



KONKRETE

Solving the Global Housing
Affordability Crisis

**A Blockchain-enabled fractional
property platform helping to
solve the global housing
affordability crisis**



Abstract

Konkrete will be a Blockchain-enabled fractional property marketplace. It will enable anyone to crowdfund their home deposit or release equity from their existing property, without taking on additional debt via crowdfunding or bank loans.

Using a novel financial structure, we address the structural issues faced by existing fractional property platforms. Putting the fractional property fund on the Blockchain allows us to achieve a *wider distribution, liquidity, governance and transparency* by utilising a distributed, decentralised approach. This fractional-property token on the Blockchain may also serve as a global currency at a future date, due to its various uses.

This fractional-property solution will be classed as a security, and we will build the Blockchain infrastructure to support it. This includes the ability to handle KYC, AML, CTF, a distributed-unit registry and distributed-shareholder voting.

Once built, this infrastructure will have the capacity to support a number of other securities from various third-party issuers, as well those who are interested in leveraging the power of Blockchain. In effect, the underlying infrastructure will be everything that tokenising securities on the Blockchain requires. As part of this paper, we also describe this infrastructure and propose a utility token called Konkrete, which will power this new ecosystem.

This paper is divided into two parts:

- The first will describe the security or fractional property aspect.
- The second will talk about the supporting infrastructure we are building on the Blockchain, via the Konkrete utility token.

Nothing in this paper should be deemed as an offer for securities. Once the Blockchain infrastructure is ready, we will determine the best possible regulatory structures for the fractional-property security, and appropriate disclosure documents will be made and lodged with the relevant global regulatory bodies.

Sections such as token economics refer to the utility token Konkrete only.





PART 1 : THE SECURITY

Fractional property enabled by Blockchain

Problem

A house is one of the biggest purchases one can make, and also a relatively illiquid asset. In the era of ever-increasing property prices, younger generations are finding it harder and harder to save for a property deposit, and getting it wrong can be quite damaging to a person's financial health. Similarly, those who have built wealth through equity appreciation in their property cannot access it without either selling the property or borrowing against their equity, in turn increasing their debt burden.

Solution

We are proposing a fractional property marketplace, where those looking to save for a property deposit (or those with existing properties looking to release equity) are matched with others who want to invest in property with smaller amounts.

We pool small, individual investors together to own a fraction or a share of the property alongside the principal purchaser.

This gives investors the ability to invest in property with small amounts, and gives those who are looking to buy or release equity from their own properties the money they need to do so.

Problems with existing market places

Fractional property platforms already exist in Australia, as well as in other parts of the world. However, the solution they provide does not align with the reality of the market.





No ability for participants to propose their own properties for consideration

Most existing players limit the properties available on their platform to only those selected by the platform itself, effectively making it useless for those looking to raise a deposit or release equity for their own properties.

Property is owned in a trust rather than the proposer being on title

While a select few platforms have started allowing anyone to start a syndicate on the platform, the legal structures used require the property to be owned by a trust or some similar entity in which all investors can then buy shares or units. This causes several problems.

Prevents taking advantage of grants and other tax benefits

A number of benefits available as part of property ownership, such as first home owner grants, capital gains tax concessions and stamp duty waivers, are not available to these trust structures.

Lack of leverage

Fractional property is a securities offering and requires an issuer. This issuer becomes responsible for the offer and is also described as the Responsible Entity (RE). The RE is liable for the offer. Most financial institutions or licensees that qualify to play the role of the RE do not want to take on additional liability in the form of debt.

However, the reason property is so attractive is because of the ability to borrow against it. Banks will often lend up to 90-95% of the asset value.

Given the low interest rates, any uplift can create substantial leveraged returns for property owners.





Capital gain and rental yield is not attractive to the fractional investor

For example, if an investor buys a \$500,000 property with a \$50,000 deposit and the property goes up in value to \$600,000 in one year, then almost the entire gain of \$100,000 is a profit on the \$50,000 investment. This is almost a 200% return.

This is called leveraged return, and the ability to derive a leveraged return is what makes property interesting as an investment.

Without leverage, investors would require the entire \$500,000 up front. This makes a return of \$100,000 only a 20% return on investment – 10 times less than the leveraged return example above.

This increased capital requirement and lower return means that un-leveraged property investment is not so attractive, yet it is still how most existing fractional property platforms currently operate.

Limitation of leverage

Whilst a few of the existing platforms have started to offer leverage on their properties, the RE's have only been willing to offer 30-50% max in a bid to keep the property in a positive cash-flow position. Additionally, interest rates on these loans are on commercial loan terms, which are typically higher than residential home loans. It is highly unlikely current RE's will allow higher leverage than this as it would impose untenable liabilities on them – effectively limiting existing platforms to this amount of leverage.

Friction in secondary markets

Existing fractional-property platforms try to establish a secondary market to provide investors an exit. There are a couple of issues with the current approach.



1. Not enough participants to make the offer liquid

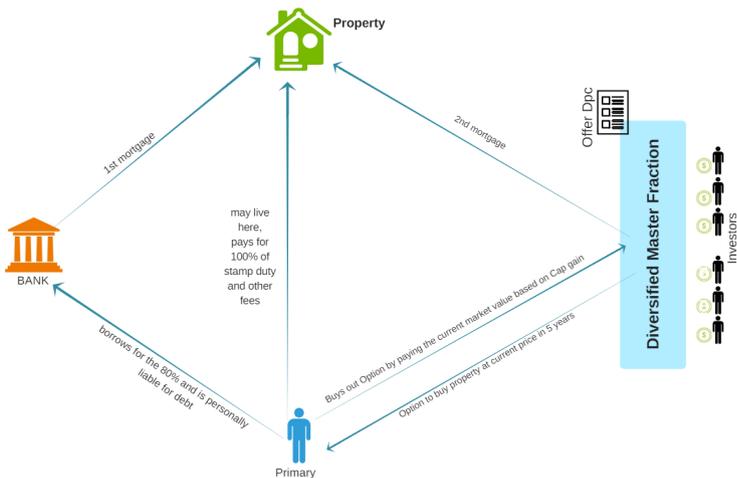
Given that units in each individual property are not replaceable with others', the liquidity is limited to participants interested in a specific property. Without a large enough pool of participants interested in each property, the secondary markets do not operate effectively.

2. Land stamp duty

Total change in ownership of the units, once a certain percentage is exceeded, can lead to land stamp-duty costs which can be 5% to 6% of the total value of the property. This can significantly impact transaction costs hampering liquidity due to reduced returns.

Our secret sauce

We propose a structure that addresses all the challenges mentioned above.





Instead of buying property in a trust, we make an option agreement with the Primary (the person who owns or wants to own the property) that allows the SPV (Special Purpose Vehicle) to buy the property at its current price, at a future date. The value of this option thus becomes linked to the capital gain experienced by the property.

If a \$500,000 property is now worth \$600,000 then there is a \$100,000 capital gain. Given the option allows us to buy the property for \$500,000, its value is \$100,000, which reflects the upside in value it carries. If the primary releases equity worth \$25,000 at the start, then the share of the SPV in the property is worth 5% of the property value.

When the property price becomes \$600,000, the SPV is entitled to 5% of the proceeds which means its \$25,000 investment is now worth \$30,000.

On the other hand, the Primary also has \$25,000 in equity left in their name and will get the bulk of the upside.

So out of the \$100,000 capital gain, the Primary is getting \$70,000 and the investors are getting \$30,000.

While it is true that the Primary is taking on the liability of the debt, investors are in a way still exposed as they have to take on the risk of the Primary defaulting against their debt.

We want to give the investors a share of the leveraged return, and instead of coming up with complex formulas to determine the share of the leveraged return, we want it to be a market driven, decentralised approach.

The Bidding Process

In the above example, the Primary can say that they will offer investors the same leveraged return which they are getting.

The \$100,000 will be split equally, meaning that investors and the Primary will both get \$50,000 return each.





In other scenarios the Primary might be more desperate for money, his leverage may be higher or the market might be less favourable. In that event, the Primary can offer a higher fraction of the leveraged return. In which case, investors will get a stronger return than the Primary.

If the property is in a blue-chip area, the Primary may not be as desperate for money. In that case he may offer a much lower rate of return.

Depending on the attractiveness of the offer, the fund unit holders will vote and take up each offer on a case by case basis. The votes will be conducted on the Blockchain to achieve transparency and immutability.

The ability to give investors a share of the leveraged return without taking on debt themselves is the key differentiator making this fractional-property model more attractive to investors.

It's important to note that the Primary is still servicing the debt. In order to reward him, we waive any rents due from him in lieu of the share he owes to the investors. This also keeps admin costs low, with overall rental yields already being quite low to start with.

This model solves the biggest problem with fractional property - investor interest

While there will always be an unlimited demand from people looking to raise money for their deposits, or those looking to raise equity, this solution ensures investors are rewarded without saddling them with additional debt.

It also ensures that the Primary, or principal purchaser, is on title and gets all the relevant benefits. Given that this is not direct property ownership, we ensure that there are no stamp duties on the secondary market.

We also propose that instead of exposing investors to a specific property, investors vote on which property the fund options, while the investors themselves get a share of the fund which will be an aggregate of all the various options it owns.





This way each unit in the fund is fungible against one another and a secondary market will have more participants, meaning that islanding of investors wont occur. Such a unit can then be bundled in an asset-backed token and released for wider distribution worldwide.

There will be a separate asset-backed token or master fraction token representing units or shares in the diversified property fund. The value of this token would be linked to the capital gain experienced by the underlying portfolio of properties.



The voting, registry, secondary market and all other activities of the fund, including distributions processing, can be handled on the Blockchain.

The master fraction token is a security and will be handled as such.





Challenges with other Blockchain-enabled real estate tokenisation platforms

Recently, several Blockchain-based ventures have attempted to tokenise real estate. The general premise being that, as property is a lumpy asset, putting it on the Blockchain can democratise its ownership.

While this may be a laudable objective, these attempts seem to focus primarily on the technology of tokenisation while completely overlooking the aspect of compliance aspect.

Tokenisation – the process of converting ownership of an asset such as property into small units that can be attached to a crypto token – is basically what has been known in the real estate funds management industry as fractional property.

There have been various legal mechanisms to achieve fractionalisation, which include buying properties in Real Estate Investment Trusts (REITs) and other similar entities. Units in these entities are analogous to tokens.

It can be further argued that tokenisation is simply a means to maintain the unit registry in a distributed manner.

Tokenisation does not eliminate the need for compliance, correct legal structures, nor all the associated requirements around disclosures and audits.

When someone buys a physical asset like a car or direct property, they can touch and feel it to inspect it for themselves. When buying a share in a property development project or a fraction of a property, they are buying a stake in something else. This share, fraction or stake is not a stand-alone entity nor a physical asset, which means that it is easy to falsely attribute qualities it does not have and sell it to unwitting buyers. Issuers of financial securities can –and have in historical cases of fraud – resort to hard selling of securities, and engage in various other activities that have caused investors harm.





In order to protect small investors from such misrepresentation, various regulatory bodies across the world have come up with rules of how financial securities may be issued and sold.

However, most other real estate tokenisation players seem to assume that by using Blockchain to tokenise real estate, compliance no longer is required. This is either out of ignorance or intentional sidestepping of regulations.

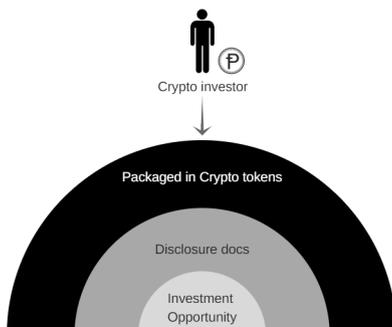
We believe regulation is required and that trying to avoid it will not only attract adverse attention from the regulators, but is also counter productive to the achievement of the long-term goals of tokenising real estate.

Fractionalisation is essentially securitisation - when you buy a share or unit in the legal entity setup for the property, you are buying a security. Instead of buying a physical asset in the form of property, you are now buying a financial asset representing part-ownership in the physical asset.

Whether your share is represented on paper, electronically or with crypto tokens, form does not change the need for the correct underlying structures.

The voting, registry, secondary market and all other activities of the fund, including distributions processing, can be handled on the Blockchain.

The master fraction token is a security and will be handled as such.





PART 2 : THE UTILITY

The Konkrete utility token to power the underlying Blockchain infrastructure

We will have a utility token called Konkrete (KKT) that will be used to power various activities the platform facilitates, such as property selection via voting, exchange of units tracking, listing fees for properties, etc.

Why does this matter? Well, consider a typical investment process which looks like this:



- ❖ The user verification process involves approaching a trusted third party to verify the ID documents.
- ❖ The application process consists of the user filling in the paper form along with the verified ID documents.
- ❖ As part of the application acceptance, the issuer will usually conduct **AML CTF checks** on the money received.
- ❖ Once these checks are performed and money has been received, the issuer will issue shares or units to the investors and update their registry.

The investment has now started, and through the life cycle of the investment, the issuer will provide updates to the investor on the progress. This can include ad-hoc interactions on specific queries, periodic reporting and self-serve mechanisms giving investors access to the information they need.





All of the above processes are typically manual, administration intensive, time consuming and often prone to error.

On the other end of the investment cycle is liquidation. This can be in the form of a buy back by the issuer (on maturity), or sale of the units to a third party. A buy-back process involves exchange of units for money by the issuer on the agreed upon terms. Selling to a third party requires the presence of a willing buyer who buys the units from the previous owner at an agreed-upon price. This is typically done on a secondary market like the ASX for listed securities where buyers and sellers are matched.

However, being listed requires onerous disclosures and compliance, plus it can become very expensive. For this reason alone a number of issuers choose not to list on a secondary market.

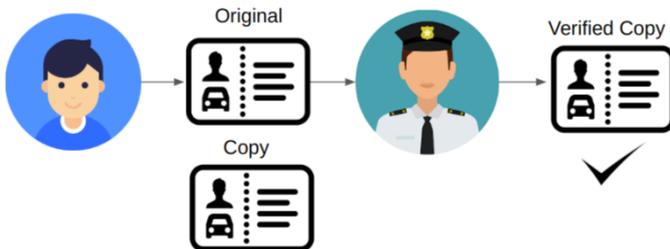
However, this also means that these investments are relatively illiquid and can only be exited through a buy back by the issuer. Liquidity is seen as a very desirable trait by investors and investments that have this option will often attract capital at a lower cost

We propose a Blockchain-enabled solution that addresses these key problems in the investment lifecycle.

We will be implementing a decentralised system to verify ID documents.

Such a system will have three participants:

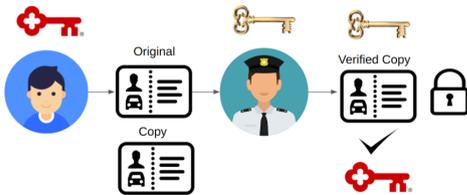
Investor, Issuer and Verifier





Similar to an offline system, the investor will approach the nearest issuer and present their ID documents. The verifier will verify these documents and create a copy that will be cryptographically sealed by the verifier and the investor.

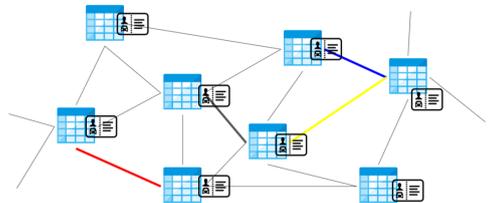
The investor can then provide this encrypted file to the issuer as part of the application process. The issuer can unlock and access the ID docs with the verifier's and investor's consent (which will be provided to the issuer).



No tampering would be possible on the part of the investors, due to the encryption by the verifier. The verifier would get paid a fee each time these ID documents were accessed as part of any transaction. The investor maintains control of who can access the files by giving the private key to only those who need it.

Decentralised Ledger

We will also put the unit registry on the Blockchain turning it into a decentralised ledger. All members of the network will have a copy of the registry as well as a transaction history. Any exchange of units between members of the network will be automatically updated across the entire network.



This means the registry will always remain updated, without the need to do onerous administrative work. Such an exchange will only be possible between members who have completed the KYC using the decentralised verification process, effectively turning this network into a decentralised peer-to-peer secondary market. All exchanges will happen only between verified investors, and the registry will be auto-updated. This network can effectively function as a global secondary market for securities.





Each issuer will address it independently before listing on the network. There is a potential for creating a marketplace where capital raisers can connect with lawyers or other responsible entities who can create and structure the issue as part of this.

The two types of tokens

The network is proposed to run on the Ethereum Blockchain and comprise of two main token types. One will be a utility token which will be used to pay transaction fees when any of the security tokens change hands, as well as to pay listing fees for any issuer who wants to list their security tokens on this network. It will also be used to pay the fees of verifiers who verify ID documents, and to record votes for securities which rely on votes of share/unit holders for their actions.

Note that the utility token holders themselves are not entitled to voting rights by default. But the utility tokens can be used by the security token holders to record votes on various resolutions related to the activities of the issuer's offer if applicable. In effect, this makes the utility tokens a mechanism to record votes in a distributed and transparent manner.

The second token is the security token and will be based on the R token standard. Those who hold the security token will need to have first completed their KYC. AML & CTF will be done by having a few always ON jobs running on top of the network. That will monitor any suspicious transactions and flag them for manual review.

The utility token will be called **Konkrete (KKT)**.

There will be numerous asset-backed tokens that can operate on this network. The first will be a diversified fractional-property fund which will help in tackling the housing affordability crisis. This fund will be used to crowdfund home deposits and release equity from homes.





Konkrete will be used by unit holders of this fund to determine which properties to co-invest in, by recording a vote each time a property is proposed to be acquired by the fund.

Token economics objectives

We want to design the token economics to meet the following objectives for the Konkrete utility token.

- ❖ Incentivising early adopters
- ❖ Rewarding long term participants
- ❖ Enforcing constraints on the founding team to avoid founder flight through vesting and restrictions on sales of founder and adviser tokens
- ❖ Predictable token supply
- ❖ Avoiding steep fluctuations in price
- ❖ Ensuring scarcity and value for the token without encouraging hoarding
- ❖ Promoting the use of the token for the various activities it is designed to facilitate

Burning of tokens

The tokens will be used to pay transaction fees of all kinds, including for exchange of securities, AML KYC CTF, access, listing, etc.

We want to ensure that the tokens are relatively scarce so that they command some value. We will aim to achieve that by putting a downward pressure on the total number of tokens in circulation by burning a percentage of the fees paid for each transaction.





In the early days, 100% of the tokens being paid for the transaction will be burned. As tokens are taken out of circulation the remaining tokens will likely become dearer as they are required for paying transaction fees.

However, we cannot continue to burn the tokens forever, as that would lead to a state where all tokens are eventually burned up. Or, the tokens become so expensive that they are hoarded and the entire network becomes jammed, leading to no transactions due to the exorbitant token price.

Hence, the % burn rate will steadily decline as an inverse function of tokens burnt to date, steadily approaching 0 so that the initial rate at which tokens are taken out of circulation remains high with, eventually, no tokens being burnt. A maximum of 20 million tokens will be burnt.

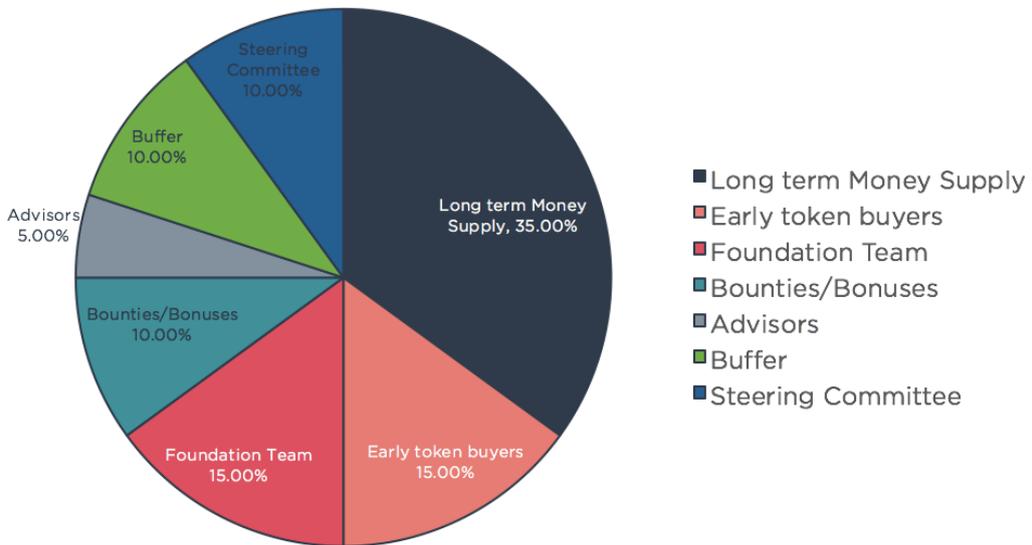
$$\% \text{ of transaction fees burnt in each transaction} = \frac{(20 \times 10^6 - \text{Tokens burnt till date}) \times 100}{(20 \times 10^6)}$$

We will be conducting a fully compliant securities sale, and tokens will be given to participating investors as a bonus as well as part of the rewards program for performing various activities on the platform.

Token Allocation

- 15% early token buyers
- 15% foundation team
- 10% steering committee
- 10% buffer
- 5% advisors
- 10% bounties/bonuses
- 35% long term supply





The interests of the foundation team and advisers will be vested over a 4-year selling schedule to ensure that their outcomes are linked not only to the performance of the token sale and its short-term price, but also to the long term success of the project.

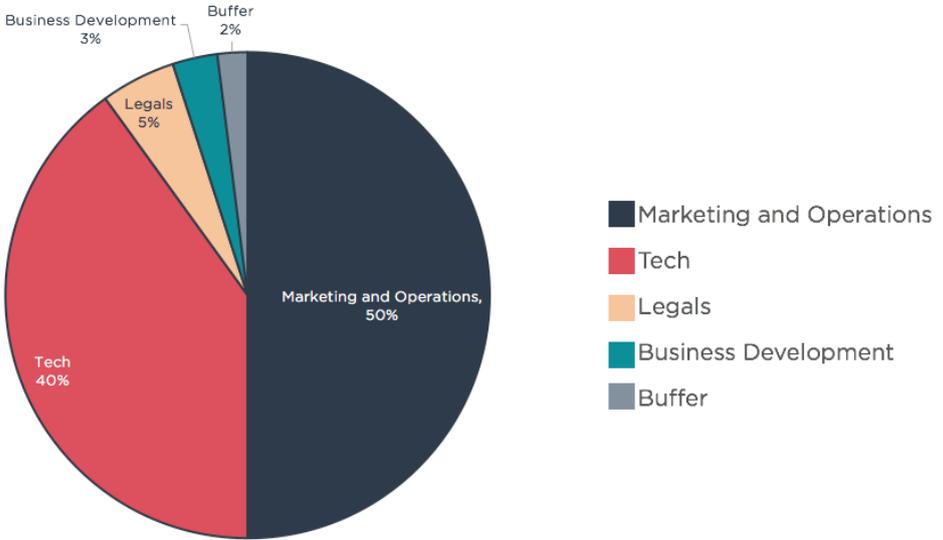
Long term money supply

35% of all tokens will be issued over a period of time based on a set formula. We want to avoid steep price increases to preserve the utility aspect of the token. We want the token to power the various activities on the platform, rather than be hoarded to achieve the highest possible price over time.

Any time the price of the token exceeds an annualised growth rate of 20%, new tokens will be issued so that the increased token supply will place a downward price pressure.

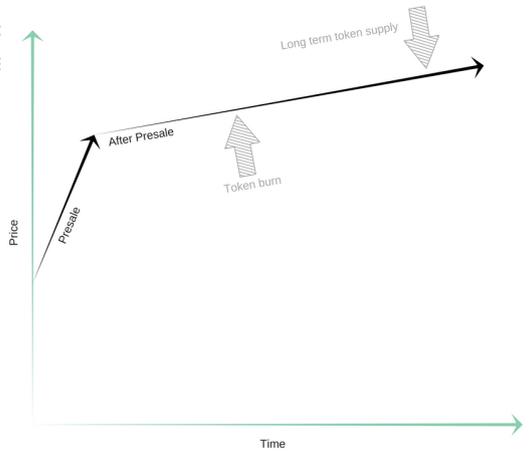
The combination of the burn and long-term predictable money supply is likely to ensure prices do not fluctuate wildly, while still rewarding early backers and long-term participants.





Ideal token price projection

The above image is not to scale, and only represents the ideal token price behaviour. It demonstrates how the counteracting forces of token burn rate and long-term token supply should influence token price.



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