

# THE ROLE OF INVESTORS IN VIDEO GAME DEVELOPMENT

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The aim of this thesis is to identify different types of investors, their goals and what kind of impact they can have in video game development. To achieve this, I used relevant books, web articles, data, and charts to show the impact of investors in the industry.

First, this thesis focuses on the costs of making video games as an example why investors are needed in the video game industry. After the first part, the focus of the thesis move to identifying different kinds of investors and their specific roles in the video game industry.

Towards the end of the thesis I will give a conclusion and write briefly about the results.

Key words

Intellectual property, crowdfunding, angel investor, publishing, distribution, volatility

Tietojenkäsittelyn koulutus  
Tradenomi (AMK)

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Tämän tutkielman tarkoituksena on tunnistaa erityyppiset sijoittajat, heidän tavoitteensa ja millaiset vaikutukset heillä voi olla videopelien kehittämisessä. Tämän saavuttamiseksi käytin asiaankuuluvia kirjoja, web-artikkeleita, tietoja ja kaavioita osoittamaan sijoittajien vaikutusta peliteollisuudessa.

Aloitan tämän opinnäytetyön keskittymällä videopelien valmistuskustannuksiin esimerkkinä siitä, miksi videopelialalle tarvitaan sijoittajia. Ensimmäisen osan jälkeen opinnäytetyön painopiste siirtyy erilaisten sijoittajien tunnistamiseen ja heidän rooleihinsa videopelialalla.

Viimeisenä osana opinnäytetyötä käytän aikaa keskusteluosiossa, jossa tuon esille johtopäätökset ja kirjoitan lyhyesti tutkielmani tuloksista.

Avainsanat: Henkinen omaisuus, joukkorahoitus, enkelisijoittaja, kustannustoimiala, jakelu, volatilitteetti.

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## SYMBOLS, ABBREVIATIONS AND KEYWORDS

### Crowdfunding:

Crowdfunding is the practice of obtaining funding for a project / business from a group of contributors. This is a more common practice in online communities. (Webster, 2020)

### Angel investor:

Angel investors, also known as private investors, are high net worth individuals who fund projects / businesses. Angel investors usually ask for an ownership position in the project / company they are funding (Ganti, 2020).

### Intellectual property:

Intellectual property can be an idea, invention or a process (work of the mind). It can also mean a right or registration of a work of mind (Webster, 2020).

### Volatility:

The term “volatility” is used when talking about the price swings of an asset. The larger the price swing, the greater the volatility (Investopedia, 2020)

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## 1 INTRODUCTION

Today, majority of video games that generate headlines, and therefore become exceedingly profitable, are not made by the hands of “basement developers” (this is not to say such games do not exist, just that they are in the great minority). These large-scale games are made by industry professionals together with experienced teams. The companies that produce these games are large-in-size and they follow “real” production structures, just like any other company would. Video games are made for mass production and consumption, and they compete in the global marketplace. Current hardware, platform ownership, global economy, competition between publishers and the goodwill of venture capitalists all influence the games that are available on the market. (Egenfeldt-Nielsen;Smith;& Tosca, 2013)

The process of finding a topic for my thesis did not take long, as both video games and investing are close to my heart. I have been playing games for my whole life and investing has been a great passion of mine for the past few years, and I imagine this will continue to be the case in the future. I wanted to delve deeper into the connection between investors and video game development.

In the first part of this thesis I look at the cost structure and the reason “why” investors are needed in the video game industry. The research for this thesis was done mostly in the form of a literary review where I used information found in books, articles and company balance sheets. All the material used was carefully chosen to reflect the topic of the thesis, and to give the reader a comprehensive look into the costs of video game development.

The second part of this thesis focuses on the roles of different kinds of investors in the video game investors. Again, a literary review approach was used to come to conclusion about this topic. The research for this part of the thesis was done mostly by reading articles on the topic, as well as going through company investor-related datasheets.

Third and final part of the thesis provides a summary of the results in the form of a discussion. I give my own conclusion on the roles of different types of roles for investors and how this data could help both the investors as well as the video game developers.

The goal of this thesis was to identify different types of investors, their goals and what kind of impact they could have in video game development. To achieve this, I use relevant books, web articles, data charts to show the impact of investors in the industry. Therefore, the goal was not to show whether it is profitable to invest in video games (it is), but rather the results will show what investors expect out of their investment, and whether (or how) these expectations are ultimately met.

The types of companies that might benefit from this thesis are interested in attracting more investors for their projects / companies. The gaming industry is cap- itally expensive, but the profitability can make it worth the asking price.

As for the investors, this thesis might bring more clarity into what kinds of invest- ments to look out for in the video game industry. It would also make it clearer what the role of an investor in the industry is, and how an investor could affect the outcome of their investment.

The challenge in writing this thesis was finding all the relevant data and confirm- ing its origin. Despite video game industry being as large as it is, there is not a whole lot of books written on the subject. This would be especially true from the point of view of an investor, which means that I had to use a mixture of data from web articles and data collecting websites to come to conclusion on my research.

## 2 WHY INVESTORS ARE NEEDED IN THE VIDEO GAME INDUSTRY

Video games have grown from a relatively small entertainment industry to one of the biggest forms of entertainment available to everyone anywhere in the world. This development has brought with it changes and improvements to people's lives in the form of advancements in technology, AI and general quality of life.

The growth in the video game industry has been stable over the years. In the 90's video games grew from a near-20 billion USD industry to a 30 billion USD world-wide. These days video games are the largest entertainment industry in the world, with an estimated 35+ billion USD revenue in the United States alone. (Richter, 2019)

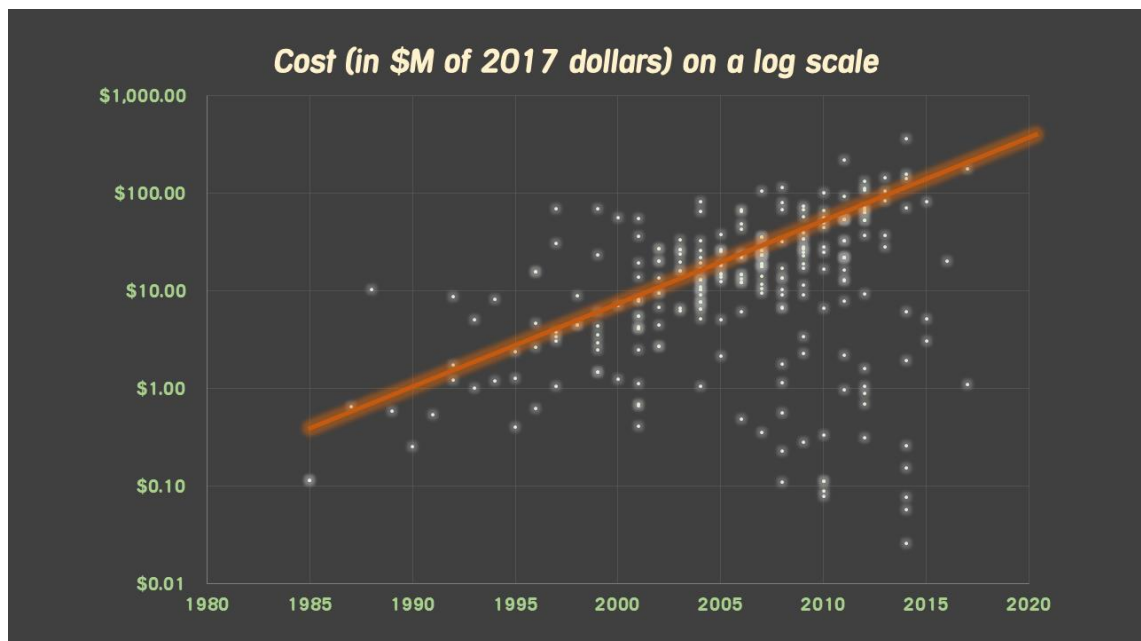


The size of the video game industry in 2018 (USA statistic) (Richter, 2019)

With the growth in the industry, also the development budgets and teams have seen an increase in size. The original Doom, one of the most influential games of the 90s, had a development team of 5 people and was made with a shoe-string budget. (Romero & Hall, 2016)



These days the development budget can reach hundreds of millions of dollars. As an example, the budget of Grand Theft Auto V (released in 2013) was approximately 265 million USD (McLaughlin, 2013). The team working on the game consisted of more than 1 000 people (French, 2013). The budgets to create AAA video games have only gone up over the years since the release of Grand Theft Auto V, and the trend suggests we would be seeing more and more expensive games in the future.



The increasing cost of developing video games over the years (Koster, 2018)

As the industry has grown in the size of its budgets, the revenue has also seen massive growth. The beforementioned Grand Theft Auto V had made a total of 6 billion USD by 2018 (Cherney, 2018) and continues to make money until this day, making it one of the most profitable games of all time.

Profits are what attracts investors. The video game industry was not always seen as an attractive investment due to its cyclical (or perhaps, *seasonal*) nature. First, you need to release a game, which could be expensive (as seen in the previous charts). Second, you need to keep making games of equal quality to stay relevant as a video game company. Further, games usually fade into obscurity after a couple of years. These trends, however, are slowly changing, and investors are more and more interested in video games as an investment opportunity.

### 3.1 The Cost of Making Video Games

To determine the profitability of investing into video games, and to find out why investors are needed in the industry, we must first figure out the costs of making a game. Correspondingly, the costs of making games do not only come from the making of the game alone.

The cost of making a game depends on quite a few factors:

- The genre of the game matters a lot, as creating an action game with many moving particles and higher-end graphics would be more expensive than creating a visual novel in general.
- Is the game going to be a 2D or a 3D game?
- What kind of music, if any, would be used in the game?
- What are the various platforms the company wants to release their game on?
- Will the released game need localization or not?
- What is the game's length?
- Does the game have a story? (some games do not rely on having a story)
- What are the costs before and after the release of the game? (marketing, post-release production)

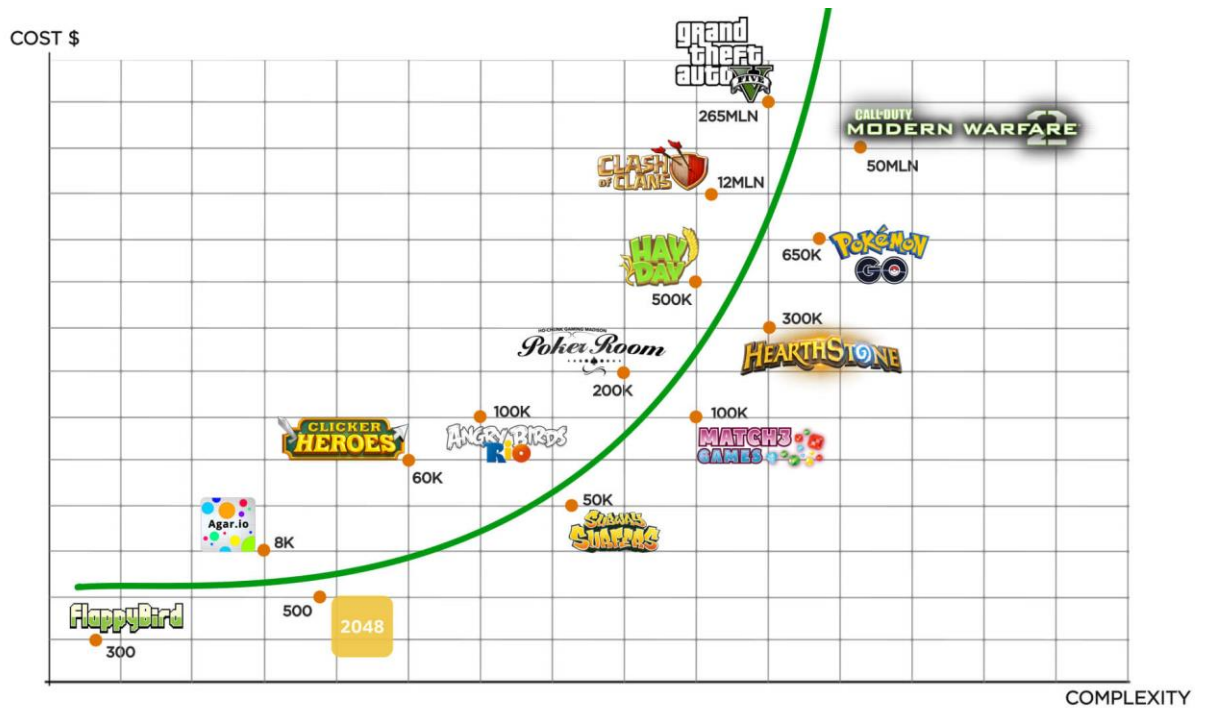


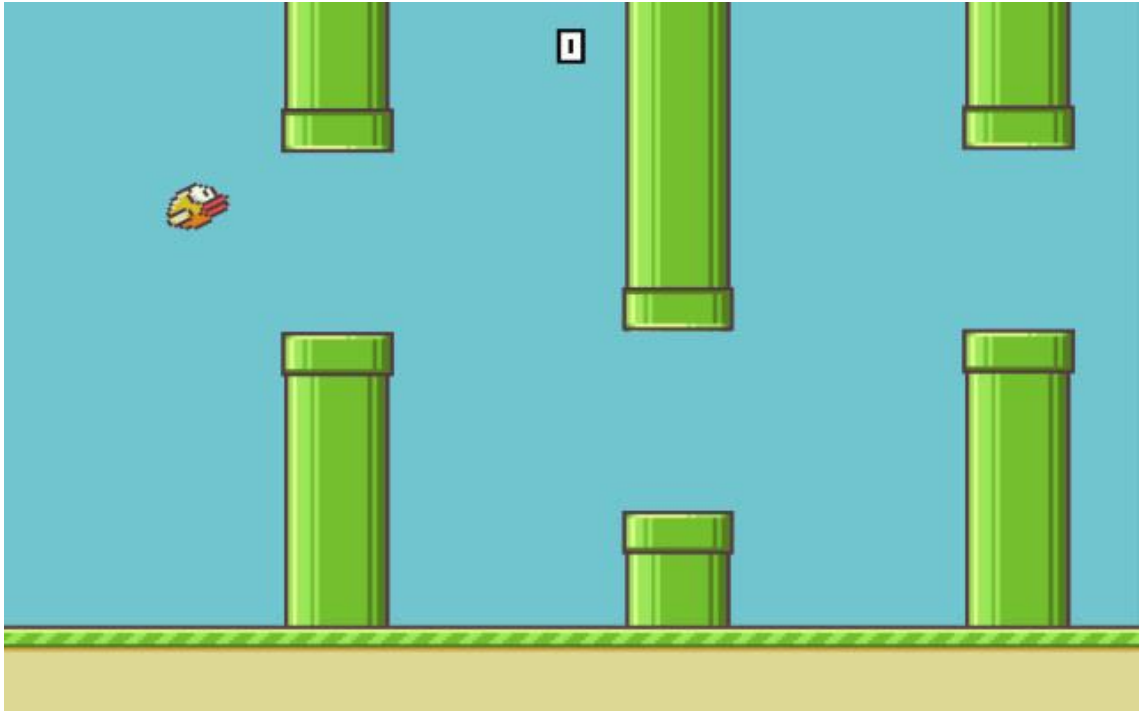
Chart on the cost versus complexity when developing video games (Vironit.com)

From the above chart we can see an estimate of cost versus the complexity of the game. We can see that developing a game does not have a set price tag, rather games seem to vary from near zero cost to few hundred million USD. With this in mind, we will have a closer look at specific price ranges.

## 2.2 Low Budget Games

In the case of *Flappy Bird* (released in 2013), the game was made by a single developer, Dong Nguyen. Unlike many larger mobile game studios, Nguyen worked on the game by himself, and only for a few nights after getting home from work. The game was released on the iOS as well as Android, and it became an instant hit on the mobile platforms. The game netted him an estimate of 50 000 USD per day from advertising revenue while the game remained popular on the app stores. (Hamburger, 2014)

Video game creators need to pay a fee of 99 USD per year to publish their games on the App Store, and 25 USD (one-time fee) to publish them on the Google Play Store. (appypie.com, 2020). If we add the hours worked on the game, we can assume the estimated cost of 300 USD as shown on the chart is accurate. In the low estimates, Nguyen got a return on his investment back at least 5 000 times *in a single month*. This had to do more with luck than anything else. There are more than 180 billion apps on the App Store alone, of which over 950 000 are gaming apps (Clement, 2020). Most of these apps are not as profitable as the *Flappy Bird*. In fact, considering almost anyone can create an app if they so choose, it is not impossible to conclude that most of these games do not make any profit at all. This is not to say that that investing in games like *Flappy Bird* would not be profitable. It simply means that there is a lot of competition, and that getting away with a budget of mere 300 USD and using a single developer may not be enough today.



Screenshot from the game *Flappy Bird* (googleusercontent.com)

### 2.3 The Average Cost of Developing Video Games

Using the previous chart, we noticed that Grand Theft Auto V cost around 265 million USD to make. While the game was released in 2013, it holds the title of being one of the most expensive games ever made (businessinsider.com). This makes the game an anomaly and therefore cannot be used to give an estimate of average costs.

To get a better idea of the costs, I found data that broke down the estimated cost of making a game. A Ubisoft executive gave an estimate of the company's average development costs in a 2008 interview:

- Costs for developing games for the DS (Nintendo handheld console): 500,000 – 1,000,000 euros
- PS3/Xbox 360/PC: 12 to 18 million euros.
- Wii: 5 to 6 million euros (Boyer, 2008).

What we can gather from this is that the cost of making a game varies depending on the platform the game is being made on. This data was, however, from more than 10 years ago.

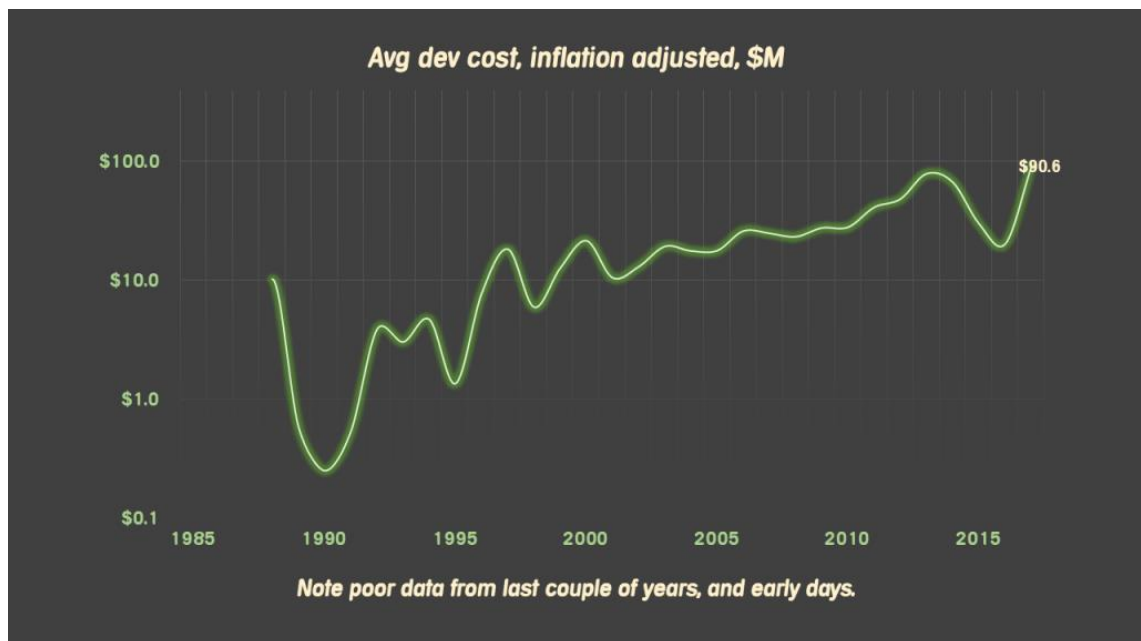
To find accurate data is difficult, because sometimes even the studios do not know how much the game is going to cost when they are getting started with the creation process. The game Star Citizen was supposed to cost only 500,000 USD according to their Kickstarter goal in 2012. In 2018 the game's budget was already over 200 million USD (businessinsider.com).

Further, once the game has been officially launched, the game might still need additional content and might need to be updated, which would increase the overall costs of making the game.

Another estimate says that development costs commonly exceed over 100 million USD, while some high-end games made by independent developers could cost

up to 15 million USD (metro.co.uk/). This data is from 2019, and it seems to align with growth of the industry in general.

The costs can be explained away by how highly specialized the game development roles are. Game designers, programmers, graphics and animation teams and sound design all require very specific skillsets. In addition to this the required software, license(s) and copyrights, and you could start to see how the expenses start to pile up. There might also be some other hidden or unexpected costs in making games that are not even considered in the budget.



The average cost of a developer. (Koster, 2018)

All in all, what we can say is that making games is expensive and risky, which is why investors are needed. A regular person just starting out in the video game industry will find it difficult to get into it without proper funding and guidance from someone else. The high competition itself will make it almost impossible for a single person to turn a profit.

## 2.4 The Cost of Marketing Games

Marketing is not directly connected to developing video games, but it is a part of the overall budget that the investors should concern themselves with before investing into individual projects. Marketing and advertising are a crucial part of any industry, including gaming. While there undoubtedly are games that survived through word-of-mouth marketing, it is more likely for a game to sell well if it is marketed well before and after the release.

The marketing budget of a game can be as high as 75 to 100 percent of the development costs (Koster, 2018). Moreover, a link has been found between a game's success and marketing budget; a poor-quality game with great marketing may end up selling more copies than a great game with no marketing budget ([www.gamesindustry.biz](http://www.gamesindustry.biz), 2009).

It is also an unfortunate fact of any business that marketing is difficult, and it can end up being costly without any results. Today, you can advertise through newspapers, magazines, TV, Facebook, Google search and a plethora of other ways. Electronic Arts, on the other hand, has been moving more towards using influencers as a part of their return-on-investment-driven marketing structure (Grubb, 2017).

While marketing is not part of the development costs, it could end up doubling the costs of a game project. It will also introduce another form of risk that investors need to be aware of.



### 3 THE ROLES OF DIFFERENT TYPES OF VIDEO GAME INVESTORS

#### 3.1 Video Game Publishers

Video game publishers are perhaps the most well-known financiers of projects in the industry. This is partly thanks to the fact that at least the larger publishers focus on building a brand first, games second. What I mean by this is, if you are someone who plays games, and I tell you the name of a famous publisher, you can probably name one or two of their games. You will also be able to tell what kinds of games they usually make. This is good for several reasons:

1. The publisher gets to focus on what they do best. For example, a video game publisher who focuses on creating only strategy games will be able to create higher quality games in that same genre.
2. The customers (players) will know what to expect from the company. If they are used to high quality games in a specific genre from a specific publisher, they are more likely to buy the next game in the series thanks to familiarity with the product and the company.
3. The publisher will be able to steer the video game companies towards the direction of success through their mentoring.

As an example, Ubisoft Entertainment SA, or just Ubisoft, has a very distinct style of game many gamers are familiar with. Their game series *Farcry*, *Assassin's Creed*, *Ghost Recon* and *Watchdogs* all are open-world action games with similar gameplay loops. Note that these games are not the same game and they are not necessarily even in the same genre. Yet they all share the same "Ubisoft" characteristics, which also comes with a certain level of quality. Sometimes you can hear players refer to this gameplay loop as the "Ubisoft (open-world) formula". (Frye, 2020)



Ezio from the Assassin's Creed series is a well-known game character. (Microsoft Store Images)

However, the most important role(s) for publishers is publishing and distribution.

### 3.1.1 Video Game Publishing Deals

A publishing deal first and foremost provides funding. It is not all about just providing funding for a project. Publishers are experienced in the gaming market and they have entire teams that can help fledgeling developers with all aspects of game development. Whether the new studio needs help with programming or marketing their game, a large video game publisher can offer to use their expertise in these regards in exchange for profit sharing. Typical profit-sharing agreement is usually a 75/25 split until the publisher has recouped their costs, after which the split will be 50/50 (Sumo, 2019).

Video game publishing is not too dissimilar from book publishing. Typically, in book publishing, the author will create a manuscript and then present it to a publishing house. After a publisher reviews the work and decides to make a deal with the author, they will ask author to work together with an editor to edit and finalize the work. Once the editing process is complete, the book still needs to be formatted correctly, and it needs a cover. Now that the book is complete, the publisher

will handle the marketing, PR and sales. The publisher will also help with the localization if its needed. (Manning)

### 3.1.2 Video Game Distribution Deals

Distribution deals differ from publishing deals by one key factor: the video game publisher will not provide funding for the development process. Instead, they offer marketing and distribution support in exchange for revenue share.

It is up to the game developer to decide whether they want to accept a distribution deal, but the main reasons seem to be:

- 1) The developer has its strengths in creating games rather than marketing and distribution, therefore they benefit from having someone else (who is also more experienced) handle the post-production dealings
- 2) The developer already has a game, but they want to expand to markets outside of their comfort-zone (for example an American developer wants to release their game in China)

Distribution deal offers an attractive option for developers who don't necessarily need the funding to finish their project, but they still need help in other areas of video game distribution (Sumo, 2019).

### 3.1.3 Acquisitions

While the publishing side is important, and it is the key role of a video game publisher, these companies are also looking into becoming video game developers themselves. Over the years, publishers have made acquisitions and incorporated developers into their own companies, and they have also created their own development teams.

Acquisitions are valuable when you consider the importance of the publisher's brand. If the publisher finds a great developer and they make a game together, it is beneficial for both parties to continue working together. Not only do long-term

contracts build the developer-publisher relationships, but they also create more recognizable brands and quality standards for both parties.

It is also crucial to think of the IP (intellectual property) rights. Unless otherwise stated or agreed upon, the video game developer owns the IP rights to the games they make and what they sell are these intellectual property rights through licensing deals. (Greenspan;Boyd;& Purewal, 2014).

Unless the publisher owns the IP rights, they can only sell the game based on the terms stated in the contract. It is in the best interest of the publishing company to own the IP rights to a game. If the publisher is unable to negotiate the IP rights to be only used by themselves, they may choose to buy the video game company in order to get the IP rights to the company's games permanently.

When it comes to buying game companies, acquiring companies used to be a rare occurrence, but these days it is quite common. As an example, these are some of the most recent acquisitions by Ubisoft:

July 2019 Ubisoft acquired 70% of the Green Panda Games group, who is a mobile game developer that specializes in hyper-casual games. They have a highly-talented team of 30 people, they have published over 55 games, which have been downloaded by over 85 million players worldwide.

January 2020 Ubisoft acquired 75% of Kolibri Games, another mobile game publisher that creates free-to-play games. Their one game in particular, Miner Tycoon, has been downloaded by over 104 million players worldwide.

(Ubisoft Annual Financial Report, 2020)

What we can gather from this is that publishers like Ubisoft pay close attention to developers and try to estimate whether their past performance merits acquiring the companies. These companies in question had successful IP's and they were leaders in their respective areas of the market, but at the same time they were small enough companies so that they could be acquired by Ubisoft. What we can

also see is that Ubisoft, while not necessarily known for their mobile games, is interested in acquiring companies in this market.

It is just one example, but other video game publishers (for example Electronic Arts and Activision Blizzard) are known for acquisitions as well. It simply is a way for the publishers to expand into other areas in the industry.

#### 3.1.4 Conclusions on Video Game Publishers

With the help of this data, we can draw conclusions about the role of video game publishers as investors. Video game publishers:

- 1) Help video game companies publish their games
- 2) Fund game projects through direct investment
- 3) Help companies with marketing, PR and distribution operations
- 4) Offer mentoring to companies
- 5) Invest into video game companies in order to procure IP rights
- 6) Diversify their investments in order to reduce risk and increase earning potential in the future

## 3.2 Crowdfunding

Another way gaming companies can receive funding is through crowdfunding.

Crowdfunding is an alternative form of financing various kinds of projects. Digital revolution has offered new ways of financing both for-profit and not-for-profit projects, and crowdfunding seems to work as the smart solution to the scarce, traditional sources of funding (Lehner, 2015). In the case of video game development, this is a welcome addition to different types of funding, as traditional investors may see the gaming sector as a risky endeavour.

There are various ways to do crowdfunding, but when it comes to crowdfunding in gaming, three methods stand above all other methods: *private investors* (angel investors), *Kickstarter-style* crowdfunding and *fig-style* crowdfunding.

### 3.2.1 Angel Investors

Angel investors are high-net worth individuals who provide funding for projects in exchange for equity in the company, or possibly in exchange for a share in profits. (Ganti A. , 2020)

In the business world angel investors are a common sight. Many modern companies get their initial investments through angel investors, and it's especially common in the tech sector. AngelList alone has more than 23 000 angel investors ready to make investments in the upcoming gaming start-up companies. (angel.co/, 2020)

As the contract between angel investors and developers are seldom disclosed, it is not clear what these relationships consist of. Game Seer's CEO Bertrand Ver-nizeau gave an interview about this topic where we can learn more about this topic.

In the interview he mentioned that they sold their first gaming venture in 2015 for a “substantial amount”, which he explains, would give an insight into their expertise in distribution of games and monetization of virtual economies. In total they have more than 15 years of expertise in the field of making money with games and how to properly market games through influencers. The greatest points in investing through them, in his words, are that the companies get to retain their IP, they get to choose their own partners and it also offers greater transparency between the studio, their project as well as their investors. (PCGI Staff, Staff Writer, 2020)

Based on this interview, we can tell what the key advantages of teaming up with angel investor are:

- The developer gets funding for their project
- The game IP is retained by the developer
- The developer gets an experienced partner who offers mentoring on game development
- The developer gets to choose their partners once further into the development

The main advantage here for the game developers seems to be that angel investors function much like game publishers, except that they won't take IP rights and they do not offer operational support (such as publishing or distributing the game). Retaining IP rights is advantageous, but the absence of operational assistance offered by traditional video game publishers could cause some challenges for the developers.



Aragami 2 concept art. (Cloudflare)

Aragami 2 is a game that was created together with the assistance of angel investors. The game trailer was revealed in Gamescom 2020. The game is planned to release in 2021.

### 3.2.2 Kickstarter-style Crowdfunding

Kickstarter is a crowdfunding platform that was founded in 2009. It is a crowdfunding platform through which companies can seek funding for their creative projects, including, but not limited to video game development.

Through Kickstarter video game developers can showcase their game and ask for funding from individuals. In exchange for the funding, the developers usually offer a copy of the game once it's ready, and perhaps something extra depending on the size of the pledge.

One of the more successful video game projects on Kickstarter is a game called *Darkest Dungeon*. *Red Hook Studios*, the developer, asked for 75,000 USD in funding in order to develop their game. After the crowdfunding period, individuals had pledged a total of 313,337 USD towards the completion of the project.





Darkest Dungeon cover art. (mobygames.com)

In order to receive the funding, the developers shared their idea on the Kickstarter platform and showed their progress towards the completion of the game. They continued to update the progress on the development during the whole process.

Additionally, they also promised various rewards to those who supported their project monetarily. If you pledged 15 USD or more, you'd get a copy of the game on steam (a gaming platform) once it released. 20 or more and you'd get the game and you'd also get an early access to the game and you could take part in development polls. The last tier of rewards was reserved for a single person who would pledge 5,000 USD towards the project, and that person would get to design a character class in the game.

Darkest Dungeon was release in January 2016 in early access, through which players of the game could offer feedback to help developers finish the game. The game would stay in early access for one year before full release. (wikipedia.org)

The main advantages for developers using Kickstarter would be that they could get funding towards the completion of their projects in exchange for digital or physical goods related to the video game. The other advantage is that if the company chooses to do so, they can offer a beta version to the players and get feedback on the game before release. Of course, the company gets to also stay independent, they get to keep their game IP and they do not have to share revenue with parties other than the game platform holders they choose to release their game on.

The main disadvantages are that developing extra content for the backers can be time consuming. They also do not get the same benefits compared to traditional publishers or angel investors can offer.

### 3.2.3 Fig-style Crowdfunding

Fig is a crowdfunding platform (released in 2015) through which video game developers seek funding towards their game projects in exchange for goods once the game is released. The unique point about Fig is that the developers can also offer a share in revenue to the backers.

According to the fig.co website, their rewards-based campaign works akin to other crowdfunding. The company sets a goal and a deadline for the project as well as contributions, and potential investors can decide for themselves whether it is worth it to invest in the project. What makes fig stand out from other crowdfunding sites is that their campaigns also have a revenue share-model enabled, meaning that investors can get a return-on-investment depending on how much they pledged towards the creation of the game. (fig.co)

Other than the possibility for revenue share, Fig is not too dissimilar from Kickstarter. As a result of this, they share the same advantages and disadvantages. From the point of view of an investor, Fig is a more attractive option, because the investor can get a better return on investment.



Outer Wilds is one of the games that received funding through Fig. (newburytoday.co.uk)

### 3.2.4 Conclusions on Crowdfunding

Based on the reviewed literature, we can come to certain conclusions about the role of crowdfunding investors. Crowdfunding investors:

- Find projects that are worth supporting on crowdfunding platforms
- Help fund the game project for the developers
- Offer mentorship (angel investor) / feedback (Kickstarter / Fig) on the project
- Join the development of the video game through testing the game

To further support these points, in a 2015 study (Smith, 2015), a link was found between video game developers and their backers. While the crowdfunding itself was viewed as an important factor, it was found to be of equal importance that players would get to interact with the developers on a more personal level while the game was still in development. In the *post-campaign phase* (after the crowdfunding period) it was also found that having the backers as quality assurance team during alpha and beta phases of game development was seen as being beneficial for the overall quality of the game.

It was also found that a crowdfunding success requires a thorough campaign preparation where the road to success begins by gathering a crowd of potential backers before the crowdfunding begins. Preparing content for the backers, setting realistic goals and being realistic about one's own skill set were found to be in a key role in successful crowdfunding campaigns (Unger, 2019).

### 3.3 Stock Market Investors

Next, we will have a look at the kind of investor that most people are familiar with, the stock market investors. Most gaming specific companies do not belong to the group who benefit from stock market investors. There are many reasons for this.

The most notable reason is that video game companies are usually private companies that require private funding. If we take a look at the list of “top publicly-traded gaming companies” ([gamingstreet.com](http://gamingstreet.com)), we can see a number of companies that aren’t even primarily gaming focused, but are still listed as top traded gaming companies. That gives us an estimate of the overall size of the market, which is small.

Stock market investors are not buying stocks just for the benefit of the listed companies. They have their own reasons for investing, and in general, most investors prefer to make a profit from their investments. This is where the second reason for the lack of publicly traded gaming companies comes into play.

As mentioned previously, gaming companies are cyclical, or more like seasonal companies. Gaming companies also exist in the tech sector, which is known for its growth potential, which attracts investors that are interested in seeing growth in their stock portfolio.

When you consider that making a game can take years, and profits may not be stable for the company, it creates an environment where it’s clear to see that gaming companies are extremely volatile when it comes to their balance sheet. Volatility can be a good reason to invest into a company if you are looking to trade in the short term, but it doesn’t sound like an attractive option for an investor.

Gaming companies know that if they were to become a publicly traded company, they would have to generate returns and grow as a company on a yearly basis to keep their investors happy. Most of the gaming companies can’t achieve this scenario, due to their relative size and the existing competition in the market.

On the other hand, some gaming specific companies simply prefer to stay private even when they reach the status of being stable and profitable. A good example of this is Valve Corporation, or Valve Software ([wikipedia.org](https://en.wikipedia.org/wiki/Valve_Corporation)) with an estimate of over 2,5 billion USD in equity in 2012 (Wingfield, 2012), and an estimated net worth of over 4 billion USD in 2020. (Kabra, 2020)

Valve has its own ideas about going public. In an interview Valve representative, Erik Johnson mentioned that companies that go public also end up changing their customers. Instead of their customers being the people who buy the products, the customer becomes the investors with ever increasing demands. This in turn affects how the decisions get made in the company (Chalk, 2010).

While it's not exactly the same issue, Steve Jobs famously said in his 1995 interview that when companies reach a monopoly status, the company is not any more successful than before. Once this status has been reached, the only part of the company that can make it more successful are the sales and marketing people, who end up driving the product-making people out of the decision-making forums. This ends up changing the company, and it also removes the part of product-making that creates great products out of ideas (Tweedie, 2014)

I would argue that the relationship between companies and their shareholders could have the same or at least similar effect when it comes to gaming companies. As a result, as the company grows bigger, the investors, game developers and other company personnel (such as the marketing team) do not always see eye-to-eye when it comes to what the company should do next. The business becomes more about marketing and sales (and generating money for the investors), and less about creating great games for their customers. This conflict of interests may be one of the main reasons why a gaming company may choose to remain private – to have more creative control over their product and brand.

So far, we have established that video game companies:

- Are not the most attractive investment vehicle for stock market investors
- Video game companies may not want to list themselves on the stock market due to conflict(s) of interest

According to this, listing up in the stock market as a video game company does not seem to be the best way to procure funding for their development projects, nor does it benefit the investors themselves due to the extreme volatility in the market. Despite that, there are gaming companies listed in the stock market. To understand why, we need only to have a look at what kind of companies they are. We will use the list of companies from [gamingstreet.com](http://gamingstreet.com) ([gamingstreet.com](http://gamingstreet.com), 2020)

Microsoft and Google (Alphabet Inc) are mentioned as gaming companies, but it is not their only source of revenue. Both companies offer platform options to gamers. Microsoft offers Windows and Xbox, while Google offers its Stadia platform. It is a small percentage of their overall revenue, and Microsoft has even seen a drop in interest of their Xbox platform, as their sales fell by 48% in Xbox sales. (Grubb, <https://venturebeat.com/2019/07/18/xbox-one-sales-have-slowed-to-a-crawl-as-the-current-gen-wanes/>, 2019). That being the case, Microsoft is investing more into their game development areas, as they recently bought ZeniMax Media (best known for Bethesda Softworks, a game publishing company) for 7,5 billion USD. Despite these new developments, both Google and Microsoft offer a variety of products that may interest investors more than just their gaming efforts. (Microsoft, 2020)

Advanced Micro Devices Inc (AMD) and Nvidia on the other hand create computer processors, motherboard chipsets, graphics processors / processing units (GPUs), workstations and PCs. (Wikipedia). These companies create the hardware where the software (games) are played on and can only be looked at as indirect investments in the game development area. They still play a key role in the video game market.

Perhaps the best way a stock market investor could affect game development is through direct investment into video game publishers, such as Activision Blizzard Inc and Square Enix Holdings Co Ltd. These kinds of companies own multiple development studios, or they are at the very least working together on projects. If an investor feels like they want to support the creation of future games of a

certain publisher, investing into publishing studios is one way to do so. The problem is that the investor would not have a say on which projects get funded.

These are the general types of investments stock market investors can make in the gaming market. Some play a bigger role than others in video game development, but they all do play a role in the whole process.

What we learned from this process is that all the gaming related companies listed on the stock market are large studios with multiple sources of revenue. Even in the case of publishers, they are large enough to invest in multiple projects at the same time, and they may also have other business ventures. This means that the risk of investing into these companies is lower than investing in individual projects thanks to diversification in revenue models. This doesn't mean there is any less volatility in the sector overall.

The problem for stock market investors is that they usually can't make direct investments towards specific gaming projects. This does not mean that they don't play a role in video game development. This is because stock market investors in the video game sector are more than likely going to be gaming enthusiasts. This is because the sector simply just happens to be more volatile than other markets. Gaming is not seen as a safe investment by other long-term investors. (Seekingalpha.com, 2019)

What this results in, is even more volatility in the market due to investor reaction to gaming news. This is especially true for publishing company listing specifically. Following are some examples.

### 3.3.1 Stock Market Example 1.

Blizzard Entertainment is the company behind *World of Warcraft*, *Diablo* and *Starcraft* game titles. Their catalogue of games consists primarily of PC games. This trend has been slowly changing since Activision acquired the Vivendi Games, a holding company for Blizzard Entertainment and Sierra Entertainment

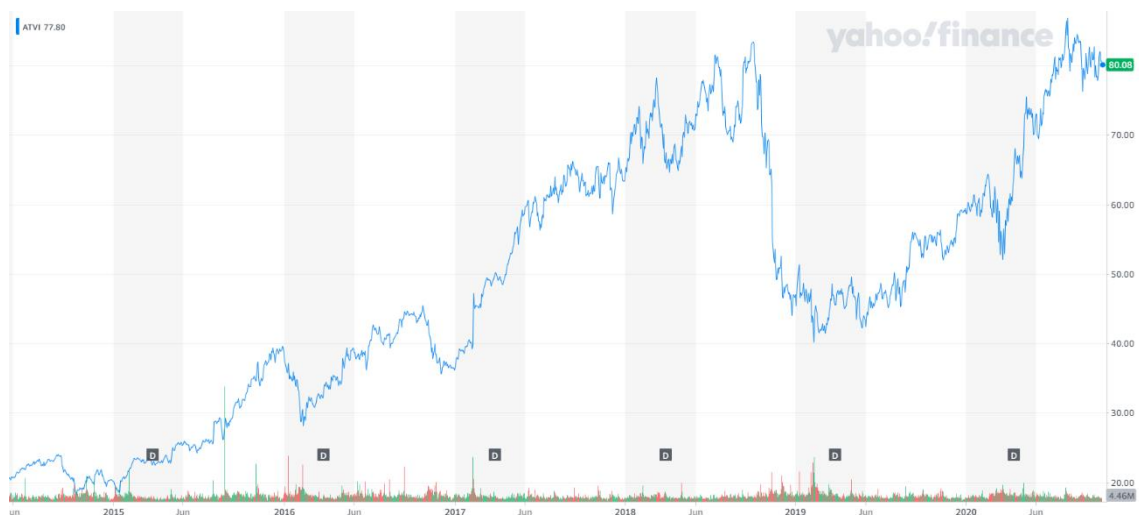


in 2007. (Wikipedia, 2020). This also changed the leadership of the company and the company changed its name to Activision Blizzard.

In 2018 Activision Blizzard held their annual “Blizzcon” event for their players. This famous gaming yearly event is one of the largest gatherings of players in the industry (some exceptions may apply, such as the 2020 event being cancelled). It is an event held in high regard by the Blizzard player base.

During the event there was a reveal of a new Activision Blizzard game called “Diablo Immortal”, a mobile game, which was not what the Activision Blizzard fanbase was used to seeing from the company and it caused an outrage in the crowd. This happened on October 2<sup>nd</sup> 2018 when Activision Blizzard stock was valued at 83.39 USD / share.

After this event, the Blizzard stock fell for several months in a row, reaching its lowest point at February 11<sup>th</sup> 2019 when Activision Blizzard stock was valued at 40.11 USD / share.



Activision Blizzard stock went into freefall after a disastrous reveal of a mobile game at their Blizzcon event in 2018. (Yahoo! Finance, 2020)

After this event, Activision Blizzard (the company) has seen some improvements. They announced a restructuring of their company in February 2019 where they would remove “unnecessary levels of complexity and duplication” in certain parts

of their business (Fool.com, 2019) This created a positive outlook for the company, the downtrend reversed, and the Activision Blizzard stock has since returned to its higher valuations.

### 3.3.2 Stock Market Example 2.

Electronic Arts is a video game publishing company, best known for its *Battlefield*, *The Sims* and *Mass Effect* series, as well as EA Sports titled *FIFA*, *Madden NFL*, *NBA Live* and *NHL* (Wikipedia, 2020). It is one of the largest video game publishers in the world with a total of 4.95 billion USD in revenue in 2019 alone (Electronic Arts, 2019)

On November 10<sup>th</sup>, 2017, Electronic Arts released a beta of their newest game, *Star Wars Battlefront II*, a sequel to somewhat popular *Battlefront I*. In the previous title Electronic Arts had only focused on the multiplayer aspects of the game, for which they were criticized by the media. In the sequel single player mode was added, but the major focus of the title was still on the multiplayer player-versus-player combat.

In the multiplayer mode players could receive and buy Star Cards with different qualities, and they would offer significant power-ups to in-game characters. Players received the Star Cards through “loot boxes” with random chances of getting what they wanted. This meant that the Star Card system was considered a “pay-to-win” (the purchase of in-game power in exchange for real life currency) system, and the random rewards also resembled a slot machine (gamespot.com, 2017).

The incident became a topic of talk for months even after the release. The players were not pleased with the pay-to-win and gambling mechanics added to the game. The incident eventually launched a Belgian Gaming Commission led investigation into the games mechanics for possible gambling practices (Makuch, 2017).

The stock market reacted to the news as well. From the 10th of November 2017 the stock price fell from 112,75 USD to its lowest point of 105,06 USD by December 29th, 2017. The stock fell again when Electronic Arts announced they would

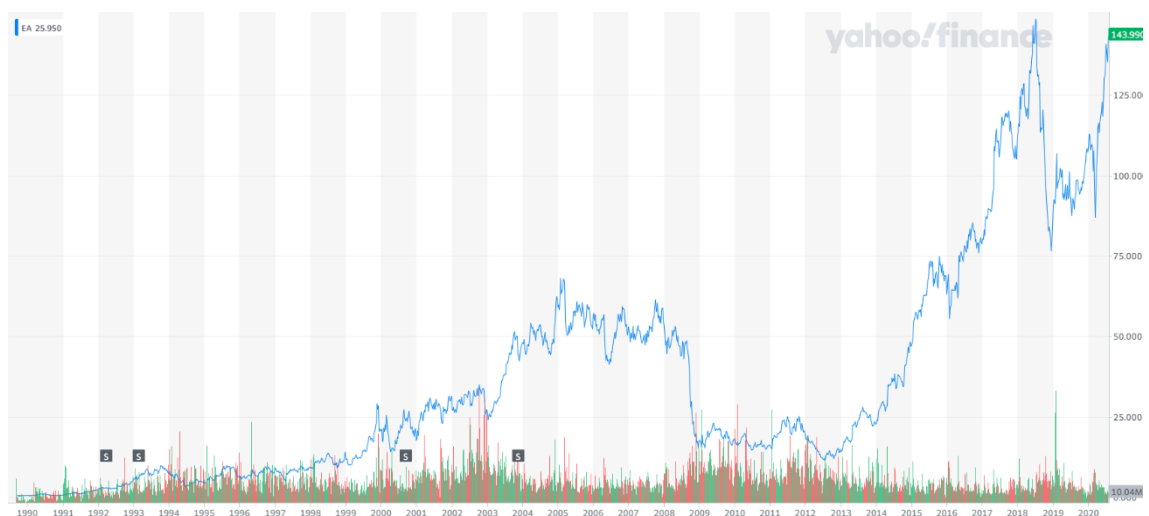
be removing the loot boxes from *Battlefront II* on March 21st, 2018 (Sinclair, 2018). Between March 16, 2018 and April 27th, the stock fell from 128,52 USD to 117,47 USD.

Later that same year, the Electronic Arts stock would reach its highest valuation in its history. On July 13th, 2018, the stock valuation hit 148,73 USD. Following the news, Electronic Arts quarterly results did not look promising, and they also announced that they would not release the long-anticipated *Battlefield V* until November 20th, 2018. The stock fell to its lowest valuation in 2 years, reaching its lowest point of 76,57 USD on December 21st, 2018.

Apart from what was previously stated, one of the reasons for the fall was cited as:

*“I think the industry itself is falling into an underreported, but serious trend: Gaming companies are making titles for shareholders’ benefit, and not for the gamers themselves. This is particularly evident for EA, which is why Electronic Arts stock has fallen under hard times.”* (Enomoto, 2018)

This statement seems to support the idea that the shareholders of video game companies are passionate about games, and they will react to good and bad news about the company whose shares they currently hold.



Electronic Arts stock shows extreme volatility over the years (Yahoo! Finance, 2020)

### 3.3.3 Conclusions on Stock Market Investors

It is difficult to tell whether the stock market investors have a direct role in video game development. What we can say is that they seem to react to good or bad news about video game companies (usually publishers), perhaps more so than most other stocks.

The news concerning video game companies usually are not company ending news, and the bad news about a company may not even reflect how the company is doing financially. Yet, the stock can move dramatically over particularly damaging news.

I would argue what we witness here is that the stockholders of video game companies see themselves as the companies' moral compass, and simply choose to "vote with their wallet" when news about a company emerge. Sometimes this reaction to news leads to changes in the company or a particular game. This also explains in part the volatility of the video game stocks.

Overall, stock market investors alone are not responsible for changes in video game development, but they seem to play an important role together with the media and player sentiment when it comes to the video game companies leadership and choices for monetization in their games. Sometimes this also leads to changes in the game(s) that are being mentioned in the news about the company.

It could be concurred that the video game stock market investors mostly provide funding for the game companies through buying shares in the company. Money acquired through this method can be used to fund the overall operations, including video game development, in the company.

With similar agenda there was a study conducted by Heiko Spitzeck and Erick G. Hansen, where they found how stakeholders can influence corporate decision making. They found that most publicly traded companies involve stakeholders in corporate decisions. In 74 percent of cases stakeholders were found in advisory

roles and strategic roles, while in 26 percent of cases investors played a significant role in shaping corporate decisions (Spitzeck & Hansen, 2010). We can only assume this study holds true in video game companies as well. This would support the idea that investors in this sector play an important role in the governance of the video game companies themselves (businesswise rather than being involved in game development).

## 4 REFLECTION

What we have established here is that making video games can be expensive in today's market. The development itself can take a long time, sometimes even years, and the costs of making the game cannot be recouped until the game starts selling units. This is where the marketing costs start to rack up. It is difficult to see how a solo person would survive the gaming market of today without a team backing them up.

The need for investors in the video game industry is quite clear from the outset. What was not perhaps as clear was the different roles of investors in the development process.

Video game publishers hold a special role in the industry as they are in a key role where they know or own multiple teams that can handle specific tasks when it comes to game development. Publishers also have the experience to help with the creation process of the game if it is needed.

Angel investors are almost like publishers, but their connections may not be as established. It really depends on the investor him- / herself. The clear advantage of using angel investors seems to be that the developers get to keep their intellectual property rights after the game has been published.

Crowdfunding on the other hand has opened video game investing to the general audiences. Using this option comes with its downsides, as a new developer will have to figure out how they will develop and market the game by themselves. That said, public funding can produce some great results, simultaneously being a risky investment in an already risky market.

Finally, stock market investors seem to work as the industry's moral compass. Generally, they have access only to the biggest companies in the video game industry and they seem to react to both positive and negative news about a company by buying or selling their shares. They also fund the general operations of video game companies, which extend outside of video game development.

I found quite a few ways of how investors affect the development process of various video game projects. With all this in mind, the video game industry is constantly evolving, and we do not yet know how much making games will cost in the future and what the funding is going to look like. This data does give us a good idea of the possible options available to developers.

The way to continue this work would be to find more reliable data and to conduct interviews. Right now, all we can do is work with estimates, and that may not give us the best understanding of the costs of making games.

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*<https://seekingalpha.com/article/4278004-why-video-game-companies-are-never-investable-to-me>*

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