



# Frontier Developments

## Investment idea

### Mispriced microcap ready for revaluation

**List:** AIM UK

**Market cap:** ~£70m

**Current price:** 200 pence

**Bear case fair value:** 180p

- Revenue from Elite Dangerous declines by 50% in 2017
- Sales of Planet Coaster stagnate early 2017
- 3rd franchise is not announced in 2017

**Base case fair value:** 300p

- Revenue from Elite Dangerous declines by 50% in 2017
- Sales of Planet Coaster stagnate mid 2017
- 3rd franchise is not announced in 2017

**Bull case fair value:** 470p

- Revenue from Elite Dangerous remains on trend
- Planet Coaster continues to build on its initial success with expansion content
- A promising 3rd franchise is announced

**Company website:**

<http://frontier.co.uk/>

#### WHAT IS FDEV

Frontier Developments plc is a software technology company incorporated in the UK. It is focussed on videogame development across a wide variety of genres and platforms with a proven track record of progressive development and innovation spanning several decades of rapid technological change. The business has around 300 full-time employees and is headquartered in Cambridge, UK. Frontier has established relationships with globally renowned partners, producing work for international brands as well as its own IP. Frontier was founded in 1994 by David Braben, co-author of the seminal game Elite.

#### INVESTMENT CASE

**Successful launch of second game franchise not priced into the stock:** On November 17th the company released Planet Coaster which was very well received and was the number 1 best selling PC game globally on Steam for at least 2 weeks and has sold ~300,000 copies until the end of November and will thus generate a minimum of £10m in Sales for the company in H2 2016 (which is H1 2017 for the company's fiscal year). The company reported sales for the previous full year of £21.4m.

**Mispriced compared to peers:** Due to a liquidity premium related to being a microcap and listed on AIM the company is trading well below peers. The company is debt free and trading at EV/Sales of 3.3x on FY 2016 earnings and EBITDA multiple of 14.3x. With the success of Planet Coaster, even with modest estimates, the company is well on track to report good earnings growth for FY 2017. Peers trade at EV/Sales of 5-10x and EBITDA multiple of 17-100x. This mispricing should gradually adjust as the company starts reporting its earnings for fiscal 2017 with trading updates and half-year reports in February 2017.

#### PRODUCT

The company currently has two main gaming franchises. 1. Elite Dangerous, a space adventure, trading, and combat simulation game set in a realistic 1:1 scale open world galaxy based on the real Milky Way, with open-ended gameplay. It has sold 1.8m copies (both on console and PC) and is a continuously expanding game with new expansions being released on at least an annual basis. 2. Planet Coaster, a recently launched amusement park and rollercoaster management and building simulator for PC which became an instant success with 300,000 copies sold in the first two weeks and great reception by gamers and critics.





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### TRANSITION TO SELF-PUBLISHING

As publishing in the video game industry is moving to digital distribution Frontier has moved from being a developer of games for other distributors such as Microsoft to 100% self-publishing.

Their first self-publishing franchise, Elite Dangerous, was initially funded by a crowdfunding campaign and launched in 2014 and has since sold 1.8m copies. Elite Dangerous and expansions for the game generated £21.4m in revenue for the company in FY 2016.

FY 2016 included the release of Elite on Xbox. The first "season" expansion for Elite Dangerous, named Horizons was released on 15 December 2015 for PC followed by a 3 June 2016 release for Xbox One. Horizons 2.1 - The Engineers expansion was launched on May 27 2016, so much of the revenue fell outside of FY 2016. On October 25 Horizons 2.2 - The Guardians was launched. Elite Dangerous will at some point have a first-person expansion, probably 2018. Elite enjoys a stable 8,000 peak concurrent players on Steam - but is also played on other platforms.

The company has its own game engine, COBRA, which has proven to be very flexible used to develop both Elite Dangerous (a space flight simulator) and Planet Coaster (an amusement park building simulator) and made it possible to release Elite Dangerous as the first full priced VR-game for HTC Vive and Oculus.

### SECOND FRANCHISE

The company has had a history as a "developer-for-hire" in the rollercoaster simulation world as a developer of several Rollercoaster Tycoon games. In aggregate Rollercoaster Tycoon games have sold 10m copies. Rollercoaster Tycoon 3 (released in 2008) has 800,000 owners on Steam alone according to Steamspy. The company decided to launch its second franchise for that audience.

Planet Coaster was out in alpha and beta testing during calendar H2 2016 and was very well received by early players and a big hit among youtubers.

The game launched on November 17th and became an instant success, being the number 1 best selling full price PC game on Steam for at least 2 weeks, surpassing 300,000 copies sold according to Steamspy in early December.

The company is earning about £35 gross per game topline (before VAT and 30% Steam commission) putting it on track to report sales of at least £10m in H1 2017 (with Christmas sales still ahead of us).

Given the wide success of Planet Coaster, not only in terms of sales, but also in terms of Youtube and the gaming community in general, the company is well poised to sales of additional content and promotional sales of the original game well into 2017. A modest estimate is that the company is going to earn £15m in FY 2017 from Planet Coaster alone.

The company has announced that the success of Planet Coaster will create the opportunity to go ahead and launch a third self-published franchise.

### DIRECTORS

All directors are shareholders of the company. The chairman of the board has purchased 35k shares in the last 24 months owning a total of 341,720 shares.

Founder, majority owner (50.3%) and CEO is David Braben. Braben has been called "one of the most influential computer game programmers of all time", based on his early game development with the Elite series in the 1980s. Elite was first released in September 1984 and is known as the first game to have 3D hidden line removal. Braben went on to develop the sequel to Elite, Frontier, published in 1993 and founded Frontier Developments.

On 5 September 2005, Braben received the Development Legend Award at the Develop Industry Excellence Awards in Cambridge.

In May 2011, Braben announced a new prototype computer intended to stimulate the teaching of basic computer science in schools called Raspberry Pi and went on to form

the Raspberry Pi Foundation.

In 2012, Braben was elected as a Fellow of the Royal Academy of Engineering.

In January 2015, he received the 2015 Pioneer, Game Developers Choice Award (GDCA), for his work on the Raspberry Pi and for working more than 30 years as a game developer.

On 12 March 2015, Braben was awarded the BAFTA Academy Fellowship Award in video gaming at the 11th British Academy Games Awards.

The company recently announced the appointment of a new CFO, Alex Bevis, effective in April 2017. Mr. Bevis has a history of completing mergers and an IPO for a FTSE 250 company, and is currently CFO of LSE listed XAAR, a well run dividend paying company.

### CAPITAL DISCIPLINE

Since its IPO in 2013 on AIM where the company raised a total of £6.8m the company has been debt free and has not needed to raise more capital through equity.

The company is now methodically executing on a plan to transition to self-publishing one franchise at a time, growing organically, letting each success finance the next step forward.

The company's largest institutional investors are Lansdowne Partners (9.5%), Amati Global Investors (3.1%), Herald Investment Management (2.9%), Unicorn Asset Management (2.7%) and Jupiter Asset Management (2%).

### VALUATION

Frontier is trading at significant discount to peers looking at a range of multiples, both TTM multiples and specially when we look at forward looking earnings.

Similar game developers which are in early or mid start-up phase such as Starbreeze and THQ Nordic are trading at significant higher multiples.

The value alone from having a franchise with a dedicated player base such as Elite Dangerous and a game engine such as COBRA should motivate the current market cap of Frontier.

The fact that they are methodically executing on their growth strategy with multiple franchises with the launch of Planet Coaster - which we know for a fact is a success due to daily numbers crawled from Steam creates almost an arbitrage situation.

If the company would be private and IPO today on First North it is hard to imagine a valuation less than £150m. For example THQ Nordic was IPO'd with a valuation of £125m with annualized sales of £20m and net profit of £3.9m. Similar figures as Frontier, but twice the valuation. Today THQ has a market cap of £180m.

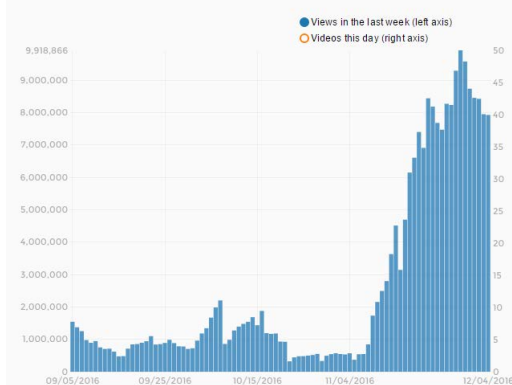
The reason for the undervaluation is primarily related to the company being less known and listed on an exchange where most investors in the world cannot trade. Most institutions are not allowed to own shares listed on AIM and most retail brokers outside the UK don't allow clients to trade on AIM as it is not an fully electronic exchange. For example, in Sweden - neither Neonet, Nordnet or Swedbank allow clients to execute on AIM.

Liquidity and free-float is hard to judge as its a market-maker controlled market. But there have been single days with 50-75,000 shares of turnover without the price moving. There might be possibility for block trades.

Given the positive cash position of the company and the recent success of Planet Coaster the company is probably not looking to raise cash, which would otherwise provide an opportunity to enter the stock in size. The company has not shown any inclination to raise capital for acquisitions either.

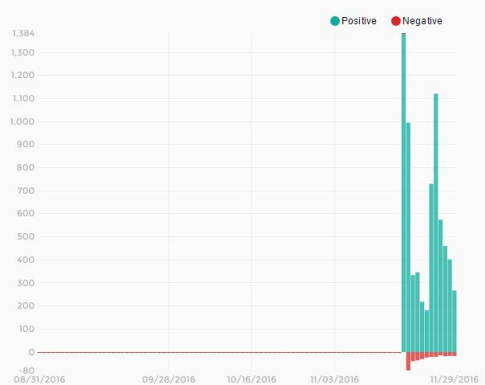
### Planet Coaster stats

YouTube:



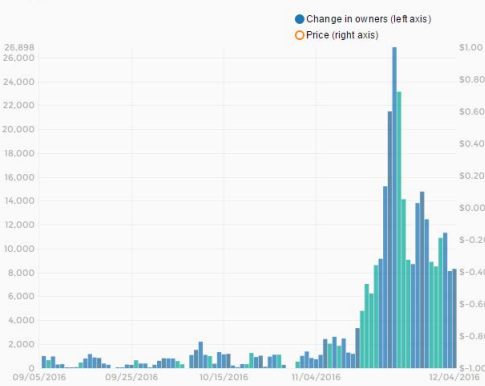
Amazing response from streamers and viewers.

User reviews:

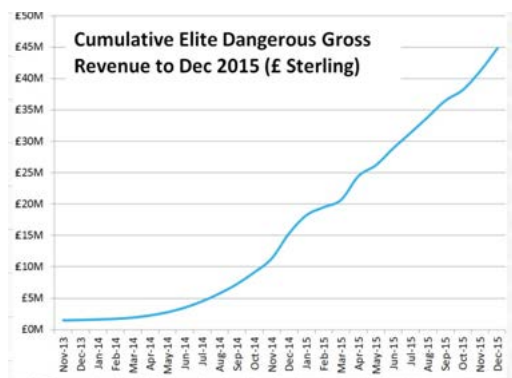


Reviews overwhelmingly positive.

Changes in owners:



10,000 copies sold a day more than 2 weeks after launch.



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### TRIGGER FOR REVALUATION

Following the recent IPO's and share price appreciation of many European gaming companies such as Starbreeze, Paradox, CD Projekt Red, CI Games, Digital Bros, Stillfront and THQ Nordic the sector is red hot with investor appetite. A AAA-game developer with 2 proven franchises is given success once the market finds it.

When the dissemination of the information of Frontier to investors will happen is anybody's guess. It can be triggered by blogs, a rising share price or the company reporting half-year update in February 2017. The successful launch of Planet Coaster could have been such a trigger point but luckily for investors, the opportunity to invest is still there.

Before the launch of Planet Coaster an investment into Frontier was in large part a bet on the fact that Planet Coaster would be a success. Now we know that Planet Coaster is a success due to the possibility to know on a daily basis how many copies of the game is sold, how many people are playing it, how many people are talking about it and how many gamers are streaming Planet Coaster content on Twitch and Youtube. There is no more guesswork involved.

At the moment it appears that the market-makers of Frontier have a supply of shares around 200 pence putting a cap on the stock as it has not moved higher despite days with relative high volume. The same market-makers are also providing equity research on the company and should begin to update their research with strong buy recommendations given the success of Planet Coaster.

As an extra bonus to the case, if the company would look at listing on a fully electronic exchange, such as First North, it would most certainly help the valuation of the company. Potentially the hire of the new CFO with relevant experience will initiate such an effort, which should also be supported by the existing institutional shareholders in the company.

### RISKS

The main risks to the long term case are:

#### 1. The robustness of Elite Dangerous sales.

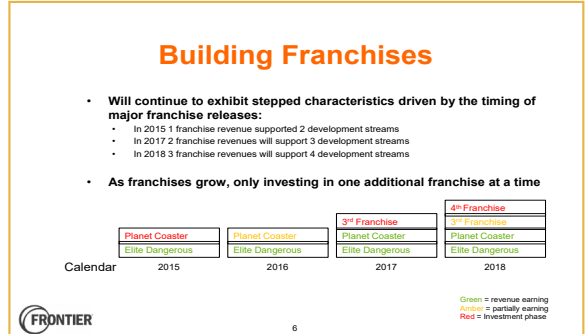
There are many new well funded open world space sims coming out in 2017 (including Star Citizen which has raised a whopping \$137 million for game development from fans) which might steal the player base for Elite Dangerous away, leaving the company with just 1 successful franchise to capitalize on instead of 2.

#### 2. Capital discipline of the company deteriorates.

Having one enthusiastic majority owner can be a blessing in disguise if that owner starts pursuing pet projects or engages in empire building instead of focusing on shareholder value.

#### 3. A complete fail of a 3rd franchise.

To maintain long term growth the company needs to reach a critical mass of 3-4 successful franchises of which each can have major release every other or every third year to create stable earnings less depended on "one-hit-wonders" As of today we have no information on what the company's 3rd franchise might be.



Peer group estimates	EV/Sales	P/E (2017E)
Starbreeze	10,1	60
THQ Nordic	8,7	35
Paradox	8,5	23
CD Projekt Red	8,3	25
Electronic Arts	4,9	25
ActivisionBlizzard	4,5	25
Take-Two Interactive	2,4	24
Ubisoft	2,3	27
<b>Frontier Developments</b>	<b>2,5</b>	<b>17</b>

	2013	2014	2015	2016	2017E	2018E	2019E
Base case	£'000	£'000	£'000	£'000	£'000	£'000	£'000
<b>Sales</b>	<b>12 072</b>	<b>9 541</b>	<b>22 763</b>	<b>21 363</b>	<b>28 318</b>	<b>31 627</b>	<b>36 013</b>
- of which Self-publishing	3%	4%	82%	98%	99%	99%	99%
- Elite Dangerous				21 363	12 818	19 227	9 613
- Planet Coaster					15 500	12 400	12 400
- 3rd franchise					0	0	14 000
<b>Gross profit</b>	<b>3 697</b>	<b>1 627</b>	<b>20 644</b>	<b>16 265</b>	<b>21 238</b>	<b>23 720</b>	<b>27 010</b>
- Gross margin	31%	17%	91%	76%	75%	75%	75%
<b>EBITDA</b>	<b>2 853</b>	<b>322</b>	<b>6 083</b>	<b>4 876</b>	<b>8 495</b>	<b>9 488</b>	<b>10 804</b>
<b>Net Profit</b>	<b>1 045</b>	<b>-1 754</b>	<b>1 647</b>	<b>1 432</b>	<b>4 000</b>	<b>4 241</b>	<b>4 740</b>
Diluted number of shares	25 324	33 384	33 580	34 097	34 779	35 475	36 184
EPS (pence)	4,1	-5,3	4,9	4,2	11,5	12,0	13,1
FCF Operations	5 714	127	7418	6 389	8 469	9 459	10 770
FCF Investing	-1 912	-4 350	-5137	-9 726	-8 000	-8 000	-8 000
FCF Financing	1 297	5 725	159	276	0	0	0
FCF Total	5 099	1 502	2 440	-3 061	469	1 459	2 771
Share price (pence)	154,55	218,00	240,64	200,00	200,00	200,00	200,00
Market cap	39 138	72 777	80 807	68 194	69 558	70 949	72 368
EV/Sales	3,2	7,6	3,5	3,2	2,5	2,2	2,0
EV/EBITDA	13,7	226,0	13,3	14,0	8,2	7,5	6,7
P/E	37,5	-41,5	49,1	47,6	17,4	16,7	15,3