



# Economic Analysis of the ZUZ

## What will the value of the ZUZ be in 6 months? In 2 years?

Anyone claiming to know(!) is probably not to be trusted. Nevertheless, we do know some things:

### 1. Value Proactively – Develop utilities and market functionalities and value

- **Supply and Demand.** ZUZ supply is scarce by design and Coalichain has invested and will invest resources in developing the broad and universal demand potential.
- **Underlying Assets Value / Value Creation (Utility).** Utility is the long-term source of the ZUZ value. As long as the Coalichain platform and its users create new value by using the platform and the ZUZ, developing and using new features and governance applications and growing the ecosystem, that value will be reflected in the ZUZ, much the same way any other currency appreciates with economic growth.

### 2. Diversified investor base and positive WoM

- **Analysis – The ZUZ behaves like an innovation diffusing in a market.**
  - **Spike-Drop-Valley.** Looking at the ZUZ through the prism of Diffusion of Innovation models, we suggest that it exhibits rapid value explosion (Spike), followed by a rapid decline (Drop), and a stable, slowly rising incline (Shallow Valley), driven by real value created by the platform and community.
  - **Marketing First, WoM After.** The two key forces driving these diffusion models are marketing efforts (dominant at the early stages), and Word of Mouth (dominant later on).
  - **The Speculators, The Savvy and The Fans.** We identify 3 investor types:
    - **Type A.** Short-term Speculators, active during the early stages.
    - **Type B.** Savvy investors, also active during the first stages, as well as after the Drop.
    - **Type C.** The fan users, investing small amounts, active throughout, typically the last to sell. They are the key for appreciation due to utility.
- **Risk – Too many type A investors may dump and cause a deadly drop.**
- **Mitigation – Diversify Investors and Drive real economic growth**
  - Investor diversification – Apply different recruiting strategies:
    - **Type A.** Marketing, buzz-creating activities and lots of leg-work.
    - **Type B.** This paper and lots of leg-work.
    - **Type C.** Build a community, drive utility innovation (and lots of leg-work).
  - **Bounty/bonus vesting** – mitigate “dump during the spike, make a quick buck” strategy.

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### Disclaimer

To be clear – the following analysis is a general analysis of the behavior and price performance of cryptocurrencies. It is offered as a service to the community.

It does not imply or suggest that Coalichain intends to, or is at all capable of taking actions that will affect or influence the price of the ZUZ. Nor does it imply in any way that Coalichain is suggesting or promising future appreciation of the ZUZ.

All ZUZ buyers and owners should understand that buying the ZUZ is not, in any way a return-bearing funding investment in a venture.

The ZUZ is designed and purposed to serve as a replacement currency to facilitate transaction in the platform and measure and drive its growth through activities and transactions.



# 1.0 Fundamentals



What will the value of the ZUZ be in 6 months? In 2 years?

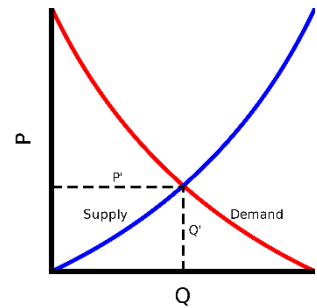
Anyone giving you an answer followed by an exclamation point is too arrogant to be trusted. Still, there are some things we do know and some principles we can follow.

## 1.1. Supply, demand and underlying assets

The simplest and probably oldest one is Supply and Demand. It states that as long as the supply is lower than the demand the price will continue to rise. In most cases, one has direct control over the supply and indirect control over uncovering the demand (the job of marketing). In the case of cryptocurrencies, there is another factor we must consider – the value of its underlying assets or value creating functions. Let’s tackle them one by one. First the supply and demand.

### 1.1.1. Supply and demand

Since the number of ZUZs minted is set, supply is scarce by definition. This implies that as long as demand is there, even if latent, the value of the ZUZ will be tied to its use and proliferation of the platform.



### 1.1.2. Underlying assets and value creating functions (Utility)

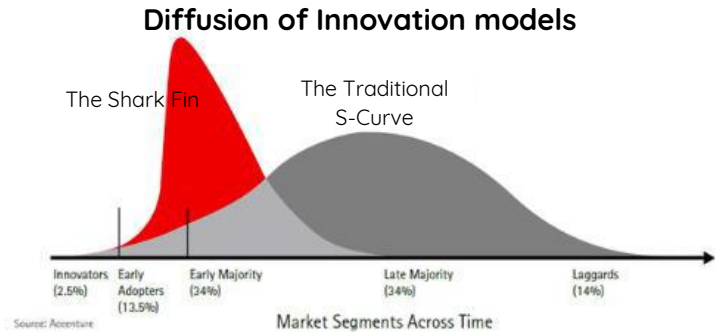
The factor that truly defines the value of a currency over time, any currency, crypto included, is the value of its underlying assets (or value creation functions, aka, utility). In simple words, if the ZUZ creates or measures the creation of new value, its own value should rise proportionately, unless we “print” more of it – in which case, as long as we “print” at the same rate as that of economic growth, the value of the currency should be stable. However, we will not. The underlying asset value is (or should be) the long-term application of any trustworthy cryptocurrency. It is what will keep people engaged; it is what will support the development of new applications and features; it is what will drive the growth of the crypto-economy. In that respect, investors should be looking beyond the scarcity factor of supply and into the vision and technology roadmaps that reveal, if there is in fact, a strong enough utility vision that will enable real economic growth (allowing for growth beyond market-share acquisition and toward the increase of the size of the pie itself).

## ➤ 2.0 Diffusion of Innovation ⬅

### 2.1. From the S-Curve to the Shark-Fin

For many years economists have successfully used the S-Curve to describe Diffusion of Innovation processes (adoption of new products, service and innovation in general).

In recent years a new curve is being advocated to describe the same set of phenomena – the “Shark Fin” adoption curve. The most visible attribute of this new curve is its rate of acceleration. More and more innovations show an exploding growth pattern.



In both cases, the drivers of adoption have been researched and identified and they are, Marketing Efforts and Word of Mouth (WoM). During the first stages of adoption, i.e., the innovators and early adopters, targeted marketing forces are the main drivers of adoption. As we move to the right, WoM becomes the dominant force in the diffusion process. The marker for this change in the force driving adoption, is the inflection point, where the graph stops being linear and explodes exponentially.

### 2.2. ICOs are innovations and exhibit Shark-Fin patterns

We propose to view new cryptocurrencies as Innovations introduced to the market and therefore to explore them with diffusion of innovation models. The rationale is simple:

The price of a currency is determined, first and foremost by supply and demand. A spike in adoption directly translates into a spike in demand and therefore a spike in price. Similarly, a decrease in demand translates into a decrease in the price. There is little surprise that when we explored the performance of existing cryptocurrencies we found a Shark-Fin-like adoption curve (with some additional superimposed phenomena) in quite a few. On the right is one such example.



## 2.3. Understanding ICOs in light of the diffusion models

### 2.3.1. The Three Types of ICO Investors

Before delving into the econometrics, it is important we delineate the main types of investors that affect it:

#### 1. Type A Investors - Short-term speculators

They buy early, spread the news about the cryptocurrency and exit fast, after making a profit.

#### 2. Type B Investors - Longer-term emotionally detached investors

They read the whitepaper. They did some due diligence. They believe in the project and they see it as a long-term investment. They are not emotionally attached to it. It is another “asset” in their portfolio with its associated risk. They don’t scare by local fluctuations, even if they are significant.

#### 3. Type C Investors - The devout users

They will not necessarily invest large amounts, but they will use the platform, service and innovation. They see it as a solution for a problem they have. They will drive the use of the platform and are committed to it. They will be last to sell. For them the financial profit is a secondary reason to buy or hold.

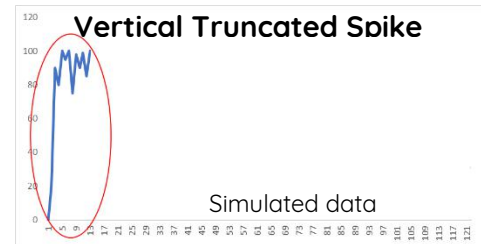
## 2.3.2. Interpreting the ICO Shark-Fin Pattern

### 1. The Vertical Truncated Spike

First it is obvious that unlike the Shark Fin described above, the pattern we see after the ICO is “truncated”, i.e., it’s missing its initial incline (which should be rapid but not vertical). That makes sense since the trade starts after the ICO and during the ICO the issuing organization controls the price. The spike in price after the ICO stems from two overlapping phenomena:

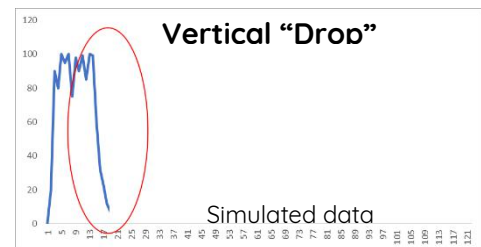
- **Pre-trade marketing and buzz** – The ICO initiator invests in getting the word out and driving “buzz”. Since not everybody hears about it in time or are savvy enough to invest in an ICO, a “pressure” is created that is released when the new cryptocurrency becomes tradable<sup>1</sup>.
- **Short-term Speculation** – Demand is mainly pushed by type A investors looking for a low position right after the ICO.

The result is an almost vertical Shark-Fin spike that lasts 2-3 weeks.



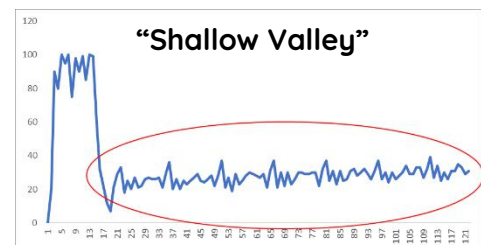
### 2. The “Drop”

The higher the spike, the more likely it is to have a drop and the more significant it will be. Type A investors start selling their cryptocurrency to realize their position. They flood the market (this is evident by the high trading volume). If these investors carry the bulk of the cryptocurrency sold, the platform will not recuperate. If, however, during the ICO (and/or private sale) a significant-enough number of cryptocurrency were sold to type B and C investors, this drop in price will stop and the platform should survive it.



### 3. The Shallow Valley

During this period, type A investors decrease in numbers and in sophistication. They may drive a couple of additional, smaller, “spike and drop” patterns, before it subsides. In their wake, the decline will slowly flatten and then start to slowly climb. The reason for this change in trend is the Type C investors. As mentioned above, value is set by demand and underlying assets. Type C investors become the dominant force driving demand via WoM and at the same time they grow the value of the underlying assets by using the platform itself.



<sup>1</sup> The adoption curves of movies behave the same. A lot of buzz is created before the opening weekend, and much of the “normal” curve is compressed into a short period of time.



## ➤ 3.0 The ZUZ – Designed to Grow ‹

In this chapter we will discuss Coalichain's ZUZ economy.

### 3.1. ——— Investors

#### 3.1.1. Investor Diversification

Type A investors are like an adrenaline shot – they make you feel like superman for a short period of time, and in some cases, they are needed, however, if there are too many of them, you're gonna get a heart attack. The best way to mitigate the risk of a deadly Spike and Drop scenario, is to diversify the investor cohort and bring to the table both savvy, investors with a backbone (type B – for which this paper was written for), as well as committed users (type C).

#### 3.1.2. Attracting Type C Investors

Below, in “Vision and Technology Roadmap”, we delineate the skeleton of a shared governance program that will combine “Proof of Stake” and “Proof of Work” type of concepts to allow users that both have a certain amount of ZUZ and have demonstrated a certain level of activity to enjoy a higher level of influence on the Coalichain development strategy. This should act as a filtering incentive attracting the ones that are willing to both out in the time and also put in some money.

#### 3.1.3. General Buzz Creating Activities

Coalichain has been and will continue to invest in promoting the ZUZ and its vision in multiple media channels and through its vast network. Many, strong and successful ICOs were driven by only several thousand on investors.

### 3.2. ——— Building a Community

Coalichain sees the ZUZ as a community-building currency, that creates a shared sense of purpose (and sometimes frustration). Building a community, at this stage is many times based on bounties and “airdrops”. Nevertheless, those alone do not explain the buzz around Coalichain, our 10,000 strong and active Telegram group and our strong advisory board. These are the people that will drive innovation in the platform, type C investments and long-term commitment.

Moreover, in order to mitigate the risk that discounted ZUZ acquired through bounty and bonus programs, will be dumped right after the ICO to make a quick buck, we initiated a vesting period of 3 months for those ZUZs.



## 3.3. Vision and Technology Roadmap

### 3.3.1. The Purpose of the ZUZ

The ZUZ is cryptographic currency dedicated to the Coalichain ecosystem. Over and above its function as a frictionless, inexpensive, fast and secure, replacement-currency, the ZUZ is a community building tool. In being the sole currency for all on-platform transactions it will:

- Build a shared sense of trust, purpose and community.
- Make tracking and financial management easier and more directly related to the platform's performance

### 3.3.2. The Utility of the ZUZ

- In-platform Transactions – voting, fundraising, service procurement, etc.
- Support tool – the more ZUZ donated or used by a candidate or cause, the higher its visibility (with restrictions to prevent abuse)
- Transparency – since all commitments made by candidates to supporters are public and locked into smart contracts, anyone trying to influence the election will risk exposure and public ramifications.
- Accountability – ZUZ donated to a campaign can be associated (committed) to a specific promise and conditioned by its fulfillment. In case the promise is not fulfilled, sanctions will be activated, ranging from publication of “breaking a promise” all the way to donation retraction and fines (under certain conditions).
- Vision - In the future Coalichain will expand the use of the ZUZ to measure and promote participation in the democratic process.

## 3.4. Innovation Roadmap

The following is a list of potential developments and innovation pipeline that will drive Coalichain's core purpose – to realize an effective, democratic and accountable, electoral political system and reestablish a direct, transparent and trusting relationship between voters and their representatives.

### 3.4.1. Access

Although the proliferation of smartphones is quite wide and is improving all the time, there still are large parts of the world who do not have access to these devices or to data networks. Coalichain's purpose is to be inclusive and facilitate free and equitable elections. Therefore, we have concrete plans for the development and installation of interactive terminals in public locations (city centers, airports, bus and train terminals, etc.) in cities all over the world, and specifically in places with limited internet access.



### 3.4.2. Governance in the 2<sup>nd</sup> sector

Coalichain originated from the desire to empower voters – the public. Nevertheless, corporations are in many ways examples of human societies and there are a lot of needs and desires and frustrations that are common to a state, a city or a company. The application of Coalichain to the corporate setting and its adaptation to best fit the needs will be a natural development in Coalichain’s business development roadmap. Specific applications will include:

- Organic and external open innovation pipeline development
- Corporate community outreach and CSR

### 3.4.3. Governance in decentralized autonomous organizations

Coalichain’s automated governance properties can be used to solve a prominent issue of many Blockchain projects – centralization. The main promise of a plethora of blockchain applications is facilitating direct transactions between interested parties, without the involvement of central bodies and mediators (platform itself and its founders included). Nevertheless, at least at the beginning, many of these projects themselves are led by a central team that makes all the decisions. Moreover, many times, while these teams are painfully aware of the deficiencies of central systems, they are totally blind to the fact that they themselves exhibit very similar architecture. Coalichain’s voting and governance mechanisms can be used in other DAOs to help maintain power distribution.

### 3.4.4. The election toolbox

Coalichain will keep developing and adding tools and features, to address more environments and scenarios. Our vision is to become the go-to platform for everything related to election and governance. Every organization, political party, municipality or country that will want to hold an election or address a specific issue will be able to go on Coalichain and build their engagement space, mixing and matching the different tools according to their needs.

### 3.4.5. Accountability mechanism

Coalichain aims to create a genuinely accountable governance system. Elected politicians are meant to serve the public, but today they are not incentivized to do so. The current mechanism we are offering - financial accountability that rewards or fines politicians according to public satisfaction, is the first step towards realizing the full potential of our vision. Alone, it will not be enough.

The mechanism we imagine for the future puts the power directly in the public’s hands, with political organizations and public officials governed directly by smart contracts. Campaign promises, requirements and actions taken while in office will all be recorded



on smart contracts, and majority dissatisfaction will not only result in financial penalty but may even bring to the dismissal of the politician from office.  
We want to create a public-directed government - a government that is genuinely at the service of the public.  
That is the Coalichain future.

## ➤ 4.0 The ZUZ ICO - Data ◀

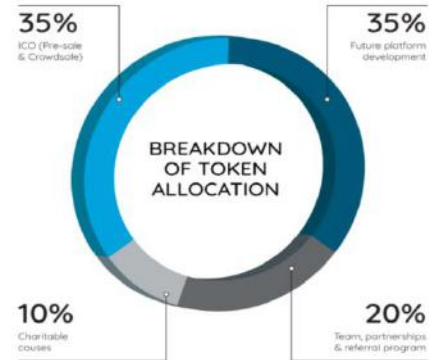
### 4.1. The ZUZ Supply

Coalichain will issue a total of 770,000,000 ZUZs according to the following distribution:

The rationale behind the allotment of 269.5 million ZUZs to the public, is our desire to make the ZUZ accessible to the masses and foster wide adoption.

The 35% allotted to Platform development will serve two missions:

- Funding the geographical expansion of Coalichain to additional geographies
- Development of the platform, especially in making the ZUZ a means for measuring and promoting participation in democratic processes.



### 4.2. ZUZ Allocation

Coalichain will issue a total of 770,000,000 ZUZs according to the following distribution:

- Public - 35%
- Platform development - 35%
- Charitable causes - 10%
- Team - 20% (Founders: 7% | Executive Team: 2% | Advisors: 6% | Bounties: 5%)

ZUZS allotted to the founders and executive team will be vested<sup>2</sup> according to the following schedule:

Event	% Release
Alpha reached 500 users	5%
Beta reached 2,000 users	10%
Coalichain reached 30,000 users	10%
Completion of 1 <sup>st</sup> pilot	15%
Implementation in 5 geographies or reaching 5,000,000 users	30%
Implementation in 10 additional geographies or reaching 30,000,000 users	30%

<sup>2</sup> We will use a decentralized escrow such as EscrowMyEther.com.