

An Environmentalist's Economy: Why Positive Game Economies Appeal to the Modern Gamer

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Today every nook and cranny of the world has been integrated into the sprawling global system of neoliberal capitalism—a system by which countries are just seconds apart via communications and monetary systems and which views the physical environment largely as a tool for profit. Neoliberal capitalism has separated humans into two global classes—the capitalists/bosses and their laborers. The vast majority of people belong to the latter, working the archetypal forty-hour week to bring profits to their company, which accumulate high up in the chain of the company's command with positions such as the CEO, COO, president, and more. Most transactions in the capitalist system involve both sides gaining something; for example, a company gains money when you buy a product that you need to survive from them. However, the benefits are often weighted more heavily towards the sides of the capitalists, to whom the highest fraction of profits go, with the consumers and low-ranking laborers gaining the least. In this way, neoliberal capitalist often resembles more of a zero-sum game, where there are winners and losers to every transaction, the winners most frequently being the capitalist class. This type of economy is present in many video games, but often without the distant wealth trail explored; players give money to a shopkeeper for a helpful item, and the interaction ends there. Because games so often do not focus on the economy of the fictional world, it is easy to forget oneself in them; specifically, fantasy games allow for players to almost entirely escape capitalism (if they can ignore how expensive the games and consoles themselves often are) and enter the world of slaying dragons or monsters or acquiring magical powers. So, when a video game *does* focus on the economy, there is often a profound statement to be made there.

The *Animal Crossing* franchise and *Stardew Valley* are two games which host similar, but importantly varied, forms of capitalist societies that actually focus on earning money and using that money to improve the virtual life of the player¹—capitalist simulators, essentially. But what is the point of recreating the backbreaking labor of the society we are specifically avoiding by playing video games? The answer lies in their fictional world economies: both *Animal Crossing: New Horizons* and *Stardew Valley* create an idyllic form of capitalist society that focus on the player's connection with the earth for their wealth, and in ways that allow for all involved parties to benefit—a positive-sum game economy. Although both the pastoral series and the farming simulator create these kinds of systems, they make different commentary out of capitalist society and provide varied forms of wealth-building and use. However, the positive-sum economy present in both is compelling for that reason—it allows the player to explore an idealized form of capitalism that appeals to players *because* of, not *despite*, its differences from current capitalist society.

Animal Crossing is a series that has taken many forms since its 2002 debut, from the earliest incarnations of the titular game to 2005's *Wild World*, to the newest issue *New Horizons* (2020). The series has experienced many changes over time, specifically involving the range of activities the player can partake in and the interactions players can have with their animal villagers, but the basic concept of the game stays the same; the human player moves to a new town/island with a few other sentient animal companions, gets a home loan for a small house, works to pay off their home debt, and acquires items both for themselves (like clothes or furniture), for furthering the town's development (like fossils or fish for



Tom Nook giving the player a job in *Animal Crossing: Wild World* (2005)²

the museum), or for sale for bells (the in-game currency). The earlier incarnations of *Animal Crossing* (here the original game and *Wild World*) do not allow for many side activities other than fishing, bug-catching, and talking to one's villagers, and paying off home loans is one of the loftiest goals to have, other than filling the local museum with every artifact. Most items

Game and Year Released	Total Mortgage
Animal Crossing (2002)	1,413,600 bells
Wild World (2005)	3,559,800 bells
City Folk (2008)	1,353,800 bells
New Leaf (2012)	7,595,000 bells
New Horizons (2020)	5,795,800 bells

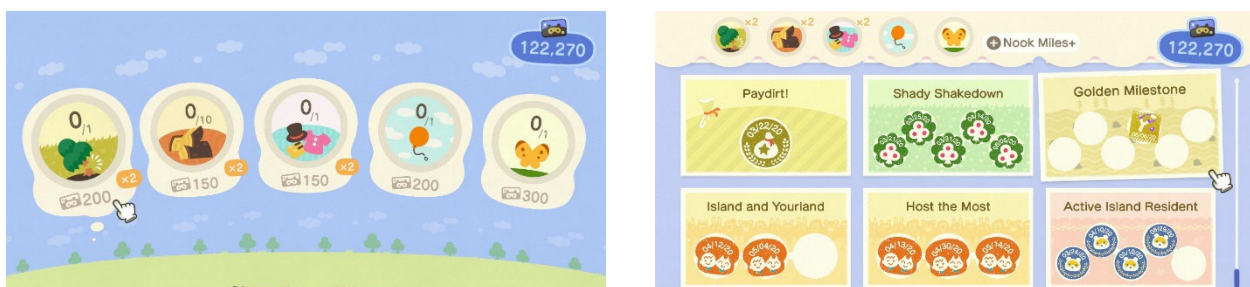
sell for between one hundred bells at the low end or 15,000 bells at the extreme high end, where fully paying off a player's mortgage requires one to four million bells. These mortgage amounts are listed in Figure 1, with the price increasing and decreasing alternately. These earlier games, which Bogost describes in his article "The Rhetoric of Video Games," allows a player to see "the way his debt makes

Figure 1: Mortgages in Animal Crossing Games

bankers wealthy" (118) through the debt cycle Tom Nook perpetuates: players work for Nook to pay off their home debt, celebrate gaining space by buying material goods, then require more space in their homes, incurring more debt. Bogost describes his young son as discovering this cycle, a real-world issue reflected in a greatly zero-sum game economy. While not requiring the kind of labor real jobs do to cure real debt, acquiring money means players must work. This mostly entails interactions with the natural environment, using the infinite spawning of butterflies and bass to fill the pockets of the player character. However, Bogost says, "through their experience of the game, players might question the often endless feedback loop between the desire for material goods and the work needed to support it," (138). In other words, the zero-sum economy, instead of being an escape to an in-game fantasy world, may push players to reject the capitalist society and play a different way, keeping their house small, enjoying chats with villagers, and taking care of flowers. Both ways of play are supported in-game, but the earlier

installments of the *Animal Crossing* series undeniably set up a largely zero-sum game economy where capitalist figure Tom Nook gains money at the expense of the player caught in a loop of material acquisition and debt.

As the series evolved, *Animal Crossing* games, like most games in a series, became dramatically more complex and began to offer more play options to players. In 2008's *Animal Crossing: City Folk*, this takes the form of being able to visit a nearby downtown area with grand shops and visitors. For 2012's *Animal Crossing: New Leaf*, the ability to be the mayor of their town and choose the visual and cultural direction it develops in. However, the biggest changes are implemented with the latest release. 2020's *Animal Crossing: New Horizons* takes the series in a different direction through the interaction of the player with the environment in new ways, with the ability to make DIY (do-it-yourself) items such as tools or furniture and the entirely player-directed decoration of the island from its base setting to a fully-themed experience. Allowing for players to not only chop down trees to change their position but to acquire wood from them or be able to make fishing bait through digging up clams on the beach, *New Horizons* allows for using the environment even further to the player's advantage than fishing or bug netting alone, which Bogost says in his Atlantic article can cause the player to abuse their island. However, *New Horizons* also uses this as a kind of pastoral fantasy: the player can live off the land by getting wood, stones, and iron and crafting them into items themselves, instead of buying them from Tom Nook.



Some of the daily (left) and long-term (right) goals for getting Nook Miles in *Animal Crossing: New Horizons*

New Horizons also differs from its predecessors in the way Nook and the player interact: Nook no longer requires an internship to settle their debt, but instead uses “Nook Miles” which are freely given to the player any number of activities—fishing, making friends, and planting flowers can all give the player points to pay back their loans. Later, these points can also be exchanged for goods like island décor or hairstyle options, all without the exchange of capital. As Bogost says, “Nook never seems to benefit from his profits; he seems more like a reforming ecological collectivist, working behind the scenes to maintain the village’s fecund repleteness” (Bogost, 2020). This is a change in the direction of a more positive-sum economy than in previous *Animal Crossing* installments—Nook grants the player items for playing the game as they usually would, which are used to further the player in the game beneficially, and the island itself runs on a lifestyle often unseen in America. “Here [in the US], capitalism and pastoralism are often seen as opposing forces. So, too, personal benefit and collective good” (Bogost, 2020). The Japanese small-town economy ideal Bogost describes works in *New Horizons*, though. Players get rewards for making friends and for building up their island to please their fellow residents, who want places to sit and eat snacks or read books. Because it is easy to become rich in-game, thanks to the abundance of opportunities for selling both natural materials and DIY projects, it is easy to make the other villagers happy by building public works, in a manner similar to *New Leaf*, but with more freedom afforded to the player. In this, however, there is a more materialistic side; a Perfect Town rating, a feature in every *Animal Crossing* game, is at first contingent on nature alone—a town with no trash or weeds but plenty of flowers and trees is considered ideal. In *New Leaf* and *New Horizons*, where players can decorate their town/island the way they choose to with outdoor furniture and decorations, however, development is prized as making a town unambiguously ‘better,’ so long as it is not over-developed or ‘cluttered.’ In

some ways, then, the series transitions to a more positive-sum game economy while in others encourages the player to prioritize their personalization of the world around them over the pristineness of the natural environment.

Animal Crossing: New Horizons exists in a kind of idyllic capitalist realm, where even when things cost money or one's work is not rewarded (as giving to the museum rarely is,



Crafting and using a DIY fishing rod in New Horizons

though donations require much effort and bells to obtain), it still rewards the player with appreciation from villagers and enjoyment of a world purely created by them. Bogost makes this point of *New Horizons*: “Every effort is valid, every accomplishment exchangeable for capital... Imagine if everyone had a job that they enjoyed, that they were good at, and that could sustain them” (Bogost, 2020). Any job, he says, can allow the player to live life on their island fully—being a master bug-catcher,

filling every exhibit in the free-admission museum, building up their house to its maximum extent, or focusing on befriending the other villagers. All these things produce tangible benefits in *New Horizons*; all are rewarded by the game with Nook Miles and the admiration of fellow villagers, and all are fulfilling for the player. In this way, it is precisely *because* the economy is a positive-sum game that players want to play. On their island, players can do what they please and live a happy life with friendly neighbors, unlike the typically stressful and laborious lifestyle cultivated by neocapitalism for its workers. As the *Animal Crossing* series has shifted more

towards a positive-sum game economy, so it has reached a new level of enjoyment (and purchase, though this may be largely due to Coronavirus quarantines starting at about the same time as the release of *New Horizons*) that allows for the idealized environmentalist's economy players look for as a reprieve from the daily grind.



A sample of *New Horizons*' harvestable natural resources

At the other end of a range of positive-sum economic models is *Stardew Valley*. The 2016 independent game focuses on the player character, an employee at the Joja Corporation, who becomes disillusioned with their job and life and decides to move to their grandfather's old farm with only five hundred gold in their pockets. The land, now overgrown with weeds and trees after years of disuse, is in the tiny Pelican Town, with a population of only thirty residents, whom the player can befriend as they adjust to their new life of farming, fishing, mining, and animal husbandry. Early in the game, the player is introduced to a rundown community center in the middle of town, and from there has two possible paths: they may either complete item bundles for the supernatural residents of the old building, the Junimos, to fix up the center or purchase a JojaMart (proprietary store of JojaCo) membership and pay gold for the building to be turned into a warehouse. While both promote the common good, as Bogost describes *Animal Crossing: New Horizons* as doing, via giving the fruits of the player character's labor or their hard-earned profits to give back to the public good for town development (here the bus line to the desert is restored, the local mine carts and bridge to the quarry are repaired, the farmer's greenhouse is rebuilt, and ore is allowed to flow into local water sources) one path is far more environmentally friendly, and anti-neoliberal capitalist, than the other.

The Junimo path, or choosing to help restore the center of the community through donating the products of environmental activities, at its least expensive costs about 57,000 gold, and at its most expensive 78,000 gold—between 40.8-55.5% of the price of restoring the building under the JojaMart path³ (Figure 2). The path necessitates a heavy investment in other realms, however; it requires at least until the first winter to fulfill every community center request and obligates players to have a strong, diverse set of natural skills. Despite the higher expense, the JojaMart route allows for extreme specialization: capital is transferrable and thus a player can focus all their resources on one aspect of the game, like animal husbandry, and build the warehouse entirely on money from this one profession, in only as much time as it takes for them to save the necessary fees.

	Community Center Cost	Movie Theater Cost	Total Cost
Junimo	57,114 – 77,668	3,543 – 11,925	60,657 – 89,593
JojaMart	140,000	500,000	640,000

Figure 2: The Costs of Alternative Development Paths in Stardew Valley

There are other notable differences between the routes; for example, when the player helps the Junimos, they are granted extra gifts like seeds, farm tools, or food items, the value of which it is impossible to quantify. There is also an additional area for development in the Community Center—a bulletin board that rewards villager friendship to players who build the related bundles. While having the same rooms in the rest of the building, the JojaMart option lacks this ability to increase friendship. Finally, in the Junimo route, the old JojaMart store closes and the player can donate items worth 3,500 to 12,000 gold to open a movie theater, where players invite friends to build up relationships while watching films. In the JojaMart route, the new warehouse can be turned into the movie theater for the much higher cost of 500,000 gold. In all, an average full-scale development of Pelican Town costs 75,125 gold if the player helps the

Junimos, and 640,000 gold if they do not—a total that is 8.5 times higher when the player chooses to help the corporation they abandoned at the start of the game. As Nicole Dieker says in the article “The Economics of Stardew Valley,” players can help JojaMart, or “if you make other choices, the local economy will grow—but those choices will cost you time and money, which means spending less time on your farm, earning less money, buying your friends fewer coffees, etc.” (Dieker, 2016). Choosing to help the woodland creatures develop the town instead of the corporation takes more time, effort, and sacrifices from the player, but gifts them greater friendship and improves the local economy in the long-term, an enticing goal for players hoping to make Stardew Valley a small-town paradise.



*Pelican Town
Community Center
façade before
renovations*

*Pelican Town
Community
Center façade
after renovations
(Junimo route)*



The Community Center development cost differential is not the only way the game encourages the player to make choices that will benefit the environment and the community. The game is what a player makes of it; as Dieker says, “there is technically a way to play this game where you elect not to



Stardew Valley standard farm at the beginning of Year 1. It takes several in-game weeks to transform the landscape into something workable.

farm, or forage, or mine, or raise animals, but until you start earning money, there isn't much you can do" (Dieker, 2016). Restoring Grandpa's farm is a major struggle for the player, especially for the first in-game year. Money is needed to make more money to build up friendships and improve the farm, but these tasks and sacrifices are not done to serve a large corporation or the player's boss; every item the farmer leaves in their box to see goes straight to one of many small businesses around town—Robin the carpenter, Marnie the rancher, Willy the fisherman, or Clint the blacksmith will take raw materials off the player's hands in exchange for gold. The farmer's crops and forages are sold to Pierre, the greedy general store manager, who nevertheless struggles to get by due to JojaMart's presence. Despite the corporation reportedly having lower prices (as is alluded to through multiple conversation options throughout the game), JojaMart sells all but one item at 20 to 25% more than Pierre, with a few exorbitantly higher, and has considerably less diverse stock. While in reality a small, locally-owned business would never be able to offer lower prices for goods than a mega-corporation, this is a subtle push by the game to make the players more likely to shop at Pierre's than at JojaMart. If a player never buys a Joja membership to begin with, they exist wholly within a realm of idealized small-business capitalism—every single place they sell or buy their wares is either owned by a single person or

a family, and only four characters in the entire town are employees of other businesses. *Stardew Valley* puts the means of production and societal power back into the hands of the individual; a farmer can get by entirely by supporting small businesses, make money by harvesting the land's nutrients, minerals, and wildlife, and take down a branch of the company of which they began as a disgruntled employee. While the player cannot ultimately dissolve JojaCo. once and for all, they can choose to get revenge for the wasted years being a corporate pawn and eliminate them from this single town, a dream for the oppressed laborers of the modern global economy.

Stardew Valley's appeal, therefore, is in how *unrealistic* it is, instead of the opposite. This is the perfect definition of a positive-sum game economy: every piece of gold one spends goes



back into the local economy, allowing the townspeople to buy the farmer's local and organic crops, so they in turn can buy more seeds and grow more crops. Choosing to scorn Joja gives players this win-win reality *and* allows for a cathartic release of anger at a corporation that values profits more than their employees. The player lives in a valley of perfect abundance, where minerals refresh in the mines daily, the soil is never depleted, and fish spawn endlessly, offering an eternal security, or even a mass fortune in a short



Stardew Valley standard farm at the beginning of Year 4. Here, crops, farm animals, a greenhouse, artisan good makers, and fruit trees are seen

period of time—within three or four years, it is perfectly feasible to have a million gold or more, from the paltry hundreds the farmer starts with: they can live the stereotypical American Dream

of working hard and amassing a fortune without the subjugation of others. Finally, the environment is prioritized in *Stardew Valley*. The player character has the rare ability to communicate with the spirits and creatures of the forest, is encouraged to source their food by foraging for berries or spring onions and gets higher quality products by developing their skills with the land. For instance, allowing farm animals to roam outdoors from the spring to the fall and interacting with them daily accrues better milk, eggs, and wool, which are then sold for higher prices. Additionally, outside of the greenhouse, crops can only be grown in-season, a method which in the real world reduces dependence on pesticides, chemical fertilizers, and excess water use—fertilizers in-game are even composed of ingredients like tree sap and fish, furthering the idea of the Valley as an eco-friendly paradise from the threat of neoliberal capitalism.

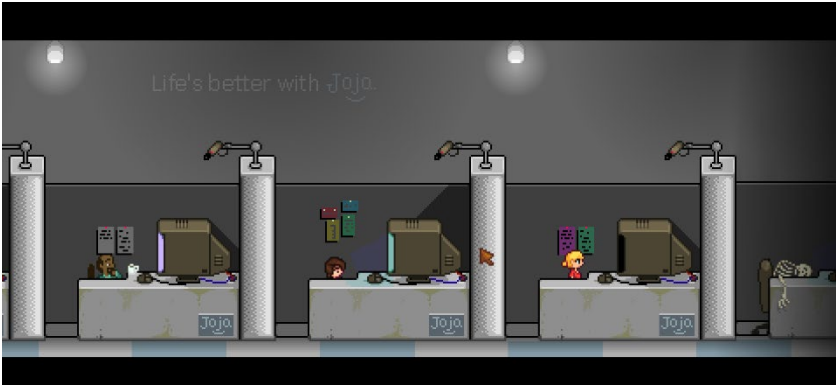
The *Animal Crossing* series and *Stardew Valley* share many similar traits surrounding their economies and cultures. Both are small towns with few residents the player is encouraged to befriend who bond through festivals and daily interaction or gift-giving. Both also have the player rely on harvesting natural goods to make a living. However, *Animal Crossing: New Horizons* reflects the reality of capitalism more keenly. As Bogost notes, resources can become spread thin when many players live on one island, where the abundance of mine levels prevents such limitations in *Stardew Valley*, and although trees are much slower-growing and therefore scarcer in the latter, both encourage the player to make goods such as tools with these raw materials. The main difference, though, is in the goals of the games. “*Animal Crossing* might inspire Americans to reclaim structure and routine, and to motivate it toward modest rather than remarkable ends,” Bogost notes (Bogost, 2020). This is because *Animal Crossing* is, first and foremost, about cultivating the player experience. There are thousands upon thousands of

clothing items, wallpapers, carpets, and knickknacks for players to buy, and building up one's house is a primary, if pointless, goal. Millions of bells must be poured into mortgages that allow for players to display and decorate their homes, the only reward being trophies for arbitrarily judged good design taste. In *Stardew Valley*, consumer culture is virtually absent. Players, for the first four years of the game's existence, could only hold one shirt and pair of pants at a time, and had to pay to change these; a later update allows for the creation of clothes by taking cloth and dyeing materials with the help of sewing machine, so the only way to accumulate clothing is to make it oneself. Additionally, homes can only be upgraded by the player three times—the first to allow for marriage and a kitchen, the second to add a room for children, and the third a cellar for aging artisan products. Home space is limited and typically filled with utilitarian items: an oven for cooking, fireplace to keep warm, beds for the player's spouse and children, a television to watch weather reports and learn recipes, and chests to hold tools or products for future use. Decorations range from cheap like wallpaper for inexpensive accessorizing, to grand and elaborate for players with excess money to spend, but purchase is limited by the low space available in the house. Both games reach a point where all goals have been completed and thus the game becomes obsolete (a reason for players to reset their towns or make new farms), typically hinging on completion of sets of goods like museum donations and the accumulation of superfluous wealth. But the sizes of these goals matter. In *Animal Crossing*, friendship increases incrementally, and the implicit goal is to collect all the things the player wants. In *Stardew Valley*, the goal is a perfect farm and fully developed town, with maximized character friendships possible early in the game. These are loftier but less material ambitions; *Stardew Valley*'s focus is on objectively improving the small town the player lives in, while *New Horizons*' is in creating the perfect player paradise.

Though both the Nintendo RPG series and the independent farming simulator have their differences, it is their similarities which drive players to them. The premise of both *Stardew Valley* and *Animal Crossing: New Horizons* (more so than preceding *Animal Crossing* installments) involves the player character achieving financial security based on interacting positively with the world around them. Players eke out a living by making use of the abundant wildlife like fruit or fish and useful materials like stone and wood in a sustainable way; the environment regenerates ripe fruit on trees and ore in rocks in a matter of days in both games, and players are allowed and encouraged to plant trees around their home in both. This is an environmentalist's dream economy, a way for a person to have a stable income through their own arduous work and without irreparably scarring the environment. In addition, these are both examples of a very positive-sum economy: the purchase of items not able to be harvested on short notice or made by the player are offered by small, family-owned retailers like the Able Sisters clothing store or Robin's home carpentry workshop. The player is not only able to engage with these small businesses and support them financially, but also physically see the improvements they are making to the local economy; Pierre's Pelican Town general store goes from being open six to all seven days every week when JojaMart closes, like daily visits to the Able sisters allows players to become a favored customer of the sister-owners, one of whom gives them coupons for free items in exchange for design assistance. Not only is the player surrounded by small businesses in both games, but both actively encourage the player to engage in supporting these businesses, a specific type of positive-sum game capitalism where the player obtains items while supporting the other self-made entrepreneurs in town.

For audiences young and old disillusioned by the daily stresses of participating in neoliberal capitalism, *Animal Crossing: New Horizons* and *Stardew Valley* often a modern form

of escapism. Both offer a secluded new home for the player character where a job means actively working within the pristine environment and supporting local companies in a way that both helps the player achieve their goals and the businesses to achieve sustainable growth. The games center around this environmentally- and community-based utopia where people make connections easily and no one is competing against each other (except, of course, during town fishing tournaments). The naturalist positive-sum game economies of *New Horizons* and *Stardew Valley* are precisely what gravitates players to them; both offer the aspect of challenge necessary for games but prioritize growth as a person and connection to one's community and the natural world around them in a way that 'real life' does not. These games may not be realistic, but that unrealism makes them compelling. For those who suffer with debt, bills, or terrible employers, these games offer a reprieve and an escape from the hardships of modern life, shifting the focus of the economy away from elevating the upper class landlords and CEOs to living in harmony with the land, no one to answer to but themselves (and their pixelated neighbors). Though the real world may not ever be able to offer everyone their own private house on a pristine farm or island full of trees to chop and fruit to pick, there is ample opportunity to engage in the kind of environmentalist, positive-sum economy that these games offer. Shopping at local farmers' markets or buying from small artists and artisans can replace more 'traditional' economic activities for those with access to these markets, and for those with access to land, growing a backyard garden of fruits and vegetables or fishing to supplement one's diet is a healthy and nontraditional option. Even outside of utopian video game worlds, players can carve out spaces for positive-sum, environmentally-uplifting economies.



The player at JojaCo. at the beginning of Stardew Valley—note the grey surroundings and the skeletal employee seated ahead of the player

A Spring festival in Pelican Town—featuring the entire idyllic community feasting together in the joyfully festive town square



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¹“Player” and “player character” can be used interchangeably in both games described, as both are role-playing games with little to no personality ascribed to the player’s avatar.

²Image Courtesy of <https://www.wikihow.com/Complete-Tom-Nook%27s-Tasks-in-Animal-Crossing:-Wild-World>. All other photos are the author’s.

³Figure 1 uses information from The Animal Crossing Wiki. Figure 2 features the author’s own calculations based on data from The Stardew Valley Wiki.