IDEAFEX WHITE PAPER

Marketplace for Tokenized Real-World Goods & Assets

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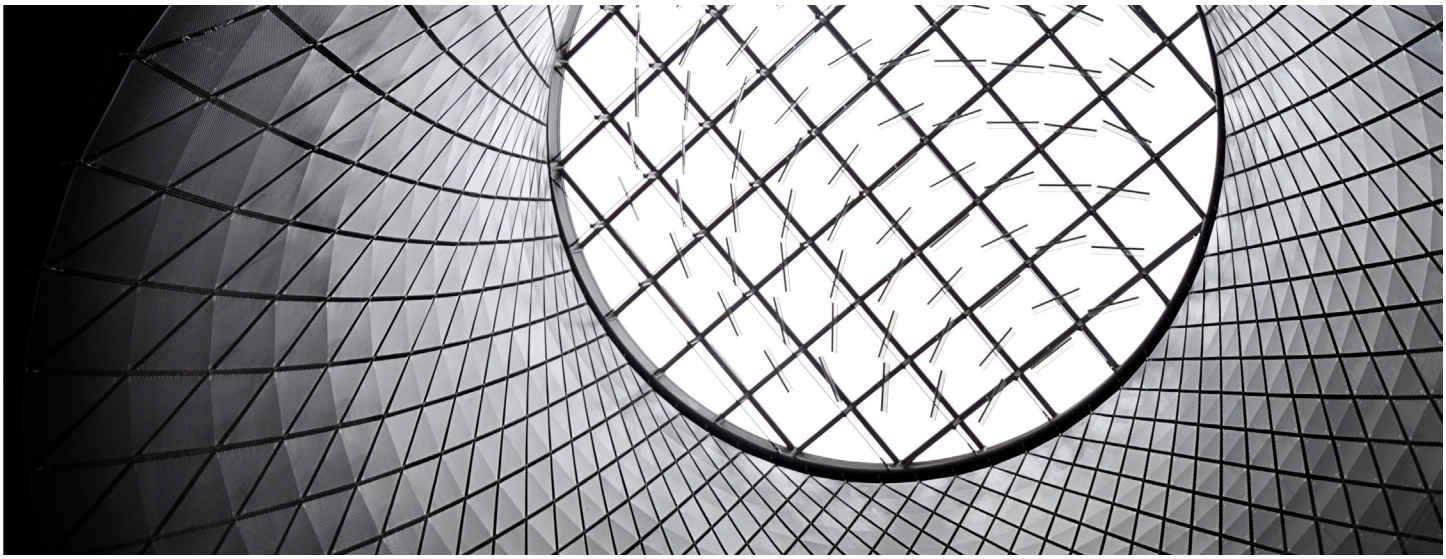
Contents



Executive Summary

*We build IdeaFeX as the marketplace for tokenized **real-world** goods & assets.*

Two sources of inefficiencies disrupt resource allocation in our economy, namely inflexible flow of goods and assets and deep divide between financing and operations. As solution, we present an easily-navigable marketplace empowered by distributed ledger technology and our unique auction method. Serving real-world product futures and fixed assets, we allow for a range of business model innovations as well as new investment and consumption models.

IdeaFeX is **agile**: Tokenization of real-world **goods** (product futures) empowers sellers with the option to pre-sell goods and services before production / delivery. Unlike "crowdfunding", product futures also allow buyers to trade easily among themselves, thus making the integration between consumption and investment a possibility—in fact, a consumer may purchase a pre-sold product and later change his / her mind at little cost—if not a small profit. Tokenization of real-world (fixed) **assets** empowers asset owners with financing options beyond debt- and equity-based alternatives. Investors also enjoy access to these assets formerly unavailable to the public.

IdeaFeX is **robust**: With tokenization, we keep goods and assets independent of our marketplace: The fundamental ownership and cash flow of these purchases or investments will be tenable regardless of the status of our server, providing extra robustness. It also makes listing, trading, tracking, and delivery more cost-effective and tamper-proof. By backing tokens with real-world goods and assets, IdeaFeX keeps the benefits of traditional applications of blockchain (e.g. crypto assets) and removes the most notable downsides. Additionally, our unique auction method makes the discovery of fair value quick, easy, and low-cost.

IdeaFeX is **navigable**: Using a familiar e-commerce interface, we make users' adoption of new opportunities that we present easy. At its core, decades of evolution in marketplaces makes it the best format to drive the dispersion and discovery of information. With the help of smart search and filtering options as well as artificial intelligence (AI), users can more readily identify tokenized goods and assets that work for them.

In this White Paper, we begin by identifying the pain points that we address and present our solution. Then, we size the total addressable market and review the competitive landscape. Towards the end, we offer two high-level examples. Our timeline concludes this paper.

IdeaFeX Founder & CEO
Dr Jiulin Teng

Current Pain Points & A Bright Spot

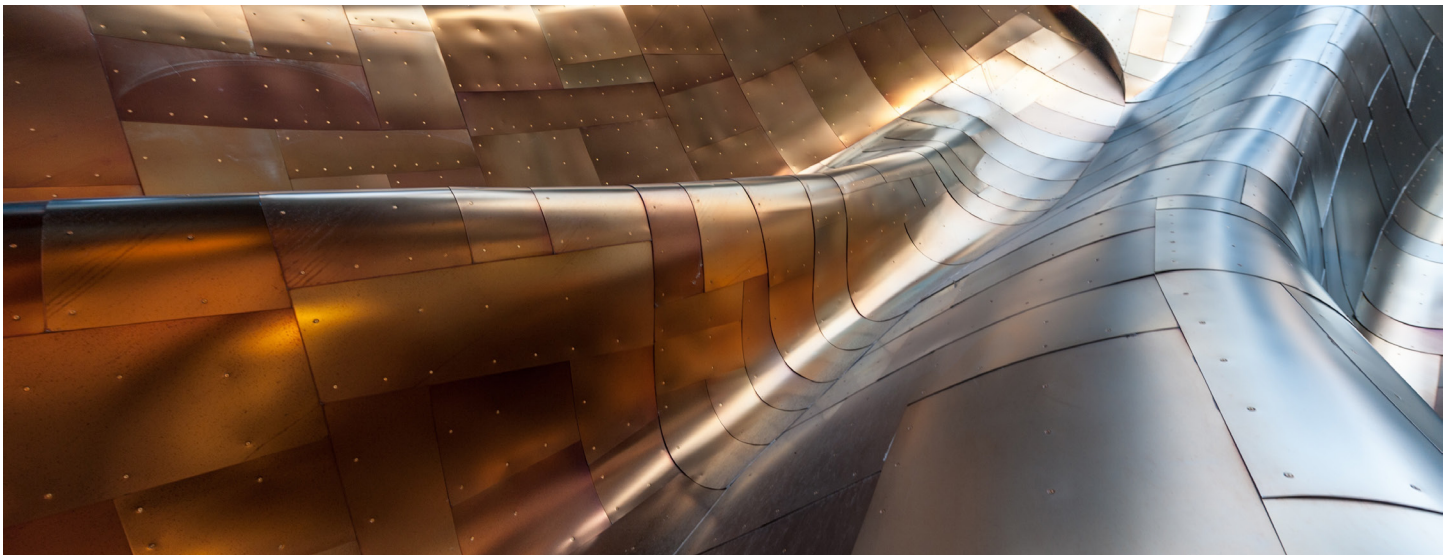
*Two notable pain points in **resource allocation** contribute to economic inefficiencies. To varying degrees, they cause our economy to under-create value and unfairly distribute it. IdeaFeX is tasked to address them.*

First, goods and assets suffer from high **rigidity** in their "stereotypical roles". Besides a few second-hand markets, buying and selling goods and assets not traditionally "meant for" investment are overlooked as possibilities. Some goods could benefit from more flexible purchasing and consumption options; however, currently consumers and firms that source externally have to choose between taking delivery of the goods or services that they have ordered and cancelling the order — in many cases refunds are even impossible highly costly. Meanwhile, some fixed assets are in nature rent-generating, but because they are not traditional investment vehicles their owners usually have to collateralize them to get a loan or seek alternative means of financing. From this process, most investors are completely excluded, even though a potentially win–win alliance could be forged between them and the asset owners. As a result, rigidity costs us countless possibilities in *more efficient investment and consumption.*

Second, financing and operations are deeply **divided**. Firms look to "investors" for financing and "consumers" for their markets. They often tout "bootstrapping" as the ideal but then largely ignore it because not all products can be designed, tested, made, and delivered under their existing operations models without external investment. Larger firms binge on cheap loans while ignoring their exposure to interest rate fluctuations—while some of their fixed assets lay around under-utilized. Fundamentally, what firms are missing out is the opportunity to integrate financing and operations, where bootstrapping is no longer the prerogative of startups and where assets can be "de-fixed"—all for *greater agility in business models.*

> ... cost us ... more efficient investment and consumption ... and ... greater agility in business models.

In recent years, **distributed ledger technology** (DLT) has promised to revolutionize a range of industries. Notably, immutability, distributed transaction records, and smart contracting have provided the tools for potentially innovative and efficient management of goods and assets hitherto infeasible. Currently, DLT is primarily used to issue virtual currencies with merely on-chain value, in the form of ICO (Initial Coin Offering). This is an innovative format that, when done right, allows the user community to benefit from the growth of the project regardless of its profitability and dividend plan (in contrast to equity-based investments). However, criminals have severely damaged the reputation and outlook of this format—they have also exposed a critical issue—without the backing of real-world goods and assets, the values of tokens are purely speculative. Therefore, we see the tokenization of real-world goods and assets an under-explored and frequently mis-understood (though perhaps much-hyped) technical opportunity to address the two pain points.



The IdeaFeX Solution

*The key piece of the puzzle is our **marketplace** interfaced with DLT. On top of it, we add our unique **auction** method and a secure and easy-to-use **exchange** (resell) mechanism.*

Marketplace for Tokenized Goods & Assets

Two decades of continual innovation has online marketplaces deeply ingrained in how we shop. Consumers enjoy broad selection of merchandise well-organized in adaptive categories. AI-aided suggestions, filters, detailed descriptions, and peer reviews further empower them. Door-to-door delivery options complete the experience: one can navigate through tens of thousands of products, visit dozens of shops, choose the most appealing offer at the best available price, and have the purchase delivered before the day ends.

IdeaFeX makes the marketplace format more flexible with tokenized real-world goods and assets.

First and foremost, IdeaFeX is a place to buy and sell **goods and services**, including those currently illiquid and indivisible. "Goods" on IdeaFeX are presented as **product futures**. They are goods and services to be delivered in the future. Some notable examples of presell-able products include fine wines, electronic components, vacation bookings, and software licenses, etc. "Assets" on IdeaFeX are **fixed assets** with some "de-fixed" features. They include business assets, infrastructure (including real estate), and collectibles for which fractional ownership brings new values. Because goods and services are what we support, we are fundamentally different from "cryptocurrency" exchanges with a new skin.

This fundamental difference extends to users that we serve: From the perspective of *sellers*, we provide a channel for them to sell goods and services that allow them advanced market access and that protect them from market uncertainties. From the perspective of *buyers*, we offer a more flexible consumption model, in which they can purchase goods or services to be delivered in the future at discount but easily trade them to another buyer when they change their minds. From the perspective of *fundraisers*, they get to leverage valuable aspects of their existing operations that have been regrettably overlooked as financing resources. From the perspective of *investors*, they can more readily integrate tokenized goods and assets into their value chain.

Offering tokenized real-world goods and assets to a broad range of users is advantageous in several ways. Most notably, firms enjoy far *greater agility in business models*: Selling product futures makes possible early market access—before the capacity would catch up; it also reduces the seller's exposure to demand and price uncertainties. Buying product futures of goods in the upper stream of a firm's supply chain allows the sourcing firm to hedge against supply and price uncertainties, particularly when the product is new or otherwise in high demand. Additionally, tokenized goods can be traded at little cost before delivery. Thus, low-demand and made-to-order products or other non-refundable orders can become more liquid, helping every stakeholder in the process. Firms can also monetize their fixed assets without losing them in the process.

Similarly, consumers and investors

IdeaFeX makes the marketplace format more flexible with tokenized real-world goods and assets.

enjoy *more efficient investment and consumption* options: Buying product futures is both an order to take delivery of the goods or services and a possibility to trade the order to another buyer, potentially for a profit. This is particularly advantageous when the consumer cannot take delivery immediately: when product futures are sold at discount (below MSRP) initially, consumers can "act first and decide later" without the usual costs of flexibility. At the same time, users may opt to purchase more than s/he intend to consume, perhaps as a gift to loved ones, or perhaps as an investment with the expectation that demand will exceed supply as the delivery begins. Indeed, the boundary between consumers and investors can at times become semantic, thanks to the newfound flexibility in tokenized goods. Moreover, investors can gain access to fixed assets that are rent-generating and that normally are not investment vehicles.

IdeaFeX presents these tokenized goods and assets in a marketplace format because it offers unparalleled **navigation** experience. With a large number of goods and assets listed, each with different categories, origins, prices, and other characteristics, the ease with which a user can find what s/he is looking for is vital: The faster and more precise this process is, the more likely that an efficient matching be made. By contrast, the slower and more frustrating the process, the more likely that the user would give up. Hence, we integrate intelligent and adaptive search and filtering functions found in leading e-commerce platforms such as Amazon and eBay.

Last but not least, like leading e-commerce platforms we serve users till terms of their purchase are **fulfilled**. With tokenized goods, this means the successful delivery of goods or services after the maturity date. With tokenized assets, this includes every rent payout until the end date originally specified, where applicable. We will leverage smart contracting to automate key processes so that they are more transparent and immune from human errors. We will also continually integrate the latest developments in DLT protocols so as to serve our users better.

Auction & Price Discovery

A potential hurdle for sellers and fundraisers is pricing: fixing a price that is too low or too high can both lead to reduced income, either from unnecessarily low unit price or from unnecessarily low volume sold. To resolve this issue, IdeaFeX introduces a unique auction method suitable for large quantities of **fungible** goods and assets.

During the bidding window, users can submit and update a series of competitive bids. As the bidding window closes, all winning bids will be awarded tokens at the **same price** determined from the competitive bidding. To understand how this works, we need to examine some principles of auctions in general.

The simplest auctions involve one item that can only be sold to one bidder. Usually, this entails either first- or second-price auction, and economists have long proven that optimal price discovery is ensured by design in both cases. As we move to multiple items, however, for the price to be tenable it is reasonable to expect all winning bidders to pay the same price. The simplest way to ensure price uniqueness is to let all winning bidders pay the minimum acceptable price—this is an auction method called *OpenIPO*.

We extend this method by allowing **bid updates** as new information from the bidding process gets incorporated in the decision-making. This market mechanism, thereby, facilitates the achievement of consensus on pricing. One may wonder, why does the fundraiser not auction off the two items separately? As it turns out, insofar as the two auctions proceed *in parallel* and are *second-price* auctions, the outcome would be exactly the same. This remains true as the number of identical items increases (and as the feasibility of multiple simultaneous listings decreases).

Specifically, the fundraiser sets a *starting price*. Each bidder commits both a *price* and a *quantity*. Our system automatically ranks all valid bids in descending order by their prices. Until the sum of all quantities from all valid bids surpasses the total number of tokens to be auctioned off, the starting price remains the *current price*. Once this sum becomes larger than the total number of tokens, the current price becomes the lowest price at which token(s) can still be allocated. All bidders can increase their bids (both price and quantity), but not decrease them, after the bids are initially placed. As the bidding window closes, **the last current price is the final price** in the auction. All bids higher than the final price are awarded tokens at the final price, and for all bids at the final price tokens are allocated following the first-come-first-served principle.

This auction method enjoys four qualities:

> **Price uniqueness***: All winners pay the same unique winning price.*
> **Price consensus***: All winners would pay (and have bid) at least the unique winning price, and all losers would pay (and have bid) at most the unique winning price.*
> **Competitiveness adjustment***: The seller can adjust the starting price in order to gain control over the competitiveness of the auction.*
> **Purchase in whole***: It is possible for a user to purchase the entirety of the tokens in the auction (with the highest bid and a volume equal to the total supply).*

When tokens need to be **nonfungible**, for example in the case of vacation bookings, auction for each will regress to a more classic format similar to the one used by eBay.

The direct result of this is *optimal price discovery* by market mechanism. In an auction, inputs from all participating users together determine the final price of the tokens. By design, therefore, our auction

method ensures fairness while protecting the interests of all parties. The price discovered through this process is also the one that the secondary market is ready to support.

Two additional benefits of auction are *access* and *speed*: As long as the auction is open, buyers have the opportunity to purchase the goods or assets by placing an acceptable (sufficiently high) bid. Lengthy negotiations are thereby avoided. As a result, auction saves users significant amount of money and time. While an optional feature, it contributes to more effective resource allocation and value creation.

Integrated Exchange

A crucial aspect of tokenizing goods and assets is the possibility to trade tokens after the initial purchase. For consumers, this is the key to achieving flexible consumption, or "buy first and decide later". For investors, it allows for flexible entry and exit. Therefore, in our marketplace each listing is supplemented by a "trade" module:

It is an area within each listing where users can post their buy or sell "orders". However, because trades of goods and assets on the secondary market are unlikely to come close to the forex market in volume, we will *not* enable live trading. In other words, buying and selling will resemble that on eBay or Amazon Marketplace. With this modification, we aim to defeat malicious bots and price manipulators who disrupt the market and who have perhaps fatally damaged the reputation of "cryptocurrency". To further ensure **safety**, we will require user verification for all who intend to use the trade module. Thus, anyone who engages in illegal activities will be reported to proper law enforcement agencies as a deterrent.

Observing the cryptocurrency market, one can also note the damaging effects of legislative uncertainty to public adoption. Because IdeaFeX is a marketplace for goods and assets that already have legislative certainty, we have the luxury of knowing how to achieve full compliance.

Combining marketplace, auction, and exchange innovatively, IdeaFeX offers an Amazon- / eBay-like experience. We believe this unique mix effectively addresses the two pain points in resource allocation and will greatly facilitate the adoption of DLT in value creation in the real economy.

Success-Fee Business Model

As a marketplace, IdeaFeX enjoys a simple *success-fee* business model: we collect fees only when a sale is made on our marketplace. The absence of a listing fee is particularly advantageous: Sellers / fundraisers only pay when their amount of goods or assets sold reach a pre-determined threshold. Similarly, users on the secondary market only pay when their orders are processed. The levels of fees may vary depending on the category of the goods or assets and their values involved.

Market Sizing

*The market for tokenized goods and services can reach **$620 billion** per year in a decade's time, while tokenized assets can add another **$119 billion** per year to the total addressable market.*

To help readers form an overall idea of the size of the potential market, we first assess the size of the generic, non-tokenized markets; then, we guesstimate the percentage at which each may become tokenized by 2030. In this exercise, we choose to omit the secondary market, because we expect liquidity to vary tremendously from one type of goods / assets to another; in an emerging market without established data, an estimation is overwhelmingly likely to be wrong rather than right. It suffices to say that in the stock market, the forex market, and the options market, etc. cumulative trade volumes can far exceed the initial offering / sales volume.

Tokenized Goods

We see product futures as an extension (complement) to traditional e-commerce (retail), corporate supply chain, and services; it is also a substitute to traditional crowdfunding.

In **e-commerce** (retail) alone, worldwide sales surpassed $2.8 trillion, with an estimated over 1.8 billion people purchasing goods online[1]. Moreover, growth in this market is expected to remain strong, with a projection of up to $4.8 trillion by 2021[2]. Granted, much of this market consists of ready-to-ship goods that cannot benefit from tokenization. Made-to-order goods, including those sold on flash sales sites, still make up a significant part of this market. Further, by leveraging product futures, a manufacturer can reduce its exposure to market uncertainties, gain advanced market access, and potentially recuperate costs faster. We believe that these incentives could drive some who are selling ready-to-ship goods only to adopt product futures as a complement. Thus, we conservatively guestimate that at least 10% of the global e-commerce market, valued at $280 billion per year, can become tokenized in a decade's time.

retail, supply chain, and services together can account for a $620 billion market for product futures

Retail: $280 billion

The global **supply chain** market is enormous, though currently only under 20% of

this market is online[3]. This market also harbors characteristics highly specific to each sector. A couple of examples of goods that can easily benefit from the product futures model include x86 computer processors ($42 billion in 2017[4]) and NAND flash ($52 billion in 2017[5]). Overall, we see global supply chain as the market with the *highest potential*: while the percentage of adoption is likely to remain low due to complexities and specificities in each sector, the sheer size of this market makes even a conservative estimate immense. Concrete overall numbers are hard to come by. Without conducting an in-depth study, we guestimate that 10% of the world's GDP has gone through some form of supply chain; as the global GDP sits at just over $85 trillion in 2018[6], this amounts to $8.5 trillion. It we assume just 1% of this market will be tokenized by 2030, this leads to a $85 billion market with trillion-dollar potentials.

Supply Chain: $85 billion

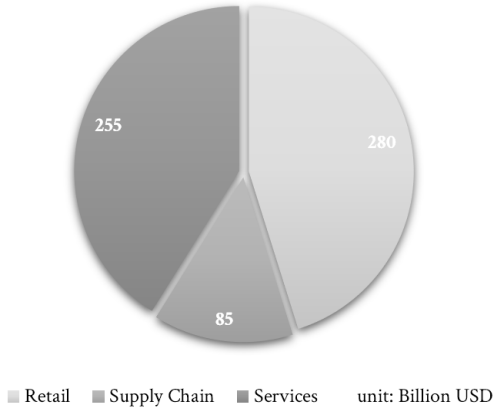
Another significant market is **services**. A unique characteristic shared by many sectors in this market is the need for reservations. The product futures model offers the same advantages to services. From simple restaurant and hotel bookings to Software-as-a-Service tickets to numerous industrial services, tokenization can bring agility broadly. Currently, the service industry takes over 60% of the global GDP[7]. Suppose that much of it is unsuitable for tokenization for various reasons, for example when the service provider is adapted to serve only the customer(s) that it is serving, when the service is forbidden from being traded, or when the service is spontaneous, etc.: if we assume 10% of the service industry could be tokenized of which 5% of it does so by 2030, this amounts to a $255 billion market with trillion-dollar potentials.

Services: $255 billion

Before wrapping up this section, let us visit the special case of **crowdfunding**. Last year, transaction volume reached over $9.3 billion with 45.6% year-on-year growth[8]. This number is expected to reach over $25 billion by 2022. For most startups, however, tokenized goods offer a superior solution. Eventually, we expect the entire market to shift towards tokenization. Nevertheless, we recognize that much of the established services already provide attractive solutions, and that as a result adoption will be gradual. We also believe that "crowdfunding" as a concept will become obsolete—startups only need to tokenized goods and services. Therefore, we do not account for it separately.

Adding these estimates up, we reach a projected market size of **$620 billion** per year for tokenized goods and services by 2030. Naturally, IdeaFeX will not be the only player, and many existing players in each market may adopt tokenization.

Market for Product Futures by 2030



Tokenized Assets

Tokenization is an extension (complement) to traditional fixed assets. Notable markets include commercial real estate, infrastructure, business assets, and collectibles.

In the first half of 2018, global **commercial real estate** transaction volume reached $341 billion[9]. Tokenization makes real estate investments significantly more agile and less costly. Meanwhile, we also must acknowledge that this is a highly conservative market, and that adoption will be gradual. If we conservatively assume that the commercial real estate market will not grow and that 5% of it will be tokenized by 2030, that represents a $17 billion market.

Real Estate: $17 billion

IdeaFeX's marketplace format can further transform public **infrastructure** investments, now commonly funded by tax income, public private partnerships (PPPs), or governmental debt—by empowering the PPP model with lower cost, higher access, stronger governance, and superior agility. This market currently stands at $2.6 trillion[10]. If we assume that in a decade's time 2% of that will be tokenized, this represents a $52 billion market.

Infrastructure: $52 billion

Asset financing is currently used by firms to get loans against the asset that they own. In 2016, this market has passed the $1 trillion-mark globally[11]. Fixed asset tokenization allows for numerous advantages, including the flexibility to leverage idle assets in innovative ways. If we guestimate that 5% of this market will become tokenized, that makes for a $50 billion market.

Business Assets: $50 billion

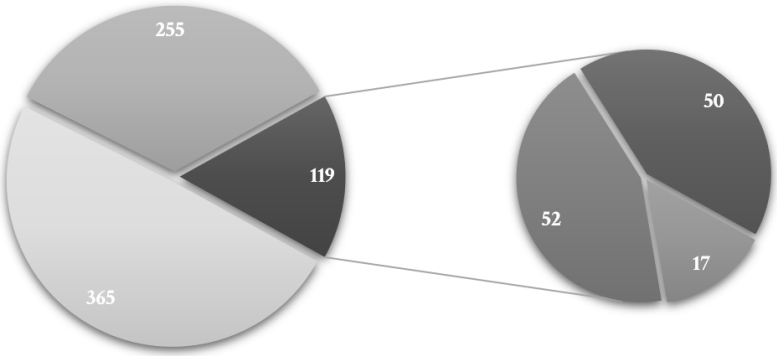
real estate, infrastructure, and business assets can account for a $119 billion market for fixed assets

Lastly, the auctions for **collectibles** (art, antiques, jewelry, wines, and others) reached €1.23 billion in France, with arts and antiques accounting for 67% of the total[12]. Globally, fine art auctions have summed at around $15 billion annually in recent years[13]. If we ignore antiques in the former figure and assume that the French market is representative, this will conservatively put the annual auctions market for collectibles at over $22 billion. With gradual adoption, the market for tokenized collectibles can easily surpass $1 billion. Since it is relatively small, we omit it from the overall estimate.

Adding these numbers up, we reach a total addressable market size of **$119 billion** per year for fixed assets by 2030.

The total market size for tokenized goods and assets combined, therefore, sits at **$739 billion** per year in a decade's time.

Total Market Size by 2030



Competitive Landscape

*Compared to existing alternatives, IdeaFeX is more **agile**, **robust**, and **navigable**.*

With IdeaFeX, we are not merely entering a market: we are creating a new one. Much like the case of cars and horse-drawn carriages, however, alternatives that serve the same purpose already exist. In this section, therefore, we explore some existing alternatives and identify how IdeaFeX will drive the paradigm shift and sustain competitive advantage for the foreseeable future.

Before doing so, let us review what the priorities are for buyers and sellers respectively. For **sellers**, access is a prerequisite, as some existing alternatives thrive on "exclusivity". Beyond access, the flexibility of an existing alternative dictates the range of scenarios where the seller can rely on it. Cost is also important. Therefore, we synthesize various options along three dimensions for them:

Access: *How accessible is this option?*
Cost: *How costly is it to sell with this option?*
Flexibility: *How flexible is this option?*

For **buyers**, access is similarly a prerequisite. Typical levels of return on investment (or other benefits) and risk are also important. Therefore, we focus on three other dimensions for buyers:

Access: *How accessible is this option?*
Returns: *What is the typical level of return on investment or other benefits?*
Risk: *How volatile is this option?*

Existing Alternatives

Auction houses tend to have a narrow focus. Access is stringent as qualified venues are few and their capacity limited. At the same time, auctions are costly, and the outcomes are at times unpredictable. Only select goods and assets such as collectible art, fine wines, antiques, and real estate, etc. with considerable value and well-defined audience are suitable.

Crowdfunding is a low-cost option for startups to bootstrap their operations. Rather than seeking investment, startups presell their products or services to end consumers. In general, crowdfunding has few restrictions; however, not all startups are suitable to be crowdfunded: when the development cost is high or when the products or services do not target individual consumers, crowdfunding is inappropriate. For buyers, crowdfunding is purely a form of consumption. There is no tangible benefit; instead, it can be difficult to change decisions later.

e-Commerce (retail) is the most popular existing alternative. It is the most open and low-cost option. However, current e-commerce marketplaces are not without limitations: They only support the buying and selling of goods. While pre-orders are sometimes available, trading after initial purchase is certainly not. Still, IdeaFeX is more similar to e-commerce than it is to all other existing alternatives. We essentially build the *next-generation e-commerce* that can also serve users of these alternative options.

ICO (Initial Coin Offering) is a variant of crowdfunding. It is less restrictive than traditional crowdfunding because buyers of ICO tokens need not be the end consumer, thanks to the existence of exchanges. However, due to the prevalence of fraudulent activities and the overall immaturity of the buying public, ICO has degenerated in many cases into pure gambling. ICO tokens rarely stay above their initial offering price. The costs for ICOs have also risen sharply due to market saturation.

Real estate is a common choice for many investors. For retail investors, real estate investment provides benefits in utility and tax deductions. For corporate investors, ownership of office building or manufacturing facilities cuts down cost and may supply an additional source of income. For governments, investment in infrastructure drives social and economic development. Overall, historic returns from real estate have been reasonably high and stable. It is also reasonably accessible. However, real estate investment is highly illiquid.

Traditionally, startups that require external funding have relied on **venture capital** investments. In recent decades, the stages at which venture capitalists enter have gradually shifted; the majority of "venture capital" firms indeed focus solely on growth capital. As a result, the already selective process has grown increasingly demanding. Further, venture capital only caters to startups and always results in significant dilution of ownership; therefore, it is unsuitable for mature firms and unappealing to firms with more attractive options. The buy side is not applicable here.

Existing Alternatives

Each existing alternative involves complex activities. Nevertheless, if we focus on the six dimensions of the overall experience, it is possible to understand some obvious tradeoffs. They highlight the pain points that we have discussed previously. In comparison, IdeaFeX combines some notable advantages offered by these options while avoiding their restrictions:

> We essentially build the next-generation e-commerce that can also serve users of these alternative options.

Vis-à-vis auction houses, *IdeaFeX is much more flexible and accessible, and users save time and money in the process.*
Vis-à-vis e-commerce, *IdeaFeX offers users the opportunity to innovate their business models and to experience new consumption methods.*
Vis-à-vis ICO, *IdeaFeX supports real-world goods and assets and actively avoids pitfalls of "cryptocurrencies". We aim to make resource allocation more efficient, not to encourage speculation.*
Vis-à-vis real estate, *IdeaFeX makes fractional ownership possible in a broader range of fixed assets. Our integrated exchange makes entry and exit more flexible.*
Vis-à-vis venture capital, *IdeaFeX offers a convenient platform to bootstrap emerging businesses.*

IdeaFeX is **agile**: Tokenization of real-world goods (product futures) empowers sellers with the option to pre-sell goods and services before production. Unlike traditional "crowdfunding", product futures also allow buyers to trade easily among themselves, thus making the integration between consumption and investment a possibility—in fact, a consumer may purchase a pre-sold product and later change his / her mind at little cost—if not a small profit. To the seller, it is also much easier to access and "lock in" the market: they can seize a sizable market share before the product or service is available, thus gaining advantage over competitors in similar stages of development.

Tokenization of real-world (fixed) assets empowers asset owners with financing options beyond debt- and equity-based alternatives. Investors also enjoy access to these asset-backed assets formerly unavailable to the public. Assets such as collectible art, infrastructure, and factory capacity, etc. can now be fractionized, owned, and traded by numerous investors.

IdeaFeX is **robust**: With tokenization, we keep goods and assets independent of our marketplace: The fundamental ownership and cash flow of these purchases or investments will be tenable regardless of the status of our server, providing extra robustness. It also makes listing, trading, tracking, and delivery more cost-effective and tamper-proof. By backing tokens with real-world goods and assets, IdeaFeX keeps the benefits of traditional applications of blockchain (e.g. crypto assets) and removes the most notable downsides. Further, tokens not only represent the underlying asset but also provide functions that underpin governance functionalities; thereby, we can achieve high levels of trust without compromising privacy. Additionally, our unique auction method makes the discovery of fair value quick, easy, and low-cost.

IdeaFeX is **navigable**: Using a familiar e-commerce interface, we make users' adoption of new opportunities that we present easy. At its core, decades of evolution in marketplaces makes it the best format to drive the dispersion and discovery of information. We meticulously curate an adaptable catalogue and will leverage artificial intelligence to help investors search, discover, and research throughout the listings. Further, we leverage smart contracting to govern the fulfillment, thus completing the user journey from discovery to fulfillment. Currently, there is no alternative that offers comparable experience, let alone for the new classes of goods and assets that we support.

Two Examples to Inspire

*Before concluding this white paper, we present two fictional examples. While far from exhaustive, these examples should help the readers appreciate the key **merits** of tokenized goods and assets.*

Fine Wine—Tokenized Goods

Gaudon is a winery in the Burgundy region in France with over two centuries of history. Its wines are the favorites of renowned chefs and wine collectors alike around the world. Gaudon's financial health is excellent. Nevertheless, as the owners learn that a vineyard adjacent to theirs may be up for sale, whether to purchase it themselves and where to source the funds become questions on their minds.

In Burgundy, vineyards that carry the "grand cru" designation enjoy immense prestige. This designation is strictly controlled and essential for Gaudon's quality and reputation. The vineyard that may be for sale carries this designation, and it has not changed ownership in over a century! Gaudon's owners really want to seize this once-in-a-lifetime opportunity.

After some research, they find the product futures option on IdeaFeX to be ideal: Currently, their supply falls well short of demand. With the possible addition of the new vineyard, they can recuperate the cost within a decade simply from the increased output. Even if for one reason or another they fail to purchase it, preselling the wines reduce their exposure to uncertainties in the coming years.

In the comfort of this knowledge, the owners of Gaudon proceed to auction off half of their productions from two to eight years into the future. Unexpectedly, some connoisseurs highly knowledgeable in wines seize on this opportunity. Gaudon purchases the new vineyard; their owners are not burdened by debt that would otherwise have been incurred.

Art Gallery—Fixed Asset

Lumino is a private art gallery in Northern Italy. It has a collection of contemporary paintings and sculptures from artists that are gradually gaining international recognition. Lumino's new curator has the ambition to expand its collection and to organize more high-profile temporary exhibitions. Its trustees, being investors on IdeaFeX themselves, introduce us to the management.

Having researched the various options,

Lumino's management consider tokenizing part of their collection. The trustees agree that this could be an innovative approach to building Lumino. After due process, Lumino decides to put four of their most prized paintings up for auction: Lumino will continue managing and maintaining these paintings. Proceeds from exhibitions will be awarded to token owners.

Eventually, Lumino raises the funds that it needs to purchase new art works from up-and-coming artists that will likely appreciate, and it still have the original painting under its management. Further, the high-profile exhibitions elevate Lumino's international standing, which in turn secures its financial future.

Roadmap

*We are ready to take on the challenges and **deliver** the premier marketplace for tokenized goods and assets to bring e-commerce to a new age.*

January 2018—The Beginning
Dr Jiulin Teng started working on IdeaFeX.

April 2018—White Paper v1
We finished the first draft of our Corporate White Paper. In this document, we expressed the need for asset-backed new financing and investment classes powered by distributed ledger technology.

September 2018—White Paper v2
We finished the second draft of our Corporate White Paper. In this document, we explain the values of a marketplace format empowered by our innovative auction method.

October 2018—Software development commences
Our in-house development team began developing the IdeaFeX software.

November 2018—Go-to-market strategy
We devised an early go-to-market strategy. We also offered a vision for the market of the new asset classes we propose in the next decade.

January 2019—Token White Paper
Anticipating an ICO, we finalized the Token White Paper by extending our Corporate White Paper. We focused on the foundational values of the IdeaFeX token and how token features and token allocation supported these values. Due to changing market environment and lack of marketing budget, however, we eventually decided to cancel the token sale.

July 2019—New go-to-market strategy
In response to the cancellation of our token sale, we adjusted our product development schedule and go-to-market strategy. We will release our product in stages, while ensuring that from the first stage basic functionalities are sufficient to attract paying customers.

Q4 2019—Initial launch
The first stage of IdeaFeX marketplace goes live. We will initially serve the EU market with product futures. From this point on, we will gradually add new features and supports. Notably, due to general absence of meaningful development in the blockchain space, we will be proposing primarily off-chain solutions.

2020—Next milestone
We aim to offer significantly stronger support and improved user experience. This may include the adoption of major on-chain asset management protocols, if any such protocol emerges as the favorite / standard (which is so far not the case).

2021—Localization
As our user community grows, we will open new offices internationally to serve local clients better.

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