PROGENY

Progeny provides a crowdfunding portal tailored to the needs of developers that transforms the equity of real estate projects into liquid transferable tokens. The portal provides investors an analytical framework for evaluating the merits and qualities of the projects pitched.

CONCEPT MAP

draft version

Steven Tortoga
John Rudell
Matt Steele
LIam Zhang
Lau Chavez
Obadare Ogundipe
Ana Sofia Solis Canales

ABSTRACT

With the advent of blockchain technology, financial capital has the potential to be more accessible than ever before to people with novel ideas, while providing tools for investors to increase transparency and accountability for their investments Progeny seeks to fulfill this potential by providing prospective real estate developers with blockchain tools and resources to manage, showcase, and finance their projects. In particular, Progeny will aid developers in transforming the equity of their projects into into tradable asset-backed digital tokens, using either as a Reg D and Reg A exemption from the SEC. Investors will use each developer-specific portal as an analytical dashboard for tracking the performance of their investment and vetting the proposed prospects of each developer. While we are focusing our platform on the needs of real estate developers, especially facilitating SEC compliance, we intend to make use of blockchain technology's growing cross-platform and decentralized apparatus of enabling infrastructure for investors.

Each real estate developer-specific token created will function as a digital claim on the future cash flow of projects on the platform. Each token will be tradable on secondary markets enabling an increase in liquidity. As a speculative asset, the investor will benefit from various market functions. For example, early investors will be rewarded for taking on risk, and developers will have to finance their future projects by issuing tokens at a lower value if their projects don't perform as expected.

PURPOSE

Progeny's mission is to lower barriers to entry for real estate developers in urban markets by creating better financing opportunities. Our platform accomplishes this by connecting the average investor directly to real estate developers, bypassing expensive financial intermediaries by using blockchain technology to tokenize the prospective equity into liquid digital assets. Through developer specific investment portals, we will provide support to developers for managing taxes, legal structures, investor input, and dividend distributions.

WHAT WE HOPE TO ACHIEVE

We hope to connect investors looking for novel projects to technologically-adept, design-oriented and data-driven entrepreneurs who have unconventional development models that bridge the sharing economy with traditional development approaches to achieve affordable housing and high returns to investors simultaneously.

OUR METRICS FOR SUCCESS

For us, success means significant investment in economy-stimulating projects in inner-city low-income communities, and for that investment to provide dividends to local residents. One important metric is how well people of varying finance and real estate skills can adopt and adapt to our platform.

WHAT WE MEASURE	HOW WE MEASURE IT
market share	total capital invested over time
supply provided	units of housing created by type and price relative to local mean
performance	returns on investments
market segmentation	the number of participating investors by investment class and contribution
liquidity	the number of transfers on external exchanges

PURPOSE

OUR MOTIVATION

We are motivated by the prospect of helping real estate development become a culturally and economically constructive, rather than destructive, force in cities. Instead of stirring displacement, we want to help urban development enrich and cater to the needs of local residents by providing affordable and quality housing. In so doing, we hope to build wealth broadly among stakeholders and local community members. This motivation stems from our own work creating alternative highly profitable business models. We took over a 5 story building in West Harlem and turned it into a business incubator that doubles as an inn. We call it Ham Inn. It provides us a kind of private subsidy to focus on building out new projects. Our initial ambition was to build a platform that would finance the projects we have under development, and the first logical project to focus on is transforming the platform itself into a self-sustaining business model that can help others similarly finance their ideas. We built this platform with the assumption that the rising generation of global citizens has more capacity, world exposure, and interdisciplinary education than any earlier generation but relatively fewer means of realizing their dreams. We want to give people a platform for pitching, and ultimately manifesting their dreams.

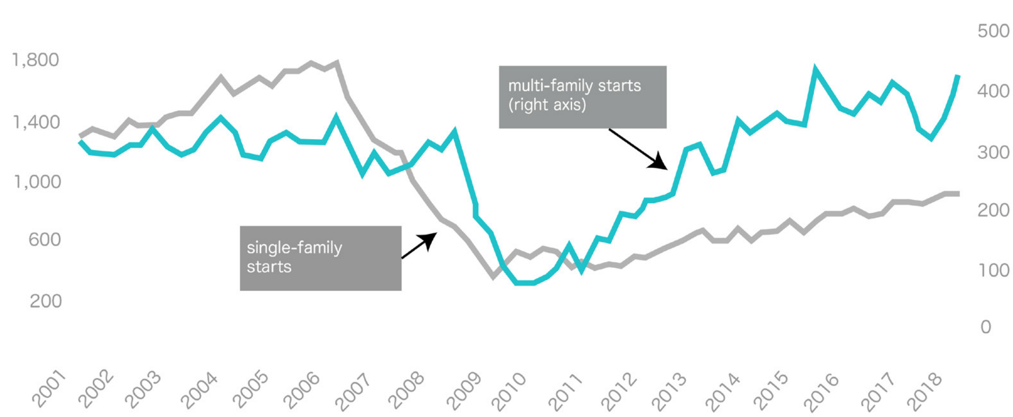
progeny's office

MARKET

Real estate assets have historically been individually in the form of single-detached housing and held by held by individuals and families. The arrival of the automobile enabled the creation of suburbs and affordable homeownership. With cars, people could connect to the agglomeration benefits of cities, while avoiding the perceived issues of dense urban cities. Residents of these suburban enclaves received a disproportionate level of government incentives, including gas subsidies, road, and transportation infrastructure, and mortgage deductions. This accelerated inequality resulted in the hollowing out of the urban core of most major western cities over the 20th century as people left to the suburbs. Particularly, the practice of “redlining” reinforced cultural, ethnic, and class divisions by providing preferential financing for white families in white suburban enclaves. The development of the suburbs became a real estate wealth engine for the white middle class, with most families having their single largest investment being their house.

Since the turn of the century, with ethnic tensions have relatively subsided and the diseconomies of scale associated with urban agglomeration such as pollution and congestion have became managed, allowing for people to take advantage of the growing list of efficiencies and positive externalities a large city can provide, conveniently, without the use of a car. This can be seen through the increasing

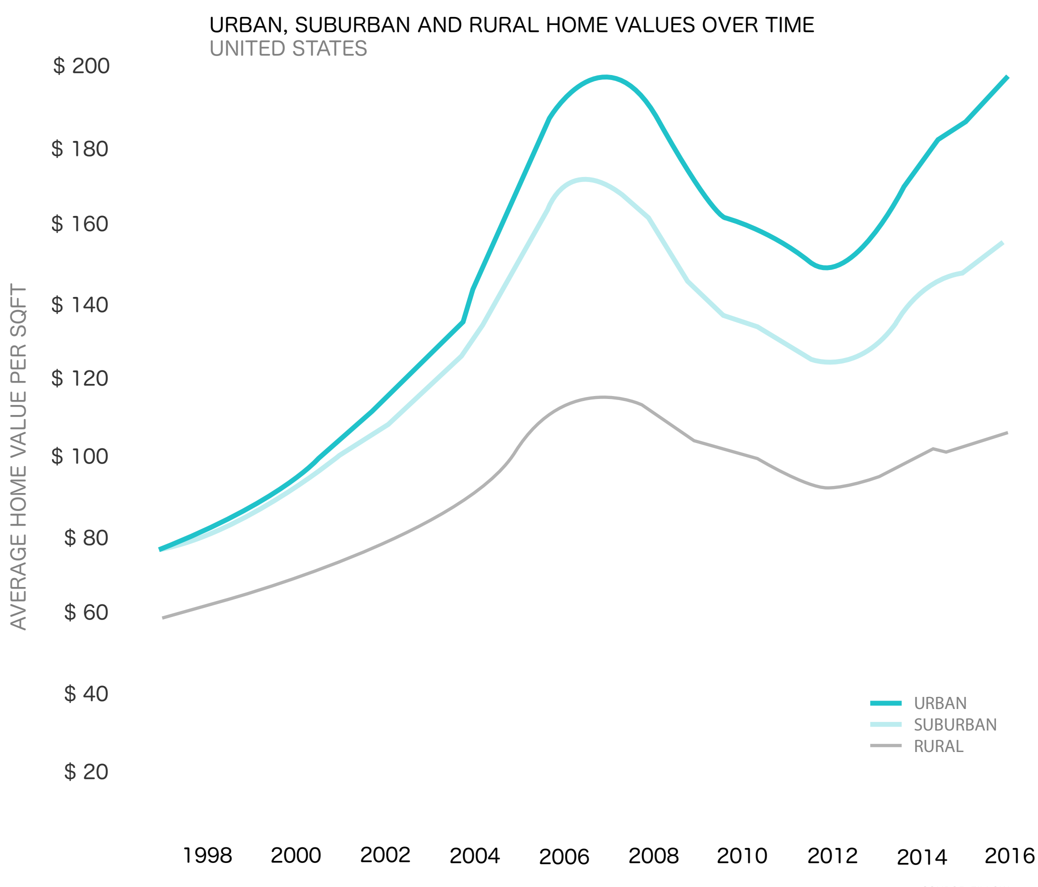
new construction rose sharply for multifamily housing for the second consecutive quarter
national houseing starts (thousands)



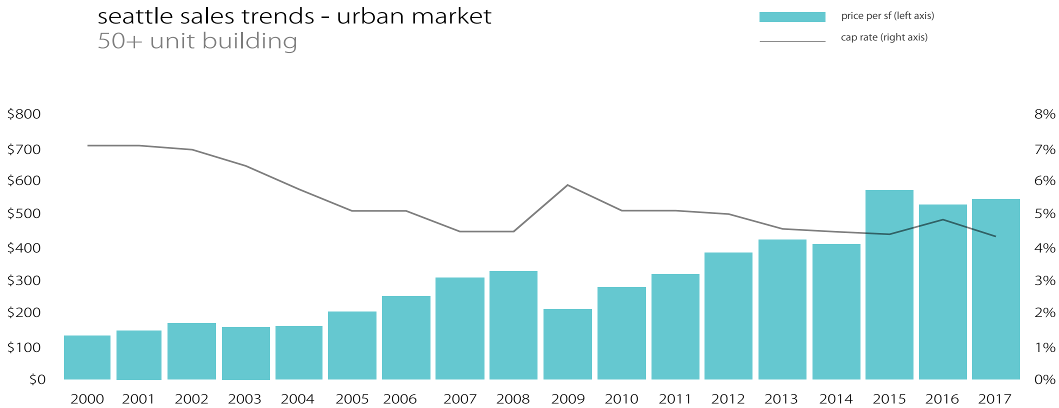
Sesonally Adjusted Annual Rate
Source: Census Bureadu and HUD.

share of new construction of multi-family buildings, relative to the construction of single-detached housing since 2010, as developers have attempted to meet urban demand. This construction followed a spike a in real estate values in urban areas starting in the early 2000s, but it supply has not kept pace with demand, as real estate values have sky-rocketed in cities like New York, San Francisco and Seattle. The local communities of these major cities have grown to see property development as part of the problem rather than the solution, fighting proposed development projects and increasing housing prices by exacerbating the gap between supply and demand.

As demand for city living spaces continues to grow, the opportunities for small scale developers continue to shrink. While some inner-city development can be taken on by individual investors, the majority of large-scale urban development has historically been undertaken by wealthy families and institutional investors due to the scale of investment needed. So few players in urban real estate devel-



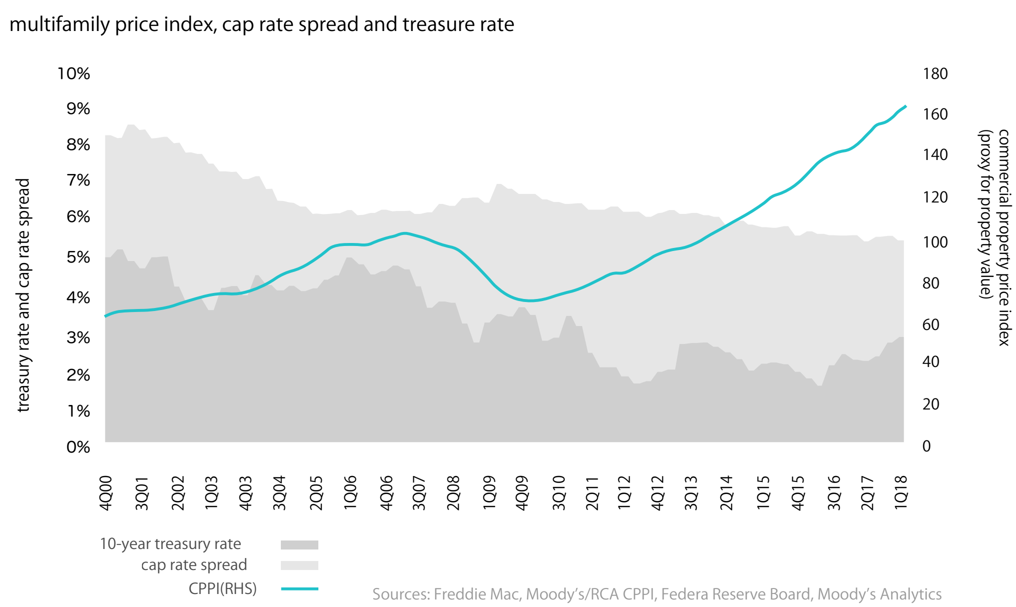
MARKET



sources: 2018 Seattle Neighborhood Apartment Market Study
Real Capital Analytics, CoStar, Dupre + Scott, Pierce Eislen,
AXIOMetrics, King and Snohomish Registrars

opment mean that the market has constrained supply. With such healthy demand and so few competitors, large scale real state developers have focused on the high end residential urban market, building only for the highest earning demographic in each city, unless subsidized to so. This focus generated an exacerbation in the rental rate and secured high returns for developers.

Despite ever increasing rents, high net operating incomes ("NOIs") based on high-end rentals have been normalized in major cities and with such consistent returns on investment, risk associated with development is lower and capitalization rates, or cap rates, and are falling in most urban cities like Seattle, San Francisco, Boston, and New York (though this is partly stirred by lowering interest rates). This trend reflects increasingly relatively high base-land property prices, relative to perceived risk and return profiles. While such high-valuations mean high returns for existing landowners wishing to sell, low cap rates and high land valuations mean fewer new developers will enter the market, further constraining supply. These valuations will stay very high until rental rates, and NOIs generally, for housing are normalized at an affordable level nationally, potentially by starting in mid-tier cities like Philadelphia and Atlanta. Once the high-end market is tapped out, valuations will be forced to lower as developers refuse to purchase overvalued properties. The key to this happening is increasing not only the supply of housing through real estate development but also their capacity to discern value in available prospects in local and national markets.

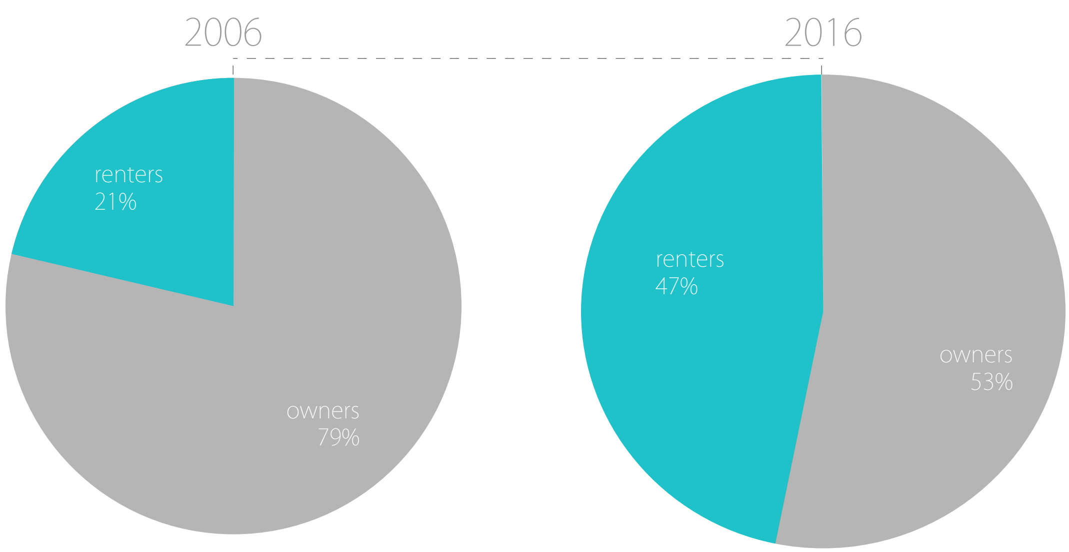


Sources: Freddie Mac, Moody's/RCA CPPI, Federa Reserve Board, Moody's Analytics

PREVAILING APPROACHES

PRIVATE DEVELOPMENT
As evidenced by the crash in 2007, where 10 million households lost their homes from 2006 to 2014 due to the subsidy-fueled primarily suburban housing bubble, (source= federal reserve), even if one investor could shoulder the total financial burden of a large investment project, it would not be prudent to do so. Money wrapped up in one large prospect presents a significant un-diversified risk for the investor. With inequality growing, and less wealth on average since 2006, the number of renters in America has more than doubled, as shown in figure ***. The homeownership rate among millennials is at roughly 35 percent, lower than any other generation of young adults in the last 50 years. For a current investor looking at real estate opportunities, they have four alternatives to private development: Real Estate Investment Trusts ("REITs"), crowdfunding campaigns, and most recently blockchain portals.

percentage of major cities where renters outnumbered homeowners



Source: APM Research Lab

REAL ESTATE INVESTMENT TRUSTS ("REITs")

REITs provide a highly liquid vehicle for investing in real estate, but due to their scale, and the many intermediaries and management levels involved, the returns investors see are a relatively small portion of overall profits earned. REITs were the first attempt at creating public markets for small pieces of real estate equity. The legal designation was created in the 20th century as urban and large-scale real estate development began to require significant financing and partnerships. There are various types of REITs, but its well-known public version provided investors with liquid investment opportunities by existing as a single publicly-traded company on stock exchanges. Because of the costs associated with an IPO, the scale of the operating entity attempting to create a REIT must be justifiably large. Since the layers of intermediaries and third-parties involved in the IPO of a large real estate company take substantial cuts of the profits made in the process of making it public, the resulting securities often offer a relatively poor investment opportunity.

CROWDFUNDING

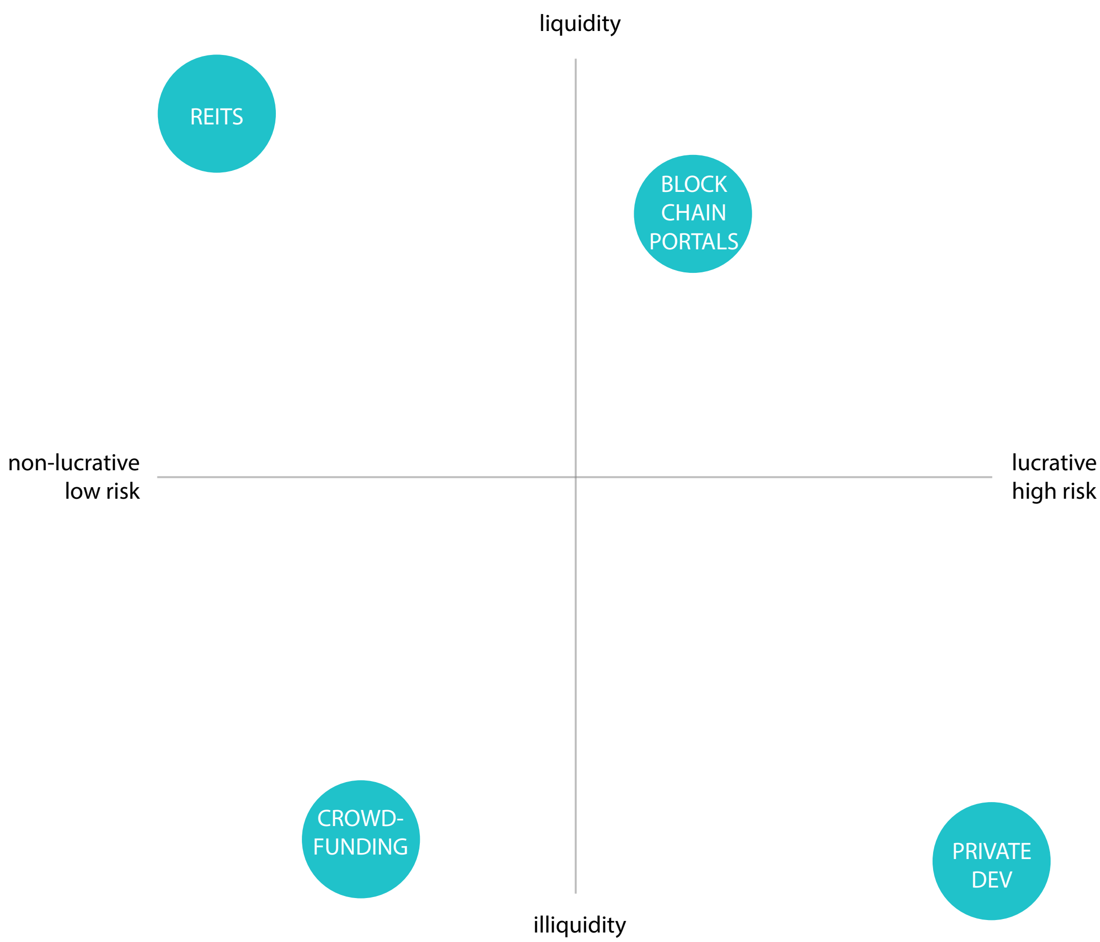
With the emergence of the internet, entrepreneurs have tried to offer more profitable and attractive investment vehicles by connecting investors directly with developers through crowdfunding portals, which allow for a developer to structure the ownership of a building into smaller slices that they can then sell to investors. This practice was given a legal basis in the Jobs Act of 2012, which created a crowdfunding regulatory framework for crowdfunding portals to follow. While crowdfunding portals have captured a sizable portion of the real estate market over the last 8 years, they have failed to be significantly disruptive because their investment vehicle lacks liquidity and a straightforward means of executing the rights reflective in an ownership stake, such as the distribution of cash dividends or decision making. Without significant liquidity, the holder of a real estate investment can't benefit from the efficiencies of active speculative markets, such as the decrease in risk provided through the option of divesting, while also rewarding people for taking on initial risk, among a variety of other benefits.

The few opportunities crowdfunding and open platforms provide result in poor returns for investors since most pre-vet projects, decreasing their associated risk, but also decreasing their associated return. They do this partly because a crowdfunding investor over the internet has few ways of mitigating the risk of a failed project, which is especially concerning if a significant amount is invested. Thankfully, blockchain technology can provide investors a means of risk mitigation.

BLOCKCHAIN SECURITIZATION

Blockchain provides investors with liquidity for their assets, a basis for speculation and a critical means of managing the related risk. As a speculative asset, investors can identify unique deals and be rewarded for taking on the associated risk of investing in them. If they deem their asset too risky, an investor can sell it, and if they hold on to their investment and it proves more profitable than expected, they can receive a windfall by selling their asset based on a higher valuation.

Blockchain technology is an evolution of the internet and will determine the next stage of development for many sectors, especially the financial services sector. Blockchain enables cheaper and faster transfer processes for currency and securities exchange, including for small scale projects. As a result, 80 percent of banks have started investing in blockchain technology in order to take advantage of these efficiencies (get source). For real estate, the technology allows for a more straight forward titling process, lease and contract management, and fewer intermediaries on all fronts. The technology's ability to facilitate transfers of dividends and ownership that has enabled a realistic path for securitizing equity for real estate.



CHALLENGES

New construction in America's major urban areas is in higher demand than ever before, though it is being unevenly supplied to the wealthy of each major city. Overall, the supply of urban space is limited, largely due to the number of developers involved. The number of developers is limited by the financing and capital they have at their disposal. For those without huge capital reserves, available equity financing is limited by access to investors, who expect high returns and liquidity for their investments to manage the risks associated, relative to their investment alternatives, chiefly the stock market.

LIMITED SUPPLY

Despite the resurgence of demand for space in cities, the supply of urban units in most rapidly growing major cities is provided primarily by a small group of billionaire tycoons. Developers wishing to enter this market face the high barrier of financing the millions of upfront capital needed for most urban projects. Because relatively few real estate developers are in urban markets, there is little pressure to innovate more efficient models that serve more people. Instead, most urban development caters to the wealthy subsection of the population, which in-turn exacerbates housing affordability issues. Novel projects with interesting design concepts and earned-income strategies that could create opportunities for affordable housing and disrupt markets in profitable ways face significant hurdles and are rarely actualized.

CONSERVATIVE INVESTMENT

The profits earned in real estate deals are fairly predictable, often locked in through leases and normalized by the larger market. This is partly what attracts large investments and it is why, for some, real estate is considered a low-risk investment relative to other equity-based investment options. **Because real estate attracts risk-averse and conservative investment, innovative but risky product types and approaches are rarely embraced in the sector.** The differential between the valuations of property and their expected cash flow (cap rate) is a reflection of the risk associated with developing in any specific area. Because incomes from rents are largely a function of location, developers rarely focus on creating value improvements above what the minimum necessary, save for a few extremely exceptional cases, as the lower their costs, the higher NOI they can achieve and the greater return.

LIMITED AVAILABILITY OF EQUITY FINANCING

The more equity a developer is working with, the greater their return on investment. The more equity at a developer's disposal, the more leverage available for better terms on financing for lending. Equity can also be leveraged to help financing a broader array of projects, which can mitigate investment risk through diversification. As interest rates continue to rise, developers will attempt to limit their debt exposure further to achieve higher returns. Opportunities In some urban environments like New York, where large developers are flush with cash, the norm for buyers is to buy properties outright in cash, with no mortgage, and some even do a reverse mortgage to increase their cash reserves so they can continue buying more buildings with no debt. Having equity in these environments becomes crucial to being competitive.

For those with great ideas but little capital, private-investment is their only source of equity, but there are few means of securing such investment. Securitizing equity of any type through an IPO process is an increasingly complicated process and the costs of doing so takes a significant cut from an investment's return. Traditionally, only mature companies with large administrative arms, such as REITs, are able to go through the process of an IPO, cutting substantially into their investment returns.

LACK OF LIQUIDITY

The liquidity of an asset is critical for managing the risk associated with that asset. Liquidity is measured by how easily an asset can be traded on secondary markets. It is the marker of a speculative asset. Real estate has historically been considered an illiquid asset. Improving the liquidity of real estate assets will transform the industry by increasing accessibility and accountability, decreasing costs, mitigating risk, and ultimately leading to more development, more innovation and more investment.

INVESTOR RESTRICTIONS

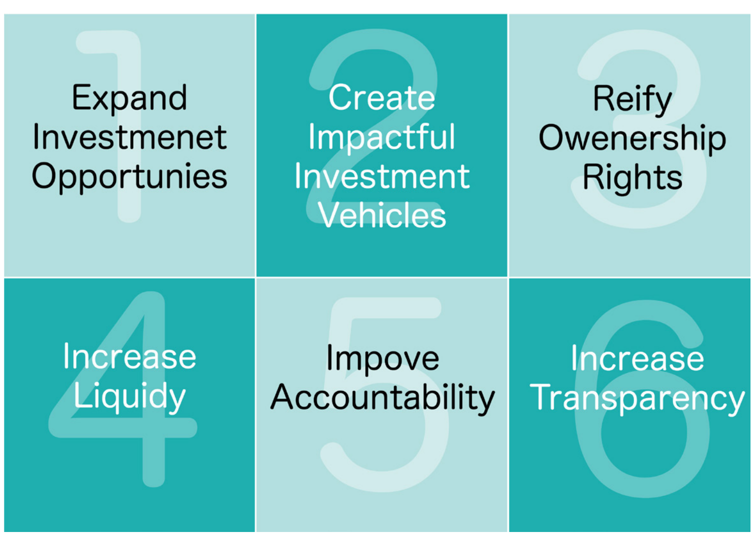
The current securities regulatory bodies primarily limit small-scale investments in local projects to VCs. Regulators are charged with managing fraud, not risk, and are expected to evolve on these restrictions. VCs were a small subsection of the global economy 50 years ago, but such their investments have grown tremendously in recent years as those of means have realized far superior returns through investing in projects directly, especially in places like Silicon Valley. By disallowing the average investor from participating in local equity deals, the vast majority of value creation is financed by and rewarded to a small sub-section of wealthy individuals and institutions who may have little relationship to the context of their investments, exacerbating inequalities. Outside investors are only interested in achieving a high return on investment, even if it contributes to environmental degradation or housing un-affordability.

SOLUTION

Progeny is intended to operate as a Platform as a Service (PaaS). The platform will serve adaptable portals for real estate developers hoping to mount real estate campaigns for specific projects. Our approach focuses on the needs of real estate developers by providing them services and tools to tokenize their equity and finance new projects. The platform's services will enable each developer to create and manage a unique token reflective of the equity in each of their projects, both operating and in-development. The tools provided to investors will help them vet the merits of each project and direct their investment to projects they see as having the most attractive value proposition. Having distinct portals for developers will aid in branding each developer's token, and will provide investors the opportunity to identify projects with unique value while diversifying the associated risk.

Progeny's strategy addresses many of the current obstacles in the real estate crowdfunding/blockchain space. We use blockchain technology to create a highly attractive and efficient investment vehicle, and we automate and facilitate the process of financing real estate, making the sector more accessible. In the process of expanding the number of real estate developers in the market, we create more opportunities for the development of profitable novel projects, serving all segments of the market, indulging market interest for sustainable building, and creating opportunities for live/work arrangements and affordable housing. These opportunities may pose more risk for investors but they also present the prospect of higher returns. To manage project risk, Progeny will also make use of blockchain technology to increase accountability and transparency, building trust among investors and stakeholders, and aiding in regulatory compliance.

PROGENY'S APPROACH



EXPANDING INVESTMENT OPPORTUNITIES FOR THE AVERAGE INVESTOR
While VC funding has seen tremendous growth, investments in blockchain-enabled equity for start-ups surpassed VC funding in 2017, demonstrating an exciting new frontier for investing. The regulatory environment and framework have contributed significantly to the hyper growth in inequality that marked the last 30 years. The participation rate of the average investor in financing generally, but especially in emerging technology, local development, and companies, has lowered even as their competencies and education has increased significantly. Regardless of how informed investors are, without having already acquired substantial wealth, they are relegated to low-risk and low-return investing. Thankfully, the legal frameworks have been recently evolving, with the rewriting of the rules for securities exemptions and the passage of the Jobs Act in 2012. The expectation and hope of this project are that the legal and technological barriers for the average investors will continue to increasingly be a function of competency rather than wealth. Until then, we will continue to use Regulation D exemptions for deals involving local stakeholders only, and Regulation A exemptions for larger, more open, offerings.

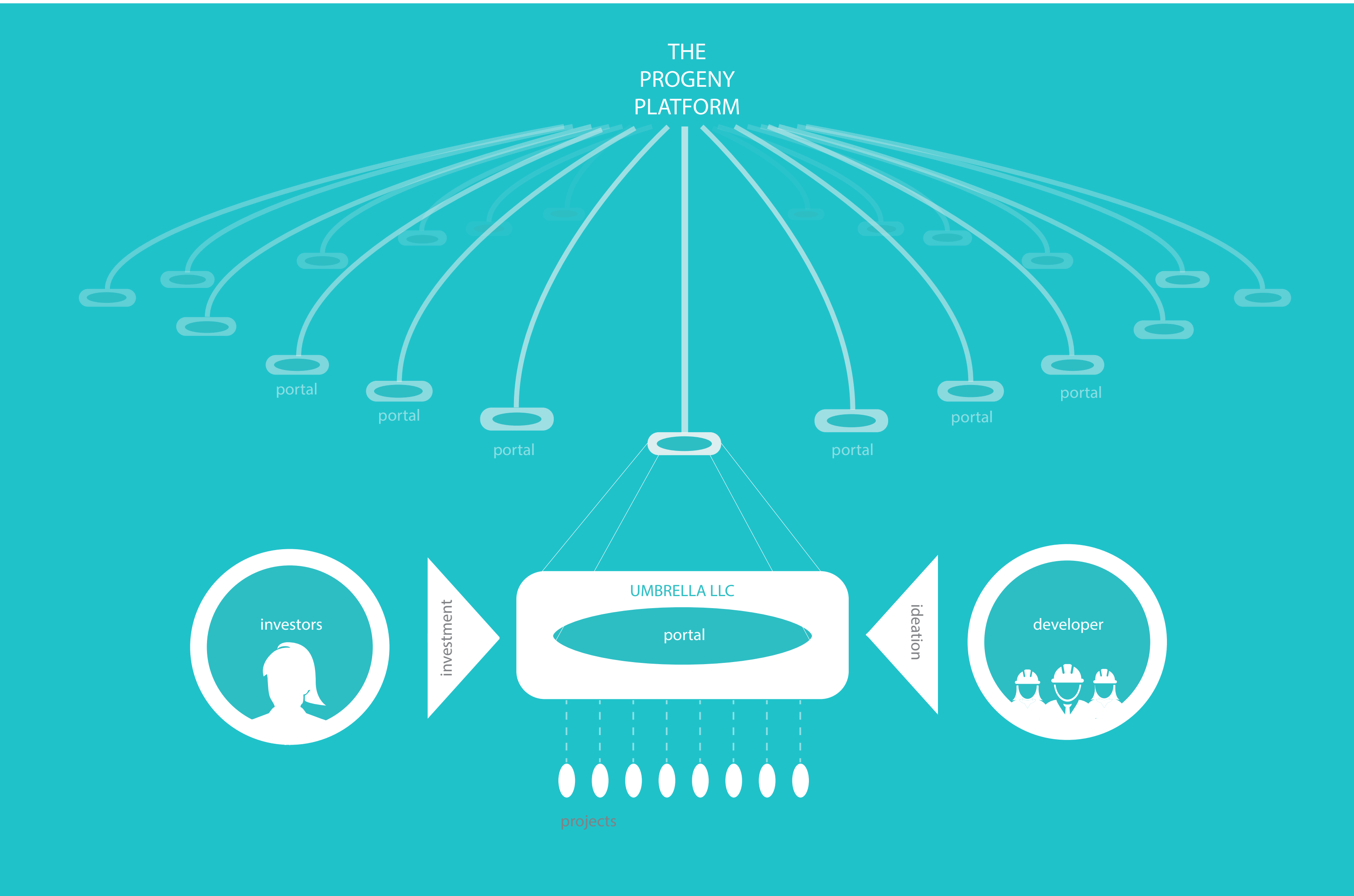
CREATE IMPACTFUL INVESTMENT VEHICLES
Increasing the ease and availability of equity investment opportunities will enable local investors to participate in the deals that impact their communities. They can support these initiatives most obviously by providing capital, but also potentially in providing labor in exchange for equity or structuring things like a co-operative to provide discounts or rebates for consumers and workers based on the project's performance. Local investors are also more likely to have a relationship to, have unique knowledge about, and/or benefit indirectly from local proposed projects through increased property values, more goods and services, and economic revitalization. Such arrangements will help with managing stakeholders by aligning local interests with the developer’s.

REIFYING OWNERSHIPS RIGHTS:
A blockchain is an immutable ledger and thus provides a reliable means of identifying and tracking ownership/equity. In the context of ‘security tokens’, a blockchain can track who may exercise ownership rights, such as a claim to a project’s future cash flow and also facilitate the transfer of its dividends. The rights of the underlying equity can be exercised via automated functionality built into the ‘smart contracts’ that govern the company tokens. Upon initially purchasing a token, each investor agrees to a contract establishing the terms and rights of their ownership, much of which is managed via the code in smart contracts on a blockchain (such as transfer rights, cash flow rights, voting rights, and vesting schedules). Anyone transferred ownership of a token will have these same rights. The trustless exchange of these rights is enabled by immutable ledgers, obviating the need for a centralized broker to facilitate their exchange. The fee

of each transaction would be the cost of ledgering the transaction to a blockchain. In Ethereum this is called 'gas' and is designed to constitute a relatively tiny amount. Each developer making use of this technology to issue coins would still be centrally responsible for actualizing the rights that are associated with the token, regardless of who has the coin, per their side of the agreement.

INCREASED LIQUIDITY FOR INVESTORS

Blockchain security tokens provide people a means of liquidating their investment by selling their tokens based on their speculative value through secondary markets. Barriers to market and the market size for security are critical factors determining the investment's liquidity. The less third parties are involved, the fewer transaction costs and barriers there are for transactions, ultimately increasing an investment's liquidity and value. Online stock brokers offer traditional investors access to a larger market of securities than is currently available for most blockchain tokens, but, as blockchain technology develops, public stocks and digital assets are expected to be traded in the same digital context, making blockchain securities the new frontier for all financial instruments. The decentralization of information through blockchain technology will mean that holdings of any kind can be managed cross-platform.



ACCOUNTABILITY FOR DEVELOPERS

With blockchain technology, one can securitize an investment holding at various scales. Most platforms securitize/tokenize at the highest level, creating one token that reflects all the holdings of all the developers using it. On the other end, each individual project could be tokenized, with token holders holding stakes in specific projects. We see the real estate developer as the most accountable and efficient level to tokenize equity, as it enables strong incentive mechanisms for ensuring developers follow through with their proposed plans. If dividends are higher than expected, the price for a token will reflect higher dividends and higher confidence in the developer to deliver on their promises, which will increase the interest in, and subsequently the price of, the token. A higher price will garner more funding for future projects by that developer. Of course, the reverse can also occur.

INCREASED TRANSPARENCY

The ease of creating liquid digital markets and their respective speculative markets comes with an unfortunate side effect - a surge in deceptive cons. Speculative investments with little track-record and no accountability mechanisms can be artificially hyped up and 'dumped'. This was an appallingly common scheme during the ICO rage of 2017. Historically people have always taken advantage of the enthusiasm in exciting new technologies, as evident in the dot com boom of the late 90s. It's not that the enthusiasm isn't justified, it's just that given the nascent nature of the companies developing the technology, there is little on which to base an investment. Investors have quickly become more prudent as these schemes have come to light.

As of now regulatory entities are tackling the problem of how to enable the technology's disruptive potential while protecting investors from "bad actors" looking to scam investors out of money. Because Investors were making decisions based on limited and unverified information, the solution to fighting fraud is a financial data-ecosystem built on abundant trust, transparency, and accountability, especially in regards to verifying the stated qualities of prospective investments. While the exuberance around Blockchain has been exploited, the technology's ledger system has the potential to provide a means of increasing the transparency of the organizations that use it and their transactions. As Blockchain accounting matures, information on a project's ownership and earnings will be available to anyone for verification. We will insist that each development company we work with upholds the strongest principles of transparency and investor accountability and we will provide the tools to do so, as we and others in the space build them.

STRATEGY

The Progeny platform has been developed as a node within the larger decentralized Ethereum ecosystem by making use of third-party tools for verification, identity management, deed/titling, and ratings. This will also connect our netwvork of distinct sub-portals with external decentralized exchanges like AirSwap. Our platform will:

EMBRACE THE TECHNOLOGICAL DOMAIN

The emerging blockchain real estate platforms have attempted to exist as a central hub of interactions and exchange, similar to how crowdfunding portals were structured after 2012. Due to economies of scale, the expectation was that 2 or 3 crowdfunding platforms would have the vast majority of this multi-billion dollar market, the more comprehensive the platform, the more prospects it had for realizing the efficiencies associated with scale. But as a comprehensive system, these platforms contradict the factors that make a decentralized system so attractive. With blockchain, most portals will be using a single source of truth as their back-end, allowing them to benefit from economies of scale from how integrated they are into the larger eco-system of tools and networks. When equity is reified into a blockchain security token, it exists divorced from its instantiating portal. A token can then be exchanged on any number of secondary markets. Smart contracts, the basis for activity on a blockchain, are modular in that their procedures and state can be inherited. The expectation, long-term, is that this technology will decentralize financial infrastructure such that the current regime of centralized portals, exchanges, and brokers are no longer the critical means of managing securities. **Respecting this shift, Progeny will situate itself in the blockchain eco-system as specializing in the data analytics, property management, investor relations, and marketing infrastructure for real estate securities.**

ALLOW DEVELOPER PORTALS AND THEIR INVESTMENT OPTIONS TO BE UNIQUE AND DIFFERENTIATED

An investment adds unique value to a portfolio based on how its risk/return profile complements existing holdings. Thereby, the more tailored vand specific a security token is to a unique investment profile, the more ability an investor has to optimize their portfolio performance. The more agency the investor as to differentiate the value of their investment themselves and obviating the prospect of earning unique value for identifying high performing outliers. Alternatively, if a platform vets all projects and developers itself and then securitizes at the platform level, it has essentially created a conservative index fund, often justifying its vetting and compiling of investments at an additional cost, much like mutual funds. Blockchain technology enables direct investing, so while this may not be of interest for non-sophisticated investors, we expect that a substantial subsection of savvy investors will be keen on being rewarded for identifying high-value prospects themselves, rather than relying on platforms to vet for them at a direct and indirect cost. Platforms that vet and/or present themselves as the primary investor/broker stake their reputation on the success of all supported projects. Investors in such platforms base their investment decisions on the reputation of the platform, rather than the qualities of a specific project or the reputation and capacities of the developer proposing it. Because their reputation is at stake, these platforms will not permit risky projects that may have higher return prospects.

PUT EMPHASIS ON SECURITY TOKENS OVER THEIR ENABLING PLATFORMS

Progeny will exist as a network of sub-portals, rather than a portal itself. The platform's marketing would not eclipse that of the token portals. As the blockchain security market continues to grow, disrupting every segment of the financial sector, investment opportunities will become highly stratified as a large number of security tokens enter the market, competing for investor attention. Exciting and distinct viable security tokens will need their own branding and focus to stand out. To help highlight these tokens, we will help developers build a reputation based on the performance of their projects. In the context of inflated prospects for blockchain tokens, we hope to help our developers realize significant dividends for their investors and stakeholders, and garner interest from investors looking for demonstrable fundamental value.

CENTER OUR APPROACH ON THE NEEDS OF COMMUNITY-ORIENTED REAL ESTATE DEVELOPERS

This approach reflects what we see as an unmet need for portals that are tailored to the needs of a community. One of the critical failings of current passive real estate vehicles is that they have a myopic appreciation of a project's value proposition, almost entirely concerned with immediate and short-term revenue prospects. Most real estate vehicles present projects, especially real estate as if they were ubiquitous. However, in the long run, as digital assets become popularized on global markets whose assets can be interchangeable with all types of securities, the qualities of the developers/companies and their specific projects will become important to differentiate. This is especially the case for savvy investors and hedge funds looking for unique value as the number of available investment options increases. A local developer embedded in their community will have more leverage to compel investment from stakeholders if their proposed projects involve improvements that will benefit its surrounding area. Creating the opportunity to court stakeholder investment provides the opportunity for the broad merits of a project to be considered alongside the potential returns any project may provide. The portals will have functionality for soliciting

TARGET USERS/DEVELOPERS

We will help small scale developers become medium scale developers, and to a lesser degree, medium scale developers become large scale developers. We don't expect to have significant traction among existing large scale developers.

DEVELOPER TYPE	TRANSACTION RANGE	KEY BENEFITS/ VALUE	USE CASE
small-scale	< 1 million USD	tools	Novice developers find our tools facilitating the legal, planning and management of assets useful for expanding their business, even if only with funds from their network.
medium-scale	1 million USD - 25 million USD	better financing, risk mitigation	Medium scale developers will have the ability and interest in applying for a Reg A exemption, which would give them access to up to $50 million USD in financing.
large-scale	> 25 million USD	tools and structure	Potentially we create a tool that makes asset management easier than the current tools used at large firms.

SMALL SCALE

More houses were flipped in 2017 than at any point previously, whose owners achieved 40 to 50% returns within the same year of their purchase, most of whom are investing less than a million in each property. Their success reflects the demand for improvement in the surrounding housing stock. Their success also demonstrates the ability for small-scale developers and investors to identify unique value in up and coming areas. Progeny hopes to help these entrepreneurs scale up their projects by accessing more financing, even if only from their immediate networks.

MEDIUM SCALE

Professional property developers: Progeny will serve mid-scale developers in urban areas who likely use primarily their own capital for investments, but are looking to diversify their investor base and projects portfolio. While most mid-scale developers are likely well-financed, they often have their funds wrapped up in one or two major projects at a time. With more equity in their capital stack, they will be able to diversify their investments across multiple projects in complementary markets. Further, managers will appreciate the tools provided by Progeny for managing distributed equity across multiple investors and projects, especially the tools for distributing dividends. We expect medium scale investors to use our site to apply for a securities exemption using Regulation A, framed as a kind of eREIT, allowing for funds of up to 50 million.

Non-profit / co-op housing developers: Given non-profit's more unique and innovative approaches to housing, they would be ideal candidates for using our portal. The unique and interesting profile of projects may appeal to investors looking to see a broader impact to their investment or for models that may make use of the equity tokens in innovative ways, such as providing equity to residents or creating work-share programs that distribute equity based on time worked. With a community-oriented position, they will be well-positioned to market their securities to local stakeholders and will more readily be approved for an application for a Regulation A exemption.

LARGE SCALE

Real estate is a traditionally conservative sector that attracts conservative investors. This is partly because of the scale of investment required and the stability of the cash flows of each asset held. We don't expect to be of significant value to existing large-scale developers, primarily because they are likely embedded in their current development approach and their needs for equity financing are likely limited.

EARNED INCOME STRATEGY

We at Progeny are staking our revenue strategy on the performance of the projects pitched by the real estate developers using the platform. There are two key revenue sources for Progeny. The first is structured as compensation for tokenizing the equity of a project, which will be a minimal 1 percent applied the total valuation of each project, provided from the developer's slice at project deployment. The second is based on the total value of funds raised, taken as a less than 10 percent stake on the value retained by the developer. The revenues received for these tokens will be Progeny's key income strategy. We will also have a small upfront cost of $100 for developers wishing to host a portal.

There will be no fees exacted on the investors, thus enabling little friction cost in the purchasing of tokens and the distribution of their dividends beyond the gas used for facilitating the blockchain transactions. This will also mean that projects will receive a dollar for dollar the membership funds raised, making the capital requirements set a hard line reflective of project costs alone. Taking no fees for investment transactions at the point of sale will also ease accounting/tax issues, and make refunds easier in the event a project fails.

SERVICES

The key output under development is a Platform as a Service (PaaS), whereby much of the work dealing with servers and the blockchain is abstracted. Our platform will allow developers to focus on marketing their securities and scaling their venture, offering the following services:

ESCROW SERVICES AND TRANCHE FUND DEPLOYMENT

Funds raised are held in escrow by the platform. The funds are dispersed in three intervals according to each project's progress (25%, 50%, 25%). This provides investor protections against bad-acting developers, as a project has to be substantially underway before each tranche of funds is released. The first deployment is secured on the deed transfer, which will eventually be enabled using a blockchain deed management tool, and the second deployment will occur when contractors are secured. The final allotment will be delivered at the project's end to cover unforeseen costs and final finishes. The developer, or one of their project managers, will present material evidence to its stakeholders of the progress made at each of the three progress milestones. With 80% approval, the funds will be released. The terms for that progress are outlined at project pitch.

FINANCIAL MODELING SERVICES

The platform will provide tools for developers to justify their cost projections and valuation. Each developer will submit cash flows through our tool for structuring the data. These cash flows will be used to output cost estimates, dividend expectations, and the expected valuation, based on a suggested discount rate derived primarily from the level of capital under management and effectively deployed. A sample financial model will be downloadable to each developer. It can be used as a template for constructing a proforma and structuring the outputs into quarters. We will have cost references available for users based on location data, including average labor rates and material costs.

Developers will have the proper incentives to calculate the associated costs and valuation accurately, because the lower the ratio of the cost estimate to the valuation, the more of the equity of the valuation they will receive. On the other hand, if they underestimate the costs they won't have sufficient funds to cover their development costs.

SERVICES

DIVIDEND DISTRIBUTIONS

Our platform will help developers manage dividend distributions from pooled project earnings. Each holder of a token will have Ethereum deposited into the wallet holding their token at quarterly intervals, reflective of the earnings made that quarter. 'Project Managers' will be administrative users tasked with converting fiat to Ethereum and transferring the revenues to the dividend wallet for distributions, which will happen at specific intervals. We will also help developers with managing payments in Ethereum from tenants directly, where possible, in order to decrease exchange costs. The more financial activity that is on-chain, the more accountable and transparent the flow of funding will be. If a substantial part of transactions in and for projects are made on-chain, we can aid developers in setting up smart contracts for managing leases, security deposits and accounting/taxes.

LEGAL SERVICES

Progeny will host an in-house legal team for all proposed projects to facilitate navigating the relevant legal frameworks for issuing securities. Exemptions will be filed following the protocol outlined in Regulation A, using the Tier 2 exemption, created under the JOBS Act. This $50 million exemption is expected to be the most flexible and appropriate for real estate developers mounting at most 2-3 projects a year. Our legal support will also assist clients in complying with local state regulations, where needed. See our Legal Memo for details on the relevant legal frameworks and what steps are involved in being compliant.

TAX SERVICES

To avoid double taxation on the receipt and deployment of funds outside of the same year, all funds will be held in escrow through the deploying smart contract until dispersed and distributed directly to Developers. Developers will pay their appropriate taxes for the receipt of investments. All taxes on income received from fees through the platform will be paid by the platform. Progeny will gather Tax ID information and send the relevant tax forms to developers and investors. Developers will receive tax forms for their investments as well as for income generated at the project/LLC level.

ANALYTICAL SERVICES

To increase investor confidence, our firm will provide a suite of tools for investors to examine and compare proposed opportunities. These tools will be integrated as spatial analytical dashboards into each portal and offer critical market research for each proposal. Developers in building their sites will be able to choose from an array of prospective spatial overlays. Our data sources will range from publicly available demographic data, real estate transaction data, and feature data derived from satellite or drone imagery. The analytical dashboard, the spatial overlays they contain, along with project specific data will be available as an Analytical Overlay API for porting to other platforms, under the condition they share data on the proposed project with all those using the API. This will build towards a relatively more comprehensive database of information on investments and ventures. This may mean that an investor finds that alternative investments have better merits, and for the sake of transparency we will provide investors information on these projects regardless of what platform they are hosted on.

MARKETING SERVICES

We will develop relationships with key external secondary markets/exchanges for facilitating the transferability of our 'asset-backed' coins and provide links to their platforms from ours. A feed to the currently listed valuation of these assets will be listed with each link to these external markets to help ensure valuations are competitive.

The main site of Progeny will provide comparable information to interested users about the developers and projects within the network. We will help profile new projects and build attention and momentum by profiling developers. We may potentially release a brief highlighting various investment opportunities at regular intervals.

SMART CONTRACT IMPLEMENTATION

We will provide support for our developer users who wish to implement smart contracts into their operations. Such services include:

- Sweat equity agreements that distribute ether or equity tokens based on the number of hours worked.
- Options for developers to build in shadow coins for off-chain transactions to facilitate accounting/tax reporting, ideally using third-party software.
- Tokenizing projects separately from the larger portal.
- Co-investing security deposits and facilitating distributions of security deposit subject to third-party evaluation of damage done to the property.
- Digital signatures and lease/agreement management.
- Modularizing lease agreements and having them be accessible by each tenant.
- Facilitate payment options for tenants in fiat and crypto. This might be especially useful if tenants are short-term, such as in the case of BnB sets ups.

LOOKING AHEAD: VISION

We intend to test out the platform with a few deals in our network using Genus Development Partners as the developer in building our first implementation, the "Genie Portal." After testing out the model, we will expand out to other developers after an assumed initial success. The Genie Portal will exist as the minimal viable product (MVP) for the broader vision of the project. The expectation is that only associated individuals will invest in the initial project. We will propose each initial project as a co-op under a private offering limited to a specific locality. The MVP will be used to solicit financing for further expansion, recruit and train management and technical talent, and pitch to prospective developers.

To enable developers to solicit for investment broadly, we will undertake the significant step of gaining a Reg A exemption from the SEC for each developer to offer the equities to a broader audience. As discussed in the legal section, each exemption will cover one developer and a proposed trajectory of development. The process of applying for the exemption for the Genie Portal will provide insights in how to streamline and automate this application process.

After we have evolved our platform based on lessons learned in our initial projects, we will put all efforts into building a Platform as a Service that provides portal templates to developers, tailored to their branding and strategy. This broader enabling infrastructure is what we have named Progeny. After we have tested out the platform with a few projects and developers, we will open up the platform for use among a small subset of capable developers. In this Beta launch, we will build out the proposed cross-portal analytical toolset and API. We will have to work closely with regulators to figure out the best approach to streamlining the approval process for developers seeking this exemption through our platform.