# METHODS AND SYSTEMS FOR TRANSMITTING INFORMATION

This application claims the benefit of US Non-Provisional Application No. 17/121,510, filed December 14, 2020 and US Provisional Application No. 62/948,136, filed December 13, 2019. The entireties of these applications are incorporated by reference in their entirety.

## SUMMARY

According to a first aspect of the present disclosure, there is provided a method, comprising: creating, using a platform, a fractionalized risk pool and a fractionalized Home Pricing Index (HPI) pool for a real estate property, the fractionalized risk pool and the fractionalized HPI pool comprising asset tokens, HPI tokens, and an occupancy token, the asset tokens, the HPI tokens, and the occupancy token issued using blockchain; transmitting, by a first computing device of a first computing system, a first network function request to a decentralized network, the first network function request comprising a sale of an asset token to an asset token holder, wherein the asset token is associated with a first blockchain based smart contract; and transmitting, by a second computing device of a second computing system, a second network function request to the decentralized network, the second network function request comprising a sale of an HPI token to an HPI token holder, wherein the HPI token is associated with a second blockchain based smart contract, wherein the second blockchain based smart contract issues the HPI tokens, wherein the issued HPI tokens are distributed to the asset token holder and the HPI token holder using blockchain; wherein the occupancy token associated with a third blockchain based smart contract entitles an occupant of the real estate property to financial and occupancy rights in the real estate property after the third blockchain based smart contract is executed; and wherein the asset token, the HPI token, and the occupancy token are configured to be resold and/or retraded.

According to a second aspect of the present disclosure, there is provided a system, including: a processor configured for: creating, using a platform, a fractionalized risk pool and a fractionalized Home Pricing Index (HPI) pool for a real estate property, the fractionalized risk pool and the fractionalized HPI pool comprising asset tokens, HPI tokens, and an occupancy token, the asset tokens, the HPI tokens, and the occupancy token issued using blockchain; transmitting, by a first computing device of a first computing system, a first network function request to a decentralized network, the first network function request comprising a sale of an asset token to an asset token holder, wherein

the asset token is associated with  a first blockchain based smart contract; and transmitting, by a second computing device of a second computing system, a second network function request to the decentralized network, the second network function request comprising a sale of an HPI token to an HPI token holder, wherein the HPI token  is associated with a second blockchain based smart contract, wherein the second blockchain based smart contract issues the HPI tokens, wherein the issued HPI tokens are distributed to the asset token holder and the HPI token holder using blockchain; wherein the occupancy token associated with a third blockchain based smart contract entitles an occupant of the real estate property to financial and occupancy rights in the real estate property after the third blockchain based smart contract is executed; and wherein the asset token, the HPI token, and the occupancy token are configured to be resold and/or retraded.

## BRIEF DESCRIPTION OF THE FIGURES

FIGS. 1-4 illustrate various structures that may be used in investing, according to aspects of the disclosure.

FIG. 5 illustrates an example computer system, according to aspects of the disclosure.

FIG. 6 illustrates an example method for using blockchain, according to aspects of the disclosure.

FIG. 7 illustrates an example of an MRE calculation flow, according to aspects of the disclosure.

FIG. 8 illustrates an example of using blockchain for investing, according to aspects of the disclosure.

FIG. 9 illustrates various equations that can be used for investing, according to aspects of the disclosure.

FIGS. 10-12 illustrate various parties, transactions and elements that can be used to board a home onto the platform.

FIG. 13 is an example screen shot, according to aspects of the disclosure.

FIGS. 14-21A illustrate other example aspects of the disclosure.

CLAIMS

1. A method, comprising:

creating, using a platform, a fractionalized risk pool and a fractionalized Home Pricing Index (HPI) pool for a real estate property, the fractionalized risk pool and the fractionalized HPI pool comprising asset tokens, HPI tokens, and an occupancy token, the asset tokens, the HPI tokens, and the occupancy token issued using blockchain;

transmitting, by a first computing device of a first computing system, a first network function request to a decentralized network, the first network function request comprising a sale of an asset token to an asset token holder, wherein the asset token is associated with a first blockchain based smart contract; and

transmitting, by a second computing device of a second computing system, a second network function request to the decentralized network, the second network function request comprising a sale of an HPI token to an HPI token holder, wherein the HPI token is associated with a second blockchain based smart contract, wherein the second blockchain based smart contract issues the HPI tokens, wherein the issued HPI tokens are distributed to the asset token holder and the HPI token holder using blockchain;

wherein the occupancy token associated with a third blockchain based smart contract entitles an occupant of the real estate property to financial and occupancy rights in the real estate property after the third blockchain based smart contract is executed; and

wherein the asset token, the HPI token, and the occupancy token are configured to be resold and/or retraded.

2. The method of Claim 1, wherein multiple real estate properties are combined together in the fractionalized HPI pool.

3. The method of Claim 1, wherein asset tokens entitle asset token holders to financial rights in the real estate property and HPI tokens entitle HPI token holders to financial rights in the fractionalized HPI pool.

4. The method of Claim 1, wherein the HPI token comprises appreciation rights to the fractionalized HPI pool.

5. The method of Claim 1, wherein HPI tokens are unlocked and transferred to an asset token holder after a pre-set condition is met.

6. The method of Claim 1, wherein a minimum retained equity (MRE) engine determines a minimum equity threshold for an occupant's risk profile and/or determines a proportion of an amount of the real estate property securitized by the blockchain.

7. The method of Claim 6, wherein rent is not adjusted to accommodate an occupant's risk profile.

8. The method of Claim 1, wherein the fractionalized HPI pool comprises multiple occupants and occupant risk profiles.

9. The method of Claim 1, wherein an MRE engine calculates MRE such that investment capital is segmented from occupant capital.

10. The method of Claim 9, wherein the MRE engine enables the occupant to purchase additional equity.

11. The method of Claim 1, wherein the third blockchain based smart contract enables the occupant to purchase equity from an investor over time by paying rent and/or enhanced rent until a minimum equity threshold is met.

12. The method of Claim 11, wherein the third blockchain based smart contract enables the monthly payment to drop to a pre-determined amount after a predetermined minimum equity threshold is met.

13. The method of Claim 12, wherein as long as an MRE is continually met by the investor and/or the occupant, an investment looks the same to holders of the pre-determined amount as any other investment on the platform.

14. The method of Claim 1, wherein an MRE engine provides a framework to enable investors to design a customized equity assistance and/or equity purchase program within predetermined guidelines.

15. The method of Claim 1, wherein the first blockchain based smart contract enables a proportion of ownership between various occupants and investors to be based on a proportion of tokens and Tenants in Common (TIC) interests that are owned by an entity and/or individual.

16. The method of Claim 1, wherein when the occupant funds a predetermined percentage of a purchase price, and an investor funds a remaining percentage of the purchase

price, the occupant will need to pay rent to the investor based upon the remaining percentage of the purchase price.

17. The method of Claim 1, wherein the third blockchain based smart contract enables the occupant to sell any occupant owned TIC interests and/or the occupancy token.

18. The method of Claim 1, wherein an MRE engine determines a minimum equity threshold and enables the occupant in a high risk class to be required to hold more equity instead of being required to make higher payments.

19. The method of Claim 18, wherein the minimum equity threshold is shared with an investor.

20. The method of Claim 1, wherein MRE is determined based on risk of the occupant and global risk pool performance.

21. The method of Claim 1, wherein the third blockchain based smart contract is created by a Special Purpose Entity (SPE), and/or an SPE entity issues the occupancy token to the occupant.

22. The method of Claim 1, wherein the second blockchain based smart contract contains an agreement to assign appreciation to the fractionalized HPI pool, and in exchange issues HPI tokens.

23. The method of Claim 1, wherein the HPI tokens represent ownership in appreciation rights and are distributed to investors with the asset tokens and/or to a platform owner.

24. The method of Claim 1, wherein the fractionalized HPI pool is a pool of equity comprising aggregate appreciation of all properties on the platform.

25. The method of Claim 1, wherein MRE changes based on the real estate property and/or occupant profiles at a given moment in time and/or is used to manage default risks.

26. The method of Claim 1, wherein the fractionalized risk pool comprises a pool of assets tokens which is held by the platform to mitigate occupant default risk.

27. The method of Claim 1, wherein the occupancy token comprises a non-fungible token issued to the occupant by an SPE upon execution by an occupant and the SPE.

28. The method of Claim 1, wherein a TIC agreement comprises terms related to occupant obligations comprising maintenance of the real estate property.

29. The method of Claim 1, wherein the occupancy token comprises:

rights to purchase and/or sell fractional equity in the real estate property;

rights for the occupant to purchase additional fractions of the real estate property at any time at a current valuation if an amount or fractional amount is less than a pre-determined amount and/or at a current enhanced valuation;

rights for the occupant to sell excess equity in the real estate property at any time at the current valuation if the amount or fractional amount is less than a pre-determined amount and/or at a current enhanced valuation;

rights for the occupant to sell the real estate property to a buyer who uses the platform;

occupancy rights pursuant to a jurisdictionally specific tenants in common agreement;

rights for the occupant to make capital improvements to the real estate property and to benefit from any capital improvements; or

rights to sell a portion of TIC holdings; or

any combination thereof.

30. The method of Claim 1, wherein the asset token comprises rights to receive rent payments pursuant to proportional ownership of asset tokens.

31. The method of Claim 1, wherein the HPI token is backed by an equity pool generated by appreciation of every real estate property on the platform and/or wherein ownership of the equity pool is transferred to an HPI equity pool by an asset token holder in exchange for HPI tokens.

32. The method of Claim 1, wherein the second blockchain based smart contract is created with an SPE at a time the real estate property is boarded, and the second blockchain based smart contract assigns a value of a real estate property appreciation to the HPI fractionalized pool, which is collected upon sale and exit of the real estate property from the platform.

33. The method of Claim 1, further comprising:

establishing HPI intervals when a blockchain based smart contract updates valuation of each real estate property on the platform for a purpose of calculating a change in a value of each real estate property during that period.

34. The method of Claim 33, further comprising:

calculating, at an end of each HPI interval, Home Price Appreciation (HPA) or Home Price Depreciation (HPD), wherein the calculation comprises a difference between a valuation conducted at an end of a previous HPI interval and a valuation conducted at an end of a current HPI interval.

35. The method of Claim 1, wherein an MRE engine determines MRE using an applicant's credit score, a back end (Debt to Income) DTI ratio, a risk pool composition, or property specific data, or any combination thereof.

36. The method of Claim 1, wherein an MRE engine uses MRE to calculate a minimum down payment required by an applicant to close a transaction.

37. The method of Claim 1, wherein the asset token comprises:

rights to a pro-rata share of rent plus 100% of enhanced rent paid by the occupant;

rights to a portion of enhanced rent payment used to purchase additional TIC interests in the real estate property from an investor's holdings via an SPE; or

upon purchase of TIC interest equal to an entirety of the investor holdings via the SPE, rights to enhanced rent payment obligations of the occupant is terminated; or

any combination thereof.

38. The method of Claim 1, wherein the occupant acquires a TIC interest in the real estate property and/or becomes a holder of the occupancy token.

39. The method of Claim 1, wherein an SPE executes a TIC agreement and/or a triple net lease with the occupant, and issues the occupancy token as contract consideration.

40. The method of Claim 1, wherein an SPE enters into a contract granting rights to a proportional share of all future appreciation to the fractionalized HPI pool, and in consideration HPI tokens are issued by the HPI pool.

41. The method of Claim 1, wherein the fractionalized HPI pool is a bankruptcy (BK) remote SPE which receives all future HPI gains from an SPE in exchange for issuing HPI tokens to the SPE.

42. The method of Claim 1, wherein an occupant pays fiat currency to a seller pursuant to a real estate purchase transaction and in return receives a deed granting occupancy and tenants in common interest.

43. The method of Claim 1, wherein the first blockchain based smart contract enables the occupant to enter into an agreement with an investor and/or an SPE to:

purchase an amount of an SPE’s interest equal to an investor’s proportional rights in the SPE; and/or

provide additional payments such that a portion of any additional payment is used to purchase additional TIC interests and a remainder is paid to the investor as a supplemental payment to a proportional amount the investor is entitled to based on ownership of asset tokens.

44. The method of Claim 1, wherein an investor is a capital provider to an SPE and/or a benefactor of the occupant who purchases asset tokens from the SPE.

45. The method of Claim 1, wherein an investor:

guarantees a performance of the occupant and/or pledges the asset tokens it owns to an SPE;

in exchange for a supplemental rent payment each month, an investor sells to the SPE a portion of their asset tokens equal to an amount of TIC interest purchased each month by the occupant; or

is entitled to HPI tokens under pre-determined circumstances; or

any combination thereof.

46. The method of Claim 1, wherein each investor is entitled to a pro-rata amount of rent paid by the occupant based on a proportion of asset tokens an investor owns.

47. The method of Claim 1, wherein a rent changes based on a change in a proportion of TIC interests owned by the occupant.

48. The method of Claim 1, wherein appreciation is stripped from the asset token such that any value derived from appreciation of the real estate property is contractually transferred to the HPI asset pool.

49. The method of Claim 1, wherein the HPI asset pool aggregates an appreciation of all of the properties into one location enabling issuance of HPI tokens.

50. The method of Claim 1, further comprising:

determining an updated valuation of the real estate property, wherein an HPA or an HPD is calculated for a current period, and wherein a number of HPI tokens to be unlocked for each asset token is calculated.

51. A system, comprising:

a processor configured for:

creating, using a platform, a fractionalized risk pool and a fractionalized Home Pricing Index (HPI) pool for a real estate property, the fractionalized risk pool and the fractionalized HPI pool comprising asset tokens, HPI tokens, and an occupancy token, the asset tokens, the HPI tokens, and the occupancy token issued using blockchain;

transmitting, by a first computing device of a first computing system, a first network function request to a decentralized network, the first network function request comprising a sale of an asset token to an asset token holder, wherein the asset token is associated with a first blockchain based smart contract; and

transmitting, by a second computing device of a second computing system, a second network function request to the decentralized network, the second network function request comprising a sale of an HPI token to an HPI token holder, wherein the HPI token is

associated with a second blockchain based smart contract, wherein the second blockchain based smart contract issues the HPI tokens, wherein the issued HPI tokens are distributed to the asset token holder and the HPI token holder using blockchain;

wherein the occupancy token associated with a third blockchain based smart contract entitles an occupant of the real estate property to financial and occupancy rights in the real estate property after the third blockchain based smart contract is executed; and

wherein the asset token, the HPI token, and the occupancy token are configured to be resold and/or retraded.

52. The system of Claim 51, wherein multiple real estate properties are combined together in the fractionalized HPI pool.

53. The system of Claim 51, wherein asset tokens entitle asset token holders to financial rights in the real estate property and HPI tokens entitle HPI token holders to financial rights in the fractionalized HPI pool.

54. The system of Claim 51, wherein the HPI token comprises appreciation rights to a fractionalized HPI pool.

55. The system of Claim 51, wherein HPI tokens are unlocked and transferred to an asset token holder after a pre-set condition is met.

56. The system of Claim 51, wherein a minimum retained equity (MRE) engine: determines a minimum equity threshold for an occupant’s risk profile and/or determines a proportion of an amount of the real estate property securitized by the blockchain.

57. The system of Claim 56, wherein rent is not adjusted to accommodate an occupant's risk profile.

58. The system of Claim 51, wherein the fractionalized HPI pool comprises multiple occupants and occupant risk profiles.

59. The system of Claim 51, wherein an MRE engine calculates MRE such that investment capital is segmented from occupant capital.

60. The system of Claim 59, wherein the MRE engine enables the occupant to purchase additional equity.

61. The system of Claim 51, wherein the third blockchain based smart contract enables the occupant to purchase equity from an investor over time by paying rent and/or enhanced rent until a minimum equity threshold is met.

62. The system of Claim 51, wherein the third blockchain based smart contract enables a monthly payment to drop to a pre-determined amount after a predetermined minimum equity threshold is met.

63. The system of Claim 62, wherein as long as an MRE is continually met by the investor and/or the occupant, an investment looks the same to holders of the pre-determined amount as any other investment on the platform.

64. The system of Claim 51, wherein an MRE engine provides a framework to enable investors to design a customized equity assistance and/or equity purchase program within predetermined guidelines.

65. The system of Claim 51, wherein the first blockchain based smart contract enables a proportion of ownership between various occupants and investors to be based on a proportion of tokens and (Tenants in Common) TIC interests that are owned by an entity and/or individual.

66. The system of Claim 51, wherein when the occupant funds a predetermined percentage of a purchase price, and an investor funds a remaining percentage of the purchase price, the occupant will need to pay rent to the investor based upon the remaining percentage of the purchase price.

67. The system of Claim 51, wherein the third blockchain based smart contract enables the occupant to sell any occupant owned TIC interests and/or the occupancy token.

68. The system of Claim 51, wherein an MRE engine determines a minimum equity threshold and enables the occupant in a high risk class to be required to hold more equity instead of being required to make higher payments.

69. The system of Claim 68, wherein the minimum equity threshold is shared with an investor.

70. The system of Claim 51, wherein MRE is determined based on risk of the occupant and global risk pool performance.

71. The system of Claim 51, wherein the third blockchain based smart contract is created by a Special Purpose Entity (SPE), and/or an SPE entity issues the occupancy token to the occupant.

72. The system of Claim 51, wherein the second blockchain based smart contract contains an agreement to assign appreciation to the fractionalized HPI pool, and in exchange issues HPI tokens.

73. The system of Claim 51, wherein the HPI tokens represent ownership in appreciation rights and are distributed to investors with the asset tokens and/or to a platform owner.

74. The system of Claim 51, wherein the fractionalized HPI pool is a pool of equity comprising aggregate appreciation of all properties on the platform.

75. The system of Claim 51, wherein an MRE changes based on the real estate property and/or occupant profiles at a given moment in time and/or is used to manage default risks.

76. The system of Claim 51, wherein the fractionalized risk pool comprises a pool of assets tokens which is held by the platform to mitigate occupant default risk.

77. The system of Claim 51, wherein the occupancy token comprises a non-fungible token issued to the occupant by an SPE upon execution by an occupant and the SPE.

78. The system of Claim 51, wherein a TIC agreement comprises terms related to occupant obligations comprising maintenance of the real estate property.

79. The system of Claim 51, wherein the occupancy token comprises:

rights to purchase and/or sell fractional equity in the real estate property;

rights for the occupant to purchase additional fractions of the real estate property at any time at a current valuation if an amount or fractional amount is less than a pre-determined amount and/or at a current enhanced valuation;

rights for the occupant to sell excess equity in the real estate property at any time at the current valuation if the amount or fractional amount is less than a pre-determined amount and/or at a current enhanced valuation;

rights for the occupant to sell the real estate property to a buyer who uses the platform;

occupancy rights pursuant to a jurisdictionally specific tenants in common agreement;

rights for the occupant to make capital improvements to the real estate property and to benefit from any capital improvements; or

rights to sell a portion of TIC holdings; or

any combination thereof.

80. The system of Claim 51, wherein the asset token comprises rights to receive rent payments pursuant to proportional ownership of asset tokens.

81. The system of Claim 51, wherein the HPI token is backed by an equity pool generated by appreciation of every real estate property on the platform and/or wherein ownership of the equity pool is transferred to an HPI equity pool by an asset token holder in exchange for HPI tokens.

82. The system of Claim 51, wherein the second blockchain based smart contract is created with an SPE at a time the real estate property is boarded, and the second blockchain based smart contract assigns a value of a real estate property appreciation to the HPI fractionalized pool, which is collected upon sale and exit of the real estate property from the platform.

83. The system of Claim 51, wherein the processor is further configured for:

establishing HPI intervals when a blockchain based smart contract updates valuation of each real estate property on the platform for a purpose of calculating a change in a value of each real estate property during that period.

84. The system of Claim 83, wherein the processor is further configured for:

calculating, at an end of each HPI interval, Home Price Appreciation (HPA) or Home Price Depreciation (HPD), wherein the calculation comprises a difference between a valuation conducted at an end of a previous HPI interval and a valuation conducted at an end of a current HPI interval.

85. The system of Claim 51, wherein an MRE engine determines MRE using an applicant's credit score, a back end (Debt to Income) DTI ratio, a risk pool composition, or property specific data, or any combination thereof.

86. The system of Claim 51, wherein an MRE engine uses MRE to calculate a minimum down payment required by an applicant to close a transaction.

87. The system of Claim 51, wherein the asset token comprises:

rights to a pro-rata share of rent plus 100% of enhanced rent paid by the occupant;

rights to a portion of enhanced rent payment used to purchase additional TIC interests in the real estate property from an investor's holdings via an SPE; or

upon purchase of TIC interest equal to an entirety of an investor holdings via the SPE, rights to enhanced rent payment obligations of the occupant is terminated; or

any combination thereof.

88. The system of Claim 51, wherein the occupant acquires a TIC interest in the real estate property and/or becomes a holder of the occupancy token.

89. The system of Claim 51, wherein an SPE executes a TIC agreement and/or a triple net lease with the occupant, and issues the occupancy token as contract consideration.

90. The system of Claim 51, wherein a SPE enters into a contract granting rights to a proportional share of all future appreciation to the fractionalized HPI pool, and in consideration HPI tokens are issued by the HPI pool.

91. The system of Claim 51, wherein the fractionalized HPI pool is a bankruptcy (BK) remote SPE which receives all future HPI gains from an SPE in exchange for issuing HPI tokens to the SPE.

92. The system of Claim 51, wherein an occupant pays fiat currency to a seller pursuant to a real estate purchase transaction and in return receives a deed granting occupancy and tenants in common interest.

93. The system of Claim 51, wherein the first blockchain based smart contract enables the occupant to enter into an agreement with an investor and/or an SPE to:

purchase an amount of an SPE's interest equal to an investor's proportional rights in the SPE; and/or

provide additional payments such that a portion of any additional payment is used to purchase additional TIC interests and a remainder is paid to the investor as a supplemental payment to a proportional amount the investor is entitled to based on ownership of asset tokens.

94. The system of Claim 51, wherein an investor is a capital provider to an SPE and/or a benefactor of the occupant who purchases asset tokens from the SPE.

95. The system of Claim 51, wherein an investor:

guarantees a performance of the occupant and/or pledge the asset tokens it owns to an SPE;

in exchange for a supplemental rent payment each month, an investor sells to the SPE a portion of their asset tokens equal to an amount of TIC interest purchased each month by the occupant; or

is entitled to HPI tokens under pre-determined circumstances; or

any combination thereof.

96. The system of Claim 51, wherein each investor is entitled to a pro-rata amount of rent paid by the occupant based on a proportion of asset tokens an investor owns.

97. The system of Claim 51, wherein rent changes based on a change in a proportion of TIC interests owned by the occupant.

98. The system of Claim 51, wherein appreciation is stripped from the asset token such that any value derived from appreciation of the real estate property is contractually transferred to the HPI asset pool.

99. The system of Claim 53, wherein the HPI asset pool aggregates appreciation of all of the properties into one location enabling issuance of HPI tokens.

100. The system of Claim 53, wherein the processor is further configured for:

determining an updated valuation of the real estate property, wherein an HPA or an HPD is calculated for a current period, and wherein a number of HPI tokens to be unlocked for each asset token is calculated.