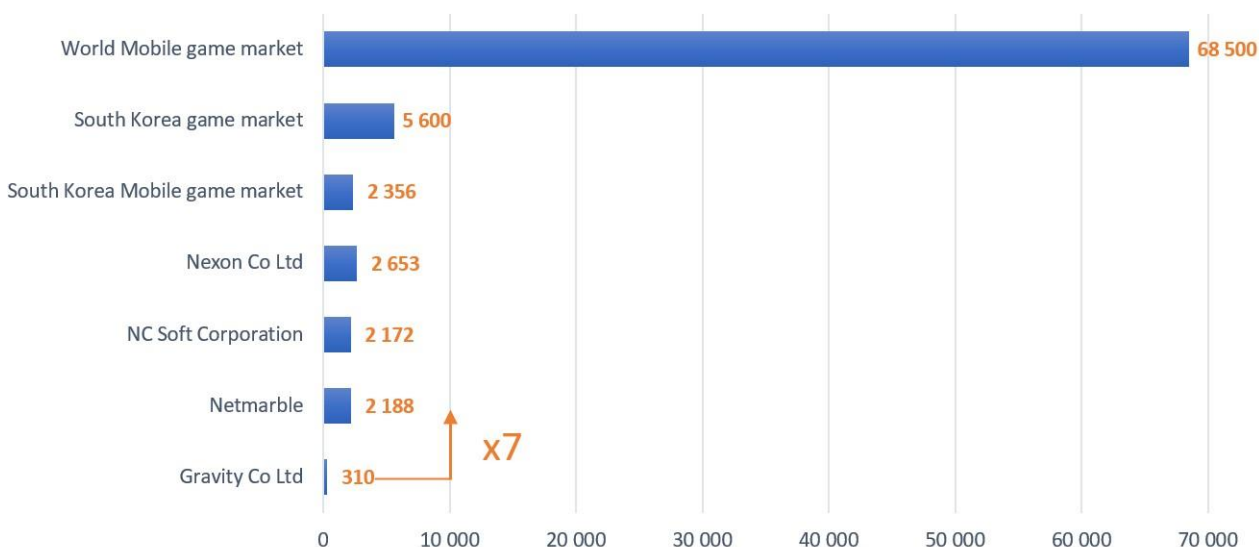
Platform	Game	Plan	Schedule	Market
PC	Ragnarok Begins (MMORPG)	New launch	2021	Korea
Mobile	Ragnarok Origin (MMORPG)	Additional launching	1H 2021	Japan
Mobile	Ragnarok X: Next Generation (MMORPG)	Additional launching	1H 2021	Southeast Asia
Mobile	The Labyrinth of Ragnarok (Time Effective MMO)	Additional launching	March 2021	Global including Korea (except China, Japan and Taiwan, HongKong, Macau)
Mobile	The Lost Memories: a Song of Valkyrie (Story RPG)	New launch Additional launching	2H 2021 2H 2021	Thailand North America/Global
Mobile	The Lord (SRPG)	New launch Additional launching Additional launching	February 2021 1H 2021 2H 2021	Southeast Asia (except Indonesia, Vietnam) Indonesia, Vietnam Taiwan, HongKong, Macau
Mobile	Battle Academy (Battle Royal RPG)	New launch	1H 2021	Thailand
Mobile	Requiem: Land of Traitors (SLG)	New launch	1Q 2021	Middle East
Mobile	Paladog Tactics (SLG)	New Launch	1H 2021	Global

4. Market growth and narrowing the gap with the leaders

The global mobile games market is estimated at \$ 68,500 million. The projected market growth is 5% per annum for the next 5 years.

Gravity retains great potential for growth to leaders, and can also grow through growth itself.

Sales volume, mil \$



Gravity is slightly cheaper in terms of EV / EBITDA and is seriously undervalued by P/S multiple compared to competitors

The competitors list includes the following companies:

- ATVI, EA, TTWO - major players in the game development industry;
- ZNGA, GLUU - mobile game developers;
- Companies highlighted in red are Gravity's direct competitors in the game development industry from South Korea.

Activision Blizzard's strong revenue growth is due to its low 2020Q3 revenue last year due to the lack of major releases.

Ticker	Company	MCAP, mil \$	EV	Revenue, mil \$	P/S	Growth rate	EV/S	EV/EBITDA	EBITDA
GRVY	Gravity Co Ltd	1 010	845	346	2,92	56%	2,44	10,62	80
ATVI	Activision Blizzard	61 229	57 418	7 660	7,99	52%	7,50	20,08	2 859
EA	Electronic Arts Inc	36 736	32 010	5 590	6,57	17%	5,73	20,65	1 550
TTWO	Take-Two Interactive	20 370	16 911	3 363	6,06	-2%	5,03	22,56	750
ZNGA	Zynga Inc	8 862	8 840	1 763	5,03	45%	5,01	-	-202
GLUU	Glu Mobile	1 685	1 407	512	3,29	49%	2,75	67,61	21
3659.T	Nexon Co Ltd	25 981	23 585	2 653	10	51%	8,89	21,25	1 110
036570.KS	NC Soft Corporation	16 411	15 125	2 172	8	40%	6,97	19,51	775
251270.KS	Netmarble	9 302	7 845	2 188	4,25	4%	3,58	21,90	358
	Average value for South Korea	17 231	15 518	2 338	7,2	32%	6,48	20,89	748
	Average value	22 572	20 393	3 238	6,32	32%	5,68	27,65	903

Gravity is currently underestimated on average for the shown competitor selection by the **P/S** multiplier, which will grow to an average value of **x1.7**, and for South Korea - **x2**. In terms of EV/EBITDA multiples, Gravity is rated slightly below its direct competitors (18.49 vs. 20.89) and also below large game development companies.

The list does not include Tencent and NetEase, well-known publishers of mobile games, as 40% of their revenue comes from the non-gaming sector.

Extremely competitive market and intellectual property rights for Ragnarok create risk

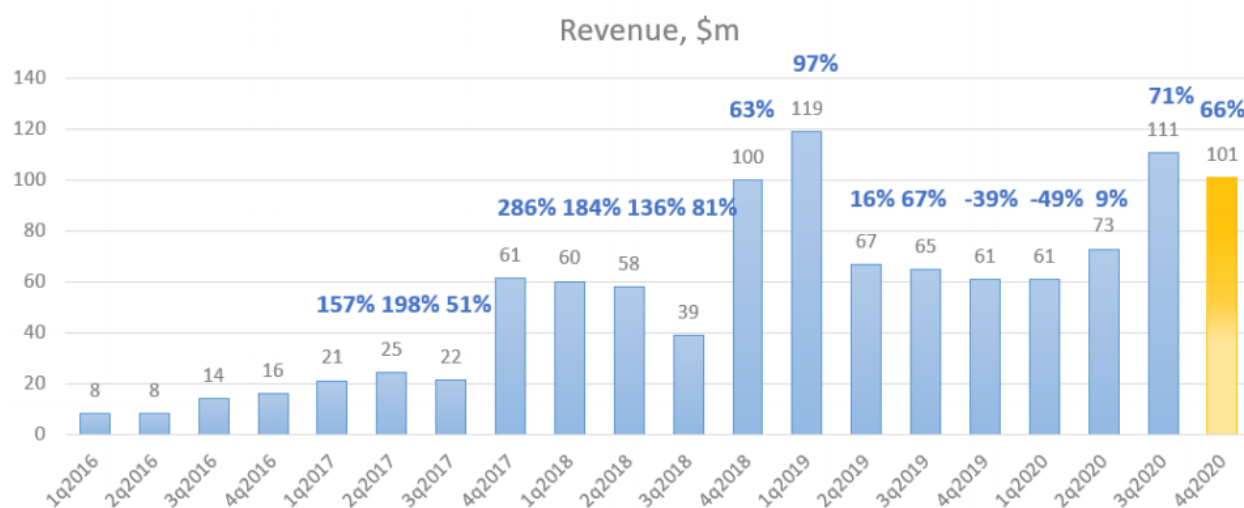
Gravity did not invent the Ragnarok universe - it was based on the Korean comic strip by Lee Myung Jin. The exclusive agreement with the authors for the granting of intellectual rights ends in 2033. Now, 13 years before the end of the deadline, it is difficult to make assumptions about whether the agreement will be renewed, but it is very likely that with the great success of Ragnarok now and in the future, its terms may be revised to the disadvantage of the company.

The mobile games market is extremely competitive: low barriers to entry, everything or almost everything is located on two main platforms; the lifespan of any mobile game varies from 3 months to 2 years, while the peak of popularity will be passed in the first months after launch. It is important for Gravity management not to stop at two future stars - Origin and XNEXT, - and to be ready to present a new game to fans in 2022.

UPDATE: FOURTH QUARTER 2020 FINANCIAL RESULT (18 Feb 2021 Update)

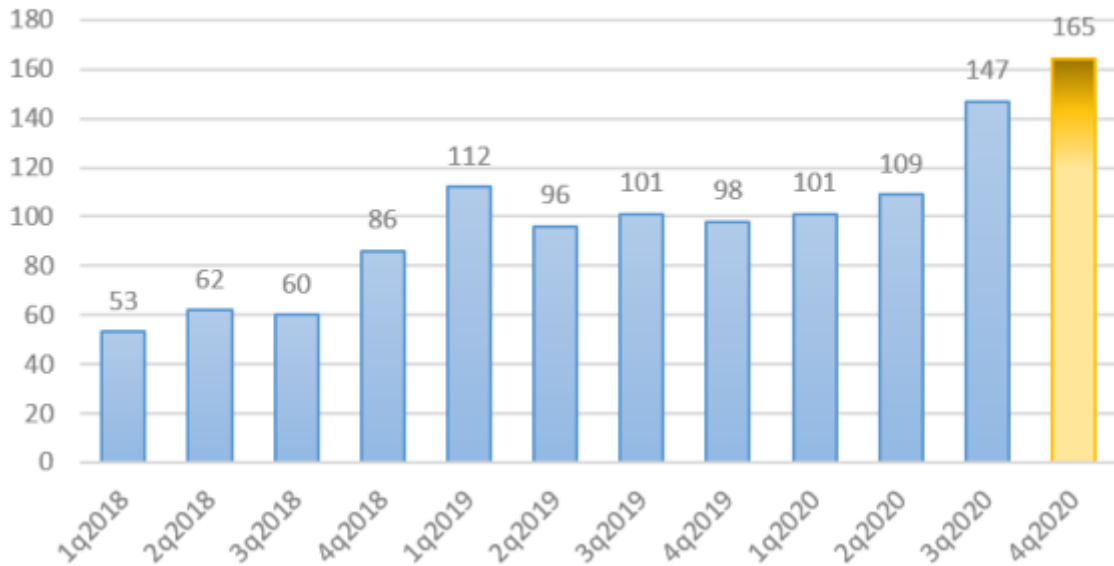
Slowdown in revenue growth due to lower sales in PC games

Revenue growth for the quarter was + 56.3% (YoY) in local currency and + 66% in USD, with a historical average of 71.5%. Actual revenue dynamics:

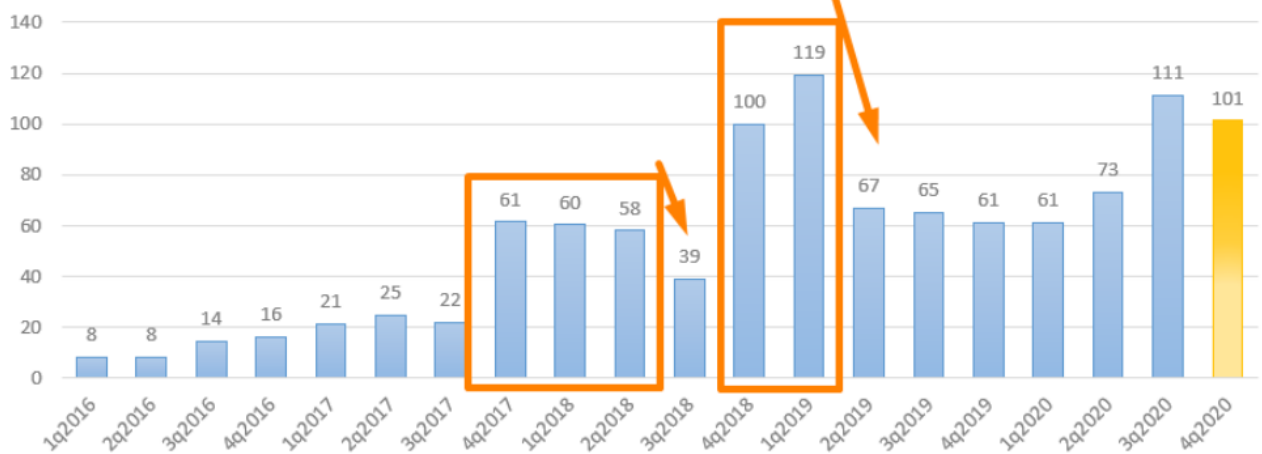


Management highlighted the reasons for the decline in revenues from the previous quarter: revenues from Ragnarok Origin in Korea, Ragnarok Online in Thailand and Ragnarok M: Eternal Love declined, which was reflected in a 14.7% decrease in revenue compared to the previous quarter (in local currency). Also in the preliminary report, the company indicated its balance on cash and equivalents in the amount of \$ 165 million. As we wrote earlier, revenue volatility for the game development industry is a frequent occurrence. This was previously reflected in Gravity's revenue after successful launches of new projects:

Cash and Cash equivalents, \$m

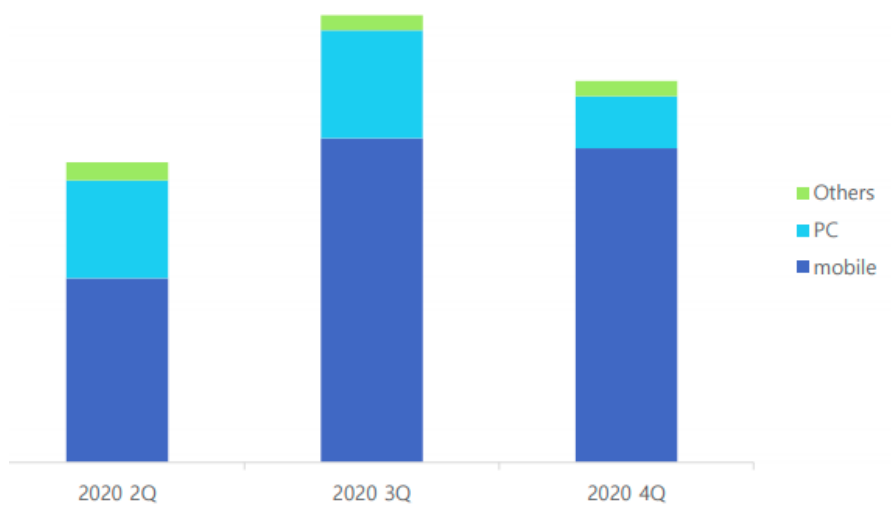


Revenue, \$m



It is also worth noting that the main drop QoQ was due to the decline in sales of PC games, mostly represented by Ragnarok Online. Thus, Gravity loses its paying PC audience, however, its revenue from mobile games declined slightly. In Q3 2020, PC games accounted for 22% of revenue, while mobile accounted for 72.5%.

Revenue Breakdown (by Game Platforms)



The company has become cheaper in terms of multiples

Version/ticker	Company	MCAP, mil \$	EV	Revenue, mil \$	P/S	Growth rate	EV/S	EV/EBITDA	EBITDA	
18.02.2021	Gravity Co Ltd		1 010	845	346	2,9	56%	2,4	10,6	80
04.12.2020	Gravity Co Ltd		1 127	980	310	3,6	66%	3,2	18,5	53
	ATVI Activision Blizzard		79 001	73 959	8 087	9,8	22%	9,1	23,3	3 179
	EA Electronic Arts Inc		42 103	36 390	5 670	7,4	5%	6,4	25,5	1 428
	TTWO Take-Two Interactive		22 325	20 221	3 393	6,6	-7%	6,0	22,6	768
	ZNGA Zynga Inc		12 411	12 269	1 975	6,3	45%	6,2		-227
	GLUU Glu Mobile		2 165	1 840	540	4,0	25%	3,4	57,5	32
	Avg value					6,8	18%	6,2	32,2	

EV / Sales decreased from 3.2x to 2.4x, EV / EBITDA - from 18.5x to 10.6x. The company became even cheaper relative to peers: 2.4x versus 6.2x in EV / S and 10.6x versus 32.2x EV / EBITDA, while remaining a growing business with growth potential from new launches in the first half of 2021.

GRAVITY BUSINESS UPDATE

Ragnarok Online IP-based Games

- *Ragnarok Origin, a MMORPG mobile game*

Ragnarok Origin is being prepared for launch in Japan in 1st half of 2021.

- *Ragnarok X: Next Generation, a MMORPG mobile game*

Ragnarok X: Next Generation is being prepared for launch in Southeast Asia in 1st half of 2021.

- *The Labyrinth of Ragnarok, a Time Effective MMO mobile game*

The Labyrinth of Ragnarok was launched in Thailand and Indonesia on December 1, 2020 and is expected to be launched in global including Korea (except Taiwan, Hong Kong, Macau, China and Japan) on March 23, 2021.

- *Other Ragnarok Online IP-based games*

The Lost Memories: a Song of Valkyrie, a Story RPG mobile game, is expected to be launched in Thailand in 2nd half of 2021. The game was developed by Gravity NeoCyon, Inc., our subsidiary in Korea.

Battle Academy, a Battle Royal RPG mobile game, is being prepared to be launched in Thailand in the 1st half of 2021.

Other IP games

- *Tera Classic, a MMORPG mobile game*, was launched in Japan on January 29, 2021. The game is published by Gravity Game Arise Co., Ltd ("Gravity Game Arise"), a subsidiary in Japan.

- *The Lord, a SRPG mobile game*, will be launched in Southeast Asia (except Indonesia and Vietnam) on February 23, 2021, and is expected to be launched in Indonesia and Vietnam in 1st half of 2021.

- *CPBL Pro-baseball 2021 (Tentative title), a Sports mobile game*, is expected to be launched in Taiwan, Hong Kong and Macau in 1st half of 2021.

- *NBA Project*

Gravity has completed the Product License Agreement with the National

Basketball Association (NBA) and National Basketball Players Association (NBPA) to develop a NBA licensed mobile game. The game will be published by Gravity Game Arise in Japan, and Gravity will expand its service to other markets in the contract regions in order. Both mobile platforms, iOS and Android, will be available for the game.

In short:

The company showed revenue growth of + 66% (YoY), but the decline to the previous quarter was -9%.

In initial company note, we highlighted two main promising projects for the company: XNEXT and Origin games.

Origin will launch in the first half of 2021, has yet to be released. It is not possible to estimate XNEXT at the moment: the company has published only preliminary results and IP. We are waiting for the full report for the 4th quarter.

The main reason for the drop in revenue QoQ was the decline in sales in the PC sector, which accounted for 22.5% of revenue. In general, the project has long been heavily invested in the mobile segment.

As a result, the company is worth even cheaper on multiples with 66% revenue growth, and growth prospects still can be realized in the next six months.

Kind Regards,
Enhanced Investments Team
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